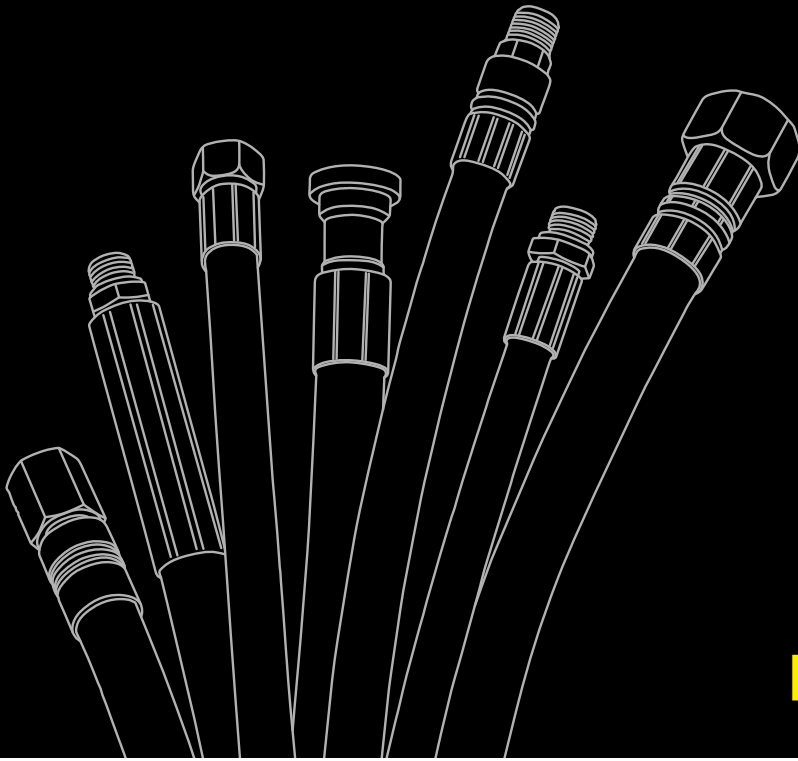




## HYDRAULIC HOSE FITTINGS & ADAPTERS





Dunlop Hiflex is one of the market's most established suppliers of hydraulics hoses and couplings, industrial hoses and fittings. The manufacturing of hoses and couplings, for both high and low pressure, gives Dunlop Hiflex extensive knowledge of the products and enables it to put forward suggestions for new solutions and enhancements to industry.



**5**

COUNTRIES

**302**

PEOPLE

**68**

MILLION € TURNOVER

**41**

STORES

**87**

DISTRIBUTORS

**ISO**<sup>9001</sup>

CERTIFICATION



## // DUNLOP HIFLEX



### // THE FIRST HOSES

**Scotland, 1887.** John Boyd Dunlop, a Scottish born inventive veterinarian observes his son as he's cycling down a bumpy road. The bike has hard solid rubber tyres and the ride is rough and shaky. The ride is neither fast nor particularly comfortable. He then comes up with an idea of wrapping an air filled rubber hose around the rim. In 1888 he patented the idea and the rest as we say, is history.



### // A PRODUCT THAT CHANGES THE WORLD

John Dunlop's idea about air-filled rubber hoses was the beginning of an industrial manufacturing of air-filled tires and, later, a development of hydraulic and industrial hoses. We, at Dunlop Hiflex, are specialists at hoses for high and low pressure and through our unique position with manufacturing in our own factories we are leading the development of the next generation of hoses. Since 1969 there's been a constant development with a headquarter in Halmstad. Today we are a part of the ALFAGOMMA GROUP, one of the leading manufactures of hoses in the world. But we still carry the name that originated from a Scot and bike with pride.

## // ALFAGOMMA GROUP

Dunlop Hiflex was acquired by ALFAGOMMA Group in 2005. The Group, established in 1956, is a global manufacturer specialized in highly engineered, technically demanding hydraulic and industrial products, created with a commitment to excellence in quality and innovation.

## // RESEARCH AND DEVELOPMENT

ALFAGOMMA is focused on continuous improvement, proven by its constant engineering innovation at product, process and production level, which has made it possible to quickly respond to evolving international regulations, improving products performance, safety and efficiency.

The company's distinguishing feature is its ability to innovate, by investing in research and development of products and materials, and designing solutions that meet customer's requirements, in compliance with international regulations.





// APPLICATIONS OVERVIEW





# HYDRAULIC AND INDUSTRIAL INTEGRATED FLUID HANDLING SOLUTIONS

## HYDRAULIC AND INDUSTRIAL INTEGRATED FLUID HANDLING SOLUTIONS

- COMPLETE PORT-TO-PORT SYSTEMS
- COHERENT AND INTEGRATED DESIGN LOGIC
- MAXIMUM QUALITY, SAFETY AND RELIABILITY
- TOTAL COMPONENT TRACEABILITY
- CUSTOMIZED SOLUTIONS
- EXPERT COMPONENT SELECTION FOR COST EFFECTIVE OPTIMUM PERFORMANCE

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// SYMBOLS



INTERNAL DIAMETER



OUTSIDE DIAMETER



MAXIMUM WORKING PRESSURE



MINIMUM BURST PRESSURE



MINIMUM BEND RADIUS



WALL THICKNESS



WEIGHT



## // HYDRAULIC HOSE

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## // THERMOPLASTIC

## // 630 - MINIMESS



## PRESSURE TEST POINT

**Tube:** polyester.

**Reinforcement:** one high tensile steel braid.

**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, pin-pricked.

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for pressure gauges and transducers connections.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |     |       | ↔    |      | ↺    |      | ↻     |       | ↻    |      | ↻     |       |
|-----------|------|-----|-------|------|------|------|------|-------|-------|------|------|-------|-------|
|           | Dash | mm  | in    | mm   | in   | Mpa  | psi  | Mpa   | psi   | mm   | in   | kg/m  | lb/ft |
| 1000310   | 01   | 2,0 | 5/64" | 5,00 | 0,20 | 63,0 | 9100 | 190,0 | 27300 | 20,0 | 0,79 | 0,020 | 0,02  |
| 1001522   | L2   | 4,0 | 5/32" | 8,00 | 0,31 | 63,0 | 9100 | 190,0 | 27300 | 40,0 | 1,57 | 0,045 | 0,04  |

## // 570A - R7



## SAE 100 R7 - EN 855 R7

**Tube:** polyester.

**Reinforcement:** one/two high tensile textile braids.

**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, pin-pricked.

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |      |       | ↔     |      | ↺    |      | ↻    |       | ↻    |      | ↻     |       |
|-----------|------|------|-------|-------|------|------|------|------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa  | psi   | mm   | in   | kg/m  | lb/ft |
| 1000290   | 03   | 5,0  | 3/16" | 9,60  | 0,38 | 21,0 | 3000 | 84,0 | 12000 | 25,0 | 0,98 | 0,060 | 0,05  |
| 1000291   | 04   | 6,0  | 1/4"  | 12,20 | 0,48 | 21,0 | 3000 | 84,0 | 12000 | 35,0 | 1,38 | 0,100 | 0,07  |
| 1001151   | 04   | 6,0  | 1/4"  | 12,20 | 0,48 | 21,0 | 3000 | 84,0 | 12000 | 35,0 | 1,38 | 0,100 | 0,07  |
| 1001234   | 05   | 8,0  | 5/16" | 14,30 | 0,56 | 19,0 | 2750 | 76,0 | 11000 | 45,0 | 1,77 | 0,130 | 0,09  |
| 1000292   | 05   | 8,0  | 5/16" | 14,30 | 0,56 | 19,0 | 2750 | 76,0 | 11000 | 45,0 | 1,77 | 0,130 | 0,09  |
| 1000293   | 06   | 10,0 | 3/8"  | 16,00 | 0,63 | 16,0 | 2320 | 64,0 | 9280  | 55,0 | 2,17 | 0,145 | 0,10  |
| 1001152   | 06   | 10,0 | 3/8"  | 16,00 | 0,63 | 16,0 | 2320 | 64,0 | 9280  | 55,0 | 2,17 | 0,145 | 0,10  |
| 1000294   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 14,0 | 2000 | 56,0 | 8000  | 75,0 | 2,95 | 0,220 | 0,15  |
| 1001153   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 14,0 | 2000 | 56,0 | 8000  | 75,0 | 2,95 | 0,220 | 0,15  |

Dimensions shown may be changed without prior notice

## // 570A - R7 TWIN



## SAE 100 R7 - EN 855 R7

**Tube:** polyester.**Reinforcement:** one/two high tensile textile braids.**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, pin-pricked.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔↔↔  |      |       | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔  |       | ↔↔↔  |      | ↔↔↔   |       |
|-----------|------|------|-------|-------|------|------|------|------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa  | psi   | mm   | in   | kg/m  | lb/ft |
| 1000298   | 04   | 6,0  | 1/4"  | 12,20 | 0,48 | 21,0 | 3000 | 84,0 | 12000 | 35,0 | 1,38 | 0,200 | 0,14  |
| 1001145   | 04   | 6,0  | 1/4"  | 12,20 | 0,48 | 21,0 | 3000 | 84,0 | 12000 | 35,0 | 1,38 | 0,200 | 0,14  |
| 1000299   | 05   | 8,0  | 5/16" | 14,30 | 0,56 | 19,0 | 2750 | 76,0 | 11000 | 45,0 | 1,77 | 0,260 | 0,18  |
| 1001146   | 05   | 8,0  | 5/16" | 14,30 | 0,56 | 19,0 | 2750 | 76,0 | 11000 | 45,0 | 1,77 | 0,260 | 0,18  |
| 1000300   | 06   | 10,0 | 3/8"  | 16,00 | 0,63 | 16,0 | 2320 | 64,0 | 9280  | 55,0 | 2,17 | 0,290 | 0,20  |
| 1001147   | 06   | 10,0 | 3/8"  | 16,00 | 0,63 | 16,0 | 2320 | 64,0 | 9280  | 55,0 | 2,17 | 0,290 | 0,20  |
| 1000301   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 14,0 | 2000 | 56,0 | 8000  | 75,0 | 2,95 | 0,440 | 0,30  |
| 1001148   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 14,0 | 2000 | 56,0 | 8000  | 75,0 | 2,95 | 0,440 | 0,30  |

## // 580A - R8



## SAE 100 R8 - EN 855 R8

**Tube:** polyester.**Reinforcement:** one/two braids of aramid fiber.**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, pin-pricked.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔↔↔  |      |       | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔   |       | ↔↔↔  |      | ↔↔↔   |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm   | in   | kg/m  | lb/ft |
| 1001213   | 04   | 6,0  | 1/4"  | 11,50 | 0,45 | 35,0 | 5000 | 140,0 | 20000 | 50,0 | 1,97 | 0,085 | 0,06  |
| 1000295   | 04   | 6,0  | 1/4"  | 11,50 | 0,45 | 35,0 | 5000 | 140,0 | 20000 | 50,0 | 1,97 | 0,085 | 0,06  |
| 1000483   | 05   | 8,0  | 5/16" | 13,40 | 0,53 | 30,0 | 4300 | 120,0 | 17450 | 55,0 | 2,17 | 0,105 | 0,08  |
| 1001235   | 05   | 8,0  | 5/16" | 13,40 | 0,53 | 30,0 | 4300 | 120,0 | 17450 | 55,0 | 2,17 | 0,105 | 0,08  |
| 1000296   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 28,0 | 4000 | 112,0 | 16000 | 60,0 | 2,36 | 0,135 | 0,10  |
| 1001227   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 28,0 | 4000 | 112,0 | 16000 | 60,0 | 2,36 | 0,135 | 0,10  |
| 1001155   | 08   | 13,0 | 1/2"  | 13,40 | 0,53 | 30,0 | 4300 | 120,0 | 17450 | 55,0 | 2,17 | 0,105 | 0,08  |
| 1000416   | 08   | 13,0 | 1/2"  | 19,90 | 0,78 | 24,5 | 3500 | 98,0  | 14000 | 80,0 | 3,15 | 0,200 | 0,14  |



## // 550A - TWB1



## ONE WIRE BRAID

**Tube:** polyester.**Reinforcement:** one high tensile steel braid.**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, non pin-pricked.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔↔↔  |      |       | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔   |       | ↔↔↔  |      | ↔↔↔   |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm   | in   | kg/m  | lb/ft |
| 1001161   | 04   | 6,0  | 1/4"  | 11,70 | 0,46 | 31,0 | 4500 | 124,0 | 18000 | 40,0 | 1,57 | 0,165 | 0,12  |
| 1000283   | 04   | 6,0  | 1/4"  | 11,70 | 0,46 | 31,0 | 4500 | 124,0 | 18000 | 40,0 | 1,57 | 0,165 | 0,12  |
| 1001162   | 05   | 8,0  | 5/16" | 13,20 | 0,52 | 25,0 | 3630 | 100,0 | 14500 | 55,0 | 2,17 | 0,190 | 0,13  |
| 1000284   | 05   | 8,0  | 5/16" | 13,20 | 0,52 | 25,0 | 3630 | 100,0 | 14500 | 55,0 | 2,17 | 0,190 | 0,13  |
| 1000285   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 22,5 | 3250 | 90,0  | 13000 | 65,0 | 2,56 | 0,230 | 0,16  |
| 1001163   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 22,5 | 3250 | 90,0  | 13000 | 65,0 | 2,56 | 0,230 | 0,16  |
| 1000286   | 08   | 13,0 | 1/2"  | 18,80 | 0,74 | 19,0 | 2750 | 76,0  | 11000 | 85,0 | 3,35 | 0,300 | 0,21  |
| 1001164   | 08   | 13,0 | 1/2"  | 18,80 | 0,74 | 19,0 | 2750 | 76,0  | 11000 | 85,0 | 3,35 | 0,300 | 0,21  |

## // 550A - TWB1 - TWIN



## ONE WIRE BRAID

**Tube:** polyester.**Reinforcement:** one high tensile steel braid.**Cover:** abrasion, ozone and hydrocarbon resistant polyurethane, non pin-pricked.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔↔↔  |      |       | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔   |       | ↔↔↔  |      | ↔↔↔   |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm   | in   | kg/m  | lb/ft |
| 1001165   | 04   | 6,0  | 1/4"  | 11,70 | 0,46 | 31,0 | 4500 | 124,0 | 18000 | 40,0 | 1,57 | 0,330 | 0,23  |
| 1000289   | 04   | 6,0  | 1/4"  | 11,70 | 0,46 | 31,0 | 4500 | 124,0 | 18000 | 40,0 | 1,57 | 0,330 | 0,23  |
| 1000288   | 05   | 8,0  | 5/16" | 13,20 | 0,52 | 25,0 | 3630 | 100,0 | 14500 | 55,0 | 2,17 | 0,380 | 0,26  |
| 1001424   | 05   | 8,0  | 5/16" | 13,20 | 0,52 | 25,0 | 3630 | 100,0 | 14500 | 55,0 | 2,17 | 0,380 | 0,26  |
| 1001166   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 22,5 | 3250 | 90,0  | 13000 | 65,0 | 2,56 | 0,460 | 0,31  |
| 1000287   | 06   | 10,0 | 3/8"  | 15,50 | 0,61 | 22,5 | 3250 | 90,0  | 13000 | 65,0 | 2,56 | 0,460 | 0,31  |

Dimensions shown may be changed without prior notice

// FLEXOR VHP700



**Tube:** polyester.  
**Reinforcement:** one/two braids of aramid fiber plus one steel wire braid  
**Cover:** red abrasion, ozone and hydrocarbon resistant polyurethane, non pin-pricked.  
**Application:** high pressure systems and pumps; rescue, safety, jacking and rerailing equipments; bolt tensioning tools  
**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)  
**Length:** random

| Item Code | Constr. | ↔    |     |      | ↔     |      | ↻    |       | ↻     |       | ↷    |      | ⬮     |       |
|-----------|---------|------|-----|------|-------|------|------|-------|-------|-------|------|------|-------|-------|
|           |         | Dash | mm  | in   | mm    | in   | Mpa  | psi   | Mpa   | psi   | mm   | in   | kg/m  | lb/ft |
| 1003461   | 1TB+1WB | 04   | 6,0 | 1/4" | 12,70 | 0,50 | 70,0 | 10000 | 280,0 | 40600 | 35,0 | 1,38 | 0,180 | 0,13  |

# HALOGEN FREE HOSE ENVIRONMENTAL FRIENDLY



## GREENLINE PLUS HYDRAULIC RANGE

### MAIN FEATURES

- HALOGEN FREE
- ENVIRONMENTAL FRIENDLY

A variety of environmental problems now affect our entire world. The environmental challenges facing industrial companies and governments throughout the world are numerous and complex.

In attempting to make a contribution to find an answer to these challenges, Dunlop Hiflex also in line with the latest OEM environmental requisites for a hydraulic hose not containing Chlorine,

Fluorine and Iodine has replaced its standard range of hydraulic hose with an environmental friendly Greenline Plus range of product.

How can the Greenline Plus range be identified? The new product can be identified by "Greenline Plus" on the branding text of the hose and have a new set of part numbers.





## // TEXTILE BRAID

## // ARGUS 1TE/R6 PLUS

**SAE 100 R6 - EN 854 R6 (up to 3/4") - EXCEEDS EN 854 1TE****Tube:** oil resistant synthetic rubber.**Reinforcement:** one high tensile textile braid.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** low pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**HALOGEN-FREE COMPOUND****Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code |      |      |       |       |      |     |     |      |      |       |      |       |       |
|-----------|------|------|-------|-------|------|-----|-----|------|------|-------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa | psi | Mpa  | psi  | mm    | in   | kg/m  | lb/ft |
| 1001385   | 04   | 6,0  | 1/4"  | 12,70 | 0,50 | 2,8 | 400 | 11,2 | 1620 | 64,0  | 2,52 | 0,110 | 0,08  |
| 1001386   | 05   | 8,0  | 5/16" | 14,30 | 0,56 | 2,8 | 400 | 11,2 | 1620 | 76,0  | 2,99 | 0,130 | 0,09  |
| 1001387   | 06   | 10,0 | 3/8"  | 15,90 | 0,63 | 2,8 | 400 | 11,2 | 1620 | 76,0  | 2,99 | 0,160 | 0,11  |
| 1001388   | 08   | 13,0 | 1/2"  | 19,80 | 0,78 | 2,8 | 400 | 11,2 | 1620 | 102,0 | 4,02 | 0,220 | 0,15  |
| 1001389   | 10   | 16,0 | 5/8"  | 23,00 | 0,91 | 2,4 | 350 | 9,6  | 1400 | 107,0 | 4,21 | 0,270 | 0,19  |
| 1001390   | 12   | 19,0 | 3/4"  | 26,90 | 1,06 | 2,1 | 300 | 8,4  | 1200 | 152,0 | 5,98 | 0,330 | 0,23  |
| 1001391   | 16   | 25,0 | 1"    | 33,50 | 1,32 | 1,7 | 250 | 7,0  | 1000 | 203,0 | 7,99 | 0,500 | 0,34  |

## // ARGUS 2TE PLUS

**EN 854 2TE****Tube:** oil resistant synthetic rubber.**Reinforcement:** one high tensile textile braid.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** medium pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**HALOGEN-FREE COMPOUND****Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code |      |      |       |       |      |     |      |      |      |       |      |       |       |
|-----------|------|------|-------|-------|------|-----|------|------|------|-------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa | psi  | Mpa  | psi  | mm    | in   | kg/m  | lb/ft |
| 1001398   | 04   | 6,0  | 1/4"  | 13,10 | 0,52 | 7,5 | 1100 | 30,0 | 4300 | 40,0  | 1,57 | 0,112 | 0,08  |
| 1001399   | 05   | 8,0  | 5/16" | 14,90 | 0,59 | 6,8 | 986  | 27,0 | 3945 | 50,0  | 1,97 | 0,148 | 0,10  |
| 1001400   | 06   | 10,0 | 3/8"  | 16,50 | 0,65 | 6,3 | 920  | 25,2 | 3680 | 60,0  | 2,36 | 0,163 | 0,11  |
| 1001401   | 08   | 13,0 | 1/2"  | 19,70 | 0,78 | 5,8 | 840  | 23,2 | 3360 | 70,0  | 2,76 | 0,206 | 0,14  |
| 1001402   | 10   | 16,0 | 5/8"  | 23,90 | 0,94 | 5,0 | 730  | 20,0 | 2900 | 90,0  | 3,54 | 0,281 | 0,19  |
| 1001761   | 12   | 19,0 | 3/4"  | 27,00 | 1,06 | 4,5 | 650  | 18,0 | 2610 | 110,0 | 4,33 | 0,350 | 0,24  |
| 1001404   | 16   | 25,0 | 1"    | 34,40 | 1,35 | 4,0 | 600  | 16,0 | 2320 | 150,0 | 5,91 | 0,497 | 0,34  |

## // ARGUS 3TE/R3 PLUS



## EN 854 3TE

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** two high tensile textile braids.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** medium pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**HALOGEN-FREE COMPOUND**

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code |      |      |        |       |      |      |      |      |      |       |       |       |       |  |
|-----------|------|------|--------|-------|------|------|------|------|------|-------|-------|-------|-------|--|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa  | psi  | mm    | in    | kg/m  | lb/ft |  |
| 1001405   | 04   | 6,0  | 1/4"   | 14,40 | 0,57 | 14,5 | 2100 | 58,0 | 8400 | 45,0  | 1,77  | 0,174 | 0,12  |  |
| 1001406   | 05   | 8,0  | 5/16"  | 16,90 | 0,67 | 13,0 | 1900 | 52,0 | 7560 | 55,0  | 2,17  | 0,223 | 0,15  |  |
| 1001407   | 06   | 10,0 | 3/8"   | 18,50 | 0,73 | 11,0 | 1600 | 44,0 | 6400 | 70,0  | 2,76  | 0,243 | 0,17  |  |
| 1001408   | 08   | 13,0 | 1/2"   | 21,70 | 0,85 | 9,3  | 1350 | 37,2 | 5400 | 85,0  | 3,35  | 0,294 | 0,20  |  |
| 1001409   | 10   | 16,0 | 5/8"   | 25,90 | 1,02 | 8,0  | 1200 | 32,0 | 4640 | 105,0 | 4,13  | 0,399 | 0,27  |  |
| 1001410   | 12   | 19,0 | 3/4"   | 29,00 | 1,14 | 7,0  | 1000 | 28,0 | 4000 | 130,0 | 5,12  | 0,455 | 0,31  |  |
| 1001411   | 16   | 25,0 | 1"     | 35,90 | 1,41 | 5,5  | 800  | 22,0 | 3200 | 150,0 | 5,91  | 0,612 | 0,42  |  |
| 1001412   | 20   | 32,0 | 1 1/4" | 42,30 | 1,67 | 4,5  | 650  | 18,0 | 2610 | 190,0 | 7,48  | 0,737 | 0,50  |  |
| 1001531   | 24   | 38,0 | 1 1/2" | 49,30 | 1,94 | 4,0  | 600  | 16,0 | 2320 | 240,0 | 9,45  | 1,150 | 0,78  |  |
| 1001532   | 32   | 51,0 | 2"     | 63,00 | 2,48 | 3,3  | 470  | 13,2 | 1900 | 300,0 | 11,81 | 1,500 | 1,01  |  |

## // 2TE RAILWAY



## EN 854 2TE - EN 45545-2

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** one high tensile textile braid.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**MSHA APPROVED**

**Application:** medium pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for railway applications.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code |      |      |       |       |      |     |      |      |      |       |      |       |       |  |
|-----------|------|------|-------|-------|------|-----|------|------|------|-------|------|-------|-------|--|
|           | Dash | mm   | in    | mm    | in   | Mpa | psi  | Mpa  | psi  | mm    | in   | kg/m  | lb/ft |  |
| 1002680   | 04   | 6,0  | 1/4"  | 13,10 | 0,52 | 7,5 | 1100 | 30,0 | 4300 | 40,0  | 1,57 | 0,112 | 0,08  |  |
| 1002681   | 05   | 8,0  | 5/16" | 14,90 | 0,59 | 6,8 | 986  | 27,0 | 3945 | 50,0  | 1,97 | 0,148 | 0,10  |  |
| 1002682   | 06   | 10,0 | 3/8"  | 16,50 | 0,65 | 6,3 | 920  | 25,2 | 3680 | 60,0  | 2,36 | 0,163 | 0,11  |  |
| 1002683   | 08   | 13,0 | 1/2"  | 19,70 | 0,78 | 5,8 | 840  | 23,2 | 3360 | 70,0  | 2,76 | 0,206 | 0,14  |  |
| 1002684   | 10   | 16,0 | 5/8"  | 23,90 | 0,94 | 5,0 | 730  | 20,0 | 2900 | 90,0  | 3,54 | 0,281 | 0,19  |  |
| 1002685   | 12   | 19,0 | 3/4"  | 27,00 | 1,06 | 4,5 | 650  | 18,0 | 2610 | 110,0 | 4,33 | 0,350 | 0,24  |  |
| 1002686   | 16   | 25,0 | 1"    | 34,40 | 1,35 | 4,0 | 600  | 16,0 | 2320 | 150,0 | 5,91 | 0,497 | 0,34  |  |

## // WIRE BRAID

## // PLT - PILOT

**Tube:** oil resistant synthetic rubber.**Reinforcement:** one high tensile steel braid.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** medium pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for hydraulic pilot lines.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)**Length:** random

| Item Code | ↔    |      |       | ↔     |      | ↺    |      | ↻    |      | ↻    |      | ↻     |       |  |
|-----------|------|------|-------|-------|------|------|------|------|------|------|------|-------|-------|--|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa  | psi  | mm   | in   | kg/m  | lb/ft |  |
| 1000274   | 03   | 5,0  | 3/16" | 9,60  | 0,38 | 12,0 | 1750 | 48,0 | 7000 | 20,0 | 0,79 | 0,111 | 0,08  |  |
| 1003480   | 03   | 5,0  | 3/16" | 9,60  | 0,38 | 12,0 | 1750 | 48,0 | 7000 | 20,0 | 0,79 | 0,111 | 0,08  |  |
| 1002747   | 04   | 6,0  | 1/4"  | 11,40 | 0,45 | 12,0 | 1750 | 48,0 | 7000 | 30,0 | 1,18 | 0,150 | 0,11  |  |
| 1000097   | 04   | 6,0  | 1/4"  | 11,40 | 0,45 | 12,0 | 1750 | 48,0 | 7000 | 30,0 | 1,18 | 0,150 | 0,11  |  |
| 1000475   | 05   | 8,0  | 5/16" | 13,00 | 0,51 | 12,0 | 1750 | 48,0 | 7000 | 40,0 | 1,57 | 0,180 | 0,13  |  |
| 1000960   | 05   | 8,0  | 5/16" | 13,00 | 0,51 | 12,0 | 1750 | 48,0 | 7000 | 40,0 | 1,57 | 0,180 | 0,13  |  |
| 1002177   | 06   | 10,0 | 3/8"  | 14,70 | 0,58 | 12,0 | 1750 | 48,0 | 7000 | 60,0 | 2,36 | 0,220 | 0,15  |  |
| 1000476   | 06   | 10,0 | 3/8"  | 14,70 | 0,58 | 12,0 | 1750 | 48,0 | 7000 | 60,0 | 2,36 | 0,220 | 0,15  |  |
| 1000962   | 08   | 13,0 | 1/2"  | 17,80 | 0,70 | 12,0 | 1750 | 48,0 | 7000 | 80,0 | 3,15 | 0,230 | 0,16  |  |
| 1000347   | 08   | 13,0 | 1/2"  | 17,80 | 0,70 | 12,0 | 1750 | 48,0 | 7000 | 80,0 | 3,15 | 0,230 | 0,16  |  |

## // 121T SLIMLINE PLUS - 1SC



## ISO 11237 - EN 857 1SC

**Tube:** oil resistant synthetic rubber.**Reinforcement:** one high tensile steel braid.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**HALOGEN-FREE COMPOUND****Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)**Length:** random

| Item Code | ↔    |      |       | ↔     |      | ↺    |      | ↻    |       | ↻     |      | ↻     |       |  |
|-----------|------|------|-------|-------|------|------|------|------|-------|-------|------|-------|-------|--|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa  | psi   | mm    | in   | kg/m  | lb/ft |  |
| 1000944   | 04   | 6,0  | 1/4"  | 12,10 | 0,48 | 22,5 | 3250 | 90,0 | 13000 | 50,0  | 1,97 | 0,170 | 0,12  |  |
| 1000946   | 05   | 8,0  | 5/16" | 14,10 | 0,56 | 21,5 | 3120 | 86,0 | 12500 | 55,0  | 2,17 | 0,190 | 0,13  |  |
| 1000948   | 06   | 10,0 | 3/8"  | 15,60 | 0,61 | 21,0 | 3000 | 84,0 | 12000 | 65,0  | 2,56 | 0,260 | 0,18  |  |
| 1000950   | 08   | 13,0 | 1/2"  | 19,50 | 0,77 | 16,0 | 2320 | 64,0 | 9280  | 90,0  | 3,54 | 0,410 | 0,28  |  |
| 1000952   | 10   | 16,0 | 5/8"  | 23,00 | 0,91 | 13,0 | 1900 | 52,0 | 7560  | 100,0 | 3,94 | 0,440 | 0,30  |  |
| 1000954   | 12   | 19,0 | 3/4"  | 26,70 | 1,05 | 10,5 | 1530 | 42,0 | 6000  | 125,0 | 4,92 | 0,570 | 0,39  |  |
| 1000956   | 16   | 25,0 | 1"    | 34,90 | 1,37 | 8,8  | 1280 | 35,2 | 5100  | 150,0 | 5,91 | 0,740 | 0,50  |  |



## // 141T SUPERSLIMLINE



**Tube:** oil resistant synthetic rubber.

**Reinforcement:** one high tensile steel braid.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**MSHA APPROVED**

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)

**Length:** random

| Item Code |      |      |      |       |      |      |      |       |       |       |      |       |       |
|-----------|------|------|------|-------|------|------|------|-------|-------|-------|------|-------|-------|
|           | Dash | mm   | in   | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in   | kg/m  | lb/ft |
| 1001212   | 04   | 6,0  | 1/4" | 12,00 | 0,47 | 28,0 | 4000 | 112,0 | 16000 | 80,0  | 3,15 | 0,170 | 0,12  |
| 1001112   | 06   | 10,0 | 3/8" | 15,40 | 0,61 | 22,5 | 3250 | 90,0  | 13000 | 105,0 | 4,13 | 0,260 | 0,18  |
| 1001778   | 08   | 13,0 | 1/2" | 19,20 | 0,76 | 21,0 | 3000 | 84,0  | 12000 | 120,0 | 4,72 | 0,360 | 0,25  |

## // 122T PLUS - 1SN/R1AT



## ISO 1436-1 - SAE 100 R1AT - EN 853 1SN

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** one high tensile steel braid.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**HALOGEN-FREE COMPOUND**

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code |      |      |        |       |      |      |      |       |       |       |       |       |       |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001330   | 03   | 5,0  | 3/16"  | 11,10 | 0,44 | 25,0 | 3630 | 100,0 | 14500 | 90,0  | 3,54  | 0,160 | 0,11  |
| 1002584   | 03   | 5,0  | 3/16"  | 11,10 | 0,44 | 25,0 | 3630 | 100,0 | 14500 | 90,0  | 3,54  | 0,160 | 0,11  |
| 1001331   | 04   | 6,0  | 1/4"   | 12,70 | 0,50 | 22,5 | 3250 | 90,0  | 13000 | 100,0 | 3,94  | 0,198 | 0,14  |
| 1002755   | 04   | 6,0  | 1/4"   | 13,00 | 0,51 | 22,5 | 3250 | 90,0  | 13000 | 100,0 | 3,94  | 0,198 | 0,14  |
| 1003033   | 05   | 8,0  | 5/16"  | 14,50 | 0,57 | 21,5 | 3120 | 86,0  | 12500 | 115,0 | 4,53  | 0,236 | 0,16  |
| 1001332   | 05   | 8,0  | 5/16"  | 14,20 | 0,56 | 21,5 | 3120 | 86,0  | 12500 | 115,0 | 4,53  | 0,240 | 0,17  |
| 1001333   | 06   | 10,0 | 3/8"   | 16,50 | 0,65 | 18,0 | 2610 | 72,0  | 10500 | 130,0 | 5,12  | 0,300 | 0,21  |
| 1002756   | 06   | 10,0 | 3/8"   | 17,20 | 0,68 | 18,0 | 2610 | 72,0  | 10500 | 130,0 | 5,12  | 0,296 | 0,20  |
| 1001334   | 08   | 13,0 | 1/2"   | 19,90 | 0,78 | 16,0 | 2320 | 64,0  | 9280  | 180,0 | 7,09  | 0,372 | 0,26  |
| 1002758   | 08   | 13,0 | 1/2"   | 20,10 | 0,79 | 16,0 | 2320 | 64,0  | 9280  | 180,0 | 7,09  | 0,367 | 0,25  |
| 1002760   | 10   | 16,0 | 5/8"   | 23,10 | 0,91 | 13,0 | 1900 | 52,0  | 7560  | 200,0 | 7,87  | 0,421 | 0,29  |
| 1001335   | 10   | 16,0 | 5/8"   | 23,00 | 0,91 | 13,0 | 1900 | 52,0  | 7560  | 200,0 | 7,87  | 0,420 | 0,29  |
| 1002761   | 12   | 19,0 | 3/4"   | 27,30 | 1,07 | 10,5 | 1530 | 42,0  | 6000  | 240,0 | 9,45  | 0,555 | 0,38  |
| 1001336   | 12   | 19,0 | 3/4"   | 27,00 | 1,06 | 10,5 | 1530 | 42,0  | 6000  | 240,0 | 9,45  | 0,560 | 0,38  |
| 1002763   | 16   | 25,0 | 1"     | 35,20 | 1,39 | 8,8  | 1280 | 35,2  | 5100  | 300,0 | 11,81 | 0,876 | 0,59  |
| 1001337   | 16   | 25,0 | 1"     | 35,00 | 1,38 | 8,8  | 1280 | 35,2  | 5100  | 300,0 | 11,81 | 0,876 | 0,59  |
| 1002765   | 20   | 32,0 | 1 1/4" | 42,50 | 1,67 | 6,3  | 920  | 25,2  | 3680  | 420,0 | 16,54 | 1,095 | 0,74  |
| 1001338   | 20   | 32,0 | 1 1/4" | 42,50 | 1,67 | 6,3  | 920  | 25,2  | 3680  | 420,0 | 16,54 | 1,095 | 0,74  |
| 1001371   | 24   | 38,0 | 1 1/2" | 49,70 | 1,96 | 5,0  | 730  | 20,0  | 2900  | 500,0 | 19,69 | 1,329 | 0,90  |
| 1001339   | 24   | 38,0 | 1 1/2" | 49,70 | 1,96 | 5,0  | 730  | 20,0  | 2900  | 500,0 | 19,69 | 1,329 | 0,90  |
| 1001372   | 32   | 51,0 | 2"     | 62,90 | 2,48 | 4,0  | 600  | 16,0  | 2320  | 630,0 | 24,80 | 1,835 | 1,24  |
| 1001340   | 32   | 51,0 | 2"     | 62,90 | 2,48 | 4,0  | 600  | 16,0  | 2320  | 630,0 | 24,80 | 1,835 | 1,24  |

Dimensions shown may be changed without prior notice

## // 221T SLIMLINE PLUS - 2SC



## ISO 11237 - EN 857 2SC

**Tube:** oil resistant synthetic rubber.**Reinforcement:** two high tensile steel braids.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**HALOGEN-FREE COMPOUND****Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |      |       | ↔     |      | ↺    |      | ↻     |       | ↻     |      | ↻     |      | kg/m | lb/ft |
|-----------|------|------|-------|-------|------|------|------|-------|-------|-------|------|-------|------|------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in   | mm    | in   |      |       |
| 1001801   | 04   | 6,0  | 1/4"  | 13,20 | 0,52 | 40,0 | 5850 | 160,0 | 23200 | 50,0  | 1,97 | 0,255 | 0,18 |      |       |
| 1001802   | 05   | 8,0  | 5/16" | 14,50 | 0,57 | 35,0 | 5000 | 140,0 | 20000 | 55,0  | 2,17 | 0,300 | 0,21 |      |       |
| 1001803   | 06   | 10,0 | 3/8"  | 17,00 | 0,67 | 33,0 | 4800 | 132,0 | 19200 | 65,0  | 2,56 | 0,370 | 0,25 |      |       |
| 1001804   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 27,5 | 4000 | 110,0 | 16000 | 90,0  | 3,54 | 0,470 | 0,32 |      |       |
| 1001017   | 10   | 16,0 | 5/8"  | 23,90 | 0,94 | 25,0 | 3630 | 100,0 | 14500 | 100,0 | 3,94 | 0,591 | 0,40 |      |       |
| 1001020   | 12   | 19,0 | 3/4"  | 27,70 | 1,09 | 21,5 | 3120 | 86,0  | 12500 | 120,0 | 4,72 | 0,760 | 0,52 |      |       |
| 1001022   | 16   | 25,0 | 1"    | 34,60 | 1,36 | 16,5 | 2400 | 66,0  | 9600  | 150,0 | 5,91 | 1,130 | 0,76 |      |       |

## // 241T - SUPERSLIMLINE - HI-TUFF



## ISO 11237 - SAE 100 R16 - EN 857 2SC (up to 1")

**Tube:** oil resistant synthetic rubber.**Reinforcement:** two high tensile steel braids.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**MSHA APPROVED****Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | ↔    |      |        | ↔     |      | ↺    |      | ↻     |       | ↻     |       | ↻     |      | kg/m | lb/ft |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|------|------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | mm    | in   |      |       |
| 1001049   | 04   | 6,0  | 1/4"   | 13,20 | 0,52 | 42,0 | 6000 | 168,0 | 24000 | 51,0  | 2,01  | 0,259 | 0,18 |      |       |
| 1001053   | 05   | 8,0  | 5/16"  | 14,80 | 0,58 | 37,5 | 5500 | 150,0 | 22000 | 57,0  | 2,24  | 0,313 | 0,22 |      |       |
| 1001056   | 06   | 10,0 | 3/8"   | 17,40 | 0,69 | 35,0 | 5000 | 140,0 | 20000 | 64,0  | 2,52  | 0,382 | 0,26 |      |       |
| 1001060   | 08   | 13,0 | 1/2"   | 20,70 | 0,81 | 31,0 | 4500 | 124,0 | 18000 | 90,0  | 3,54  | 0,502 | 0,34 |      |       |
| 1001065   | 10   | 16,0 | 5/8"   | 23,70 | 0,93 | 28,0 | 4000 | 112,0 | 16000 | 101,0 | 3,98  | 0,598 | 0,41 |      |       |
| 1001068   | 12   | 19,0 | 3/4"   | 27,60 | 1,09 | 24,0 | 3500 | 96,0  | 14000 | 121,0 | 4,76  | 0,781 | 0,53 |      |       |
| 1001073   | 16   | 25,0 | 1"     | 35,60 | 1,40 | 21,0 | 3000 | 84,0  | 12000 | 152,0 | 5,98  | 1,266 | 0,86 |      |       |
| 1001791   | 20   | 32,0 | 1 1/4" | 43,60 | 1,72 | 14,0 | 2000 | 58,0  | 8400  | 360,0 | 14,17 | 1,500 | 1,01 |      |       |
| 1002289   | 24   | 38,0 | 1 1/2" | 49,90 | 1,96 | 12,5 | 1820 | 50,0  | 7280  | 430,0 | 16,93 | 1,970 | 1,33 |      |       |
| 1002290   | 32   | 51,0 | 2"     | 63,50 | 2,50 | 10,0 | 1500 | 40,0  | 5850  | 550,0 | 21,65 | 2,550 | 1,72 |      |       |
| 1002291   | 40   | 63,0 | 2 1/2" | 76,40 | 3,01 | 7,5  | 1100 | 30,0  | 4300  | 720,0 | 28,35 | 3,300 | 2,22 |      |       |
| 1002292   | 48   | 76,0 | 3"     | 90,00 | 3,54 | 7,0  | 1000 | 28,0  | 4000  | 880,0 | 34,65 | 3,850 | 2,59 |      |       |

## // 222T PLUS - 2SN/R2AT



## ISO 1436-1 - SAE 100 R2AT - EN 853 2SN

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** two high tensile steel braids.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**HALOGEN-FREE COMPOUND**

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | ↔↔↔  |      |        | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔   |       | ↔↔↔   |       | ↔↔↔   |       |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001341   | 03   | 5,0  | 3/16"  | 13,00 | 0,51 | 42,0 | 6000 | 168,0 | 24000 | 90,0  | 3,54  | 0,282 | 0,19  |
| 1001342   | 04   | 6,0  | 1/4"   | 14,20 | 0,56 | 40,0 | 5850 | 160,0 | 23200 | 100,0 | 3,94  | 0,330 | 0,23  |
| 1002769   | 04   | 6,0  | 1/4"   | 14,50 | 0,57 | 40,0 | 5850 | 160,0 | 23200 | 100,0 | 3,94  | 0,330 | 0,23  |
| 1002770   | 05   | 8,0  | 5/16"  | 16,10 | 0,63 | 35,0 | 5000 | 140,0 | 20000 | 115,0 | 4,53  | 0,357 | 0,24  |
| 1001343   | 05   | 8,0  | 5/16"  | 15,80 | 0,62 | 35,0 | 5000 | 140,0 | 20000 | 115,0 | 4,53  | 0,357 | 0,24  |
| 1002773   | 06   | 10,0 | 3/8"   | 18,50 | 0,73 | 33,0 | 4800 | 132,0 | 19200 | 125,0 | 4,92  | 0,463 | 0,32  |
| 1001344   | 06   | 10,0 | 3/8"   | 18,20 | 0,72 | 33,0 | 4800 | 132,0 | 19200 | 125,0 | 4,92  | 0,460 | 0,31  |
| 1002776   | 08   | 13,0 | 1/2"   | 21,40 | 0,84 | 27,5 | 4000 | 110,0 | 16000 | 175,0 | 6,89  | 0,534 | 0,36  |
| 1001345   | 08   | 13,0 | 1/2"   | 21,30 | 0,84 | 27,5 | 4000 | 110,0 | 16000 | 175,0 | 6,89  | 0,534 | 0,36  |
| 1001346   | 10   | 16,0 | 5/8"   | 24,50 | 0,96 | 25,0 | 3630 | 100,0 | 14500 | 200,0 | 7,87  | 0,670 | 0,46  |
| 1002778   | 10   | 16,0 | 5/8"   | 24,60 | 0,97 | 25,0 | 3630 | 100,0 | 14500 | 200,0 | 7,87  | 0,665 | 0,45  |
| 1002780   | 12   | 19,0 | 3/4"   | 29,00 | 1,14 | 21,5 | 3120 | 86,0  | 12500 | 240,0 | 9,45  | 0,845 | 0,57  |
| 1001347   | 12   | 19,0 | 3/4"   | 28,60 | 1,13 | 21,5 | 3120 | 86,0  | 12500 | 240,0 | 9,45  | 0,846 | 0,57  |
| 1002782   | 16   | 25,0 | 1"     | 36,80 | 1,45 | 16,5 | 2400 | 66,0  | 9600  | 300,0 | 11,81 | 1,253 | 0,85  |
| 1001348   | 16   | 25,0 | 1"     | 36,60 | 1,44 | 16,5 | 2400 | 66,0  | 9600  | 300,0 | 11,81 | 1,250 | 0,85  |
| 1002783   | 20   | 32,0 | 1 1/4" | 46,40 | 1,83 | 12,5 | 1820 | 50,0  | 7280  | 420,0 | 16,54 | 1,540 | 1,04  |
| 1001349   | 20   | 32,0 | 1 1/4" | 46,00 | 1,81 | 12,5 | 1820 | 50,0  | 7280  | 420,0 | 16,54 | 1,540 | 1,04  |
| 1001382   | 24   | 38,0 | 1 1/2" | 53,70 | 2,11 | 9,0  | 1310 | 36,0  | 5240  | 500,0 | 19,69 | 2,026 | 1,37  |
| 1001350   | 24   | 38,0 | 1 1/2" | 52,80 | 2,08 | 9,0  | 1310 | 36,0  | 5240  | 500,0 | 19,69 | 2,030 | 1,37  |
| 1001383   | 32   | 51,0 | 2"     | 65,90 | 2,59 | 8,0  | 1200 | 32,0  | 4640  | 630,0 | 24,80 | 2,756 | 1,86  |
| 1001351   | 32   | 51,0 | 2"     | 65,60 | 2,58 | 8,0  | 1200 | 32,0  | 4640  | 630,0 | 24,80 | 2,760 | 1,86  |

## // 3SPT - SUPERFOREST



**Tube:** oil resistant synthetic rubber.

**Reinforcement:** three high tensile steel braids.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔↔↔  |      |        | ↔↔↔   |      | ↔↔↔  |      | ↔↔↔   |       | ↔↔↔   |       | ↔↔↔   |       |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001037   | 06   | 10,0 | 3/8"   | 21,70 | 0,85 | 50,0 | 7280 | 196,0 | 28000 | 120,0 | 4,72  | 0,760 | 0,52  |
| 1001038   | 08   | 13,0 | 1/2"   | 24,80 | 0,98 | 46,9 | 6800 | 188,0 | 27200 | 160,0 | 6,30  | 0,880 | 0,60  |
| 1001039   | 10   | 16,0 | 5/8"   | 28,30 | 1,11 | 41,0 | 6000 | 164,0 | 23500 | 210,0 | 8,27  | 1,110 | 0,75  |
| 1001040   | 12   | 19,0 | 3/4"   | 32,20 | 1,27 | 37,5 | 5500 | 150,0 | 22000 | 260,0 | 10,24 | 1,380 | 0,93  |
| 1001041   | 16   | 25,0 | 1"     | 40,40 | 1,59 | 32,7 | 4750 | 130,8 | 19000 | 310,0 | 12,20 | 1,938 | 1,31  |
| 1001042   | 20   | 32,0 | 1 1/4" | 45,90 | 1,81 | 24,0 | 3500 | 96,0  | 14000 | 410,0 | 16,14 | 2,310 | 1,56  |



Dimensions shown may be changed without prior notice

## // 2SC RAILWAY



## ISO 11237 - EN 857 2SC - EN 45545-2

**Tube:** oil resistant synthetic rubber.**Reinforcement:** two high tensile steel braids.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**MSHA APPROVED****Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for railway applications.**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)  
air max T = +70 °C (+160 °F)**Length:** random

| Item Code |      |      |       |       |      |      |      |       |       |       |      |       |      |      |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|-------|------|-------|------|------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | Mpa   | psi  | mm    | in   | kg/m | lb/ft |
| 1002687   | 04   | 6,0  | 1/4"  | 13,20 | 0,52 | 40,0 | 5850 | 160,0 | 23200 | 50,0  | 1,97 | 0,270 | 0,19 |      |       |
| 1002689   | 05   | 8,0  | 5/16" | 14,50 | 0,57 | 35,0 | 5000 | 140,0 | 20000 | 55,0  | 2,17 | 0,310 | 0,21 |      |       |
| 1002690   | 06   | 10,0 | 3/8"  | 17,00 | 0,67 | 33,0 | 4800 | 132,0 | 19200 | 65,0  | 2,56 | 0,360 | 0,25 |      |       |
| 1002691   | 08   | 13,0 | 1/2"  | 20,30 | 0,80 | 27,5 | 4000 | 110,0 | 16000 | 90,0  | 3,54 | 0,470 | 0,32 |      |       |
| 1002692   | 10   | 16,0 | 5/8"  | 23,90 | 0,94 | 25,0 | 3630 | 100,0 | 14500 | 100,0 | 3,94 | 0,570 | 0,39 |      |       |
| 1002693   | 12   | 19,0 | 3/4"  | 27,70 | 1,09 | 21,5 | 3120 | 86,0  | 12500 | 120,0 | 4,72 | 0,760 | 0,52 |      |       |
| 1002694   | 16   | 25,0 | 1"    | 34,60 | 1,36 | 16,5 | 2400 | 66,0  | 9600  | 150,0 | 5,91 | 1,130 | 0,76 |      |       |



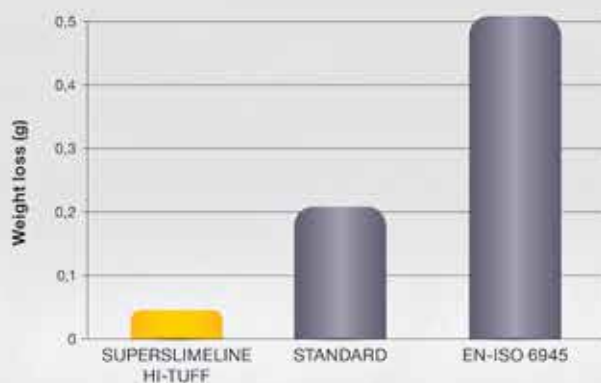
**HI-TUFF**

**HIGH ABRASION  
RESISTANCE**

## HI-TUFF

### Abrasion resistance

- **EXCELLENT ABRASION RESISTANCE (10 TIMES HIGHER THAN EN-ISO 6945 REQUIREMENT)**
- **HIGH OZONE RESISTANCE (10 TIMES MORE THAN THE STANDARD)**
- **MSHA APPROVED COVER**
- **ALTERNATIVE TO PROTECTIVE SLEEVE IN APPLICATIONS REQUIRING ABRASION RESISTANCE**



Dimensions shown may be changed without prior notice

## // WIRE SPIRAL

## // 490 - POWERTRAK - AT7K - HI-TUFF

**Tube:** oil resistant synthetic rubber.**Reinforcement:** four high tensile steel spirals.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**MSHA APPROVED****Application:** very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)**Length:** random up to 5/8" - 61 m max over 1"1/4

| Item Code | Const. | ↔    |      |        | ↔     |      | ↻    | ↻    | ↻     | ↻     | ↵     |       | kg/m  | lb/ft |
|-----------|--------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           |        | Dash | mm   | in     | mm    | in   |      |      |       |       | mm    | in    |       |       |
| 1000275   | 4WS    | 10   | 16,0 | 5/8"   | 29,40 | 1,16 | 49,0 | 7000 | 196,0 | 28000 | 250,0 | 9,84  | 1,320 | 0,89  |
| 1001847   | 6WS    | 20   | 32,0 | 1 1/4" | 50,40 | 1,98 | 52,5 | 7500 | 210,0 | 30000 | 420,0 | 16,54 | 3,590 | 2,42  |
| 1001848   | 6WS    | 24   | 38,0 | 1 1/2" | 57,30 | 2,26 | 49,0 | 7000 | 196,0 | 28000 | 500,0 | 19,69 | 5,100 | 3,43  |

## // 560 - POWERTRAK - AT8K - HI-TUFF

**Tube:** oil resistant synthetic rubber.**Reinforcement:** four high tensile steel spirals.**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.**MSHA APPROVED****Application:** very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)**Length:** random

| Item Code | ↔    |      |      | ↔     |      | ↻    | ↻    | ↻     | ↻     | ↵     |       | kg/m  | lb/ft |
|-----------|------|------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in   | mm    | in   |      |      |       |       | mm    | in    |       |       |
| 1003064   | 12   | 19,0 | 3/4" | 31,80 | 1,25 | 56,0 | 8000 | 224,0 | 32000 | 270,0 | 10,63 | 1,710 | 1,15  |
| 1003066   | 16   | 25,0 | 1"   | 39,60 | 1,56 | 56,0 | 8000 | 224,0 | 32000 | 300,0 | 11,81 | 2,471 | 1,67  |



## // BOP - FIRESAFE 5000



## API 16-D FLAME RESISTANCE

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** four/six high tensile steel spirals.

**Cover:** oil and fire resistant red synthetic rubber.

**MSHA APPROVED**

**LLOYD'S type approval on hose assemblies**

**Application:** high pressure hydraulic lines in blow out preventer system, where continuous operation in case of fire is required.

**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | Constr. | ↔    |      |        | ↔     |      | ↻    |      | ↻     |       | ↻     |       | ↻     |       |
|-----------|---------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           |         | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001245   | 4WS     | 04   | 6,0  | 1/4"   | 25,30 | 1,00 | 35,0 | 5000 | 140,0 | 20000 | 150,0 | 5,91  | 0,710 | 0,48  |
| 1001250   | 4WS     | 06   | 10,0 | 3/8"   | 28,10 | 1,11 | 35,0 | 5000 | 140,0 | 20000 | 180,0 | 7,09  | 1,134 | 0,77  |
| 1001244   | 4WS     | 08   | 13,0 | 1/2"   | 31,00 | 1,22 | 35,0 | 5000 | 140,0 | 20000 | 230,0 | 9,06  | 1,280 | 0,87  |
| 1001249   | 4WS     | 12   | 19,0 | 3/4"   | 38,80 | 1,53 | 35,0 | 5000 | 140,0 | 20000 | 300,0 | 11,81 | 1,860 | 1,26  |
| 1001243   | 4WS     | 16   | 25,0 | 1"     | 46,00 | 1,81 | 35,0 | 5000 | 140,0 | 20000 | 340,0 | 13,39 | 2,690 | 1,81  |
| 1001247   | 4WS     | 20   | 32,0 | 1 1/4" | 53,10 | 2,09 | 35,0 | 5000 | 140,0 | 20000 | 460,0 | 18,11 | 3,340 | 2,25  |
| 1001246   | 6WS     | 24   | 38,0 | 1 1/2" | 64,90 | 2,56 | 35,0 | 5000 | 140,0 | 20000 | 560,0 | 22,05 | 5,870 | 3,95  |
| 1001248   | 6WS     | 32   | 51,0 | 2"     | 78,70 | 3,10 | 35,0 | 5000 | 140,0 | 20000 | 700,0 | 27,56 | 7,780 | 5,23  |

# POWERFLEX<sup>Bio</sup>

## NEW EXTRA FLEXIBLE BIO OIL RESISTANT HOSE RANGE



### POWERFLEX<sup>Bio</sup>

- SPECIALLY DESIGNED FOR BIO OIL FULL COMPABILITY
- EXTREME FLEXIBILITY. UP TO 50% BETTER BAND RADIUS COMPARED TO SAE 100R
- MINETUFF COVER FOR TOP ABRASION & OZONE RESISTANCE
- MSHA-APPROVED FIRE RESISTANT COVER



BEND RADIUS  
Standard SAE 100R

BEND RADIUS  
reduced up to 50%

## // POWERFLEXBIO

## // POWERFLEXBIO 3000 - HI-TUFF



## ISO 18752 - EXCEEDS SAE 100 R12

**Tube:** oil resistant synthetic rubber and biodegradable hydraulic fluids.

**Reinforcement:** four/six high tensile steel spirals.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**MSHA APPROVED**

**Application:** developed to withstand very demanding conditions, very high performance in pressure, pulsing and flexing.

**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** 61 m from 1 1/4" to 3"

| Item Code | Const. | ↔    |      |        | ↔     |      |      |      |      |       |       |      |       |      |
|-----------|--------|------|------|--------|-------|------|------|------|------|-------|-------|------|-------|------|
|           |        | Dash | mm   | in     | mm    | in   |      |      |      |       |       |      |       |      |
| 1001742   | 4WS    | 20   | 32,0 | 1 1/4" | 45,70 | 1,80 | 21,0 | 3000 | 84,0 | 12000 | 230,0 | 9,06 | 2,245 | 1,51 |

**Notes:** also available with TUFLEX cover

## // POWERFLEXBIO 4000 - HI-TUFF



## ISO 18752

**Tube:** oil resistant synthetic rubber and biodegradable hydraulic fluids.

**Reinforcement:** four high tensile steel spirals.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**MSHA APPROVED**

**Application:** developed to withstand very demanding conditions, very high performance in pressure, pulsing and flexing.

**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** random up to 1" - 61 m max over 1"1/4"

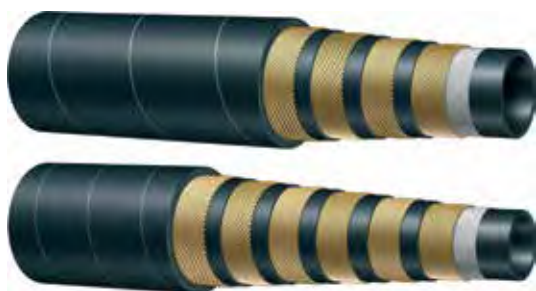
| Item Code | ↔    |      |        | ↔     |      |      |      |       |       |       |       |       |      |  |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|------|--|
|           | Dash | mm   | in     | mm    | in   |      |      |       |       |       |       |       |      |  |
| 1001743   | 12   | 19,0 | 3/4"   | 29,50 | 1,16 | 28,0 | 4000 | 112,0 | 16000 | 120,0 | 4,72  | 1,019 | 0,69 |  |
| 1001744   | 16   | 25,0 | 1"     | 37,50 | 1,48 | 28,0 | 4000 | 112,0 | 16000 | 150,0 | 5,91  | 1,637 | 1,11 |  |
| 1002490   | 20   | 32,0 | 1 1/4" | 46,40 | 1,83 | 28,0 | 4000 | 112,0 | 16000 | 260,0 | 10,24 | 2,264 | 1,53 |  |
| 1002799   | 24   | 38,0 | 1 1/2" | 51,80 | 2,04 | 29,0 | 4200 | 116,0 | 16800 | 420,0 | 16,54 | 2,864 | 1,93 |  |
| 1002491   | 32   | 51,0 | 2"     | 67,60 | 2,66 | 28,0 | 4000 | 112,0 | 16000 | 630,0 | 24,80 | 4,475 | 3,01 |  |

**Notes:** also available with TUFLEX cover



Dimensions shown may be changed without prior notice

## // POWERFLEXBIO 5000 - HI-TUFF



## ISO 18752

**Tube:** oil resistant synthetic rubber and biodegradable hydraulic fluids.

**Reinforcement:** four/six high tensile steel spirals.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

## MSHA APPROVED

**Application:** developed to withstand very demanding conditions, very high performance in pressure, pulsing and flexing.

**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | Constr. | ↔    |      |        | ↔     |      | ↻    | ↻    | ↻     | ↻     | ↶     |       | ↶     | ↶     |
|-----------|---------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           |         | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001745   | 4WS     | 10   | 16,0 | 5/8"   | 25,90 | 1,02 | 35,0 | 5000 | 140,0 | 20000 | 140,0 | 5,51  | 0,873 | 0,59  |
| 1001746   | 4WS     | 12   | 19,0 | 3/4"   | 31,00 | 1,22 | 35,0 | 5000 | 140,0 | 20000 | 150,0 | 5,91  | 1,228 | 0,83  |
| 1001747   | 4WS     | 16   | 25,0 | 1"     | 37,80 | 1,49 | 35,0 | 5000 | 140,0 | 20000 | 180,0 | 7,09  | 1,678 | 1,13  |
| 1001748   | 4WS     | 20   | 32,0 | 1 1/4" | 45,80 | 1,80 | 35,0 | 5000 | 140,0 | 20000 | 280,0 | 11,02 | 2,521 | 1,70  |
| 1001946   | 6WS     | 24   | 38,0 | 1 1/2" | 56,50 | 2,22 | 35,0 | 5000 | 140,0 | 20000 | 500,0 | 19,69 | 4,483 | 3,02  |
| 1001947   | 6WS     | 32   | 51,0 | 2"     | 70,20 | 2,76 | 35,0 | 5000 | 140,0 | 20000 | 550,0 | 21,65 | 6,159 | 4,14  |

**Notes:** also available with TUFLEX cover

## // POWERFLEXBIO 5000 PLUS - HI-TUFF



## ISO 18752

**Tube:** oil resistant synthetic rubber and biodegradable hydraulic fluids.

**Reinforcement:** four high tensile steel spirals.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

## MSHA APPROVED

**Application:** developed to withstand very demanding conditions, very high performance in pressure, pulsing and flexing.

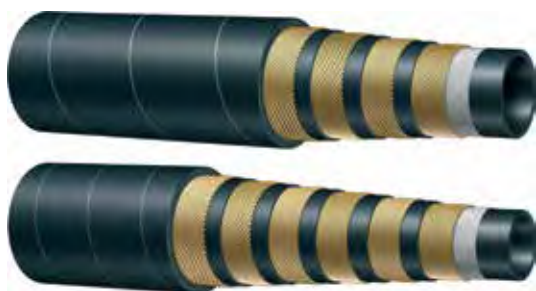
**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** random

| Item Code | ↔    |      |      | ↔     |      | ↻    | ↻    | ↻     | ↻     | ↶     |      | ↶     | ↶     |
|-----------|------|------|------|-------|------|------|------|-------|-------|-------|------|-------|-------|
|           | Dash | mm   | in   | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in   | kg/m  | lb/ft |
| 1001749   | 12   | 19,0 | 3/4" | 31,40 | 1,24 | 38,0 | 5500 | 152,0 | 22040 | 180,0 | 7,09 | 1,338 | 0,90  |
| 1001734   | 16   | 25,0 | 1"   | 38,00 | 1,50 | 38,0 | 5500 | 152,0 | 22040 | 210,0 | 8,27 | 1,918 | 1,29  |

**Notes:** also available with TUFLEX cover

## // POWERFLEXBIO 6000 - HI-TUFF



## ISO 18752 - EXCEEDS SAE 100 R15

**Tube:** oil resistant synthetic rubber and biodegradable hydraulic fluids.

**Reinforcement:** four/six high tensile steel spirals.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**MSHA APPROVED**

**Application:** developed to withstand very demanding conditions, very high performance in pressure, pulsing and flexing.

**Constant operation:** -40 °C +121 °C (-40 °F +250 °F)

**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | Const. | ↔    |      |        | ↔     |      | ↻    | ↻    | ↻     | ↻     | ↶     |       | ↶     | ↶     |
|-----------|--------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           |        | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1001751   | 4WS    | 04   | 6,0  | 1/4"   | 16,90 | 0,67 | 45,0 | 6550 | 180,0 | 26200 | 60,0  | 2,36  | 0,540 | 0,37  |
| 1001752   | 4WS    | 06   | 10,0 | 3/8"   | 19,90 | 0,78 | 44,5 | 6450 | 178,0 | 25800 | 75,0  | 2,95  | 0,620 | 0,42  |
| 1001735   | 4WS    | 08   | 13,0 | 1/2"   | 23,00 | 0,91 | 42,0 | 6000 | 168,0 | 24000 | 90,0  | 3,54  | 0,749 | 0,51  |
| 1001736   | 4WS    | 10   | 16,0 | 5/8"   | 28,00 | 1,10 | 42,0 | 6000 | 168,0 | 24000 | 180,0 | 7,09  | 1,190 | 0,80  |
| 1001737   | 4WS    | 12   | 19,0 | 3/4"   | 31,20 | 1,23 | 42,0 | 6000 | 168,0 | 24000 | 210,0 | 8,27  | 1,429 | 0,97  |
| 1001738   | 4WS    | 16   | 25,0 | 1"     | 37,80 | 1,49 | 42,0 | 6000 | 168,0 | 24000 | 250,0 | 9,84  | 2,026 | 1,37  |
| 1002492   | 4WS    | 20   | 32,0 | 1 1/4" | 46,10 | 1,81 | 42,0 | 6000 | 168,0 | 24000 | 445,0 | 17,52 | 2,920 | 1,97  |
| 1002493   | 6WS    | 20   | 32,0 | 1 1/4" | 49,40 | 1,94 | 42,0 | 6000 | 168,0 | 24000 | 445,0 | 17,52 | 3,401 | 2,29  |
| 1002494   | 6WS    | 24   | 38,0 | 1 1/2" | 56,50 | 2,22 | 42,0 | 6000 | 168,0 | 24000 | 530,0 | 20,87 | 4,480 | 3,02  |

**Notes:** also available with TUFLEX cover

## // TUFLEX

## // 241X - SUPERSLIMLINE - TUFLEX



## ISO 11237 - SAE 100 R16 - EN 857 2SC

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** two high tensile steel braids.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber. Special "supertuff" cover for excellent abrasion resistance and long service life in heavy duty applications.

**MSHA APPROVED**

**Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |      |       | ↔     |      | ↙ ↘  |      | ↙ ↘   |       | ↗ ↘   |      | ↗ ↘   |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|-------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in   | kg/m  | lb/ft |
| 1001077   | 04   | 6,0  | 1/4"  | 13,20 | 0,52 | 45,0 | 6550 | 180,0 | 26200 | 51,0  | 2,01 | 0,275 | 0,19  |
| 1001078   | 05   | 8,0  | 5/16" | 15,00 | 0,59 | 40,0 | 5850 | 160,0 | 23200 | 57,0  | 2,24 | 0,328 | 0,23  |
| 1001079   | 06   | 10,0 | 3/8"  | 17,40 | 0,69 | 35,0 | 5000 | 140,0 | 20000 | 64,0  | 2,52 | 0,393 | 0,27  |
| 1001081   | 08   | 13,0 | 1/2"  | 20,60 | 0,81 | 31,0 | 4500 | 124,0 | 18000 | 90,0  | 3,54 | 0,528 | 0,36  |
| 1001082   | 10   | 16,0 | 5/8"  | 23,70 | 0,93 | 28,0 | 4000 | 112,0 | 16000 | 101,0 | 3,98 | 0,614 | 0,42  |
| 1001083   | 12   | 19,0 | 3/4"  | 27,70 | 1,09 | 28,0 | 4000 | 112,0 | 16000 | 121,0 | 4,76 | 0,826 | 0,56  |
| 1001084   | 16   | 25,0 | 1"    | 35,60 | 1,40 | 21,0 | 3000 | 84,0  | 12000 | 150,0 | 5,91 | 1,300 | 0,88  |



## // HIGH TEMPERATURE

## // 241T - SUPERSLIMLINE HIGH TEMP

**ISO 11237 - SAE 100 R16 - EN 857 2SC (up to 1")****Tube:** oil resistant synthetic rubber.**Reinforcement:** two high tensile steel braids.**Cover:** abrasion, ozone and hydrocarbon resistant blue synthetic rubber.**MSHA APPROVED****Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for high temperature applications.**Constant operation:** -40 °C +135 °C (-40 °F +275 °F)  
air max T = +70 °C (+160 °F)**Length:** random

| Item Code | ↔    |      |        | ↔     |      | ↔    |      | ↔     |       | ↔     |       | ↔     |       |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1002803   | 04   | 6,0  | 1/4"   | 13,40 | 0,53 | 42,0 | 6000 | 160,0 | 23200 | 51,0  | 2,01  | 0,260 | 0,18  |
| 1002804   | 05   | 8,0  | 5/16"  | 15,00 | 0,59 | 37,5 | 5500 | 150,0 | 22000 | 57,0  | 2,24  | 0,310 | 0,21  |
| 1002805   | 06   | 10,0 | 3/8"   | 17,40 | 0,69 | 35,0 | 5000 | 140,0 | 20000 | 64,0  | 2,52  | 0,390 | 0,27  |
| 1002806   | 08   | 13,0 | 1/2"   | 20,60 | 0,81 | 31,0 | 4500 | 124,0 | 18000 | 90,0  | 3,54  | 0,520 | 0,35  |
| 1002807   | 10   | 16,0 | 5/8"   | 23,70 | 0,93 | 28,0 | 4000 | 112,0 | 16000 | 101,0 | 3,98  | 0,600 | 0,41  |
| 1002808   | 12   | 19,0 | 3/4"   | 27,70 | 1,09 | 24,0 | 3500 | 96,0  | 14000 | 121,0 | 4,76  | 0,825 | 0,56  |
| 1002809   | 16   | 25,0 | 1"     | 35,60 | 1,40 | 21,0 | 3000 | 84,0  | 12000 | 152,0 | 5,98  | 1,230 | 0,83  |
| 1002810   | 20   | 32,0 | 1 1/4" | 43,30 | 1,70 | 14,5 | 2100 | 58,0  | 8400  | 360,0 | 14,17 | 1,339 | 0,90  |
| 1002811   | 24   | 38,0 | 1 1/2" | 49,90 | 1,96 | 12,5 | 1820 | 50,0  | 7280  | 430,0 | 16,93 | 1,857 | 1,25  |
| 1002812   | 32   | 51,0 | 2"     | 63,50 | 2,50 | 10,0 | 1500 | 40,0  | 5850  | 550,0 | 21,65 | 2,550 | 1,72  |
| 1002813   | 40   | 63,0 | 2 1/2" | 76,40 | 3,01 | 7,5  | 1100 | 30,0  | 4300  | 720,0 | 28,35 | 3,300 | 2,22  |
| 1002814   | 48   | 76,0 | 3"     | 90,00 | 3,54 | 7,0  | 1000 | 28,0  | 4000  | 880,0 | 34,65 | 3,850 | 2,59  |

## // COMMANDER 1SN



## ISO 1436-1 - SAE 100 R1AT - EN 853 1SN

**Tube:** oil resistant synthetic rubber.**Reinforcement:** one high tensile steel braid.**Cover:** abrasion, ozone and hydrocarbon resistant blue synthetic rubber.**MSHA APPROVED****Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for high temperature applications. Not recommended for steam service.**Constant operation:** -40 °C +150 °C (-40 °F +300 °F)  
air max T = +110 °C (+230 °F)**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | ↔    |      |        | ↔     |      | ↺    |      | ↻    |       | ↻     |       | ↻     |       |  |
|-----------|------|------|--------|-------|------|------|------|------|-------|-------|-------|-------|-------|--|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa  | psi   | mm    | in    | kg/m  | lb/ft |  |
| 1000556   | 04   | 6,0  | 1/4"   | 13,40 | 0,53 | 22,5 | 3250 | 90,0 | 13000 | 100,0 | 3,94  | 0,213 | 0,15  |  |
| 1000557   | 04   | 6,0  | 1/4"   | 13,40 | 0,53 | 22,5 | 3250 | 90,0 | 13000 | 100,0 | 3,94  | 0,213 | 0,15  |  |
| 1000332   | 06   | 10,0 | 3/8"   | 17,40 | 0,69 | 18,0 | 2610 | 72,0 | 10500 | 130,0 | 5,12  | 0,330 | 0,23  |  |
| 1000558   | 06   | 10,0 | 3/8"   | 17,40 | 0,69 | 18,0 | 2610 | 72,0 | 10500 | 130,0 | 5,12  | 0,330 | 0,23  |  |
| 1000445   | 08   | 13,0 | 1/2"   | 20,60 | 0,81 | 16,0 | 2320 | 64,0 | 9280  | 180,0 | 7,09  | 0,420 | 0,29  |  |
| 1000559   | 08   | 13,0 | 1/2"   | 20,60 | 0,81 | 16,0 | 2320 | 64,0 | 9280  | 180,0 | 7,09  | 0,420 | 0,29  |  |
| 1000360   | 10   | 16,0 | 5/8"   | 23,70 | 0,93 | 13,0 | 1900 | 52,0 | 7560  | 200,0 | 7,87  | 0,515 | 0,35  |  |
| 1000560   | 10   | 16,0 | 5/8"   | 23,70 | 0,93 | 13,0 | 1900 | 52,0 | 7560  | 200,0 | 7,87  | 0,515 | 0,35  |  |
| 1000561   | 12   | 19,0 | 3/4"   | 27,70 | 1,09 | 10,5 | 1530 | 42,0 | 6000  | 240,0 | 9,45  | 0,651 | 0,44  |  |
| 1000333   | 12   | 19,0 | 3/4"   | 27,70 | 1,09 | 10,5 | 1530 | 42,0 | 6000  | 240,0 | 9,45  | 0,651 | 0,44  |  |
| 1000361   | 16   | 25,0 | 1"     | 35,60 | 1,40 | 8,8  | 1280 | 35,2 | 5100  | 300,0 | 11,81 | 0,997 | 0,68  |  |
| 1000562   | 16   | 25,0 | 1"     | 35,60 | 1,40 | 8,8  | 1280 | 35,2 | 5100  | 300,0 | 11,81 | 0,997 | 0,68  |  |
| 1000563   | 20   | 32,0 | 1 1/4" | 43,50 | 1,71 | 6,3  | 920  | 25,2 | 3680  | 420,0 | 16,54 | 1,300 | 0,88  |  |
| 1000564   | 20   | 32,0 | 1 1/4" | 43,50 | 1,71 | 6,3  | 920  | 25,2 | 3680  | 420,0 | 16,54 | 1,300 | 0,88  |  |
| 1000565   | 24   | 38,0 | 1 1/2" | 50,60 | 1,99 | 5,0  | 730  | 20,0 | 2900  | 500,0 | 19,69 | 1,480 | 1,00  |  |
| 1000566   | 24   | 38,0 | 1 1/2" | 50,60 | 1,99 | 5,0  | 730  | 20,0 | 2900  | 500,0 | 19,69 | 1,480 | 1,00  |  |
| 1001554   | 32   | 51,0 | 2"     | 64,00 | 2,52 | 4,0  | 600  | 16,0 | 2320  | 630,0 | 24,80 | 2,000 | 1,35  |  |
| 1000567   | 32   | 51,0 | 2"     | 64,00 | 2,52 | 4,0  | 600  | 16,0 | 2320  | 630,0 | 24,80 | 2,000 | 1,35  |  |

## // COMMANDER 2SN



## ISO 1436-1 - SAE 100 R2AT - EN 853 2SN

**Tube:** oil resistant synthetic rubber.**Reinforcement:** two high tensile steel braids.**Cover:** abrasion, ozone and hydrocarbon resistant blue synthetic rubber.**MSHA APPROVED****Application:** high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for high temperature applications. Not recommended for steam service.**Constant operation:** -40 °C +150 °C (-40 °F +300 °F)  
air max T = +110 °C (+230 °F)**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | ↔    |      |        | ↔     |      | ↺    |      | ↻     |       | ↻     |       | ↻     |       |  |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|--|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |  |
| 1000447   | 04   | 6,0  | 1/4"   | 15,00 | 0,59 | 40,0 | 5850 | 160,0 | 23200 | 100,0 | 3,94  | 0,360 | 0,25  |  |
| 1000334   | 06   | 10,0 | 3/8"   | 19,10 | 0,75 | 33,0 | 4800 | 132,0 | 19200 | 125,0 | 4,92  | 0,512 | 0,35  |  |
| 1000335   | 08   | 13,0 | 1/2"   | 22,20 | 0,87 | 28,0 | 4000 | 112,0 | 16000 | 175,0 | 6,89  | 0,640 | 0,44  |  |
| 1000349   | 10   | 16,0 | 5/8"   | 25,40 | 1,00 | 25,0 | 3630 | 100,0 | 14500 | 200,0 | 7,87  | 0,794 | 0,54  |  |
| 1000350   | 12   | 19,0 | 3/4"   | 29,30 | 1,15 | 21,5 | 3120 | 86,0  | 12500 | 240,0 | 9,45  | 0,932 | 0,63  |  |
| 1000351   | 16   | 25,0 | 1"     | 38,10 | 1,50 | 16,5 | 2400 | 66,0  | 9600  | 300,0 | 11,81 | 1,320 | 0,89  |  |
| 1000362   | 20   | 32,0 | 1 1/4" | 48,30 | 1,90 | 12,5 | 1820 | 50,0  | 7280  | 420,0 | 16,54 | 1,930 | 1,30  |  |
| 1000352   | 24   | 38,0 | 1 1/2" | 54,60 | 2,15 | 9,0  | 1310 | 36,0  | 5240  | 500,0 | 19,69 | 2,410 | 1,62  |  |
| 1000448   | 32   | 51,0 | 2"     | 67,40 | 2,65 | 8,0  | 1200 | 32,0  | 4640  | 630,0 | 24,80 | 2,960 | 1,99  |  |

## // LOW TEMPERATURE

## // 261E - HYPERCOLD SUPERSLIMLINE



**Tube:** oil resistant ultra low temperature synthetic rubber.

**Reinforcement:** two high tensile steel braids.

**Cover:** oil, water, ozone and ultra low temperature resistant synthetic rubber.

**Application:** hydraulic system with petroleum or water/glycol based fluids, fuel, lubricating oils. Specially designed for ultra low temperature applications.

**Constant operation:** -55 °C +100 °C (-67 °F +212 °F)  
air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |      |        | ↔     |      | ↺    |      | ↻     |       | ↻     |       | ↻     |       |  |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|--|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |  |
| 1001556   | 04   | 6,0  | 1/4"   | 13,20 | 0,52 | 42,0 | 6000 | 168,0 | 24000 | 51,0  | 2,01  | 0,280 | 0,19  |  |
| 1002432   | 05   | 8,0  | 5/16"  | 14,80 | 0,58 | 37,5 | 5500 | 150,0 | 22000 | 57,0  | 2,24  | 0,310 | 0,21  |  |
| 1001557   | 06   | 10,0 | 3/8"   | 17,40 | 0,69 | 35,0 | 5000 | 140,0 | 20000 | 64,0  | 2,52  | 0,390 | 0,27  |  |
| 1001491   | 08   | 13,0 | 1/2"   | 20,70 | 0,81 | 31,0 | 4500 | 124,0 | 18000 | 90,0  | 3,54  | 0,520 | 0,35  |  |
| 1001941   | 10   | 16,0 | 5/8"   | 23,70 | 0,93 | 28,0 | 4000 | 112,0 | 16000 | 101,0 | 3,98  | 0,600 | 0,41  |  |
| 1001559   | 12   | 19,0 | 3/4"   | 27,60 | 1,09 | 24,0 | 3500 | 96,0  | 14000 | 121,0 | 4,76  | 0,810 | 0,55  |  |
| 1001560   | 16   | 25,0 | 1"     | 35,60 | 1,40 | 21,0 | 3000 | 84,0  | 12000 | 152,0 | 5,98  | 1,220 | 0,82  |  |
| 1003108   | 20   | 32,0 | 1 1/4" | 43,30 | 1,70 | 14,0 | 2000 | 58,0  | 8400  | 360,0 | 14,17 | 1,390 | 0,94  |  |
| 1002790   | 24   | 38,0 | 1 1/2" | 49,90 | 1,96 | 12,5 | 1820 | 50,0  | 7280  | 430,0 | 16,93 | 1,863 | 1,26  |  |

## // 3SPE - HYPERCOLD SUPERFOREST



**Tube:** oil resistant ultra low temperature synthetic rubber.

**Reinforcement:** three high tensile steel braids.

**Cover:** oil, water, ozone and ultra low temperature resistant synthetic rubber.

**Application:** hydraulic system with petroleum or water/glycol based fluids, fuel, lubricating oils. Specially designed for ultra low temperature applications.

**Constant operation:** -55 °C +100 °C (-67 °F +212 °F)  
air max T = +70 °C (+160 °F)

**Length:** random

| Item Code | ↔    |      |      | ↔     |      | ↺    |      | ↻     |       | ↻     |       | ↻     |       |  |
|-----------|------|------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|--|
|           | Dash | mm   | in   | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |  |
| 1001093   | 08   | 13,0 | 1/2" | 24,80 | 0,98 | 46,9 | 6800 | 188,0 | 27200 | 160,0 | 6,30  | 0,909 | 0,62  |  |
| 1002293   | 10   | 16,0 | 5/8" | 28,30 | 1,11 | 41,4 | 6000 | 164,0 | 23500 | 210,0 | 8,27  | 1,146 | 0,78  |  |
| 1001094   | 12   | 19,0 | 3/4" | 32,20 | 1,27 | 37,5 | 5500 | 150,0 | 22000 | 260,0 | 10,24 | 1,490 | 1,01  |  |
| 1001095   | 16   | 25,0 | 1"   | 40,40 | 1,59 | 33,0 | 4800 | 130,8 | 19000 | 310,0 | 12,20 | 2,100 | 1,42  |  |

Dimensions shown may be changed without prior notice

## // 735E - HYPERCOLD 4SP



## EN 856 4SP

**Tube:** oil resistant ultra low temperature synthetic rubber.**Reinforcement:** four high tensile steel spirals.**Cover:** oil, water, ozone and ultra low temperature resistant synthetic rubber.**Application:** very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for ultra low temperature applications.**Constant operation:** -55 °C +100 °C (-67 °F +212 °F)  
air max T = +70 °C (+160 °F)**Length:** random**Notes:** specification reference: SAE 100 R15 (1/1, 3/8, 1/2)

| Item Code | ↔    |      |      | ↔     |      | ↙    |      | ↘     |       | ↗     |       | ↖     |       |
|-----------|------|------|------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in   | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1002955   | 04   | 6,0  | 1/4" | 17,90 | 0,70 | 45,0 | 6550 | 180,0 | 26200 | 150,0 | 5,91  | 0,580 | 0,39  |
| 1002957   | 06   | 10,0 | 3/8" | 21,40 | 0,84 | 44,5 | 6450 | 178,0 | 25800 | 180,0 | 7,09  | 0,749 | 0,51  |
| 1002958   | 08   | 13,0 | 1/2" | 24,60 | 0,97 | 42,0 | 6000 | 168,0 | 24000 | 230,0 | 9,06  | 0,880 | 0,60  |
| 1002959   | 10   | 16,0 | 5/8" | 28,20 | 1,11 | 35,0 | 5000 | 140,0 | 20000 | 250,0 | 9,84  | 1,060 | 0,72  |
| 1002960   | 12   | 19,0 | 3/4" | 32,20 | 1,27 | 38,0 | 5500 | 152,0 | 22040 | 300,0 | 11,81 | 1,440 | 0,97  |
| 1002961   | 16   | 25,0 | 1"   | 39,70 | 1,56 | 32,0 | 4640 | 128,0 | 18560 | 340,0 | 13,39 | 1,960 | 1,32  |

## // 795E - HYPERCOLD 4SH



## EN 856 4SH

**Tube:** oil resistant ultra low temperature synthetic rubber.**Reinforcement:** four high tensile steel spirals.**Cover:** oil, water, ozone and ultra low temperature resistant synthetic rubber.**Application:** very high pressure hydraulic lines, fuel oil, antifreeze solutions, air and water. Specially designed for ultra low temperature applications.**Constant operation:** -55 °C +100 °C (-67 °F +212 °F)  
air max T = +70 °C (+160 °F)**Length:** random up to 1" - 61 m max over 1"1/4

| Item Code | ↔    |      |        | ↔     |      | ↙    |      | ↘     |       | ↗     |       | ↖     |       |
|-----------|------|------|--------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
|           | Dash | mm   | in     | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |
| 1003507   | 12   | 19,0 | 3/4"   | 32,20 | 1,27 | 42,0 | 6000 | 168,0 | 24000 | 280,0 | 11,02 | 1,585 | 1,07  |
| 1003212   | 16   | 25,0 | 1"     | 38,70 | 1,52 | 38,0 | 5500 | 152,0 | 22040 | 340,0 | 13,39 | 1,957 | 1,32  |
| 1003021   | 20   | 32,0 | 1 1/4" | 45,50 | 1,79 | 35,0 | 5000 | 140,0 | 20000 | 460,0 | 18,11 | 2,470 | 1,66  |
| 1003022   | 24   | 38,0 | 1 1/2" | 53,50 | 2,11 | 29,0 | 4200 | 116,0 | 16800 | 560,0 | 22,05 | 3,270 | 2,20  |
| 1003023   | 32   | 51,0 | 2"     | 68,10 | 2,68 | 25,0 | 3630 | 100,0 | 14500 | 700,0 | 27,56 | 4,670 | 3,14  |



## // OIL RETURN LINES

## // FLEXOR R4 604



## SAE 100 R4

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** high tensile textile cords with embedded steel helix wire.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** fuel, oil and hydraulic fluids with 50% max aromatic content suction and delivery. Specially designed for hydraulic oil return lines.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

**Length:** 61 m max

| Item Code | ↔    |       |        | ↔      |      | ↺   |     | ↻   |      | ↻     |       | ↷     |       | ⬮ |  |
|-----------|------|-------|--------|--------|------|-----|-----|-----|------|-------|-------|-------|-------|---|--|
|           | Dash | mm    | in     | mm     | in   | Mpa | psi | Mpa | psi  | mm    | in    | kg/m  | lb/ft |   |  |
| 1001123   | 12   | 19,0  | 3/4"   | 30,00  | 1,18 | 2,1 | 300 | 8,4 | 1200 | 57,0  | 2,24  | 0,600 | 0,41  |   |  |
| 1001124   | 16   | 25,0  | 1"     | 36,00  | 1,42 | 1,7 | 250 | 6,8 | 986  | 75,0  | 2,95  | 0,740 | 0,50  |   |  |
| 1001126   | 20   | 32,0  | 1 1/4" | 43,00  | 1,69 | 1,4 | 200 | 5,6 | 800  | 96,0  | 3,78  | 0,940 | 0,64  |   |  |
| 1001127   | 24   | 38,0  | 1 1/2" | 49,00  | 1,93 | 1,0 | 150 | 4,0 | 600  | 114,0 | 4,49  | 1,080 | 0,73  |   |  |
| 1001128   | 32   | 51,0  | 2"     | 62,00  | 2,44 | 0,7 | 100 | 2,8 | 400  | 152,0 | 5,98  | 1,410 | 0,95  |   |  |
| 1001129   | 40   | 63,0  | 2 1/2" | 76,00  | 2,99 | 0,4 | 60  | 1,6 | 240  | 189,0 | 7,44  | 2,040 | 1,38  |   |  |
| 1001130   | 48   | 76,0  | 3"     | 89,00  | 3,50 | 0,4 | 60  | 1,6 | 240  | 228,0 | 8,98  | 2,430 | 1,64  |   |  |
| 1001131   | 56   | 90,0  | 3 1/2" | 104,00 | 4,09 | 0,3 | 45  | 1,2 | 180  | 270,0 | 10,63 | 3,000 | 2,02  |   |  |
| 1001132   | 64   | 102,0 | 4"     | 116,00 | 4,57 | 0,2 | 30  | 0,8 | 120  | 306,0 | 12,05 | 3,350 | 2,26  |   |  |

## // FLEXOR R4 634

EXTRA FLEXIBLE  
SAE 100 R4

**Tube:** oil resistant synthetic rubber.

**Reinforcement:** high tensile textile cords with embedded steel helix wire.

**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.

**Application:** fuel, oil and hydraulic fluids with 50% max aromatic content suction and delivery. Specially designed for hydraulic oil return lines requiring tight bend radius.

**Constant operation:** -40 °C +100 °C (-40 °F +212 °F)

**Length:** 61 m max

| Item Code | ↔    |       |        | ↔      |      | ↺   |     | ↻   |      | ↻     |      | ↷     |       | ⬮ |  |
|-----------|------|-------|--------|--------|------|-----|-----|-----|------|-------|------|-------|-------|---|--|
|           | Dash | mm    | in     | mm     | in   | Mpa | psi | Mpa | psi  | mm    | in   | kg/m  | lb/ft |   |  |
| 1001272   | 12   | 19,0  | 3/4"   | 30,00  | 1,18 | 2,1 | 300 | 8,4 | 1200 | 38,0  | 1,50 | 0,600 | 0,41  |   |  |
| 1001273   | 16   | 25,0  | 1"     | 36,00  | 1,42 | 1,7 | 250 | 6,8 | 986  | 50,0  | 1,97 | 0,750 | 0,51  |   |  |
| 1001275   | 20   | 32,0  | 1 1/4" | 43,00  | 1,69 | 1,4 | 200 | 5,6 | 800  | 64,0  | 2,52 | 0,920 | 0,62  |   |  |
| 1001278   | 24   | 38,0  | 1 1/2" | 49,00  | 1,93 | 1,0 | 150 | 4,0 | 600  | 76,0  | 2,99 | 1,060 | 0,72  |   |  |
| 1001280   | 32   | 51,0  | 2"     | 62,00  | 2,44 | 0,7 | 100 | 2,8 | 400  | 102,0 | 4,02 | 1,380 | 0,93  |   |  |
| 1001282   | 40   | 63,0  | 2 1/2" | 76,00  | 2,99 | 0,4 | 60  | 1,6 | 240  | 125,0 | 4,92 | 2,180 | 1,47  |   |  |
| 1001284   | 48   | 76,0  | 3"     | 89,00  | 3,50 | 0,4 | 60  | 1,6 | 240  | 152,0 | 5,98 | 2,590 | 1,75  |   |  |
| 1001288   | 64   | 102,0 | 4"     | 116,00 | 4,57 | 0,2 | 30  | 0,8 | 120  | 203,0 | 7,99 | 3,400 | 2,29  |   |  |

Dimensions shown may be changed without prior notice

// FLEXOR R4 644 HT



**EXTRA FLEXIBLE - HIGH TEMP  
SAE 100 R4**

**Tube:** oil resistant synthetic rubber.  
**Reinforcement:** high tensile textile cords with embedded steel helix wire.  
**Cover:** abrasion, ozone and hydrocarbon resistant synthetic rubber.  
**MSHA APPROVED**  
**Application:** fuel, oil and hydraulic fluids with 50% max aromatic content suction and delivery. Specially designed for high temperature applications and hydraulic oil return lines requiring tight bend radius.  
**Constant operation:** -40 °C +135 °C (-40 °F +275 °F)  
**Length:** 61 m max

| Item Code |      |       |        |        |      |     |     |     |      |       |      |       |       |
|-----------|------|-------|--------|--------|------|-----|-----|-----|------|-------|------|-------|-------|
|           | Dash | mm    | in     | mm     | in   | Mpa | psi | Mpa | psi  | mm    | in   | kg/m  | lb/ft |
| 1001277   | 12   | 19,0  | 3/4"   | 30,00  | 1,18 | 2,1 | 300 | 8,4 | 1200 | 38,0  | 1,50 | 0,630 | 0,43  |
| 1001274   | 16   | 25,0  | 1"     | 36,00  | 1,42 | 1,7 | 250 | 6,8 | 986  | 50,0  | 1,97 | 0,810 | 0,55  |
| 1001196   | 20   | 32,0  | 1 1/4" | 43,00  | 1,69 | 1,4 | 200 | 5,6 | 800  | 64,0  | 2,52 | 1,000 | 0,68  |
| 1001279   | 24   | 38,0  | 1 1/2" | 49,00  | 1,93 | 1,0 | 150 | 4,0 | 600  | 76,0  | 2,99 | 1,150 | 0,78  |
| 1001281   | 32   | 51,0  | 2"     | 62,00  | 2,44 | 0,7 | 100 | 2,8 | 400  | 102,0 | 4,02 | 1,490 | 1,01  |
| 1001283   | 40   | 63,0  | 2 1/2" | 76,00  | 2,99 | 0,5 | 75  | 2,0 | 300  | 125,0 | 4,92 | 2,230 | 1,50  |
| 1001285   | 48   | 76,0  | 3"     | 89,00  | 3,50 | 0,5 | 75  | 2,0 | 300  | 152,0 | 5,98 | 2,750 | 1,85  |
| 1001290   | 64   | 102,0 | 4"     | 116,00 | 4,57 | 0,5 | 75  | 2,0 | 300  | 203,0 | 7,99 | 3,610 | 2,43  |

## // PRESSURE WASH

## // ALFAJET 210



**Tube:** oil, detergents and hot water resistant synthetic rubber.

**Reinforcement:** one high tensile steel braid.

**Cover:** smooth. Abrasion, ozone and hydrocarbon resistant blue synthetic rubber, pin-pricked. Black cover also available.

**Application:** high pressure power cleaners. Specially designed for hot water applications. Not recommended for steam service.

**Length:** random

| Item Code |      |      |       |       |      |      |      |      |       |      |      |       |       |
|-----------|------|------|-------|-------|------|------|------|------|-------|------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa  | psi   | mm   | in   | kg/m  | lb/ft |
| 1000192   | 04   | 6,0  | 1/4"  | 12,10 | 0,48 | 21,0 | 3000 | 84,0 | 12000 | 50,0 | 1,97 | 0,180 | 0,13  |
| 1000185   | 05   | 8,0  | 5/16" | 14,10 | 0,56 | 21,0 | 3000 | 84,0 | 12000 | 60,0 | 2,36 | 0,190 | 0,13  |
| 1000098   | 06   | 10,0 | 3/8"  | 15,60 | 0,61 | 21,0 | 3000 | 73,0 | 10588 | 65,0 | 2,56 | 0,274 | 0,19  |
| 1000166   | 08   | 13,0 | 1/2"  | 19,50 | 0,77 | 21,0 | 3000 | 73,0 | 10588 | 90,0 | 3,54 | 0,390 | 0,27  |

## // ALFAJET 400



**Tube:** oil, detergents and hot water resistant synthetic rubber.

**Reinforcement:** two high tensile steel braids.

**Cover:** smooth. abrasion, ozone and hydrocarbon resistant blue synthetic rubber, pin-pricked. Black cover also available.

**Application:** high pressure power cleaners. Specially designed for hot water applications. Not recommended for steam service.

**Length:** random

| Item Code |      |      |       |       |      |      |      |       |       |       |      |       |       |
|-----------|------|------|-------|-------|------|------|------|-------|-------|-------|------|-------|-------|
|           | Dash | mm   | in    | mm    | in   | Mpa  | psi  | Mpa   | psi   | mm    | in   | kg/m  | lb/ft |
| 1000221   | 04   | 6,0  | 1/4"  | 13,20 | 0,52 | 40,0 | 5850 | 140,0 | 20000 | 70,0  | 2,76 | 0,253 | 0,18  |
| 1000220   | 05   | 8,0  | 5/16" | 14,90 | 0,59 | 40,0 | 5850 | 140,0 | 20000 | 76,0  | 2,99 | 0,293 | 0,20  |
| 1000219   | 06   | 10,0 | 3/8"  | 16,70 | 0,66 | 40,0 | 5850 | 130,0 | 18900 | 90,0  | 3,54 | 0,380 | 0,26  |
| 1000218   | 08   | 13,0 | 1/2"  | 20,10 | 0,79 | 40,0 | 5850 | 120,0 | 17450 | 115,0 | 4,53 | 0,492 | 0,34  |

# THE SAFE SOLUTION FOR WATERBLASTING APPLICATION



## **WATERBLAST**

### MAIN APPLICATION

- SURFACE PREPARATION AND CLEANING
- HYDRODEMOLITION
- WATER JET CUTTING



## // WATERBLAST - WB10L



**Tube:** oil and water resistant synthetic rubber.

**Reinforcement:** four high tensile steel spirals.

**Cover:** oil, water and ozone resistant synthetic rubber.

**Application:** very high pressure water jetting.

**Constant operation:** -10 °C +70 °C (14 °F +158 °F)

**Length:** multiples of lengths shown in below grid.

| Item Code |  |      |      |  |      |  |       |  |       |  |       |  |       | Length |
|-----------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-------|--------|
|           | Dash                                                                              | mm   | in   | mm                                                                                | in   | Mpa                                                                               | psi   | Mpa                                                                               | psi   | mm                                                                                | in    | kg/m                                                                              | lb/ft | m      |
| 1003795   | 08                                                                                | 13,0 | 1/2" | 13,00                                                                             | 0,51 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 200,0                                                                             | 7,87  | 0,805                                                                             | 0,55  | 15,250 |
| 1003796   | 08                                                                                | 13,0 | 1/2" | 13,00                                                                             | 0,51 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 200,0                                                                             | 7,87  | 0,805                                                                             | 0,55  | 20,000 |
| 1004044   | 12                                                                                | 19,0 | 3/4" | 32,20                                                                             | 1,27 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 210,0                                                                             | 8,27  | 1,450                                                                             | 0,98  | 15,250 |
| 1004212   | 12                                                                                | 19,0 | 3/4" | 32,20                                                                             | 1,27 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 210,0                                                                             | 8,27  | 1,450                                                                             | 0,98  | 20,000 |
| 1004213   | 16                                                                                | 25,0 | 1"   | 38,70                                                                             | 1,52 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 320,0                                                                             | 12,60 | 1,981                                                                             | 1,34  | 15,250 |
| 1004214   | 16                                                                                | 25,0 | 1"   | 38,70                                                                             | 1,52 | 70,0                                                                              | 10000 | 175,0                                                                             | 25000 | 320,0                                                                             | 12,60 | 1,981                                                                             | 1,34  | 20,000 |

## // WATERBLAST - WB15L



**Tube:** oil and water resistant synthetic rubber.

**Reinforcement:** four high tensile steel spirals.

**Cover:** oil, water and ozone resistant synthetic rubber.

**Application:** very high pressure water jetting.

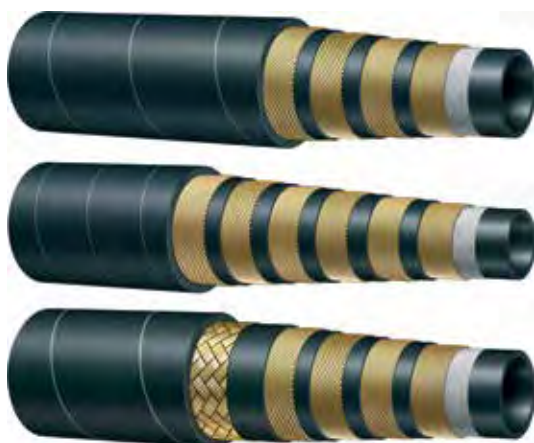
**Constant operation:** -10 °C +70 °C (14 °F +158 °F)

**Length:** multiples of lengths shown in below grid.

| Item Code |  |      |      |  |      |  |       |  |       |  |       |  |       | Length |
|-----------|-------------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|-------|--------|
|           | Dash                                                                                | mm   | in   | mm                                                                                  | in   | Mpa                                                                                 | psi   | Mpa                                                                                 | psi   | mm                                                                                  | in    | kg/m                                                                                  | lb/ft | m      |
| 1003471   | 06                                                                                  | 10,0 | 3/8" | 21,40                                                                               | 0,84 | 124,0                                                                               | 18000 | 310,0                                                                               | 45000 | 150,0                                                                               | 5,91  | 0,850                                                                                 | 0,58  | 15,250 |
| 1003470   | 06                                                                                  | 10,0 | 3/8" | 21,40                                                                               | 0,84 | 124,0                                                                               | 18000 | 310,0                                                                               | 45000 | 150,0                                                                               | 5,91  | 0,850                                                                                 | 0,58  | 20,000 |
| 1003473   | 08                                                                                  | 13,0 | 1/2" | 24,40                                                                               | 0,96 | 110,0                                                                               | 16000 | 275,0                                                                               | 40000 | 200,0                                                                               | 7,87  | 1,120                                                                                 | 0,76  | 15,250 |
| 1003472   | 08                                                                                  | 13,0 | 1/2" | 24,40                                                                               | 0,96 | 110,0                                                                               | 16000 | 275,0                                                                               | 40000 | 200,0                                                                               | 7,87  | 1,120                                                                                 | 0,76  | 20,000 |
| 1003475   | 12                                                                                  | 19,0 | 3/4" | 32,00                                                                               | 1,26 | 100,0                                                                               | 14500 | 250,0                                                                               | 36000 | 280,0                                                                               | 11,02 | 1,683                                                                                 | 1,14  | 15,250 |
| 1003474   | 12                                                                                  | 19,0 | 3/4" | 32,00                                                                               | 1,26 | 100,0                                                                               | 14500 | 250,0                                                                               | 36000 | 280,0                                                                               | 11,02 | 1,683                                                                                 | 1,14  | 20,000 |

Dimensions shown may be changed without prior notice

## // WATERBLAST - WB20L



**Tube:** oil and water resistant synthetic rubber.

**Reinforcement:** four or six high tensile steel spirals or four high tensile steel spiral and one steel braid.

**Cover:** oil, water and ozone resistant synthetic rubber.

**Application:** very high pressure water jetting.

**Constant operation:** -10 °C +70 °C (14 °F +158 °F)

**Length:** multiples of lengths shown in below grid.

| Item Code | Const.  | ↔    |      |       | ↔     |      | ↻     |       | ↻     |       | ↻     |       | ↻     |       | Length |
|-----------|---------|------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
|           |         | Dash | mm   | in    | mm    | in   | Mpa   | psi   | Mpa   | psi   | mm    | in    | kg/m  | lb/ft |        |
| 1004171   | 4WS     | 04   | 6,0  | 1/4"  | 16,20 | 0,64 | 140,0 | 20000 | 350,0 | 50000 | 125,0 | 4,92  | 0,609 | 0,41  | 15,250 |
| 1004172   | 4WS     | 04   | 6,0  | 1/4"  | 16,20 | 0,64 | 140,0 | 20000 | 350,0 | 50000 | 125,0 | 4,92  | 0,609 | 0,41  | 20,000 |
| 1004175   | 4WS     | 05   | 8,0  | 5/16" | 17,30 | 0,68 | 140,0 | 20000 | 350,0 | 50000 | 135,0 | 5,31  | 0,660 | 0,45  | 15,250 |
| 1004176   | 4WS     | 05   | 8,0  | 5/16" | 17,30 | 0,68 | 140,0 | 20000 | 350,0 | 50000 | 135,0 | 5,31  | 0,660 | 0,45  | 20,000 |
| 1004178   | 4WS+1WB | 06   | 10,0 | 3/8"  | 22,00 | 0,87 | 140,0 | 20000 | 350,0 | 50000 | 150,0 | 5,91  | 1,021 | 0,69  | 15,250 |
| 1004179   | 4WS+1WB | 06   | 10,0 | 3/8"  | 22,00 | 0,87 | 140,0 | 20000 | 350,0 | 50000 | 150,0 | 5,91  | 1,021 | 0,69  | 20,000 |
| 1003798   | 4WS+1WB | 08   | 13,0 | 1/2"  | 29,50 | 1,16 | 140,0 | 20000 | 350,0 | 50000 | 200,0 | 7,87  | 1,433 | 0,97  | 15,250 |
| 1003799   | 4WS+1WB | 08   | 13,0 | 1/2"  | 29,50 | 1,16 | 140,0 | 20000 | 350,0 | 50000 | 200,0 | 7,87  | 1,433 | 0,97  | 20,000 |
| 1004181   | 6WS     | 12   | 19,0 | 3/4"  | 35,00 | 1,38 | 140,0 | 20000 | 350,0 | 50000 | 300,0 | 11,81 | 2,529 | 1,70  | 15,250 |
| 1004182   | 6WS     | 12   | 19,0 | 3/4"  | 35,00 | 1,38 | 140,0 | 20000 | 350,0 | 50000 | 300,0 | 11,81 | 2,529 | 1,70  | 20,000 |

## // PTFE HOSE

## // 9TS 0M


**SMOOTH PTFE STAINLESS STEEL BRAID  
STANDARD DUTY  
EXCEEDS SAE 100 R14**

**Tube:** smooth ptfе - high mechanical and vibration resistance, low permeability, dielectrical, fire resistant, food grade (FDA, DVGW, BFR compliant). Chemically inert, non sticking, ozone and weather resistant.

**Reinforcement:** high tensile stainless steel braid AISI 304.

**Application:** compressed air, gas, steam, fuel, oil, chemical and pharmaceutical products, particularly suitable for steam piping on injection moulding machines, diathermic oil installations, charging lines for cryogenic gas, compressor discharge lines, automotive, pharmaceutical and food sectors. Solvents, pigments and paint transfer lines. Hydraulic lines in power steering marine applications. Not suitable for molten alkali metals and halogens at high temperature.

**Constant operation:** -60 °C +260 °C (-76 °F +500 °F)

| Item Code |  |       |  |  |  |      |  |       |  |
|-----------|-----------------------------------------------------------------------------------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
|           | mm                                                                                | in    | mm                                                                                | mm                                                                                | Mpa                                                                               | psi  | mm                                                                                  | in    | kg/m                                                                                |
| 2600557   | 5,0                                                                               | 3/16" | 7,86                                                                              | 0,89                                                                              | 27,6                                                                              | 4000 | 51,0                                                                                | 2,01  | 0,090                                                                               |
| 2600558   | 6,0                                                                               | 1/4"  | 8,64                                                                              | 0,64                                                                              | 24,1                                                                              | 3500 | 76,0                                                                                | 2,99  | 0,090                                                                               |
| 2600559   | 8,0                                                                               | 5/16" | 11,05                                                                             | 0,64                                                                              | 20,7                                                                              | 3000 | 102,0                                                                               | 4,02  | 0,130                                                                               |
| 2600560   | 10,0                                                                              | 3/8"  | 12,65                                                                             | 0,64                                                                              | 18,3                                                                              | 2600 | 127,0                                                                               | 5,00  | 0,150                                                                               |
| 2600561   | 13,0                                                                              | 1/2"  | 15,40                                                                             | 0,76                                                                              | 16,1                                                                              | 2300 | 140,0                                                                               | 5,51  | 0,200                                                                               |
| 2600562   | 16,0                                                                              | 5/8"  | 18,40                                                                             | 0,89                                                                              | 13,8                                                                              | 2000 | 165,0                                                                               | 6,50  | 0,270                                                                               |
| 2600563   | 19,0                                                                              | 3/4"  | 22,10                                                                             | 0,89                                                                              | 11,4                                                                              | 1600 | 203,0                                                                               | 7,99  | 0,330                                                                               |
| 2600564   | 25,0                                                                              | 1"    | 29,75                                                                             | 1,10                                                                              | 6,9                                                                               | 1000 | 305,0                                                                               | 12,01 | 0,520                                                                               |

Dimensions shown may be changed without prior notice

## // 9TC OM



## CONVOLUTED PTFE STAINLESS STEEL BRAID

**Tube:** smooth ptfе - high mechanical and vibration resistance, low permeability, dielectrical, fire resistant, food grade (FDA, DVGW, BFR compliant). Chemically inert, non sticking, ozone and weather resistant.

**Reinforcement:** high tensile stainless steel braid AISI 304.

**Application:** compressed air, gas, steam, fuel, oil, chemical and pharmaceutical products, particularly suitable for steam piping on injection moulding machines, diathermic oil installations, charging lines for cryogenic gas, compressor discharge lines, automotive, pharmaceutical and food sectors. Solvents, pigments and paint transfer lines. Hydraulic lines in power steering marine applications. Not suitable for molten alkali metals and halogens at high temperature.

**Constant operation:** -60 °C +260 °C (-76 °F +500 °F)

| Item Code |      |        |       |      |      |      |       |      |       |
|-----------|------|--------|-------|------|------|------|-------|------|-------|
|           | mm   | in     | mm    | mm   | Mpa  | psi  | mm    | in   |       |
| 2600574   | 13,0 | 1/2"   | 18,80 | 0,89 | 10,3 | 1500 | 25,0  | 0,98 | 0,280 |
| 2600575   | 16,0 | 5/8"   | 22,10 | 0,89 | 8,3  | 1200 | 51,0  | 2,01 | 0,330 |
| 2600576   | 19,0 | 3/4"   | 24,65 | 0,89 | 6,9  | 1000 | 64,0  | 2,52 | 0,400 |
| 2600577   | 25,0 | 1"     | 32,77 | 1,02 | 4,6  | 670  | 89,0  | 3,50 | 0,550 |
| 2600578   | 32,0 | 1 1/4" | 40,72 | 1,02 | 3,4  | 525  | 127,0 | 5,00 | 0,690 |
| 2600579   | 38,0 | 1 1/2" | 48,25 | 1,12 | 3,0  | 450  | 152,0 | 5,98 | 0,890 |
| 2600580   | 51,0 | 2"     | 61,50 | 1,20 | 2,3  | 345  | 200,0 | 7,87 | 1,240 |





## // FERRULE SELECTION CHART

|                   |    |
|-------------------|----|
| // NO SKIVE ..... | 41 |
| // SKIVE .....    | 42 |

|                    |    |
|--------------------|----|
| // INTERLOCK ..... | 43 |
|--------------------|----|

## // NO SKIVE FERRULE FOR STANDARD FITTINGS

| Hose                             | Table n° | -03<br>DN 5<br>3/16" | -04<br>DN 6<br>1/4" | -05<br>DN 8<br>5/16" | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" | -32<br>DN 51<br>2" | -40<br>DN 63<br>2 1/2" |
|----------------------------------|----------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|--------------------|------------------------|
| ARGUS 1TE/R6 PLUS                | 209      |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |
| ARGUS 2TE PLUS                   | 210      |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100404             | H1100404             | H1100SK1           |                        |                        |                    |                        |
| 2TE RAILWAY                      | 210      |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100404             | H1100404             | H1100SK1           |                        |                        |                    |                        |
| ARGUS 3TE/R3 PLUS                | 252      |                      | H1200TX2            | H1200TX2             | H1200TX2             | H1200TX2             | H1200TX2             | H1200TX2             | H1200TX2           | H1200TX2               | H1200TX2               | H1200TX2           |                        |
| 550A - TWB1                      | 200      | H1200TP0             | H1200TP0            | H1200TP0             | H1200TP0             | H1200TP0             | H1200TP0             | H1200TP0             | H1200TP0           |                        |                        |                    |                        |
| 570A - R7                        | 198      | H1200TP0             | H1200TP0            | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
| 580A - R8                        | 199      | H1200TP0             | H1200TP0            | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
| PLT - PILOT                      | 197      | H1200TP0             | H1100SK1            | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
| 121T SLIMLINE PLUS - 1SC         | 178      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
|                                  | 206      | H1200TP0             |                     | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
| 141T SUPERSLIMLINE               | 185      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
|                                  | 248      | H1200TP0             |                     | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
| ALFAJET 210                      | 248      |                      |                     | H1200TP0             | H1200TP0             | H1200TP0             |                      |                      |                    |                        |                        |                    |                        |
|                                  | 185      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
| 221T - SLIMLINE PLUS - 2SC       | 176      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
| 2SC RAILWAY                      | 176      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
| ALFAJET 400                      | 176      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             |                      |                      |                    |                        |                        |                    |                        |
| 241T - SUPERSLIMLINE - HI-TUFF   | 177      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           | H1200AD1               | H1200AD1               | H1200AD1           | H1200TX2               |
| 241X - SUPERSLIMLINE - TUFLEX    | 177      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           |                        |                        |                    |                        |
| 241T - SUPERSLIMLINE - HIGH TEMP | 177      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           | H1200AD1               | H1200AD1               | H1200AD1           | H1200TX2               |
| 261E - SUPERSLIMLINE LT          | 177      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           | H1200AD1               |                        |                    |                        |
| 122T PLUS - 1SN/R1AT             | 173      | H1200AD1             | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           | H1200AD1               | H1200AD1               | H1200AD1           |                        |
| COMMANDER 1SN                    | 179      |                      | H1200AD1            | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1             | H1200AD1           | H1200AD1               | H1200AD1               | H1200AD1           |                        |
| 222T PLUS - 2SN/R2AT             | 174      | H1200AD2             | H1200AD2            | H1200AD2             | H1200AD2             | H1200AD2             | H1200AD2             | H1200AD2             | H1200AD2           | H1200AD2               | H1200AD2               | H1200AD2           |                        |
| POWERFLEXBIO 3000 HI-TUFF        | 186      |                      |                     |                      |                      |                      |                      |                      |                    | H1200204               | H1200204               |                    |                        |
| POWERFLEXBIO 4000 HI-TUFF        | 194      |                      |                     |                      |                      |                      |                      | H1200204             | H1200204           | H1200204               |                        |                    |                        |
| POWERFLEXBIO 5000 HI-TUFF        | 258      |                      |                     |                      |                      |                      | H1200204             |                      |                    |                        |                        |                    |                        |
| POWERFLEXBIO 6000 HI-TUFF        | 259      |                      |                     |                      | H1200204             | H1200204             |                      |                      |                    |                        |                        |                    |                        |
| FLEXOR R4 604/634/644            | 018      |                      |                     |                      |                      |                      |                      | H1200TX2             | H1200TX2           | H1200TX2               | H1200TX2               | H1200TX2           | H1200TX2               |
| 9TS OM                           | 201      | H2200TF0             | H2200TF0            | H2200TF0             | H2200TF0             | H2200TF0             | H2200TF0             | H2200TF0             | H2200TF0           |                        |                        |                    |                        |
| 9TC OM                           | 203      |                      |                     |                      | H2200TF0             | H2200TF0             | H2200TF0             | H2200TF0             | H2200TF0           | H2200TF0               | H2200TF0               | H2200TF0           |                        |

## // SKIVE FERRULE FOR STANDARD FITTINGS

| Hose                             | Table<br>n° | -03<br>DN 5<br>3/16" | -04<br>DN 6<br>1/4" | -05<br>DN 8<br>5/16" | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" | -32<br>DN 51<br>2" | -40<br>DN 63<br>2 1/2" | -48<br>DN 76<br>3" |
|----------------------------------|-------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|--------------------|------------------------|--------------------|
| 121T SLIMLINE PLUS - 1SC         | 208         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| 141T SUPERSLIMLINE               | 239         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| ALFAJET 210                      | 239         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| 122T PLUS - 1SN/R1AT             | 223         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| COMMANDER 1SN                    | 240         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| 221T - SLIMLINE PLUS - 2SC       | 222         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| ALFAJET 400                      | 222         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| 241T - SUPERSLIMLINE - HI-TUFF   | 207         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           | H1100404               | H1100104               | H1100404           |                        |                    |
| 241X - SUPERSLIMLINE - TUFLEX    | 207         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           |                        |                        |                    |                        |                    |
| 241T - SUPERSLIMLINE - HIGH TEMP | 207         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           | H1100404               | H1100104               | H1100404           |                        |                    |
| 261E - SUPERSLIMLINE LT          | 207         |                      | H1100SK1            | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1             | H1100SK1           | H1100404               |                        |                    |                        |                    |
| 222T PLUS - 2SN/R2AT             | 235         |                      | H1100404            | H1100404             | H1100404             | H1100404             | H1100404             | H1100404             | H1100404           | H1100404               | H1100404               | H1100404           |                        |                    |
| COMMANDER 2SN                    | 237         |                      | H1100404            | H1100404             | H1100404             | H1100404             | H1100404             | H1100404             | H1100404           | H1100404               | H1100404               | H1100404           |                        |                    |
| 735E - POWERTRAK - 4SP LT        | 41          |                      | H1100404            |                      | H1100404             | H1100404             | H1100404             | H1100404             | H1100404           |                        |                        |                    |                        |                    |
| 3SPT - SUPERFOREST               | 33          |                      |                     |                      | H1100404             | H1100404             | H1100404             | H1100404             | H1100404           | H1100404               |                        |                    |                        |                    |
| 3SPE - SUPERFOREST LT            | 33          |                      |                     |                      | H1100404             | H1100404             | H1100404             | H1100404             | H1100404           | H1100404               |                        |                    |                        |                    |
| POWERFLEXBIO 3000 HI-TUFF        | 229         |                      |                     |                      |                      |                      |                      |                      |                    | H1100404               | H1100404               | H1100404           |                        |                    |
| POWERFLEXBIO 4000 HI-TUFF        | 187         |                      |                     |                      |                      | H1100404             |                      | H1100404             | H1100404           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 5000 HI-TUFF        | 188         |                      |                     |                      |                      |                      | H1100404             | H1100404             | H1100404           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 5000 PLUS HI-TUFF   | 211         |                      |                     |                      |                      |                      |                      | H1100404             |                    |                        |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF        | 192         |                      | H1100404            |                      | H1100404             | H1100404             |                      |                      |                    |                        |                        |                    |                        |                    |
| WATERBLAST - WB10L               | 281         |                      |                     |                      | H1100404             |                      |                      |                      |                    |                        |                        |                    |                        |                    |
| BOP FIRESAFE 5000                | -           |                      | H1100404            |                      | H1100404             | H1100404             |                      | H1100404             |                    |                        |                        |                    |                        |                    |

## // INTERLOCK FERRULE FOR INTERLOCK FITTINGS

| Hose                             | Table n° | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" | -32<br>DN 51<br>2" | -40<br>DN 63<br>2 1/2" | -48<br>DN 76<br>3" |
|----------------------------------|----------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|--------------------|------------------------|--------------------|
| 795E - POWERTRAK - LT            | 8        |                      |                      |                      | H1400200             | H1400200           | H1400200               | H1400200               | H1400200           |                        |                    |
| POWERFLEXBIO 3000 HI-TUFF        | 217      |                      |                      |                      |                      |                    |                        |                        |                    |                        | H1T00600           |
| POWERFLEXBIO 4000 HI-TUFF        | 195      |                      |                      |                      |                      | H1400200           |                        | H1400200               | H1400200           |                        |                    |
| POWERFLEXBIO 5000 HI-TUFF        | 189      |                      |                      |                      | H1400200             | H1400200           | H1400200               | H1400301               | H1400301           |                        |                    |
| POWERFLEXBIO 5000 PLUS HI-TUFF   | 190      |                      |                      |                      | H1400200             | H1400200           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF - 4S   | 191      |                      |                      | H1400301             | H1400200             | H1400200           | H1400301               |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF - 6S   |          |                      |                      |                      |                      |                    | H1400301               | H1400301               |                    |                        |                    |
| 490 - POWERTRAK - AT7K - HI-TUFF | 101      |                      |                      | H1400301             |                      |                    | H1400301               | H1400301               |                    |                        |                    |
| 560 - POWERTRAK - AT8K - HI-TUFF | 102      |                      |                      |                      | H1400301             | H1T00600*          |                        |                        |                    |                        |                    |
| BOP FIRESAFE 5000                | -        |                      |                      |                      |                      | H1400200           | H1400200               | H1400301               | H1400301           |                        |                    |

\* suitable with only ALFAGOMMA H1T special inserts

| Hose               | Table n° | -03<br>DN 5<br>3/16" | -04<br>DN 6<br>1/4" | -05<br>DN 8<br>5/16" | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" |
|--------------------|----------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|
| WATERBLAST - WB10L | 281      |                      |                     |                      |                      | H1400200*            |                      |                      | H1400200*          | H1400200*              |                        |
|                    | -        |                      |                     |                      | D990000              | D990000              |                      |                      | D990000            | D990000                |                        |
| WATERBLAST - WB15L | 284      |                      |                     |                      | D990000              | D990000              |                      |                      | D990000            |                        |                        |
| WATERBLAST - WB20L | 285      |                      | D990000             | D990000              | D980000              | D980000              |                      |                      | D980000            |                        |                        |

\* to be used with Interlock H14 series inserts

## // NO SKIVE FERRULE FOR NEW POWERTRAK FITTINGS

| Hose                           | Table n° | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" | -32<br>DN 51<br>2" | -40<br>DN 63<br>2 1/2" | -48<br>DN 76<br>3" |
|--------------------------------|----------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|--------------------|------------------------|--------------------|
| POWERFLEXBIO 4000 HI-TUFF      | 275      |                      |                      |                      |                      |                    |                        | H1300NS4               | H1300NS4           |                        |                    |
| POWERFLEXBIO 5000 HI-TUFF - 4S | 276      |                      |                      |                      | H1300NS4             | H1300NS4           | H1300NS4               |                        |                    |                        |                    |
| POWERFLEXBIO 5000 HI-TUFF - 6S | 280      |                      |                      |                      |                      |                    |                        | H1300NS6               | H1300NS6           |                        |                    |
| POWERFLEXBIO 5000 PLUS HI-TUFF | 277      |                      |                      |                      | H1300NS4             | H1300NS4           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF - 4S | 278      |                      |                      |                      | H1300NS4             | H1300NS4           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF - 6S | 282      |                      |                      |                      |                      |                    | H1300NS6               |                        |                    |                        |                    |

## // SKIVE FERRULE FOR NEW POWERTRAK FITTINGS

| Hose                           | Table n° | -06<br>DN 10<br>3/8" | -08<br>DN 12<br>1/2" | -10<br>DN 16<br>5/8" | -12<br>DN 19<br>3/4" | -16<br>DN 25<br>1" | -20<br>DN 32<br>1 1/4" | -24<br>DN 38<br>1 1/2" | -32<br>DN 51<br>2" | -40<br>DN 63<br>2 1/2" | -48<br>DN 76<br>3" |
|--------------------------------|----------|----------------------|----------------------|----------------------|----------------------|--------------------|------------------------|------------------------|--------------------|------------------------|--------------------|
| POWERFLEXBIO 4000 HI-TUFF      | 264      |                      |                      |                      |                      |                    |                        | H1300SK4               | H1300SK4           |                        |                    |
| POWERFLEXBIO 5000 HI-TUFF      | 265      |                      |                      |                      | H1300SK4             | H1300SK4           | H1300SK4               |                        |                    |                        |                    |
| POWERFLEXBIO 5000 PLUS HI-TUFF | 266      |                      |                      |                      | H1300SK4             | H1300SK4           |                        |                        |                    |                        |                    |
| POWERFLEXBIO 6000 HI-TUFF      | 267      |                      |                      |                      | H1300SK4             | H1300SK4           |                        |                        |                    |                        |                    |



# TOP COAT

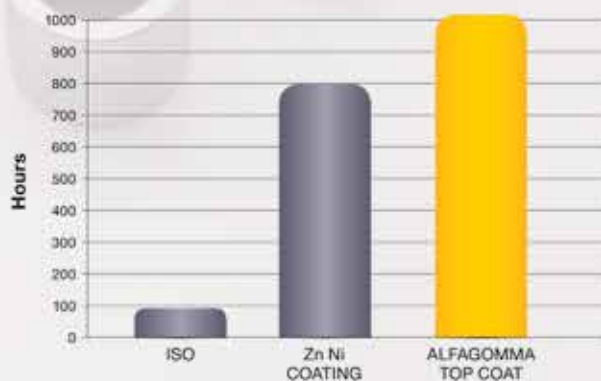
**OVER 10 TIMES  
HIGHER THAN  
STANDARD**



## TOP COAT

Resistance to red rust in salt fog  
(test in compliance with ISO 9227)

- TESTED IN ACCORDANCE WITH ASTM B117-03 AND UNI ISO 9227 STANDARDS
- OVER 500 HOURS CORROSION PREVENTION IN SALT SPRAY FOG TO WHITE RUST
- MORE THAN 1000 HOURS CORROSION RESISTANCE TO RED RUST

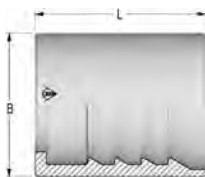




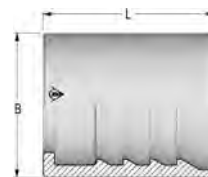
## // STANDARD

|                            |    |                         |    |
|----------------------------|----|-------------------------|----|
| // FERRULES.....           | 46 | // NPTF INSERTS.....    | 78 |
| // HOSE MENDER.....        | 48 | // NPSM INSERTS.....    | 80 |
| // BSP INSERTS.....        | 49 | // ORFS INSERTS.....    | 81 |
| // DIN METRIC INSERTS..... | 56 | // FRENCH INSERTS.....  | 85 |
| // PRESSURE WASHER.....    | 70 | // JIS INSERTS.....     | 86 |
| // SAE INSERTS.....        | 71 | // KOMATSU INSERTS..... | 88 |
| // JIC 37° INSERTS.....    | 72 | // SAE FLANGES.....     | 90 |

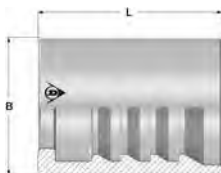
## // FERRULES

**H1100104**  
**Skive Ferrule for 1SN**  
**and 241T**

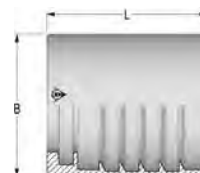
| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1201545   | H1100104-200000 | 20   | 31,0 | 1 1/4" | 50,0 | 43,8 |
| 1201546   | H1100104-240000 | 24   | 38,0 | 1 1/2" | 57,0 | 49,2 |
| 1201547   | H1100104-320000 | 32   | 51,0 | 2"     | 71,0 | 63,7 |

**H1100404**  
**Skive Ferrule for 2SN**  
**and Wire Spiral**

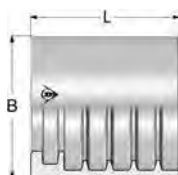
| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1202719   | H1100404-040000 | 04   | 6,0  | 1/4"   | 22,0 | 26,3 |
| 1203253   | H1100404-060000 | 06   | 10,0 | 3/8"   | 25,0 | 28,5 |
| 1203266   | H1100404-080000 | 08   | 13,0 | 1/2"   | 29,0 | 34,7 |
| 1219132   | H1100404-100000 | 10   | 16,0 | 5/8"   | 33,0 | 37,5 |
| 1203368   | H1100404-120000 | 12   | 19,0 | 3/4"   | 37,0 | 41,5 |
| 1234701   | H1100404-160000 | 16   | 25,0 | 1"     | 45,0 | 47,7 |
| 1234766   | H1100404-200000 | 20   | 31,0 | 1 1/4" | 55,0 | 54,5 |
| 1234767   | H1100404-240000 | 24   | 38,0 | 1 1/2" | 67,0 | 61,1 |
| 1234768   | H1100404-320000 | 32   | 51,0 | 2"     | 82,0 | 75,1 |

**H1100SK1**  
**Skive Ferrule for 1 Wire**  
**Braid and 2 Wire Braid**  
**Compact Hoses**

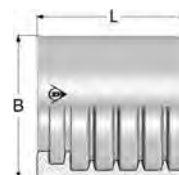
| Item Code | Part Number     | ID   |      |       | B    | L    |
|-----------|-----------------|------|------|-------|------|------|
|           |                 | Dash | mm   | in    |      |      |
| 1233077   | H1100SK1-040000 | 04   | 6,0  | 1/4"  | 19,0 | 25,5 |
| 1233078   | H1100SK1-050000 | 05   | 8,0  | 5/16" | 21,0 | 25,5 |
| 1233079   | H1100SK1-060000 | 06   | 10,0 | 3/8"  | 23,0 | 27,5 |
| 1233080   | H1100SK1-080000 | 08   | 13,0 | 1/2"  | 27,0 | 33,5 |
| 1233081   | H1100SK1-100000 | 10   | 16,0 | 5/8"  | 30,0 | 36,5 |
| 1233082   | H1100SK1-120000 | 12   | 19,0 | 3/4"  | 33,0 | 40,0 |
| 1233083   | H1100SK1-160000 | 16   | 25,0 | 1"    | 41,0 | 46,5 |

**H1200204**  
**No-skive Ferrule for**  
**R12 and Powerflexbio**  
**Hoses**

| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1216588   | H1200204-060000 | 06   | 10,0 | 3/8"   | 30,0 | 28,0 |
| 1216589   | H1200204-080000 | 08   | 13,0 | 1/2"   | 34,0 | 33,9 |
| 1216590   | H1200204-100000 | 10   | 16,0 | 5/8"   | 38,0 | 36,6 |
| 1203322   | H1200204-120000 | 12   | 19,0 | 3/4"   | 42,0 | 39,5 |
| 1203323   | H1200204-160000 | 16   | 25,0 | 1"     | 50,0 | 47,5 |
| 1216591   | H1200204-200000 | 20   | 31,0 | 1 1/4" | 61,0 | 50,2 |

**H1200AD1**  
**No-skive Ferrule for 1**  
**Wire Braid and 2 Wire**  
**Braid Compact Hoses**

| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1227977   | H1200AD1-030000 | 03   | 5,0  | 3/16"  | 19,0 | 24,0 |
| 1227978   | H1200AD1-040000 | 04   | 6,0  | 1/4"   | 22,0 | 24,7 |
| 1227979   | H1200AD1-050000 | 05   | 8,0  | 5/16"  | 23,0 | 24,7 |
| 1227980   | H1200AD1-060000 | 06   | 10,0 | 3/8"   | 26,0 | 29,7 |
| 1227981   | H1200AD1-080000 | 08   | 13,0 | 1/2"   | 29,0 | 30,5 |
| 1227983   | H1200AD1-100000 | 10   | 16,0 | 5/8"   | 32,0 | 30,5 |
| 1227985   | H1200AD1-120000 | 12   | 19,0 | 3/4"   | 36,0 | 36,0 |
| 1227986   | H1200AD1-160000 | 16   | 25,0 | 1"     | 44,0 | 36,7 |
| 1227987   | H1200AD1-200000 | 20   | 31,0 | 1 1/4" | 53,0 | 48,6 |
| 1227988   | H1200AD1-240000 | 24   | 38,0 | 1 1/2" | 61,0 | 48,6 |
| 1227989   | H1200AD1-320000 | 32   | 51,0 | 2"     | 75,0 | 48,6 |

**H1200AD2**  
**No-skive Ferrule for**  
**2SN**

| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1227990   | H1200AD2-030000 | 03   | 5,0  | 3/16"  | 21,0 | 21,5 |
| 1227991   | H1200AD2-040000 | 04   | 6,0  | 1/4"   | 23,0 | 24,7 |
| 1227992   | H1200AD2-050000 | 05   | 8,0  | 5/16"  | 25,0 | 24,7 |
| 1227993   | H1200AD2-060000 | 06   | 10,0 | 3/8"   | 27,0 | 29,7 |
| 1227994   | H1200AD2-080000 | 08   | 13,0 | 1/2"   | 30,0 | 30,5 |
| 1227995   | H1200AD2-100000 | 10   | 16,0 | 5/8"   | 33,0 | 30,5 |
| 1227996   | H1200AD2-120000 | 12   | 19,0 | 3/4"   | 37,0 | 36,0 |
| 1227997   | H1200AD2-160000 | 16   | 25,0 | 1"     | 45,0 | 36,7 |
| 1227998   | H1200AD2-200000 | 20   | 31,0 | 1 1/4" | 56,0 | 48,6 |
| 1227999   | H1200AD2-240000 | 24   | 38,0 | 1 1/2" | 64,0 | 48,5 |
| 1228000   | H1200AD2-320000 | 32   | 51,0 | 2"     | 78,0 | 48,6 |

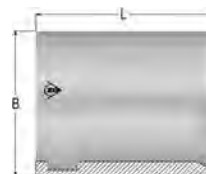
Dimensions shown may be changed without prior notice

### H1200TP0 No-skive Ferrule for Thermoplastic and 1 Wire Braid Compact Hoses



| Item Code | Part Number     | ID   |      |       | B    | L    |
|-----------|-----------------|------|------|-------|------|------|
|           |                 | Dash | mm   | in    |      |      |
| 1232354   | H1200TP0-030000 | 03   | 5,0  | 3/16" | 15,0 | 22,0 |
| 1232358   | H1200TP0-040000 | 04   | 6,0  | 1/4"  | 17,0 | 26,5 |
| 1232359   | H1200TP0-050000 | 05   | 8,0  | 5/16" | 19,0 | 26,5 |
| 1232360   | H1200TP0-060000 | 06   | 10,0 | 3/8"  | 22,0 | 26,5 |
| 1232361   | H1200TP0-080000 | 08   | 13,0 | 1/2"  | 26,0 | 30,5 |

### H2200TF0 No-skive Ferrule for PTFE Hoses



| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1232132   | H2200TF0-030000 | 03   | 5,0  | 3/16"  | 14,0 | 20,0 |
| 1232133   | H2200TF0-040000 | 04   | 6,0  | 1/4"   | 15,0 | 25,0 |
| 1232134   | H2200TF0-050000 | 05   | 8,0  | 5/16"  | 17,2 | 25,0 |
| 1232135   | H2200TF0-060000 | 06   | 10,0 | 3/8"   | 22,0 | 25,0 |
| 1232136   | H2200TF0-080000 | 08   | 13,0 | 1/2"   | 25,0 | 30,0 |
| 1232137   | H2200TF0-100000 | 10   | 16,0 | 5/8"   | 30,0 | 33,0 |
| 1232138   | H2200TF0-120000 | 12   | 19,0 | 3/4"   | 35,0 | 37,0 |
| 1232139   | H2200TF0-160000 | 16   | 25,0 | 1"     | 42,0 | 45,0 |
| 1232140   | H2200TF0-200000 | 20   | 31,0 | 1 1/4" | 50,0 | 48,0 |
| 1232141   | H2200TF0-240000 | 24   | 38,0 | 1 1/2" | 57,0 | 58,0 |
| 1232142   | H2200TF0-320000 | 32   | 51,0 | 2"     | 73,0 | 67,0 |

### H1200TX2 No-skive Ferrule for 3TE, R4, R5 and 241T -40

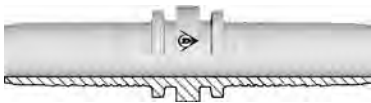


| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1236581   | H1200TX2-030000 | 03   | 5,0  | 3/16"  | 21,0 | 21,5 |
| 1236582   | H1200TX2-040000 | 04   | 6,0  | 1/4"   | 23,0 | 24,7 |
| 1236583   | H1200TX2-050000 | 05   | 8,0  | 5/16"  | 25,0 | 24,7 |
| 1236584   | H1200TX2-060000 | 06   | 10,0 | 3/8"   | 27,0 | 29,7 |
| 1236585   | H1200TX2-080000 | 08   | 13,0 | 1/2"   | 30,0 | 30,5 |
| 1236586   | H1200TX2-100000 | 10   | 16,0 | 5/8"   | 34,0 | 35,5 |
| 1236587   | H1200TX2-120000 | 12   | 19,0 | 3/4"   | 38,0 | 36,0 |
| 1236588   | H1200TX2-160000 | 16   | 25,0 | 1"     | 48,0 | 42,5 |
| 1236589   | H1200TX2-200000 | 20   | 31,0 | 1 1/4" | 53,0 | 56,5 |
| 1236590   | H1200TX2-240000 | 24   | 38,0 | 1 1/2" | 60,0 | 61,5 |
| 1236591   | H1200TX2-320000 | 32   | 51,0 | 2"     | 76,0 | 73,5 |
| 1236592   | H1200TX2-400000 | 40   | 63,0 | 2 1/2" | 89,0 | 85,0 |



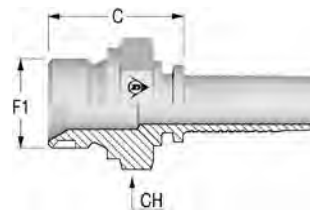
// HOSE MENDER

Hose Mender

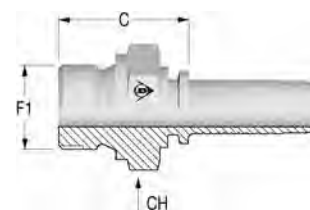


| Item Code | Part Number     | ID   |      |        |
|-----------|-----------------|------|------|--------|
|           |                 | Dash | mm   | in     |
| 1202949   | H12C5610-040400 | 04   | 6,0  | 1/4"   |
| 1203161   | H12C5610-121200 | 12   | 19,0 | 3/4"   |
| 1202870   | H12C5610-050500 | 05   | 8,0  | 5/16"  |
| 1220607   | H12C5610-202000 | 20   | 32,0 | 1 1/4" |
| 1220608   | H12C5610-161600 | 16   | 25,0 | 1"     |
| 1220605   | H12C5610-242400 | 24   | 38,0 | 1 1/2" |
| 1220606   | H12C5610-323200 | 32   | 51,0 | 2"     |
| 1202868   | H12C5610-060600 | 06   | 10,0 | 3/8"   |
| 1203160   | H12C5610-101000 | 10   | 16,0 | 5/8"   |
| 1202867   | H12C5610-080800 | 08   | 13,0 | 1/2"   |

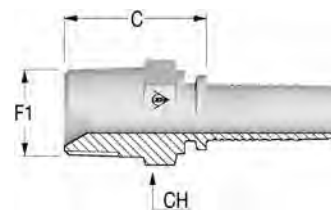
Dimensions shown may be changed without prior notice

// **BSP INSERTS****BSPP Male 60° Flare  
AGR**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1201095   | H1210510-121600 | NA       | 12   | 19,0 | 3/4"   | 16        | 1-11     | 41,6 | 41,0 |
| 1201096   | H1210510-081000 | NA       | 08   | 13,0 | 1/2"   | 10        | 5/8-14   | 34,1 | 30,0 |
| 1201291   | H1210510-030200 | NA       | 03   | 5,0  | 3/16"  | 02        | 1/8-28   | 20,3 | 14,0 |
| 1200340   | H1210510-060400 | NA       | 06   | 10,0 | 3/8"   | 04        | 1/4-19   | 26,3 | 19,0 |
| 1200384   | H1210510-080800 | NA       | 08   | 13,0 | 1/2"   | 08        | 1/2-14   | 32,1 | 27,0 |
| 1200341   | H1210510-060600 | NA       | 06   | 10,0 | 3/8"   | 06        | 3/8-19   | 27,8 | 22,0 |
| 1200385   | H1210510-081200 | NA       | 08   | 13,0 | 1/2"   | 12        | 3/4-14   | 36,1 | 32,0 |
| 1201098   | H1210510-040800 | NA       | 04   | 6,0  | 1/4"   | 08        | 1/2-14   | 31,3 | 27,0 |
| 1200418   | H1210510-101200 | NA       | 10   | 16,0 | 5/8"   | 12        | 3/4-14   | 36,1 | 32,0 |
| 1200419   | H1210510-101000 | NA       | 10   | 16,0 | 5/8"   | 10        | 5/8-14   | 34,1 | 30,0 |
| 1200339   | H1210510-060800 | NA       | 06   | 10,0 | 3/8"   | 08        | 1/2-14   | 31,3 | 27,0 |
| 1201101   | H1210510-050800 | NA       | 05   | 8,0  | 5/16"  | 08        | 1/2-14   | 31,3 | 27,0 |
| 1201722   | H1210510-040200 | NA       | 04   | 6,0  | 1/4"   | 02        | 1/8-28   | 20,8 | 14,0 |
| 1201085   | H1210510-100800 | NA       | 10   | 16,0 | 5/8"   | 08        | 1/2-14   | 32,1 | 27,0 |
| 1200507   | H1210510-040400 | NA       | 04   | 6,0  | 1/4"   | 04        | 1/4-19   | 26,3 | 19,0 |
| 1200508   | H1210510-040600 | NA       | 04   | 6,0  | 1/4"   | 06        | 3/8-19   | 27,8 | 22,0 |
| 1201356   | H1210510-162000 | NA       | 16   | 25,0 | 1"     | 20        | 1 1/4-11 | 46,4 | 50,0 |
| 1201357   | H1210510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 48,0 | 50,0 |
| 1200540   | H1210510-050400 | NA       | 05   | 8,0  | 5/16"  | 04        | 1/4-19   | 26,3 | 19,0 |
| 1200386   | H1210510-080600 | NA       | 08   | 13,0 | 1/2"   | 06        | 3/8-19   | 28,6 | 22,0 |
| 1200541   | H1210510-050600 | NA       | 05   | 8,0  | 5/16"  | 06        | 3/8-19   | 27,8 | 22,0 |
| 1201355   | H1210510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1-11     | 42,4 | 41,0 |
| 1201358   | H1210510-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 51,0 | 55,0 |
| 1200446   | H1210510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 36,6 | 32,0 |
| 1201359   | H1210510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2-11     | 56,5 | 70,0 |

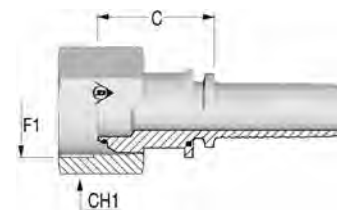
**BSPP Male Flat Seat  
AGR FD**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1     | C    | CH   |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |        | mm   | mm   |
| 1223423   | H1210610-060600 | NA       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 27,8 | 22,0 |
| 1225012   | H1210610-080800 | NA       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 32,1 | 27,0 |
| 1216596   | H1210610-060800 | NA       | 06   | 10,0 | 3/8" | 08        | 1/2-14 | 31,3 | 27,0 |
| 1214181   | H1210610-040400 | NA       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 26,3 | 19,0 |

**BSPT Male  
AGR K**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          |      |      |
| 1200490   | H1210710-040400 | NA       | 04   | 6,0  | 1/4"   | 04        | 1/4-19   | 26,8 | 17,0 |
| 1200491   | H1210710-040200 | NA       | 04   | 6,0  | 1/4"   | 02        | 1/8-28   | 21,3 | 12,0 |
| 1201360   | H1210710-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2-11     | 54,2 | 65,0 |
| 1200373   | H1210710-080600 | NA       | 08   | 13,0 | 1/2"   | 06        | 3/8-19   | 28,6 | 19,0 |
| 1201363   | H1210710-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 49,0 | 46,0 |
| 1200440   | H1210710-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 34,6 | 27,0 |
| 1201364   | H1210710-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 50,5 | 50,0 |
| 1200492   | H1210710-040600 | NA       | 04   | 6,0  | 1/4"   | 06        | 3/8-19   | 27,8 | 19,0 |
| 1200371   | H1210710-080800 | NA       | 08   | 13,0 | 1/2"   | 08        | 1/2-14   | 33,1 | 22,0 |
| 1201361   | H1210710-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1-11     | 44,4 | 36,0 |
| 1200328   | H1210710-060400 | NA       | 06   | 10,0 | 3/8"   | 04        | 1/4-19   | 26,8 | 17,0 |
| 1200329   | H1210710-060600 | NA       | 06   | 10,0 | 3/8"   | 06        | 3/8-19   | 27,8 | 19,0 |
| 1200439   | H1210710-121600 | NA       | 12   | 19,0 | 3/4"   | 16        | 1-11     | 43,6 | 36,0 |
| 1200410   | H1210710-101200 | NA       | 10   | 16,0 | 5/8"   | 12        | 3/4-14   | 34,1 | 27,0 |
| 1200532   | H1210710-050400 | NA       | 05   | 8,0  | 5/16"  | 04        | 1/4-19   | 26,8 | 17,0 |
| 1201365   | H1210710-161200 | NA       | 16   | 25,0 | 1"     | 12        | 3/4-14   | 37,4 | 32,0 |
| 1200327   | H1210710-060800 | NA       | 06   | 10,0 | 3/8"   | 08        | 1/2-14   | 32,3 | 22,0 |
| 1200456   | H1210710-030200 | NA       | 03   | 5,0  | 3/16"  | 02        | 1/8-28   | 20,8 | 12,0 |
| 1200533   | H1210710-050600 | NA       | 05   | 8,0  | 5/16"  | 06        | 3/8-19   | 27,8 | 19,0 |

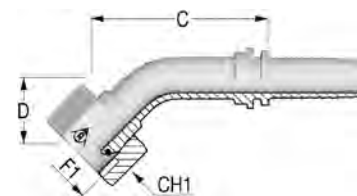
Dimensions shown may be changed without prior notice

**BSPP Female 60° Cone with O-Ring  
DKOR**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1       | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|----|----------|------|------|
|           |                 |          | Dash | mm   | in     |    |          |      |      |
| 1202463   | H1220812-242400 | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 1/2-11 | 33,8 | 55,0 |
| 1202462   | H1220811-121200 | CR       | 12   | 19,0 | 3/4"   | 12 | 3/4-14   | 23,9 | 32,0 |
| 1202340   | H1220813-243200 | SN       | 24   | 38,0 | 1 1/2" | 32 | 2-11     | 47,0 | 70,0 |
| 1202457   | H1220811-101000 | CR       | 10   | 16,0 | 5/8"   | 10 | 5/8-14   | 17,1 | 27,0 |
| 1202336   | H1220813-101200 | SN       | 10   | 16,0 | 5/8"   | 12 | 3/4-14   | 29,0 | 32,0 |
| 1202335   | H1220813-081200 | SN       | 08   | 13,0 | 1/2"   | 12 | 3/4-14   | 29,0 | 32,0 |
| 1202334   | H1220813-081000 | SN       | 08   | 13,0 | 1/2"   | 10 | 5/8-14   | 28,4 | 27,0 |
| 1202455   | H1220811-161600 | CR       | 16   | 25,0 | 1"     | 16 | 1-11     | 23,9 | 38,0 |
| 1202333   | H1220813-080800 | SN       | 08   | 13,0 | 1/2"   | 08 | 1/2-14   | 25,1 | 27,0 |
| 1202014   | H1220812-323200 | TN       | 32   | 51,0 | 2"     | 32 | 2-11     | 34,0 | 70,0 |
| 1202339   | H1220813-202400 | SN       | 20   | 32,0 | 1 1/4" | 24 | 1 1/2-11 | 41,9 | 55,0 |
| 1202338   | H1220813-162000 | SN       | 16   | 25,0 | 1"     | 20 | 1 1/4-11 | 39,4 | 50,0 |
| 1202337   | H1220813-121600 | SN       | 12   | 19,0 | 3/4"   | 16 | 1-11     | 34,0 | 38,0 |
| 1202458   | H1220812-202000 | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 1/4-11 | 32,0 | 50,0 |
| 1201066   | H1220511-040200 | CR       | 04   | 6,0  | 1/4"   | 02 | 1/8-28   | 14,7 | 14,0 |
| 1202332   | H1220813-060800 | SN       | 06   | 10,0 | 3/8"   | 08 | 1/2-14   | 24,3 | 27,0 |
| 1202331   | H1220813-060600 | SN       | 06   | 10,0 | 3/8"   | 06 | 3/8-19   | 23,3 | 22,0 |
| 1202330   | H1220811-060400 | CR       | 06   | 10,0 | 3/8"   | 04 | 1/4-19   | 17,3 | 19,0 |
| 1202571   | H1220811-080600 | CR       | 08   | 13,0 | 1/2"   | 06 | 3/8-19   | 18,6 | 22,0 |
| 1200606   | H1220511-030200 | CR       | 03   | 5,0  | 3/16"  | 02 | 1/8-28   | 14,3 | 14,0 |
| 1202325   | H1220813-030400 | SN       | 03   | 5,0  | 3/16"  | 04 | 1/4-19   | 20,3 | 19,0 |
| 1202329   | H1220813-050600 | SN       | 05   | 8,0  | 5/16"  | 06 | 3/8-19   | 23,3 | 22,0 |
| 1202328   | H1220811-050400 | CR       | 05   | 8,0  | 5/16"  | 04 | 1/4-19   | 17,3 | 19,0 |
| 1202327   | H1220813-040600 | SN       | 04   | 6,0  | 1/4"   | 06 | 3/8-19   | 23,3 | 22,0 |
| 1202326   | H1220813-040400 | SN       | 04   | 6,0  | 1/4"   | 04 | 1/4-19   | 20,8 | 19,0 |



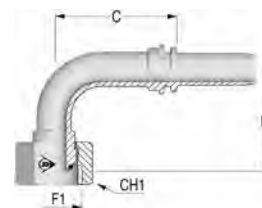
**45° BSPP Female 60° Cone with O-Ring**  
**DKOR 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |          | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1       |       |        |      |
| 1202350   | H1220843-121600 | SN       | 12   | 19,0 | 3/4"   | 16        | 1-11     | 74,6  | 31,5   | 38,0 |
| 1202343   | H1220843-050600 | SN       | 05   | 8,0  | 5/16"  | 06        | 3/8-19   | 45,1  | 18,5   | 22,0 |
| 1202464   | H1220841-101000 | CR       | 10   | 16,0 | 5/8"   | 10        | 5/8-14   | 64,0  | 21,5   | 27,0 |
| 1202342   | H1220843-040600 | SN       | 04   | 6,0  | 1/4"   | 06        | 3/8-19   | 41,5  | 17,5   | 22,0 |
| 1202341   | H1220843-040400 | SN       | 04   | 6,0  | 1/4"   | 04        | 1/4-19   | 45,5  | 15,0   | 19,0 |
| 1214200   | H1220841-050400 | CR       | 05   | 8,0  | 5/16"  | 04        | 1/4-19   | 19,0  | 17,5   | 19,0 |
| 1216663   | H1220843-162000 | SN       | 16   | 25,0 | 1"     | 20        | 1 1/4-11 | 97,0  | 47,5   | 50,0 |
| 1202347   | H1220843-081000 | SN       | 08   | 13,0 | 1/2"   | 10        | 5/8-14   | 57,2  | 23,0   | 27,0 |
| 1202468   | H1220842-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 115,7 | 46,0   | 55,0 |
| 1202346   | H1220843-080800 | SN       | 08   | 13,0 | 1/2"   | 08        | 1/2-14   | 55,0  | 21,0   | 27,0 |
| 1202467   | H1220842-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 100,8 | 40,0   | 50,0 |
| 1202345   | H1220843-060800 | SN       | 06   | 10,0 | 3/8"   | 08        | 1/2-14   | 45,7  | 21,0   | 27,0 |
| 1202466   | H1220841-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1-11     | 84,0  | 34,0   | 38,0 |
| 1202344   | H1220843-060600 | SN       | 06   | 10,0 | 3/8"   | 06        | 3/8-19   | 49,9  | 20,5   | 22,0 |
| 1202465   | H1220841-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 70,0  | 28,0   | 32,0 |
| 1202349   | H1220843-101200 | SN       | 10   | 16,0 | 5/8"   | 12        | 3/4-14   | 66,5  | 22,5   | 32,0 |
| 1202348   | H1220843-081200 | SN       | 08   | 13,0 | 1/2"   | 12        | 3/4-14   | 56,7  | 23,0   | 32,0 |
| 1202469   | H1220842-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2-11     | 151,5 | 60,0   | 70,0 |

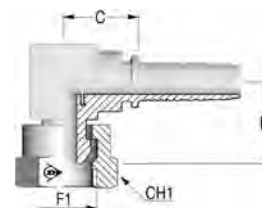
Dimensions shown may be changed without prior notice

**90° BSPP Female 60° Cone with O-Ring**  
**DKOR 90**  
**Solid one piece**



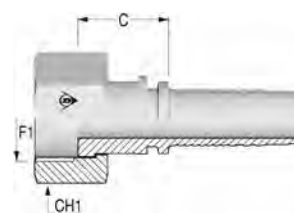
| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1       | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |          |       |        |      |
| 1202471   | H1220891-121200 | CR       | 12   | 19,0 | 3/4"   | 12 | 3/4-14   | 49,1  | 53,0   | 32,0 |
| 1202361   | H1220893-121600 | SN       | 12   | 19,0 | 3/4"   | 16 | 1-11     | 54,1  | 60,5   | 38,0 |
| 1202470   | H1220891-101000 | CR       | 10   | 16,0 | 5/8"   | 10 | 5/8-14   | 47,9  | 47,0   | 27,0 |
| 1202360   | H1220893-101200 | SN       | 10   | 16,0 | 5/8"   | 12 | 3/4-14   | 51,9  | 49,0   | 32,0 |
| 1202354   | H1220893-050600 | SN       | 05   | 8,0  | 5/16"  | 06 | 3/8-19   | 33,2  | 36,0   | 22,0 |
| 1202475   | H1220891-161600 | CR       | 16   | 25,0 | 1"     | 16 | 1-11     | 75,1  | 69,0   | 38,0 |
| 1202353   | H1220893-040600 | SN       | 04   | 6,0  | 1/4"   | 06 | 3/8-19   | 29,8  | 31,0   | 22,0 |
| 1202881   | H1220891-080600 | CR       | 08   | 13,0 | 1/2"   | 06 | 3/8-19   | 35,3  | 43,0   | 22,0 |
| 1202364   | H1220893-243200 | SN       | 24   | 38,0 | 1 1/2" | 32 | 2-11     | 107,8 | 104,0  | 70,0 |
| 1202363   | H1220893-202400 | SN       | 20   | 32,0 | 1 1/4" | 24 | 1 1/2-11 | 101,0 | 83,0   | 55,0 |
| 1202473   | H1220892-323200 | TN       | 32   | 51,0 | 2"     | 32 | 2-11     | 128,5 | 136,0  | 70,0 |
| 1202362   | H1220893-162000 | SN       | 16   | 25,0 | 1"     | 20 | 1 1/4-11 | 75,1  | 88,5   | 50,0 |
| 1202472   | H1220892-202000 | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 1/4-11 | 82,3  | 83,0   | 50,0 |
| 1200607   | H1220591-030200 | CR       | 03   | 5,0  | 3/16"  | 02 | 1/8-28   | 24,0  | 30,0   | 14,0 |
| 1201707   | H1220591-040200 | CR       | 04   | 6,0  | 1/4"   | 02 | 1/8-28   | 30,5  | 32,0   | 14,0 |
| 1202358   | H1220893-081000 | SN       | 08   | 13,0 | 1/2"   | 10 | 5/8-14   | 41,6  | 43,5   | 27,0 |
| 1202357   | H1220893-080800 | SN       | 08   | 13,0 | 1/2"   | 08 | 1/2-14   | 35,8  | 41,0   | 27,0 |
| 1202456   | H1220892-242400 | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 1/2-11 | 95,7  | 96,0   | 55,0 |
| 1202367   | H1220893-040400 | SN       | 04   | 6,0  | 1/4"   | 04 | 1/4-19   | 29,3  | 29,0   | 19,0 |
| 1202356   | H1220893-060800 | SN       | 06   | 10,0 | 3/8"   | 08 | 1/2-14   | 34,3  | 35,5   | 27,0 |
| 1202355   | H1220893-060600 | SN       | 06   | 10,0 | 3/8"   | 06 | 3/8-19   | 34,8  | 42,0   | 22,0 |
| 1202359   | H1220893-081200 | SN       | 08   | 13,0 | 1/2"   | 12 | 3/4-14   | 41,8  | 43,0   | 32,0 |

## 90° Compact BSPP Female 60° Cone DKR 90



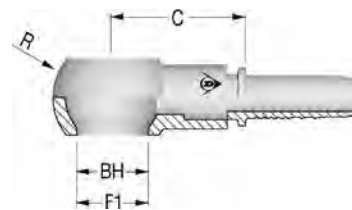
| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |        | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1     |      |        |      |
| 1203330   | H1220581-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1-11   | 34,5 | 27,5   | 38,0 |
| 1202027   | H1220581-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 22,6 | 24,5   | 27,0 |
| 1202422   | H1220581-040400 | CR       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 16,8 | 19,5   | 19,0 |
| 1202026   | H1220581-060800 | CR       | 06   | 10,0 | 3/8" | 08        | 1/2-14 | 21,5 | 22,5   | 27,0 |
| 1202025   | H1220581-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 18,8 | 22,0   | 22,0 |
| 1203213   | H1220581-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14 | 26,7 | 31,0   | 32,0 |

## BSPP Female Flat Seat DKR FD

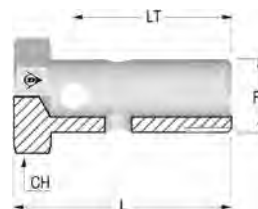


| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |        | C    | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1     |      |      |
| 1202140   | H1220613-060800 | SN       | 06   | 10,0 | 3/8" | 08        | 1/2-14 | 20,8 | 27,0 |
| 1201570   | H1220611-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14 | 18,1 | 32,0 |
| 1201384   | H1220611-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1-11   | 19,9 | 38,0 |
| 1202226   | H1220613-040400 | SN       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 20,3 | 19,0 |
| 1201684   | H1220611-101200 | CR       | 10   | 16,0 | 5/8" | 12        | 3/4-14 | 17,6 | 32,0 |
| 1202229   | H1220613-081200 | SN       | 08   | 13,0 | 1/2" | 12        | 3/4-14 | 24,6 | 32,0 |
| 1202228   | H1220613-080800 | SN       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 21,6 | 27,0 |
| 1202227   | H1220613-060600 | SN       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 20,3 | 22,0 |
| 1216659   | H1220611-121600 | CR       | 12   | 19,0 | 3/4" | 16        | 1-11   | 20,6 | 38,0 |

Dimensions shown may be changed without prior notice

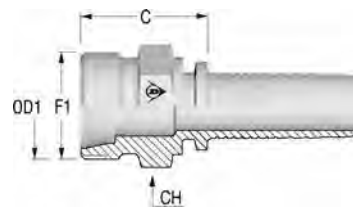
**BSPP Banjo  
RNR**

| Item Code | Part Number     | ID   |      |       | F1     | C    | BH    | R  |
|-----------|-----------------|------|------|-------|--------|------|-------|----|
|           |                 | Dash | mm   | in    |        | mm   | mm    | mm |
| 1203087   | H1230310-040200 | 04   | 6,0  | 1/4"  | 1/8-28 | 20,0 | 10,10 | 17 |
| 1203086   | H1230310-040400 | 04   | 6,0  | 1/4"  | 1/4-19 | 26,5 | 13,30 | 22 |
| 1203085   | H1230310-101000 | 10   | 16,0 | 5/8"  | 5/8-14 | 38,0 | 23,00 | 40 |
| 1203084   | H1230310-161600 | 16   | 25,0 | 1"    | 1-11   | 50,5 | 33,30 | 58 |
| 1216840   | H1230310-040600 | 04   | 6,0  | 1/4"  | 3/8-19 | 30,5 | 16,70 | 28 |
| 1201760   | H1230310-060600 | 06   | 10,0 | 3/8"  | 3/8-19 | 30,5 | 16,70 | 28 |
| 1201763   | H1230310-050600 | 05   | 8,0  | 5/16" | 3/8-19 | 30,5 | 16,70 | 28 |
| 1216843   | H1230310-080600 | 08   | 13,0 | 1/2"  | 3/8-19 | 30,5 | 16,70 | 28 |
| 1203048   | H1230310-080800 | 08   | 13,0 | 1/2"  | 1/2-14 | 35,0 | 21,00 | 38 |
| 1201754   | H1230310-060800 | 06   | 10,0 | 3/8"  | 1/2-14 | 34,5 | 21,00 | 38 |
| 1200423   | H1230310-121200 | 12   | 19,0 | 3/4"  | 3/4-14 | 41,5 | 26,50 | 46 |

**BSPP Bolt**

| Item Code | Part Number     | ID   | F1     | LT   | L    | CH   |
|-----------|-----------------|------|--------|------|------|------|
|           |                 | Dash |        | mm   | mm   | mm   |
| 1210365   | H10V0210-080000 | 08   | 1/2-14 | 38,0 | 46,0 | 27,0 |
| 1210366   | H10V0210-040000 | 04   | 1/4-19 | 25,0 | 30,0 | 19,0 |
| 1210367   | H10V0210-060000 | 06   | 3/8-19 | 31,0 | 38,0 | 22,0 |
| 1210402   | H10V0210-160000 | 16   | 1-11   | 58,0 | 69,0 | 38,0 |
| 1210403   | H10V0210-120000 | 12   | 3/4-14 | 47,0 | 56,0 | 32,0 |

## // DIN METRIC INSERTS

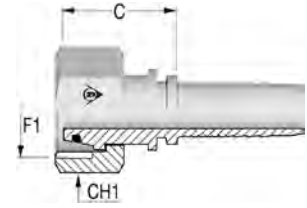
**Metric Male 24° Seat - Light**  
**DIN 3853 - CEL**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1 | C    | CH   |
|-----------|-----------------|----------|------|------|--------|---------|-----|------|------|
|           |                 |          | Dash | mm   | in     |         |     |      |      |
| 1200362   | H1211110-082600 | NA       | 08   | 13,0 | 1/2"   | M26X1.5 | 18  | 27,1 | 27,0 |
| 1201374   | H1211110-245200 | NA       | 24   | 38,0 | 1 1/2" | M52X2   | 42  | 42,0 | 55,0 |
| 1200451   | H1211110-031200 | NA       | 03   | 5,0  | 3/16"  | M12X1.5 | 6   | 20,8 | 14,0 |
| 1200481   | H1211110-041200 | NA       | 04   | 6,0  | 1/4"   | M12X1.5 | 6   | 21,3 | 14,0 |
| 1201086   | H1211110-051800 | NA       | 05   | 8,0  | 5/16"  | M18X1.5 | 12  | 24,3 | 19,0 |
| 1201372   | H1211110-163600 | NA       | 16   | 25,0 | 1"     | M36X2   | 28  | 34,4 | 36,0 |
| 1200482   | H1211110-041400 | NA       | 04   | 6,0  | 1/4"   | M14X1.5 | 8   | 21,3 | 14,0 |
| 1201373   | H1211110-204500 | NA       | 20   | 32,0 | 1 1/4" | M45X2   | 35  | 40,0 | 46,0 |
| 1200518   | H1211110-051600 | NA       | 05   | 8,0  | 5/16"  | M16X1.5 | 10  | 23,3 | 17,0 |
| 1200432   | H1211110-123000 | NA       | 12   | 19,0 | 3/4"   | M30X2   | 22  | 31,6 | 32,0 |
| 1200320   | H1211110-062200 | NA       | 06   | 10,0 | 3/8"   | M22X1.5 | 15  | 25,3 | 22,0 |
| 1202565   | H1211110-081800 | NA       | 08   | 13,0 | 1/2"   | M18X1.5 | 12  | 25,1 | 19,0 |
| 1200315   | H1211110-061800 | NA       | 06   | 10,0 | 3/8"   | M18X1.5 | 12  | 24,3 | 19,0 |
| 1201558   | H1211110-041600 | NA       | 04   | 6,0  | 1/4"   | M16X1.5 | 10  | 23,3 | 17,0 |
| 1200401   | H1211110-102600 | NA       | 10   | 16,0 | 5/8"   | M26X1.5 | 18  | 27,1 | 27,0 |
| 1200314   | H1211110-061600 | NA       | 06   | 10,0 | 3/8"   | M16X1.5 | 10  | 23,3 | 17,0 |
| 1200358   | H1211110-082200 | NA       | 08   | 13,0 | 1/2"   | M22X1.5 | 15  | 26,1 | 22,0 |



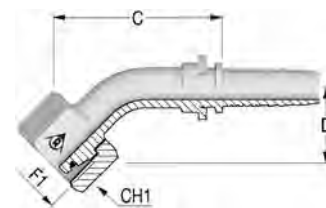
Dimensions shown may be changed without prior notice

## Metric Female 24° Cone with O-Ring - Light DIN 3865 - DKOL



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1 | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|---------|-----|------|------|
|           |                 |          | Dash | mm   | in     |         |     |      |      |
| 1225980   | H1221513-164500 | SN       | 16   | 25,0 | 1"     | M45X2   | 35  | 38,5 | 50,0 |
| 1220609   | H1221513-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 28  | 32,8 | 41,0 |
| 1201593   | H1221512-163000 | TN       | 16   | 25,0 | 1"     | M30X2   | 22  | 44,6 | 36,0 |
| 1239646   | H1221512-122600 | TN       | 12   | 19,0 | 3/4"   | M26X1.5 | 18  | 25,5 | 32,0 |
| 1240281   | H1221512-102600 | TN       | 10   | 16,0 | 5/8"   | M26X1.5 | 18  | 25,0 | 32,0 |
| 1240280   | H1221512-082200 | TN       | 08   | 13,0 | 1/2"   | M22X1.5 | 15  | 25,3 | 27,0 |
| 1238163   | H1221512-102200 | TN       | 10   | 16,0 | 5/8"   | M22X1.5 | 15  | 25,3 | 27,0 |
| 1240278   | H1221512-041400 | TN       | 04   | 6,0  | 1/4"   | M14X1.5 | 6   | 22,9 | 17,0 |
| 1240279   | H1221512-051600 | TN       | 05   | 8,0  | 5/16"  | M16X1.5 | 10  | 23,2 | 19,0 |
| 1246676   | HU221513-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 12  | 25,4 | 22,0 |
| 1200595   | H1221513-031200 | SN       | 03   | 5,0  | 3/16"  | M12X1.5 | 6   | 23,9 | 14,0 |
| 1201387   | H1221513-245200 | SN       | 24   | 38,0 | 1 1/2" | M52X2   | 42  | 40,5 | 60,0 |
| 1238160   | H1221512-051400 | TN       | 05   | 8,0  | 5/16"  | M14X1.5 | 8   | 47,7 | 17,0 |
| 1238161   | H1221512-061600 | TN       | 06   | 10,0 | 3/8"   | M16X1.5 | 10  | 25,4 | 19,0 |
| 1201843   | H1221513-082600 | SN       | 08   | 13,0 | 1/2"   | M26X1.5 | 18  | 29,2 | 32,0 |
| 1238162   | H1221512-081800 | TN       | 08   | 13,0 | 1/2"   | M18X1.5 | 12  | 24,0 | 22,0 |
| 1201060   | H1221513-041800 | SN       | 04   | 6,0  | 1/4"   | M18X1.5 | 12  | 25,4 | 22,0 |
| 1200670   | H1221513-062200 | SN       | 06   | 10,0 | 3/8"   | M22X1.5 | 15  | 27,4 | 27,0 |
| 1201385   | H1221513-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 28  | 33,6 | 41,0 |
| 1201386   | H1221513-204500 | SN       | 20   | 32,0 | 1 1/4" | M45X2   | 35  | 40,1 | 50,0 |
| 1200609   | H1221513-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 10  | 25,4 | 19,0 |
| 1200762   | H1221513-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 22  | 31,7 | 36,0 |
| 1200667   | H1221513-061800 | SN       | 06   | 10,0 | 3/8"   | M18X1.5 | 12  | 25,4 | 22,0 |
| 1200643   | H1221513-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 12  | 25,4 | 22,0 |

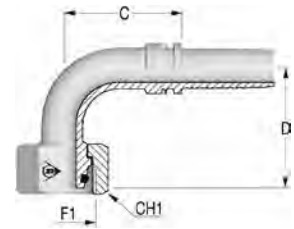
**45° Metric Female 24° Cone with O-Ring - Light**  
**DIN 3865 - DKOL 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1201392   | H1221543-204500 | SN       | 20   | 32,0 | 1 1/4" | M45X2   | 35        | 100,0   | 45,0         | 50,0      |
| 1201390   | H1221543-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 28        | 91,4    | 32,0         | 41,0      |
| 1200594   | H1221543-031200 | SN       | 03   | 5,0  | 3/16"  | M12X1.5 | 6         | 44,9    | 19,0         | 14,0      |
| 1200671   | H1221543-061800 | SN       | 06   | 10,0 | 3/8"   | M18X1.5 | 12        | 46,8    | 19,5         | 22,0      |
| 1239647   | H1221542-061600 | TN       | 06   | 10,0 | 3/8"   | M16X1.5 | 10        | 43,0    | 19,0         | 19,0      |
| 1200738   | H1221543-102600 | SN       | 10   | 16,0 | 5/8"   | M26X1.5 | 18        | 65,3    | 24,0         | 32,0      |
| 1216676   | H1221541-041200 | CR       | 04   | 6,0  | 1/4"   | M12X1.5 | 6         | 45,2    | 15,5         | 14,0      |
| 1239971   | H1221542-081800 | TN       | 08   | 13,0 | 1/2"   | M18X1.5 | 12        | 52,0    | 23,0         | 22,0      |
| 1201576   | H1221543-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 10        | 42,0    | 20,0         | 19,0      |
| 1225983   | H1221542-163000 | TN       | 16   | 25,0 | 1"     | M30X2   | 22        | 71,1    | 29,0         | 36,0      |
| 1225984   | H1221543-0514B0 | SN       | 05   | 8,0  | 5/16"  | M14X1.5 | 8         | 47,5    | 20,0         | 17,0      |
| 1240723   | H1221542-122600 | TN       | 12   | 19,0 | 3/4"   | M26X1.5 | 20        | 77,0    | 34,0         | 32,0      |
| 1200612   | H1221543-041400 | SN       | 04   | 6,0  | 1/4"   | M14X1.5 | 8         | 43,0    | 17,5         | 17,0      |
| 1200645   | H1221543-051600 | SN       | 05   | 8,0  | 5/16"  | M16X1.5 | 10        | 47,5    | 20,0         | 19,0      |
| 1200711   | H1221543-082200 | SN       | 08   | 13,0 | 1/2"   | M22X1.5 | 15        | 55,0    | 21,0         | 27,0      |
| 1200646   | H1221543-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 12        | 47,0    | 22,0         | 22,0      |
| 1200764   | H1221543-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 22        | 69,4    | 32,0         | 36,0      |
| 1202128   | H1221543-245200 | SN       | 24   | 38,0 | 1 1/2" | M52X2   | 42        | 114,1   | 47,0         | 60,0      |

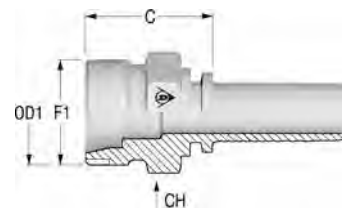
Dimensions shown may be changed without prior notice

**90° Metric Female 24° Cone with O-Ring - Light**  
**DIN 3865 - DKOL 90**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1201393   | H1221593-204500 | SN       | 20   | 32,0 | 1 1/4" | M45X2   | 35        | 90,5    | 89,0         | 50,0      |
| 1201292   | H1221593-1022B0 | SN       | 10   | 16,0 | 5/8"   | M22X1.5 | 15        | 51,4    | 47,0         | 27,0      |
| 1201391   | H1221593-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 28        | 75,0    | 68,0         | 41,0      |
| 1201394   | H1221593-245200 | SN       | 24   | 38,0 | 1 1/2" | M52X2   | 42        | 106,5   | 100,0        | 60,0      |
| 1203154   | H1221593-082600 | SN       | 08   | 13,0 | 1/2"   | M26X1.5 | 18        | 39,8    | 41,0         | 32,0      |
| 1239648   | H1221592-061600 | TN       | 06   | 10,0 | 3/8"   | M16X1.5 | 10        | 35,0    | 36,0         | 19,0      |
| 1200616   | H1221593-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 10        | 28,3    | 32,5         | 19,0      |
| 1200713   | H1221593-082200 | SN       | 08   | 13,0 | 1/2"   | M22X1.5 | 15        | 39,8    | 40,5         | 27,0      |
| 1239994   | H1221592-041200 | TN       | 04   | 6,0  | 1/4"   | M12X1.5 | 6         | 29,0    | 34,0         | 14,0      |
| 1200618   | H1221593-041400 | SN       | 04   | 6,0  | 1/4"   | M14X1.5 | 8         | 28,3    | 32,5         | 17,0      |
| 1200597   | H1221593-031200 | SN       | 03   | 5,0  | 3/16"  | M12X1.5 | 6         | 23,6    | 33,0         | 14,0      |
| 1200679   | H1221593-062200 | SN       | 06   | 10,0 | 3/8"   | M22X1.5 | 15        | 35,8    | 38,5         | 27,0      |
| 1200676   | H1221593-061800 | SN       | 06   | 10,0 | 3/8"   | M18X1.5 | 12        | 32,8    | 39,0         | 22,0      |
| 1216679   | H1221592-203600 | TN       | 20   | 32,0 | 1 1/4" | M36X2   | 28        | 92,2    | 86,0         | 41,0      |
| 1239736   | H1221592-122600 | TN       | 12   | 19,0 | 3/4"   | M26X1.5 | 18        | 60,0    | 64,0         | 32,0      |
| 1200649   | H1221593-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 12        | 32,2    | 40,0         | 22,0      |
| 1200648   | H1221593-051600 | SN       | 05   | 8,0  | 5/16"  | M16X1.5 | 10        | 33,7    | 38,0         | 19,0      |
| 1216685   | H1221593-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 28        | 60,0    | 63,0         | 41,0      |
| 1200740   | H1221593-102600 | SN       | 10   | 16,0 | 5/8"   | M26X1.5 | 18        | 51,4    | 48,0         | 32,0      |
| 1225987   | H1221592-163000 | TN       | 16   | 25,0 | 1"     | M30X2   | 22        | 66,0    | 64,0         | 36,0      |
| 1200767   | H1221593-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 22        | 52,1    | 59,0         | 36,0      |
| 1203218   | H1221593-041800 | SN       | 04   | 6,0  | 1/4"   | M18X1.5 | 12        | 28,8    | 35,0         | 22,0      |
| 1200742   | H1221593-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 22        | 52,4    | 49,0         | 36,0      |
| 1238173   | H1221592-081800 | TN       | 08   | 13,0 | 1/2"   | M18X1.5 | 12        | 42,0    | 44,0         | 22,0      |

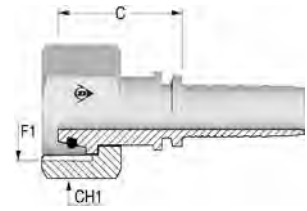
## Metric Male 24° Seat - Heavy DIN 3853 - CES



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1 | C    | CH   |
|-----------|-----------------|----------|------|------|--------|---------|-----|------|------|
|           |                 |          | Dash | mm   | in     |         |     |      |      |
| 1203151   | H1211210-163600 | NA       | 16   | 25,0 | 1"     | M36X2   | 25  | 38,4 | 36,0 |
| 1201375   | H1211210-164200 | NA       | 16   | 25,0 | 1"     | M42X2   | 30  | 42,4 | 46,0 |
| 1200360   | H1211210-082400 | NA       | 08   | 13,0 | 1/2"   | M24X1.5 | 16  | 29,1 | 24,0 |
| 1200319   | H1211210-062200 | NA       | 06   | 10,0 | 3/8"   | M22X1.5 | 14  | 27,3 | 22,0 |
| 1201828   | H1211210-041400 | NA       | 04   | 6,0  | 1/4"   | M14X1.5 | 6   | 24,3 | 17,0 |
| 1200477   | H1211210-041800 | NA       | 04   | 6,0  | 1/4"   | M18X1.5 | 10  | 25,3 | 19,0 |
| 1200521   | H1211210-052000 | NA       | 05   | 8,0  | 5/16"  | M20X1.5 | 12  | 25,3 | 22,0 |
| 1200485   | H1211210-041600 | NA       | 04   | 6,0  | 1/4"   | M16X1.5 | 8   | 24,3 | 17,0 |
| 1200364   | H1211210-083000 | NA       | 08   | 13,0 | 1/2"   | M30X2   | 20  | 33,1 | 32,0 |
| 1201376   | H1211210-205200 | NA       | 20   | 32,0 | 1 1/4" | M52X2   | 38  | 48,0 | 55,0 |
| 1202267   | H1211210-061800 | NA       | 06   | 10,0 | 3/8"   | M18X1.5 | 10  | 25,3 | 19,0 |
| 1221728   | H1211210-062400 | NA       | 06   | 10,0 | 3/8"   | M24X1.5 | 16  | 28,1 | 24,0 |
| 1202564   | H1211210-082200 | NA       | 08   | 13,0 | 1/2"   | M22X1.5 | 14  | 28,1 | 22,0 |
| 1200403   | H1211210-103000 | NA       | 10   | 16,0 | 5/8"   | M30X2   | 20  | 33,1 | 32,0 |
| 1200316   | H1211210-062000 | NA       | 06   | 10,0 | 3/8"   | M20X1.5 | 12  | 25,3 | 22,0 |
| 1202526   | H1211210-123000 | NA       | 12   | 19,0 | 3/4"   | M30X2   | 20  | 33,6 | 32,0 |
| 1200434   | H1211210-123600 | NA       | 12   | 19,0 | 3/4"   | M36X2   | 25  | 37,6 | 36,0 |

Dimensions shown may be changed without prior notice

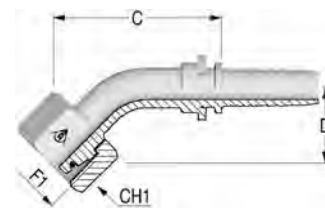
## Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |           |
| 1203099   | H1221613-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 25        | 41,0    | 46,0      |
| 1239744   | H1221612-163000 | TN       | 16   | 25,0 | 1"     | M30X2   | 20        | 29,8    | 36,0      |
| 1200737   | H1221613-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20        | 36,5    | 36,0      |
| 1201827   | H1221613-041400 | SN       | 04   | 6,0  | 1/4"   | M14X1.5 | 6         | 26,4    | 17,0      |
| 1239671   | H1221612-061600 | TN       | 06   | 10,0 | 3/8"   | M16X1.5 | 8         | 23,2    | 19,0      |
| 1216693   | H1221613-204200 | SN       | 20   | 32,0 | 1 1/4" | M42X2   | 30        | 44,7    | 50,0      |
| 1239650   | H1221612-082000 | TN       | 08   | 13,0 | 1/2"   | M20X1.5 | 12        | 23,2    | 24,0      |
| 1200615   | H1221613-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 8         | 27,7    | 19,0      |
| 1239651   | H1221612-10240Z | TN       | 10   | 16,0 | 5/8"   | M24X1.5 | 16        | 25,3    | 30,0      |
| 1218557   | H1221613-082200 | SN       | 08   | 13,0 | 1/2"   | M22X1.5 | 14        | 31,9    | 27,0      |
| 1216696   | H122161Z-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 40,2    | 41,0      |
| 1216695   | H1221613-245200 | SN       | 24   | 38,0 | 1 1/2" | M52X2   | 38        | 48,1    | 60,0      |
| 1201389   | H1221613-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38        | 48,1    | 60,0      |
| 1200596   | H1221613-031600 | SN       | 03   | 5,0  | 3/16"  | M16X1.5 | 8         | 27,2    | 19,0      |
| 1201388   | H1221613-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30        | 43,1    | 50,0      |
| 1200610   | H1221613-041800 | SN       | 04   | 6,0  | 1/4"   | M18X1.5 | 10        | 27,6    | 22,0      |
| 1200710   | H1221613-083000 | SN       | 08   | 13,0 | 1/2"   | M30X2   | 20        | 36,5    | 36,0      |
| 1202570   | H1221613-062400 | SN       | 06   | 10,0 | 3/8"   | M24X1.5 | 16        | 30,9    | 30,0      |
| 1201061   | H1221613-042000 | SN       | 04   | 6,0  | 1/4"   | M20X1.5 | 12        | 27,6    | 24,0      |
| 1200669   | H1221613-062200 | SN       | 06   | 10,0 | 3/8"   | M22X1.5 | 14        | 31,1    | 27,0      |
| 1200708   | H1221613-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16        | 31,7    | 30,0      |
| 1238179   | H1221612-061800 | TN       | 06   | 10,0 | 3/8"   | M18X1.5 | 10        | 22,3    | 22,0      |
| 1200763   | H1221613-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 40,2    | 46,0      |
| 1200668   | H1221613-062000 | SN       | 06   | 10,0 | 3/8"   | M20X1.5 | 12        | 27,6    | 24,0      |
| 1201732   | H1221613-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 20        | 37,0    | 36,0      |
| 1200644   | H1221613-052000 | SN       | 05   | 8,0  | 5/16"  | M20X1.5 | 12        | 27,6    | 24,0      |
| 1201832   | H1221613-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 10        | 27,6    | 22,0      |



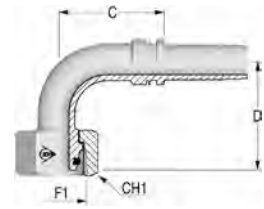
**45° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1203098   | H1221643-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 25        | 89,7    | 36,0         | 46,0      |
| 1226010   | H1221643-0616B0 | SN       | 06   | 10,0 | 3/8"   | M16X1.5 | 8         | 50,6    | 21,0         | 19,0      |
| 1202891   | H1221643-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 20        | 66,1    | 29,0         | 36,0      |
| 1201395   | H1221643-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30        | 110,3   | 40,5         | 50,0      |
| 1239968   | H1221642-061800 | TN       | 06   | 10,0 | 3/8"   | M18X1.5 | 10        | 47,0    | 21,0         | 22,0      |
| 1200647   | H1221643-052000 | SN       | 05   | 8,0  | 5/16"  | M20X1.5 | 12        | 48,1    | 21,0         | 24,0      |
| 1216697   | H1221643-041400 | SN       | 04   | 6,0  | 1/4"   | M14X1.5 | 6         | 47,0    | 20,0         | 17,0      |
| 1240698   | H1221643-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 10        | 46,0    | 18,0         | 22,0      |
| 1200672   | H1221643-062000 | SN       | 06   | 10,0 | 3/8"   | M20X1.5 | 12        | 50,6    | 20,0         | 24,0      |
| 1242602   | H1221642-082000 | TN       | 08   | 13,0 | 1/2"   | M20X1.5 | 12        | 54,0    | 24,0         | 24,0      |
| 1201398   | H1221643-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38        | 109,0   | 45,0         | 60,0      |
| 1200673   | H1221643-062200 | SN       | 06   | 10,0 | 3/8"   | M22X1.5 | 14        | 52,9    | 21,0         | 27,0      |
| 1201300   | H1221643-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20        | 66,3    | 30,0         | 36,0      |
| 1200613   | H1221643-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 8         | 48,6    | 16,0         | 19,0      |
| 1200712   | H1221643-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16        | 55,8    | 21,5         | 30,0      |
| 1200611   | H1221643-041800 | SN       | 04   | 6,0  | 1/4"   | M18X1.5 | 10        | 43,5    | 19,0         | 22,0      |
| 1200765   | H1221643-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 69,5    | 33,0         | 46,0      |

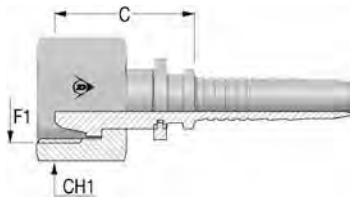
Dimensions shown may be changed without prior notice

**90° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 90**  
**Solid one piece**



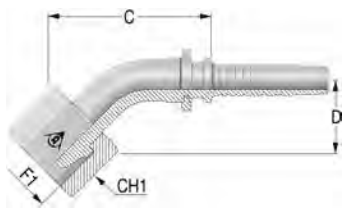
| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1203097   | H1221693-163600 | SN       | 16   | 25,0 | 1"     | M36X2   | 25        | 77,6    | 73,5         | 46,0      |
| 1201253   | H1221693-083000 | SN       | 08   | 13,0 | 1/2"   | M30X2   | 20        | 45,8    | 50,0         | 36,0      |
| 1201396   | H1221693-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30        | 75,6    | 79,0         | 50,0      |
| 1201397   | H1221693-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38        | 94,0    | 92,0         | 60,0      |
| 1201065   | H1221693-041400 | SN       | 04   | 6,0  | 1/4"   | M14X1.5 | 6         | 27,3    | 33,0         | 17,0      |
| 1216700   | H1221693-051800 | SN       | 05   | 8,0  | 5/16"  | M18X1.5 | 10        | 33,2    | 39,0         | 22,0      |
| 1239989   | H1221692-061600 | TN       | 06   | 10,0 | 3/8"   | M16X1.5 | 8         | 33,0    | 38,0         | 19,0      |
| 1239926   | H1221692-061800 | TN       | 06   | 10,0 | 3/8"   | M18X1.5 | 10        | 35,0    | 38,0         | 22,0      |
| 1200617   | H1221693-041800 | SN       | 04   | 6,0  | 1/4"   | M18X1.5 | 10        | 26,8    | 34,0         | 22,0      |
| 1240110   | H1221692-082000 | TN       | 08   | 13,0 | 1/2"   | M20X1.5 | 12        | 40,0    | 45,0         | 24,0      |
| 1240088   | H1221692-102400 | TN       | 10   | 16,0 | 5/8"   | M24X1.5 | 16        | 52,0    | 56,0         | 30,0      |
| 1200768   | H1221693-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 50,6    | 59,5         | 46,0      |
| 1200714   | H1221693-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16        | 39,8    | 41,5         | 30,0      |
| 1200619   | H1221693-041600 | SN       | 04   | 6,0  | 1/4"   | M16X1.5 | 8         | 27,3    | 33,0         | 19,0      |
| 1200741   | H1221693-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20        | 47,9    | 55,0         | 36,0      |
| 1200650   | H1221693-052000 | SN       | 05   | 8,0  | 5/16"  | M20X1.5 | 12        | 33,2    | 39,0         | 24,0      |
| 1200678   | H1221693-062200 | SN       | 06   | 10,0 | 3/8"   | M22X1.5 | 14        | 34,3    | 40,5         | 27,0      |
| 1200766   | H1221693-123000 | SN       | 12   | 19,0 | 3/4"   | M30X2   | 20        | 50,6    | 58,0         | 36,0      |
| 1200677   | H1221693-062000 | SN       | 06   | 10,0 | 3/8"   | M20X1.5 | 12        | 34,3    | 38,5         | 24,0      |

Universal Metric Female



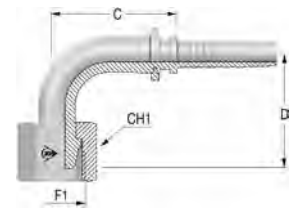
| Item Code | Part Number     | Nut Type | ID   |      |       | F1        | F1      | C    | CH1  |
|-----------|-----------------|----------|------|------|-------|-----------|---------|------|------|
|           |                 |          | Dash | mm   | in    | Dash Size |         | mm   | mm   |
| 1200658   | H1221313-051600 | SN       | 05   | 8,0  | 5/16" | 16        | M16X1.5 | 22,3 | 19,0 |
| 1200659   | H1221313-051800 | SN       | 05   | 8,0  | 5/16" | 18        | M18X1.5 | 22,3 | 22,0 |
| 1200729   | H1221313-082200 | SN       | 08   | 13,0 | 1/2"  | 22        | M22X1.5 | 24,7 | 27,0 |
| 1200631   | H1221313-041400 | SN       | 04   | 6,0  | 1/4"  | 14        | M14X1.5 | 22,3 | 17,0 |
| 1200632   | H1221313-041600 | SN       | 04   | 6,0  | 1/4"  | 16        | M16X1.5 | 21,8 | 19,0 |
| 1200698   | H1221313-061800 | SN       | 06   | 10,0 | 3/8"  | 18        | M18X1.5 | 22,3 | 22,0 |
| 1200753   | H1221313-102600 | SN       | 10   | 16,0 | 5/8"  | 26        | M26X1.5 | 25,1 | 32,0 |
| 1200633   | H1221313-041800 | SN       | 04   | 6,0  | 1/4"  | 18        | M18X1.5 | 22,3 | 22,0 |

45° Universal Metric Female

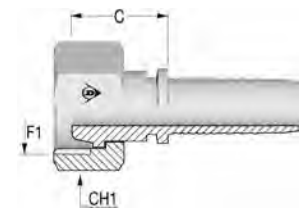


| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1      | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|---------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |         | mm   | mm     | mm   |
| 1201450   | H1221343-061800 | SN       | 06   | 10,0 | 3/8" | 18        | M18X1.5 | 42,8 | 20,0   | 22,0 |
| 1216669   | H1221343-041400 | SN       | 04   | 6,0  | 1/4" | 14        | M14X1.5 | 36,5 | 16,0   | 17,0 |
| 1225972   | H1221343-082200 | SN       | 08   | 13,0 | 1/2" | 22        | M22X1.5 | 54,9 | 20,0   | 27,0 |
| 1225973   | H1221343-102600 | SN       | 10   | 16,0 | 5/8" | 26        | M26X1.5 | 54,0 | 22,0   | 32,0 |

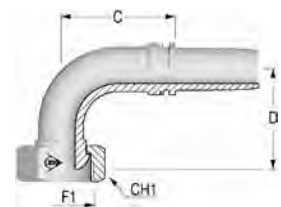
Dimensions shown may be changed without prior notice

**90° Universal Metric Female**

| Item Code | Part Number     | Nut Type | ID   |      |       | F1<br>Dash Size | F1      | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|-------|-----------------|---------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in    |                 |         |         |              |           |
| 1216672   | H1221393-102600 | SN       | 10   | 16,0 | 5/8"  | 26              | M26X1.5 | 51,0    | 46,0         | 32,0      |
| 1201580   | H1221393-062200 | SN       | 06   | 10,0 | 3/8"  | 22              | M22X1.5 | 32,3    | 36,0         | 27,0      |
| 1201452   | H1221393-041600 | SN       | 04   | 6,0  | 1/4"  | 16              | M16X1.5 | 28,3    | 33,0         | 19,0      |
| 1201323   | H1221393-051800 | SN       | 05   | 8,0  | 5/16" | 18              | M18X1.5 | 34,0    | 32,0         | 22,0      |
| 1200730   | H1221393-082200 | SN       | 08   | 13,0 | 1/2"  | 22              | M22X1.5 | 39,8    | 40,0         | 27,0      |
| 1200661   | H1221393-051600 | SN       | 05   | 8,0  | 5/16" | 16              | M16X1.5 | 34,2    | 36,0         | 19,0      |
| 1225975   | H1221393-041400 | SN       | 04   | 6,0  | 1/4"  | 14              | M14X1.5 | 29,9    | 28,5         | 17,0      |
| 1200701   | H1221393-061800 | SN       | 06   | 10,0 | 3/8"  | 18              | M18X1.5 | 32,8    | 37,0         | 22,0      |

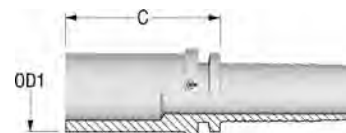
**Metric Female 60° Cone - DIN 3863**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1<br>Dash Size | F1      | C<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|------|-----------------|---------|---------|-----------|
|           |                 |          | Dash | mm   | in   |                 |         |         |           |
| 1200759   | H1221013-123000 | SN       | 12   | 19,0 | 3/4" | 30              | M30X1.5 | 21,6    | 36,0      |
| 1201572   | H1221013-163800 | SN       | 16   | 25,0 | 1"   | 38              | M38X1.5 | 28,0    | 46,0      |

**90° Metric Female 60° Cone - DIN 3863  
Solid one piece**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1<br>Dash Size | F1      | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|------|-----------------|---------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in   |                 |         |         |              |           |
| 1202056   | H1221093-123000 | SN       | 12   | 19,0 | 3/4" | 30              | M30X1.5 | 54,6    | 47,0         | 36,0      |
| 1201620   | H1221093-163800 | SN       | 16   | 25,0 | 1"   | 38              | M38X1.5 | 72,6    | 60,0         | 46,0      |

## Metric Straight Standpipe - DIN 2353 RSL/RSS

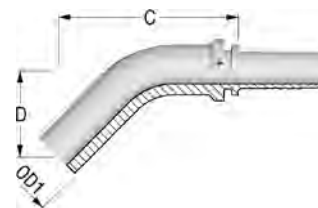


| Item Code | Part Number     | ID   |      |        | OD1<br>mm | C<br>mm |
|-----------|-----------------|------|------|--------|-----------|---------|
|           |                 | Dash | mm   | in     |           |         |
| 1216922   | H1252010-081000 | 08   | 13,0 | 1/2"   | 10        | 32,5    |
| 1214227   | H1252010-163800 | 16   | 25,0 | 1"     | 38        | 60,4    |
| 1214228   | H1252010-203000 | 20   | 32,0 | 1 1/4" | 30        | 56,0    |
| 1200859   | H1252010-041000 | 04   | 6,0  | 1/4"   | 10        | 32,2    |
| 1200815   | H1252010-081800 | 08   | 13,0 | 1/2"   | 18        | 36,0    |
| 1200856   | H1252010-030800 | 03   | 5,0  | 3/16"  | 8         | 29,8    |
| 1200878   | H1252010-050800 | 05   | 8,0  | 5/16"  | 8         | 30,3    |
| 1200812   | H1252010-081500 | 08   | 13,0 | 1/2"   | 15        | 32,1    |
| 1200813   | H1252010-081600 | 08   | 13,0 | 1/2"   | 16        | 37,1    |
| 1200838   | H1252010-122000 | 12   | 19,0 | 3/4"   | 20        | 45,5    |
| 1200872   | H1252010-051200 | 05   | 8,0  | 5/16"  | 12        | 32,7    |
| 1201444   | H1252010-203800 | 20   | 32,0 | 1 1/4" | 38        | 62,0    |
| 1200796   | H1252010-061400 | 06   | 10,0 | 3/8"   | 14        | 35,8    |
| 1201445   | H1252010-244200 | 24   | 38,0 | 1 1/2" | 42        | 52,0    |
| 1200793   | H1252010-061000 | 06   | 10,0 | 3/8"   | 10        | 30,3    |
| 1201442   | H1252010-162500 | 16   | 25,0 | 1"     | 25        | 51,4    |
| 1200871   | H1252010-051000 | 05   | 8,0  | 5/16"  | 10        | 30,2    |
| 1200794   | H1252010-061200 | 06   | 10,0 | 3/8"   | 12        | 29,3    |
| 1201443   | H1252010-203500 | 20   | 32,0 | 1 1/4" | 35        | 48,0    |
| 1200832   | H1252010-102200 | 10   | 16,0 | 5/8"   | 22        | 37,2    |
| 1200855   | H1252010-030600 | 03   | 5,0  | 3/16"  | 6         | 27,8    |
| 1200811   | H1252010-081400 | 08   | 13,0 | 1/2"   | 14        | 36,1    |
| 1200797   | H1252010-061500 | 06   | 10,0 | 3/8"   | 15        | 34,8    |
| 1201440   | H1252010-162800 | 16   | 25,0 | 1"     | 28        | 40,4    |
| 1201441   | H1252010-163000 | 16   | 25,0 | 1"     | 30        | 54,4    |
| 1200809   | H1252010-081200 | 08   | 13,0 | 1/2"   | 12        | 32,1    |
| 1203082   | H1252010-243800 | 24   | 38,0 | 1 1/2" | 38        | 62,0    |
| 1200867   | H1252010-040800 | 04   | 6,0  | 1/4"   | 8         | 30,2    |
| 1200829   | H1252010-102000 | 10   | 16,0 | 5/8"   | 20        | 44,2    |
| 1200828   | H1252010-101800 | 10   | 16,0 | 5/8"   | 18        | 34,2    |
| 1200840   | H1252010-122200 | 12   | 19,0 | 3/4"   | 22        | 36,5    |
| 1200860   | H1252010-041200 | 04   | 6,0  | 1/4"   | 12        | 31,2    |
| 1200865   | H1252010-040600 | 04   | 6,0  | 1/4"   | 6         | 28,3    |
| 1200841   | H1252010-122500 | 12   | 19,0 | 3/4"   | 25        | 48,5    |



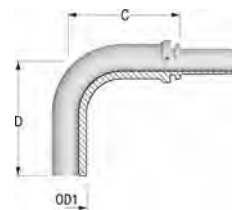
Dimensions shown may be changed without prior notice

**45° Metric Standpipe**  
**RSL 45/RSS 45 - DIN 2353**  
**Solid one piece**



| Item Code | Part Number     | ID   |      |       | OD1 | C     | D Drop |
|-----------|-----------------|------|------|-------|-----|-------|--------|
|           |                 | Dash | mm   | in    |     |       |        |
| 1200801   | H1252040-061200 | 06   | 10,0 | 3/8"  | 12  | 55,5  | 28,0   |
| 1200802   | H1252040-061400 | 06   | 10,0 | 3/8"  | 14  | 53,1  | 28,0   |
| 1200818   | H1252040-081600 | 08   | 13,0 | 1/2"  | 16  | 63,3  | 32,0   |
| 1200817   | H1252040-081500 | 08   | 13,0 | 1/2"  | 15  | 62,6  | 28,5   |
| 1214232   | H1252040-163000 | 16   | 25,0 | 1"    | 30  | 137,0 | 46,1   |
| 1200862   | H1252040-041000 | 04   | 6,0  | 1/4"  | 10  | 48,0  | 24,0   |
| 1200876   | H1252040-051000 | 05   | 8,0  | 5/16" | 10  | 48,4  | 24,0   |
| 1200843   | H1252040-122200 | 12   | 19,0 | 3/4"  | 22  | 74,3  | 37,0   |
| 1200877   | H1252040-051200 | 05   | 8,0  | 5/16" | 12  | 55,4  | 28,0   |
| 1200800   | H1252040-061000 | 06   | 10,0 | 3/8"  | 10  | 48,5  | 24,0   |
| 1200844   | H1252040-122500 | 12   | 19,0 | 3/4"  | 25  | 83,0  | 44,0   |
| 1200863   | H1252040-040600 | 04   | 6,0  | 1/4"  | 6   | 50,1  | 28,0   |
| 1200864   | H1252040-040800 | 04   | 6,0  | 1/4"  | 8   | 43,2  | 23,0   |

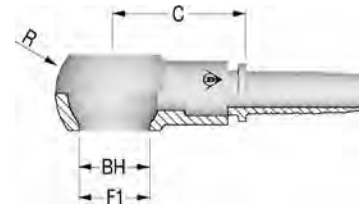
**90° Metric Standpipe**  
**RSL 90/RSS 90 - DIN 2353**  
**Solid one piece**



| Item Code | Part Number     | ID   |      |        | OD1 | C    | D Drop |
|-----------|-----------------|------|------|--------|-----|------|--------|
|           |                 | Dash | mm   | in     |     |      |        |
| 1200880   | H1252090-051200 | 05   | 8,0  | 5/16"  | 12  | 39,4 | 55,0   |
| 1203079   | H1252090-081800 | 08   | 13,0 | 1/2"   | 18  | 58,1 | 59,0   |
| 1200836   | H1252090-102000 | 10   | 16,0 | 5/8"   | 20  | 62,6 | 70,0   |
| 1218454   | H1252090-081200 | 08   | 13,0 | 1/2"   | 12  | 41,1 | 52,0   |
| 1200835   | H1252090-101800 | 10   | 16,0 | 5/8"   | 18  | 52,2 | 58,0   |
| 1200879   | H1252090-051000 | 05   | 8,0  | 5/16"  | 10  | 28,6 | 48,5   |
| 1200857   | H1252090-030600 | 03   | 5,0  | 3/16"  | 6   | 24,5 | 36,0   |
| 1214233   | H1252090-162500 | 16   | 25,0 | 1"     | 25  | 73,1 | 98,5   |
| 1214234   | H1252090-163000 | 16   | 25,0 | 1"     | 30  | 73,1 | 102,5  |
| 1200870   | H1252090-040800 | 04   | 6,0  | 1/4"   | 8   | 25,9 | 44,0   |
| 1202296   | H1252090-041200 | 04   | 6,0  | 1/4"   | 12  | 34,9 | 50,0   |
| 1214235   | H1252090-203500 | 20   | 32,0 | 1 1/4" | 35  | 89,0 | 106,5  |
| 1203081   | H1252090-122000 | 12   | 19,0 | 3/4"   | 20  | 63,4 | 70,0   |
| 1210832   | H1252090-102200 | 10   | 16,0 | 5/8"   | 22  | 49,4 | 64,0   |
| 1200803   | H1252090-061000 | 06   | 10,0 | 3/8"   | 10  | 30,7 | 42,0   |
| 1200869   | H1252090-040600 | 04   | 6,0  | 1/4"   | 6   | 25,4 | 36,0   |
| 1200847   | H1252090-122500 | 12   | 19,0 | 3/4"   | 25  | 63,2 | 85,0   |
| 1200804   | H1252090-061200 | 06   | 10,0 | 3/8"   | 14  | 35,0 | 50,0   |
| 1200823   | H1252090-081600 | 08   | 13,0 | 1/2"   | 16  | 43,7 | 64,0   |
| 1200868   | H1252090-041000 | 04   | 6,0  | 1/4"   | 10  | 37,0 | 42,0   |
| 1200846   | H1252090-122200 | 12   | 19,0 | 3/4"   | 22  | 53,1 | 67,5   |
| 1200805   | H1252090-061400 | 06   | 10,0 | 3/8"   | 14  | 37,0 | 50,0   |
| 1202886   | H1252090-162800 | 16   | 25,0 | 1"     | 28  | 73,1 | 89,5   |
| 1200822   | H1252090-081500 | 08   | 13,0 | 1/2"   | 15  | 44,7 | 57,0   |

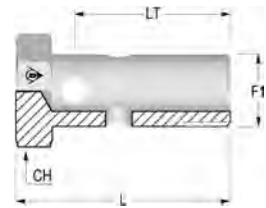
Dimensions shown may be changed without prior notice

## Metric Banjo RNM



| Item Code | Part Number     | ID   |      |       | F1      | C    | BH    | R  |
|-----------|-----------------|------|------|-------|---------|------|-------|----|
|           |                 | Dash | mm   | in    |         | mm   | mm    | mm |
| 1200470   | H1230910-041400 | 04   | 6,0  | 1/4"  | M14X1.5 | 27,5 | 14,00 | 24 |
| 1203083   | H1230910-163000 | 16   | 25,0 | 1"    | M30X1.5 | 42,5 | 30,00 | 54 |
| 1200309   | H1230910-061400 | 06   | 10,0 | 3/8"  | M14X1.5 | 27,5 | 14,00 | 24 |
| 1200515   | H1230910-051600 | 05   | 8,0  | 5/16" | M16X1.5 | 30,5 | 16,00 | 28 |
| 1200516   | H1230910-051800 | 05   | 8,0  | 5/16" | M18X1.5 | 28,5 | 18,00 | 32 |
| 1200311   | H1230910-061800 | 06   | 10,0 | 3/8"  | M18X1.5 | 31,5 | 18,00 | 32 |
| 1202577   | H1230910-031000 | 03   | 5,0  | 3/16" | M10X1.0 | 24,0 | 10,00 | 17 |
| 1200389   | H1230910-102200 | 10   | 16,0 | 5/8"  | M22X1.5 | 35,0 | 22,00 | 39 |
| 1200422   | H1230910-122600 | 12   | 19,0 | 3/4"  | M26X1.5 | 38,5 | 26,00 | 46 |
| 1200310   | H1230910-061600 | 06   | 10,0 | 3/8"  | M16X1.5 | 30,5 | 16,00 | 28 |
| 1200469   | H1230910-041200 | 04   | 6,0  | 1/4"  | M12X1.5 | 28,5 | 12,00 | 20 |
| 1200513   | H1230910-051200 | 05   | 8,0  | 5/16" | M12X1.5 | 28,5 | 12,00 | 24 |
| 1200514   | H1230910-051400 | 05   | 8,0  | 5/16" | M14X1.5 | 27,5 | 14,00 | 24 |
| 1200346   | H1230910-081800 | 08   | 13,0 | 1/2"  | M18X1.5 | 32,0 | 18,00 | 32 |
| 1200468   | H1230910-041000 | 04   | 6,0  | 1/4"  | M10X1.0 | 25,0 | 10,00 | 17 |
| 1200347   | H1230910-082200 | 08   | 13,0 | 1/2"  | M22X1.5 | 35,0 | 22,00 | 39 |

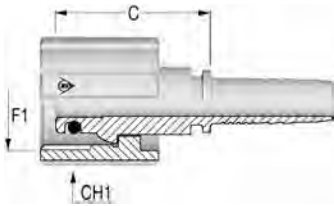
## Metric Bolt



| Item Code | Part Number     | ID   | F1      | LT   | L    | CH   |
|-----------|-----------------|------|---------|------|------|------|
|           |                 | Dash |         | mm   | mm   | mm   |
| 1210405   | H10V0810-300000 | 30   | M30X1.5 | 51,0 | 62,0 | 38,0 |
| 1210406   | H10V0810-260000 | 26   | M26X1.5 | 42,0 | 52,0 | 32,0 |
| 1210371   | H10V0810-220000 | 22   | M22X1.5 | 41,0 | 48,0 | 27,0 |
| 1210384   | H10V0810-160000 | 16   | M16X1.5 | 34,0 | 41,0 | 22,0 |
| 1210374   | H10V0810-100000 | 10   | M10X1.0 | 19,0 | 24,0 | 14,0 |
| 1210375   | H10V0810-120000 | 12   | M12X1.5 | 24,0 | 29,0 | 17,0 |
| 1210368   | H10V0810-140000 | 14   | M14X1.5 | 28,0 | 34,0 | 19,0 |
| 1210369   | H10V0810-180000 | 18   | M18X1.5 | 37,0 | 44,0 | 24,0 |

// PRESSURE WASHER

Universal Female for Pressure Washer

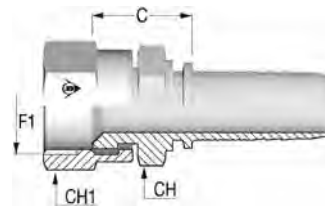


| Item Code | Part Number     | Nut Type | ID   |      |       | F1        | F1      | C    | CH1  |
|-----------|-----------------|----------|------|------|-------|-----------|---------|------|------|
|           |                 |          | Dash | mm   | in    | Dash Size |         | mm   | mm   |
| 1203351   | H1224914-052200 | TN       | 05   | 8,0  | 5/16" | 22        | M22X1.5 | 36,8 | 35,0 |
| 1203350   | H1224914-042200 | TN       | 04   | 6,0  | 1/4"  | 22        | M22X1.5 | 36,8 | 35,0 |
| 1203352   | H1224914-062200 | TN       | 06   | 10,0 | 3/8"  | 22        | M22X1.5 | 36,8 | 35,0 |

Dimensions shown may be changed without prior notice

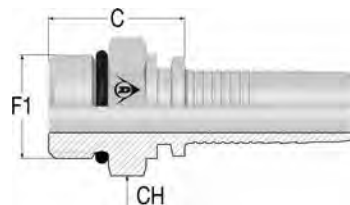
## // SAE INSERTS

### SAE Female Swivel 45° Seat



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |           | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|-----------|------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1        |      |      |      |
| 1202371   | H1226611-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 1 1/16-14 | 28,6 | 27,0 | 32,0 |
| 1226098   | H1226611-081000 | CR       | 08   | 13,0 | 1/2" | 10        | 7/8-14    | 26,6 | 22,0 | 27,0 |
| 1202661   | H1226611-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 5/8-18    | 23,3 | 19,0 | 22,0 |

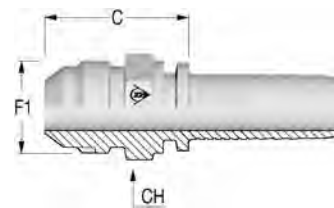
### SAE Male Solid O-Ring Boss



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |           | C    | CH   |
|-----------|-----------------|----------|------|------|------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1        |      |      |
| 1200381   | H1213010-081200 | NA       | 08   | 13,0 | 1/2" | 12        | 1 1/16-12 | 32,1 | 32,0 |
| 1203146   | H1213010-121000 | NA       | 12   | 19,0 | 3/4" | 10        | 7/8-14    | 28,1 | 27,0 |
| 1200382   | H1213010-080800 | NA       | 08   | 13,0 | 1/2" | 08        | 3/4-16    | 25,1 | 22,0 |
| 1200383   | H1213010-081000 | NA       | 08   | 13,0 | 1/2" | 10        | 7/8-14    | 27,6 | 27,0 |
| 1202519   | H1213010-040600 | NA       | 04   | 6,0  | 1/4" | 06        | 9/16-18   | 22,3 | 17,0 |
| 1201836   | H1213010-161600 | NA       | 16   | 25,0 | 1"   | 16        | 1 5/16-12 | 35,4 | 38,0 |
| 1221652   | H1213010-101000 | NA       | 10   | 16,0 | 5/8" | 10        | 7/8-14    | 27,6 | 24,0 |
| 1203147   | H1213010-040400 | NA       | 04   | 6,0  | 1/4" | 04        | 7/16-20   | 20,3 | 14,0 |
| 1201833   | H1213010-040500 | NA       | 04   | 6,0  | 1/4" | 05        | 1/2-20    | 21,3 | 16,0 |
| 1200337   | H1213010-060800 | NA       | 06   | 10,0 | 3/8" | 08        | 3/4-16    | 24,3 | 22,0 |
| 1201834   | H1213010-060600 | NA       | 06   | 10,0 | 3/8" | 06        | 9/16-18   | 23,3 | 19,0 |
| 1200338   | H1213010-061000 | NA       | 06   | 10,0 | 3/8" | 10        | 7/8-14    | 26,8 | 27,0 |
| 1200445   | H1213010-121200 | NA       | 12   | 19,0 | 3/4" | 12        | 1 1/16-12 | 32,6 | 32,0 |

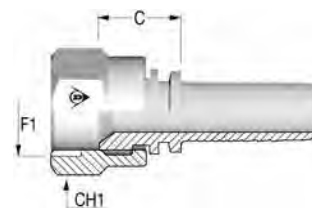


## // JIC 37° INSERTS

**JIC Male 37° Cone  
AGJ**

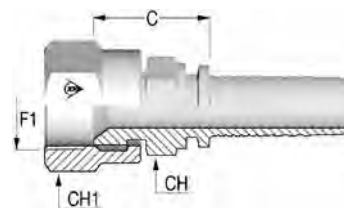
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           |      |      |
| 1201785   | H1212510-202400 | NA       | 20   | 32,0 | 1 1/4" | 24        | 1 7/8-12  | 52,5 | 50,0 |
| 1200411   | H1212510-101200 | NA       | 10   | 16,0 | 5/8"   | 12        | 1 1/16-12 | 37,1 | 27,0 |
| 1200499   | H1212510-040500 | NA       | 04   | 6,0  | 1/4"   | 05        | 1/2-20    | 25,3 | 14,0 |
| 1200375   | H1212510-080800 | NA       | 08   | 13,0 | 1/2"   | 08        | 3/4-16    | 30,6 | 19,0 |
| 1200331   | H1212510-061000 | NA       | 06   | 10,0 | 3/8"   | 10        | 7/8-14    | 33,8 | 24,0 |
| 1200376   | H1212510-081000 | NA       | 08   | 13,0 | 1/2"   | 10        | 7/8-14    | 34,6 | 24,0 |
| 1200332   | H1212510-060600 | NA       | 06   | 10,0 | 3/8"   | 06        | 9/16-18   | 26,3 | 17,0 |
| 1200535   | H1212510-050600 | NA       | 05   | 8,0  | 5/16"  | 06        | 9/16-18   | 26,3 | 17,0 |
| 1222989   | H1212510-161200 | NA       | 16   | 25,0 | 1"     | 12        | 1 1/16-12 | 40,4 | 32,0 |
| 1200457   | H1212510-030400 | NA       | 03   | 5,0  | 3/16"  | 04        | 7/16-20   | 23,8 | 12,0 |
| 1200534   | H1212510-050500 | NA       | 05   | 8,0  | 5/16"  | 05        | 1/2-20    | 25,3 | 14,0 |
| 1200413   | H1212510-101000 | NA       | 10   | 16,0 | 5/8"   | 10        | 7/8-14    | 34,6 | 24,0 |
| 1201381   | H1212510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 48,5 | 46,0 |
| 1201382   | H1212510-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 52,5 | 50,0 |
| 1201380   | H1212510-162000 | NA       | 16   | 25,0 | 1"     | 20        | 1 5/8-12  | 46,9 | 46,0 |
| 1200330   | H1212510-060800 | NA       | 06   | 10,0 | 3/8"   | 08        | 3/4-16    | 29,8 | 19,0 |
| 1200374   | H1212510-081200 | NA       | 08   | 13,0 | 1/2"   | 12        | 1 1/16-12 | 37,1 | 27,0 |
| 1201383   | H1212510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2 1/2-12  | 62,0 | 65,0 |
| 1201087   | H1212510-050800 | NA       | 05   | 8,0  | 5/16"  | 08        | 3/4-16    | 29,8 | 19,0 |
| 1200443   | H1212510-121600 | NA       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 42,6 | 36,0 |
| 1201379   | H1212510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 43,4 | 36,0 |
| 1200441   | H1212510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 37,6 | 27,0 |
| 1200442   | H1212510-121400 | NA       | 12   | 19,0 | 3/4"   | 14        | 1 3/16-12 | 40,1 | 32,0 |
| 1200500   | H1212510-040400 | NA       | 04   | 6,0  | 1/4"   | 04        | 7/16-20   | 25,3 | 12,0 |
| 1200501   | H1212510-040600 | NA       | 04   | 6,0  | 1/4"   | 06        | 9/16-18   | 26,3 | 17,0 |

Dimensions shown may be changed without prior notice

**JIC Female 37° Seat  
DKJ**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           | mm   | mm   |
| 1201097   | H1222512-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 29,4 | 55,0 |
| 1201400   | H1222511-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 23,9 | 38,0 |
| 1200751   | H1222511-101000 | CR       | 10   | 16,0 | 5/8"   | 10        | 7/8-14    | 19,6 | 27,0 |
| 1201841   | H1222511-121000 | CR       | 12   | 19,0 | 3/4"   | 10        | 7/8-14    | 20,1 | 27,0 |
| 1200774   | H1222511-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 20,6 | 32,0 |
| 1201401   | H1222512-162000 | TN       | 16   | 25,0 | 1"     | 20        | 1 5/8-12  | 26,5 | 50,0 |
| 1200656   | H1222511-050600 | CR       | 05   | 8,0  | 5/16"  | 06        | 9/16-18   | 15,3 | 19,0 |
| 1201404   | H1222512-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2 1/2-12  | 32,0 | -    |
| 1200775   | H1222511-121400 | CR       | 12   | 19,0 | 3/4"   | 14        | 1 3/16-12 | 19,9 | 36,0 |
| 1201402   | H1222512-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 28,1 | 50,0 |
| 1200655   | H1222511-050500 | CR       | 05   | 8,0  | 5/16"  | 05        | 1/2-20    | 15,3 | 17,0 |
| 1200776   | H1222511-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 22,1 | 38,0 |
| 1201403   | H1222512-202400 | TN       | 20   | 32,0 | 1 1/4" | 24        | 1 7/8-12  | 30,4 | 55,0 |
| 1200690   | H1222511-061000 | CR       | 06   | 10,0 | 3/8"   | 10        | 7/8-14    | 20,3 | 27,0 |
| 1200691   | H1222511-060600 | CR       | 06   | 10,0 | 3/8"   | 06        | 9/16-18   | 15,3 | 19,0 |
| 1200749   | H1222511-101200 | CR       | 10   | 16,0 | 5/8"   | 12        | 1 1/16-12 | 20,1 | 32,0 |
| 1200625   | H1222511-040400 | CR       | 04   | 6,0  | 1/4"   | 04        | 7/16-20   | 14,6 | 16,0 |
| 1200626   | H1222511-040600 | CR       | 04   | 6,0  | 1/4"   | 06        | 9/16-18   | 15,3 | 19,0 |
| 1200725   | H1222511-081000 | CR       | 08   | 13,0 | 1/2"   | 10        | 7/8-14    | 19,6 | 27,0 |
| 1202820   | H1222511-201600 | CR       | 20   | 32,0 | 1 1/4" | 16        | 1 5/16-12 | 26,5 | 38,0 |
| 1201399   | H1222511-161200 | CR       | 16   | 25,0 | 1"     | 12        | 1 1/16-12 | 22,4 | 32,0 |
| 1200623   | H1222511-040500 | CR       | 04   | 6,0  | 1/4"   | 05        | 1/2-20    | 15,3 | 17,0 |
| 1200722   | H1222511-081200 | CR       | 08   | 13,0 | 1/2"   | 12        | 1 1/16-12 | 22,1 | 32,0 |
| 1200723   | H1222511-080800 | CR       | 08   | 13,0 | 1/2"   | 08        | 3/4-16    | 18,6 | 25,0 |
| 1200687   | H1222511-060800 | CR       | 06   | 10,0 | 3/8"   | 08        | 3/4-16    | 17,8 | 25,0 |
| 1200600   | H1222511-030400 | CR       | 03   | 5,0  | 3/16"  | 04        | 7/16-20   | 14,3 | 16,0 |

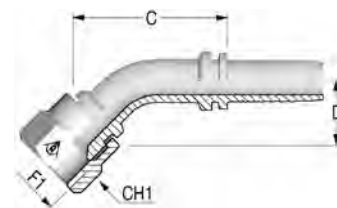
## JIC Female 37° Seat with Stem Hexagon DKJ



| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1        | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|--------|----|-----------|------|------|------|
|           |                 |          | Dash | mm   | in     |    |           |      |      |      |
| 1202483   | H1226512-202000 | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 5/8-12  | 39,1 | 41,0 | 50,0 |
| 1203090   | H1226511-080600 | CR       | 08   | 13,0 | 1/2"   | 06 | 9/16-18   | 23,1 | 19,0 | 19,0 |
| 1226093   | H1226512-202400 | TN       | 20   | 32,0 | 1 1/4" | 24 | 1 7/8-12  | 43,4 | 50,0 | 55,0 |
| 1201728   | H1226511-101000 | CR       | 10   | 16,0 | 5/8"   | 10 | 7/8-14    | 27,6 | 24,0 | 27,0 |
| 1201464   | H1226511-101200 | CR       | 10   | 16,0 | 5/8"   | 12 | 1 1/16-12 | 28,1 | 25,0 | 32,0 |
| 1202895   | H1226511-121000 | CR       | 12   | 19,0 | 3/4"   | 10 | 7/8-14    | 28,1 | 27,0 | 27,0 |
| 1203246   | H1226511-060400 | CR       | 06   | 10,0 | 3/8"   | 04 | 7/16-20   | 20,6 | 17,0 | 16,0 |
| 1203329   | H1226511-100800 | CR       | 10   | 16,0 | 5/8"   | 08 | 3/4-16    | 26,6 | 24,0 | 25,0 |
| 1200599   | H1226511-030400 | CR       | 03   | 5,0  | 3/16"  | 04 | 7/16-20   | 18,1 | 12,0 | 16,0 |
| 1210833   | H1226511-081200 | CR       | 08   | 13,0 | 1/2"   | 12 | 1 1/16-12 | 28,1 | 25,0 | 32,0 |
| 1201264   | H1226511-050600 | CR       | 05   | 8,0  | 5/16"  | 06 | 9/16-18   | 20,3 | 14,0 | 19,0 |
| 1203089   | H1226511-121600 | CR       | 12   | 19,0 | 3/4"   | 16 | 1 5/16-12 | 32,1 | 32,0 | 38,0 |
| 1203243   | H1226511-141600 | CR       | 14   | 22,0 | 7/8"   | 16 | 1 5/16-12 | 32,1 | 32,0 | 38,0 |
| 1201340   | H1226511-061000 | CR       | 06   | 10,0 | 3/8"   | 10 | 7/8-14    | 25,8 | 22,0 | 27,0 |
| 1203088   | H1226511-161200 | CR       | 16   | 25,0 | 1"     | 12 | 1 1/16-12 | 31,4 | 32,0 | 32,0 |
| 1216812   | H1226511-201600 | CR       | 20   | 32,0 | 1 1/4" | 16 | 1 5/16-12 | 37,5 | 41,0 | 38,0 |
| 1214219   | H1226511-121400 | CR       | 12   | 19,0 | 3/4"   | 14 | 1 3/16-12 | 29,9 | 32,0 | 36,0 |
| 1216816   | H1226512-323200 | TN       | 32   | 51,0 | 2"     | 32 | 2 1/2-12  | 49,0 | 65,0 | 70,0 |
| 1216815   | H1226512-242400 | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 7/8-12  | 43,4 | 50,0 | 55,0 |
| 1216814   | H1226512-222400 | TN       | -    | 35,0 | 1 3/8" | 24 | 1 7/8-12  | 43,4 | 50,0 | 55,0 |
| 1216813   | H1226512-182000 | TN       | -    | 29,0 | 1 1/8" | 20 | 1 5/8-12  | 37,5 | 41,0 | 50,0 |
| 1202408   | H1226511-161600 | CR       | 16   | 25,0 | 1"     | 16 | 1 5/16-12 | 32,9 | 32,0 | 38,0 |
| 1223146   | H1226511-060500 | CR       | 06   | 10,0 | 3/8"   | 05 | 1/2-20    | 21,3 | 16,0 | 17,0 |
| 1214220   | H1226512-162000 | TN       | 16   | 25,0 | 1"     | 20 | 1 5/8-12  | 37,5 | 41,0 | 50,0 |
| 1200685   | H1226511-060800 | CR       | 06   | 10,0 | 3/8"   | 08 | 3/4-16    | 24,8 | 19,0 | 25,0 |
| 1200686   | H1226511-060600 | CR       | 06   | 10,0 | 3/8"   | 06 | 9/16-18   | 21,3 | 17,0 | 19,0 |
| 1201497   | H1226511-050500 | CR       | 05   | 8,0  | 5/16"  | 05 | 1/2-20    | 20,3 | 14,0 | 17,0 |
| 1201333   | H1226511-121200 | CR       | 12   | 19,0 | 3/4"   | 12 | 1 1/16-12 | 28,6 | 27,0 | 32,0 |
| 1202406   | H1226511-040500 | CR       | 04   | 6,0  | 1/4"   | 05 | 1/2-20    | 20,3 | 14,0 | 17,0 |
| 1200621   | H1226511-040400 | CR       | 04   | 6,0  | 1/4"   | 04 | 7/16-20   | 19,6 | 14,0 | 16,0 |
| 1200720   | H1226511-080800 | CR       | 08   | 13,0 | 1/2"   | 08 | 3/4-16    | 25,6 | 19,0 | 25,0 |
| 1200622   | H1226511-040600 | CR       | 04   | 6,0  | 1/4"   | 06 | 9/16-18   | 20,3 | 14,0 | 19,0 |
| 1200721   | H1226511-081000 | CR       | 08   | 13,0 | 1/2"   | 10 | 7/8-14    | 26,6 | 22,0 | 27,0 |

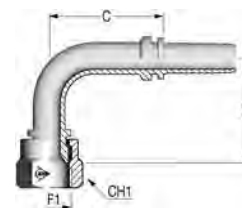
Dimensions shown may be changed without prior notice

**45° JIC Female 37° Seat - Medium Drop**  
**DKJ 45M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1<br>Dash Size | F1        | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|-----------------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |                 |           |         |              |           |
| 1202791   | H1222541-06080M | CR       | 06   | 10,0 | 3/8"   | 08              | 3/4-16    | 47,2    | 15,0         | 25,0      |
| 1202828   | H1222541-08080M | CR       | 08   | 13,0 | 1/2"   | 08              | 3/4-16    | 51,6    | 15,0         | 25,0      |
| 1202839   | H1222542-24240M | TN       | 24   | 38,0 | 1 1/2" | 24              | 1 7/8-12  | 112,7   | 43,0         | 55,0      |
| 1202827   | H1222541-06060M | CR       | 06   | 10,0 | 3/8"   | 06              | 9/16-18   | 46,3    | 11,0         | 19,0      |
| 1202826   | H1222541-05060M | CR       | 05   | 8,0  | 5/16"  | 06              | 9/16-18   | 42,8    | 12,0         | 19,0      |
| 1202837   | H1222542-20200M | TN       | 20   | 32,0 | 1 1/4" | 20              | 1 5/8-12  | 97,1    | 37,0         | 50,0      |
| 1202825   | H1222541-05050M | CR       | 05   | 8,0  | 5/16"  | 05              | 1/2-20    | 39,8    | 12,0         | 17,0      |
| 1202836   | H1222542-16200M | TN       | 16   | 25,0 | 1"     | 20              | 1 5/8-12  | 83,8    | 37,0         | 50,0      |
| 1202829   | H1222541-08100M | CR       | 08   | 13,0 | 1/2"   | 10              | 7/8-14    | 50,7    | 16,0         | 27,0      |
| 1202831   | H1222541-10120M | CR       | 10   | 16,0 | 5/8"   | 12              | 1 1/16-12 | 68,6    | 21,0         | 32,0      |
| 1202830   | H1222541-08120M | CR       | 08   | 13,0 | 1/2"   | 12              | 1 1/16-12 | 57,0    | 21,0         | 32,0      |
| 1202840   | H1222542-32320M | TN       | 32   | 51,0 | 2"     | 32              | 2 1/2-12  | 159,9   | 67,0         | 70,0      |
| 1202824   | H1222541-04060M | CR       | 04   | 6,0  | 1/4"   | 06              | 9/16-18   | 39,4    | 11,0         | 19,0      |
| 1202835   | H1222541-16160M | CR       | 16   | 25,0 | 1"     | 16              | 1 5/16-12 | 79,4    | 24,0         | 38,0      |
| 1202823   | H1222541-04050M | CR       | 04   | 6,0  | 1/4"   | 05              | 1/2-20    | 37,2    | 12,0         | 17,0      |
| 1200778   | H1222541-121400 | CR       | 12   | 19,0 | 3/4"   | 14              | 1 3/16-12 | 67,6    | 23,0         | 36,0      |
| 1202834   | H1222541-12160M | CR       | 12   | 19,0 | 3/4"   | 16              | 1 5/16-12 | 71,4    | 26,0         | 38,0      |
| 1202822   | H1222541-04040M | CR       | 04   | 6,0  | 1/4"   | 04              | 7/16-20   | 36,6    | 10,0         | 16,0      |
| 1202833   | H1222541-12120M | CR       | 12   | 19,0 | 3/4"   | 12              | 1 1/16-12 | 67,5    | 21,0         | 32,0      |
| 1202821   | H1222541-03040M | CR       | 03   | 5,0  | 3/16"  | 04              | 7/16-20   | 37,1    | 10,0         | 16,0      |
| 1202832   | H1222541-10100M | CR       | 10   | 16,0 | 5/8"   | 10              | 7/8-14    | 62,2    | 19,0         | 27,0      |

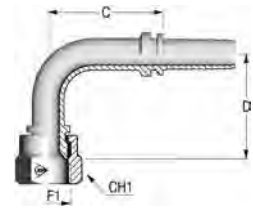
**90° JIC Female 37° Seat - Short Drop**  
**DKJ 90S**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |       | F1<br>Dash Size | F1        | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|-------|-----------------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in    |                 |           |         |              |           |
| 1203032   | H1222591-06060S | CR       | 06   | 10,0 | 3/8"  | 06              | 9/16-18   | 42,3    | 25,0         | 19,0      |
| 1202772   | H1222591-04040S | CR       | 04   | 6,0  | 1/4"  | 04              | 7/16-20   | 27,0    | 21,0         | 16,0      |
| 1200780   | H1222591-12140S | CR       | 12   | 19,0 | 3/4"  | 14              | 1 3/16-12 | 49,6    | 52,5         | 36,0      |
| 1203036   | H1222591-16160S | CR       | 16   | 25,0 | 1"    | 16              | 1 5/16-12 | 74,0    | 56,0         | 38,0      |
| 1203035   | H1222591-1010BS | CR       | 10   | 16,0 | 5/8"  | 10              | 7/8-14    | 36,5    | 32,0         | 27,0      |
| 1203034   | H1222591-08080S | CR       | 08   | 13,0 | 1/2"  | 08              | 3/4-16    | 46,4    | 29,0         | 25,0      |
| 1203033   | H1222591-06080S | CR       | 06   | 10,0 | 3/8"  | 08              | 3/4-16    | 48,8    | 29,0         | 25,0      |
| 1216771   | H1222591-06050S | CR       | 06   | 10,0 | 3/8"  | 05              | 1/2-20    | 33,3    | 25,0         | 17,0      |
| 1202815   | H1222591-08100S | CR       | 08   | 13,0 | 1/2"  | 10              | 7/8-14    | 45,8    | 32,0         | 27,0      |
| 1202841   | H1222591-03040S | CR       | 03   | 5,0  | 3/16" | 04              | 7/16-20   | 26,7    | 21,0         | 16,0      |
| 1203116   | H1222591-05060S | CR       | 05   | 8,0  | 5/16" | 06              | 9/16-18   | 42,7    | 23,0         | 19,0      |
| 1202846   | H1222591-12160S | CR       | 12   | 19,0 | 3/4"  | 16              | 1 5/16-12 | 53,6    | 53,0         | 38,0      |
| 1202845   | H1222591-12120S | CR       | 12   | 19,0 | 3/4"  | 12              | 1 1/16-12 | 58,2    | 46,0         | 32,0      |
| 1202745   | H1222591-10120S | CR       | 10   | 16,0 | 5/8"  | 12              | 1 1/16-12 | 47,9    | 48,0         | 32,0      |
| 1203118   | H1222591-04050S | CR       | 04   | 6,0  | 1/4"  | 05              | 1/2-20    | 26,5    | 23,5         | 17,0      |
| 1202788   | H1222591-04060S | CR       | 04   | 6,0  | 1/4"  | 06              | 9/16-18   | 31,0    | 23,0         | 19,0      |
| 1202744   | H1222591-08120S | CR       | 08   | 13,0 | 1/2"  | 12              | 1 1/16-12 | 37,3    | 46,0         | 32,0      |

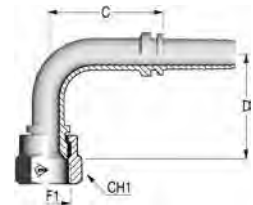
Dimensions shown may be changed without prior notice

**90° JIC Female 37° Seat - Medium Drop**  
**DKJ 90M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1        | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|-----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |           |       |        |      |
| 1202794   | H1222591-05050M | CR       | 05   | 8,0  | 5/16"  | 05 | 1/2-20    | 34,2  | 32,0   | 17,0 |
| 1202793   | H1222591-04060M | CR       | 04   | 6,0  | 1/4"   | 06 | 9/16-18   | 28,5  | 38,0   | 19,0 |
| 1200693   | H1222591-06100M | CR       | 06   | 10,0 | 3/8"   | 10 | 7/8-14    | 44,6  | 47,0   | 27,0 |
| 1202792   | H1222591-03040M | CR       | 03   | 5,0  | 3/16"  | 04 | 7/16-20   | 33,5  | 32,0   | 16,0 |
| 1216778   | H1222591-10120M | CR       | 10   | 16,0 | 5/8"   | 12 | 1 1/16-12 | 47,9  | 58,0   | 32,0 |
| 1202739   | H1222591-04040M | CR       | 04   | 6,0  | 1/4"   | 04 | 7/16-20   | 34,2  | 32,0   | 16,0 |
| 1202849   | H1222592-20200M | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 5/8-12  | 82,4  | 78,0   | 50,0 |
| 1216780   | H1222591-12160M | CR       | 12   | 19,0 | 3/4"   | 16 | 1 5/16-12 | 52,6  | 72,0   | 38,0 |
| 1202848   | H1222592-16200M | TN       | 16   | 25,0 | 1"     | 20 | 1 5/8-12  | 72,6  | 78,0   | 50,0 |
| 1202847   | H1222591-16160M | CR       | 16   | 25,0 | 1"     | 16 | 1 5/16-12 | 72,6  | 71,5   | 38,0 |
| 1202732   | H1222591-06080M | CR       | 06   | 10,0 | 3/8"   | 08 | 3/4-16    | 39,5  | 41,0   | 25,0 |
| 1202743   | H1222591-08080M | CR       | 08   | 13,0 | 1/2"   | 08 | 3/4-16    | 37,2  | 40,0   | 25,0 |
| 1202731   | H1222591-05060M | CR       | 05   | 8,0  | 5/16"  | 06 | 9/16-18   | 33,2  | 35,0   | 19,0 |
| 1202742   | H1222591-06060M | CR       | 06   | 10,0 | 3/8"   | 06 | 9/16-18   | 31,3  | 35,0   | 19,0 |
| 1202852   | H1222592-32320M | TN       | 32   | 51,0 | 2"     | 32 | 2 1/2-12  | 129,5 | 140,0  | 70,0 |
| 1202741   | H1222591-08100M | CR       | 08   | 13,0 | 1/2"   | 10 | 7/8-14    | 43,3  | 47,0   | 27,0 |
| 1202851   | H1222592-24240M | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 7/8-12  | 95,3  | 92,0   | 55,0 |
| 1202740   | H1222591-04050M | CR       | 04   | 6,0  | 1/4"   | 05 | 1/2-20    | 25,7  | 30,0   | 17,0 |
| 1202850   | H1222592-20240M | TN       | 20   | 32,0 | 1 1/4" | 24 | 1 7/8-12  | 87,3  | 82,0   | 55,0 |
| 1202746   | H1222591-12120M | CR       | 12   | 19,0 | 3/4"   | 12 | 1 1/16-12 | 52,4  | 54,0   | 32,0 |
| 1202844   | H1222591-10100M | CR       | 10   | 16,0 | 5/8"   | 10 | 7/8-14    | 49,4  | 48,0   | 27,0 |

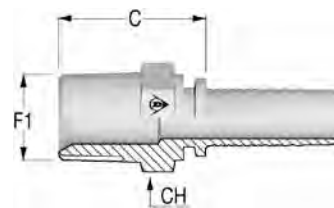
**90° JIC Female 37° Seat - Long Drop**  
**DKJ 90L**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |      | F1 | F1        | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|----|-----------|------|--------|------|
|           |                 |          | Dash | mm   | in   |    |           |      |        |      |
| 1203131   | H1222591-04040L | CR       | 04   | 6,0  | 1/4" | 04 | 7/16-20   | 30,8 | 46,0   | 16,0 |
| 1203112   | H1222591-12120L | CR       | 12   | 19,0 | 3/4" | 12 | 1 1/16-12 | 54,1 | 95,0   | 32,0 |
| 1203111   | H1222591-16160L | CR       | 16   | 25,0 | 1"   | 16 | 1 5/16-12 | 78,6 | 114,0  | 38,0 |
| 1214215   | H1222591-04050L | CR       | 04   | 6,0  | 1/4" | 05 | 1/2-20    | 31,3 | 45,0   | 17,0 |
| 1202842   | H1222591-06080L | CR       | 06   | 10,0 | 3/8" | 08 | 3/4-16    | 46,8 | 64,0   | 25,0 |
| 1214216   | H1222591-08080L | CR       | 08   | 13,0 | 1/2" | 08 | 3/4-16    | 49,9 | 64,0   | 25,0 |
| 1203115   | H1222591-06060L | CR       | 06   | 10,0 | 3/8" | 06 | 9/16-18   | 43,3 | 54,0   | 19,0 |
| 1203114   | H1222591-10100L | CR       | 10   | 16,0 | 5/8" | 10 | 7/8-14    | 49,9 | 65,0   | 27,0 |
| 1202843   | H1222591-08100L | CR       | 08   | 13,0 | 1/2" | 10 | 7/8-14    | 37,3 | 65,0   | 27,0 |

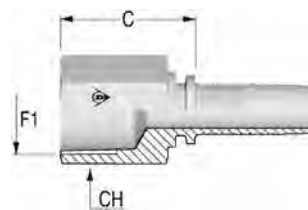


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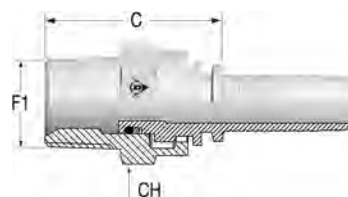
**NPTF Male 60° Seat  
AGN**

| Item Code | Part Number     | Nut Type | ID   |      |          | F1        | F1           | C    | CH   |
|-----------|-----------------|----------|------|------|----------|-----------|--------------|------|------|
|           |                 |          | Dash | mm   | in       | Dash Size |              | mm   | mm   |
| 1201370   | H1212810-323200 | NA       | 32   | 51,0 | 2"       | 32        | 2-11 1/2     | 54,2 | 65,0 |
| 1202282   | H1212810-161200 | NA       | 16   | 25,0 | 1"       | 12        | 3/4-14       | 39,4 | 36,0 |
| 1203150   | H1212810-040800 | NA       | 04   | 6,0  | 1/4"     | 08        | 1/2-14       | 31,3 | 22,0 |
| 1228235   | H121281P-040400 | NA       | 04   | 6,0  | 1/4"     | 04        | 1/4-18       | 26,8 | 14,3 |
| 1216610   | H1212810-141600 | NA       | 14   | 22,0 | 7/8"     | 16        | 1-11 1/2     | 43,6 | 36,0 |
| 1201367   | H1212810-162000 | NA       | 16   | 25,0 | 1"       | 20        | 1 1/4-11 1/2 | 47,4 | 46,0 |
| 1203149   | H1212810-120800 | NA       | 12   | 19,0 | 3/4"     | 08        | 1/2-14       | 33,6 | 27,0 |
| 1201368   | H1212810-202000 | NA       | 20   | 32,0 | 1 1/4"   | 20        | 1 1/4-11 1/2 | 49,0 | 46,0 |
| 1201366   | H1212810-161600 | NA       | 16   | 25,0 | 1"       | 16        | 1-11 1/2     | 44,4 | 36,0 |
| 1200511   | H1212810-050400 | NA       | 05   | 8,0  | 5/16"    | 04        | 1/4-18       | 26,8 | 17,0 |
| 1201369   | H1212810-242400 | NA       | 24   | 38,0 | 1 1/2"   | 24        | 1 1/2-11 1/2 | 50,5 | 50,0 |
| 1200512   | H1212810-050600 | NA       | 05   | 8,0  | 5/16"    | 06        | 3/8-18       | 27,8 | 19,0 |
| 1216613   | H1212810-293200 | NA       | 29   | 46,0 | 1 13/16" | 32        | 2-11 1/2     | 54,2 | 65,0 |
| 1216612   | H1212810-222400 | NA       | -    | 35,0 | 1 3/8"   | 24        | 1 1/2-11 1/2 | 50,5 | 50,0 |
| 1200308   | H1212810-060600 | NA       | 06   | 10,0 | 3/8"     | 06        | 3/8-18       | 27,8 | 19,0 |
| 1200306   | H1212810-060800 | NA       | 06   | 10,0 | 3/8"     | 08        | 1/2-14       | 31,3 | 22,0 |
| 1200307   | H1212810-060400 | NA       | 06   | 10,0 | 3/8"     | 04        | 1/4-18       | 26,8 | 17,0 |
| 1200421   | H1212810-121200 | NA       | 12   | 19,0 | 3/4"     | 12        | 3/4-14       | 34,6 | 27,0 |
| 1200388   | H1212810-101200 | NA       | 10   | 16,0 | 5/8"     | 12        | 3/4-14       | 34,1 | 27,0 |
| 1200344   | H1212810-081200 | NA       | 08   | 13,0 | 1/2"     | 12        | 3/4-14       | 34,1 | 27,0 |
| 1200345   | H1212810-080600 | NA       | 08   | 13,0 | 1/2"     | 06        | 3/8-18       | 28,6 | 19,0 |
| 1200466   | H1212810-040200 | NA       | 04   | 6,0  | 1/4"     | 02        | 1/8-27       | 21,3 | 14,0 |
| 1200420   | H1212810-121600 | NA       | 12   | 19,0 | 3/4"     | 16        | 1-11 1/2     | 43,6 | 36,0 |
| 1200387   | H1212810-100800 | NA       | 10   | 16,0 | 5/8"     | 08        | 1/2-14       | 33,1 | 24,0 |
| 1200343   | H1212810-080800 | NA       | 08   | 13,0 | 1/2"     | 08        | 1/2-14       | 32,1 | 22,0 |
| 1200448   | H1212810-030200 | NA       | 03   | 5,0  | 3/16"    | 02        | 1/8-27       | 20,8 | 12,0 |
| 1200467   | H1212810-040600 | NA       | 04   | 6,0  | 1/4"     | 06        | 3/8-18       | 27,8 | 19,0 |

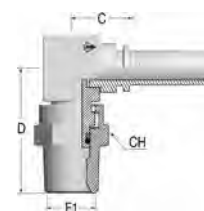
Dimensions shown may be changed without prior notice

**NPTF Female Solid**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1 | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|------|----|----------|------|------|
|           |                 |          | Dash | mm   | in   |    |          |      |      |
| 1216797   | H1222810-161600 | NA       | 16   | 25,0 | 1"   | 16 | 1-11 1/2 | 44,9 | 38,0 |
| 1216796   | H1222810-121200 | NA       | 12   | 19,0 | 3/4" | 12 | 3/4-14   | 38,1 | 32,0 |
| 1216795   | H1222810-080800 | NA       | 08   | 13,0 | 1/2" | 08 | 1/2-14   | 35,6 | 25,0 |
| 1216794   | H1222810-040200 | NA       | 04   | 6,0  | 1/4" | 02 | 1/8-27   | 22,3 | 14,0 |
| 1200464   | H1222810-040400 | NA       | 04   | 6,0  | 1/4" | 04 | 1/4-18   | 27,8 | 19,0 |

**NPTF Male Swivel 60° Seat**

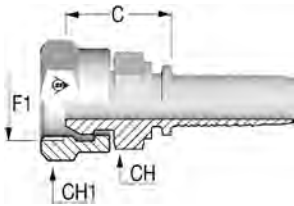
| Item Code | Part Number     | Nut Type | ID   |      |      | F1 | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|------|----|----------|------|------|
|           |                 |          | Dash | mm   | in   |    |          |      |      |
| 1214186   | H1212811-060600 | CR       | 06   | 10,0 | 3/8" | 06 | 3/8-18   | 37,5 | 22,0 |
| 1216619   | H1212811-080600 | CR       | 08   | 13,0 | 1/2" | 06 | 3/8-18   | 38,3 | 22,0 |
| 1216621   | H1212811-161600 | CR       | 16   | 25,0 | 1"   | 16 | 1-11 1/2 | 57,9 | 41,0 |
| 1216620   | H1212811-121200 | CR       | 12   | 19,0 | 3/4" | 12 | 3/4-14   | 50,1 | 32,0 |
| 1214187   | H1212811-080800 | CR       | 08   | 13,0 | 1/2" | 08 | 1/2-14   | 42,3 | 25,0 |
| 1216614   | H1212811-040400 | CR       | 04   | 6,0  | 1/4" | 04 | 1/4-18   | 37,6 | 17,0 |
| 1216617   | H1212811-060800 | CR       | 06   | 10,0 | 3/8" | 08 | 1/2-14   | 43,5 | 25,0 |
| 1216616   | H1212811-060400 | CR       | 06   | 10,0 | 3/8" | 04 | 1/4-18   | 39,6 | 17,0 |
| 1216615   | H1212811-040600 | CR       | 04   | 6,0  | 1/4" | 06 | 3/8-18   | 39,5 | 22,0 |

**90° Compact NPTF Male Swivel 60° Seat**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1 | F1     | C    | D Drop | CH   |
|-----------|-----------------|----------|------|------|------|----|--------|------|--------|------|
|           |                 |          | Dash | mm   | in   |    |        |      |        |      |
| 1225918   | H1212881-040400 | CR       | 04   | 6,0  | 1/4" | 04 | 1/4-18 | 17,0 | 39,0   | 17,0 |
| 1225920   | H1212881-060600 | CR       | 06   | 10,0 | 3/8" | 06 | 3/8-18 | 20,0 | 41,0   | 22,0 |
| 1225921   | H1212881-080800 | CR       | 08   | 13,0 | 1/2" | 08 | 1/2-14 | 23,0 | 48,0   | 25,0 |
| 1225922   | H1212881-121200 | CR       | 12   | 19,0 | 3/4" | 12 | 3/4-14 | 27,0 | 61,0   | 32,0 |

// NPSM INSERTS

NPSM Female

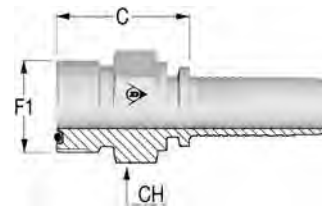


| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |          | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|----------|------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1       |      |      |      |
| 1202084   | H1227311-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14   | 26,6 | 22,0 | 27,0 |
| 1216834   | H1227311-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 3/8-18   | 24,8 | 19,0 | 22,0 |
| 1203280   | H1227311-040400 | CR       | 04   | 6,0  | 1/4" | 04        | 1/4-18   | 24,3 | 17,0 | 19,0 |
| 1216836   | H1227311-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1-11 1/2 | 35,4 | 36,0 | 38,0 |
| 1216835   | H1227311-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14   | 28,6 | 30,0 | 32,0 |

Dimensions shown may be changed without prior notice

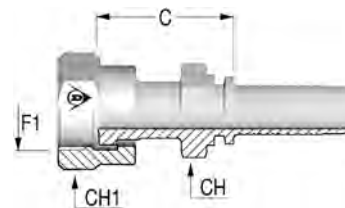
## // ORFS INSERTS

### ORFS Male



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1         | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|------------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |            |      |      |
| 1202493   | H1212410-081200 | NA       | 08   | 13,0 | 1/2"   | 12        | 1 3/16-12  | 34,1 | 32,0 |
| 1202492   | H1212410-080800 | NA       | 08   | 13,0 | 1/2"   | 08        | 13/16-16   | 27,1 | 22,0 |
| 1202491   | H1212410-060800 | NA       | 06   | 10,0 | 3/8"   | 08        | 13/16-16   | 26,3 | 22,0 |
| 1202490   | H1212410-060600 | NA       | 06   | 10,0 | 3/8"   | 06        | 11/16-16   | 24,3 | 19,0 |
| 1202497   | H1212410-121600 | NA       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 38,1 | 41,0 |
| 1202892   | H1212410-101000 | NA       | 10   | 16,0 | 5/8"   | 10        | 1-14       | 30,6 | 27,0 |
| 1202496   | H1212410-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 34,6 | 32,0 |
| 1202055   | H1212410-061000 | NA       | 06   | 10,0 | 3/8"   | 10        | 1-14       | 29,8 | 27,0 |
| 1202495   | H1212410-121000 | NA       | 12   | 19,0 | 3/4"   | 10        | 1-14       | 31,1 | 27,0 |
| 1202054   | H1212410-081000 | NA       | 08   | 13,0 | 1/2"   | 10        | 1-14       | 30,6 | 27,0 |
| 1202494   | H1212410-101200 | NA       | 10   | 16,0 | 5/8"   | 12        | 1 3/16-12  | 34,1 | 32,0 |
| 1214185   | H1212410-050600 | NA       | 05   | 8,0  | 5/16"  | 06        | 11/16-16   | 24,3 | 19,0 |
| 1202489   | H1212410-040600 | NA       | 04   | 6,0  | 1/4"   | 06        | 11/16-16   | 24,3 | 19,0 |
| 1202500   | H1212410-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 41,5 | 46,0 |
| 1202488   | H1212410-040400 | NA       | 04   | 6,0  | 1/4"   | 04        | 9/16-18    | 22,3 | 17,0 |
| 1202499   | H1212410-162000 | NA       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 39,9 | 46,0 |
| 1202498   | H1212410-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 37,9 | 38,0 |

## ORFS Female with Stem Hexagon



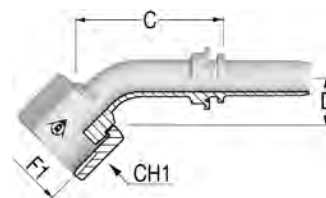
| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|------|------|------|
|           |                 |          | Dash | mm   | in     |    |            |      |      |      |
| 1203053   | H1222411-081200 | CR       | 08   | 13,0 | 1/2"   | 12 | 1 3/16-12  | 42,1 | 30,0 | 36,0 |
| 1202563   | H1222411-080600 | CR       | 08   | 13,0 | 1/2"   | 06 | 11/16-16   | 32,1 | 19,0 | 22,0 |
| 1202046   | H1222411-242400 | CR       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 56,5 | 50,0 | 60,0 |
| 1203056   | H1222411-162000 | CR       | 16   | 25,0 | 1"     | 20 | 1 11/16-12 | 50,4 | 41,0 | 50,0 |
| 1202560   | H1222411-121200 | CR       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 42,6 | 30,0 | 36,0 |
| 1201741   | H1222411-050600 | CR       | 05   | 8,0  | 5/16"  | 06 | 11/16-16   | 30,3 | 17,0 | 22,0 |
| 1201586   | H1222411-040400 | CR       | 04   | 6,0  | 1/4"   | 04 | 9/16-18    | 27,3 | 14,0 | 17,0 |
| 1201446   | H1222411-161600 | CR       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 49,4 | 36,0 | 41,0 |
| 1202612   | H1222411-101000 | CR       | 10   | 16,0 | 5/8"   | 10 | 1-14       | 39,6 | 24,0 | 30,0 |
| 1201447   | H1222411-202000 | CR       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 52,0 | 41,0 | 50,0 |
| 1202053   | H1222411-121600 | CR       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 48,6 | 36,0 | 41,0 |
| 1203142   | H1222411-161200 | CR       | 16   | 25,0 | 1"     | 12 | 1 3/16-12  | 45,4 | 32,0 | 36,0 |
| 1202052   | H1222411-081000 | CR       | 08   | 13,0 | 1/2"   | 10 | 1-14       | 39,6 | 24,0 | 30,0 |
| 1201782   | H1222411-121000 | CR       | 12   | 19,0 | 3/4"   | 10 | 1-14       | 40,1 | 27,0 | 30,0 |
| 1203143   | H1222411-040800 | CR       | 04   | 6,0  | 1/4"   | 08 | 13/16-16   | 35,3 | 22,0 | 24,0 |
| 1203220   | H1222411-030400 | CR       | 03   | 5,0  | 3/16"  | 04 | 9/16-18    | 26,8 | 14,0 | 17,0 |
| 1203061   | H1222411-100800 | CR       | 10   | 16,0 | 5/8"   | 08 | 13/16-16   | 37,1 | 24,0 | 24,0 |
| 1201815   | H1222411-101200 | CR       | 10   | 16,0 | 5/8"   | 12 | 1 3/16-12  | 42,1 | 30,0 | 36,0 |
| 1202369   | H1222411-060600 | CR       | 06   | 10,0 | 3/8"   | 06 | 11/16-16   | 30,3 | 17,0 | 22,0 |
| 1226017   | H1222411-202400 | CR       | 20   | 32,0 | 1 1/4" | 24 | 2-12       | 56,5 | 50,0 | 60,0 |
| 1203237   | H1222411-060400 | CR       | 06   | 10,0 | 3/8"   | 04 | 9/16-18    | 28,3 | 17,0 | 17,0 |
| 1201855   | H1222411-040600 | CR       | 04   | 6,0  | 1/4"   | 06 | 11/16-16   | 30,3 | 17,0 | 22,0 |
| 1201338   | H1222411-080800 | CR       | 08   | 13,0 | 1/2"   | 08 | 13/16-16   | 36,1 | 22,0 | 24,0 |
| 1201339   | H1222411-060800 | CR       | 06   | 10,0 | 3/8"   | 08 | 13/16-16   | 35,3 | 22,0 | 24,0 |

Dimensions shown may be changed without prior notice

### 45° ORFS Female - Medium Drop

#### DK ORFS 45M

Solid one piece

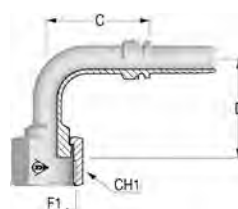


| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |            |       |        |      |
| 1203141   | H1222443-16200M | SN       | 16   | 25,0 | 1"     | 20 | 1 11/16-12 | 85,4  | 26,0   | 50,0 |
| 1202871   | H1222443-05060M | SN       | 05   | 8,0  | 5/16"  | 06 | 11/16-16   | 46,3  | 12,0   | 22,0 |
| 1202771   | H1222443-08100M | SN       | 08   | 13,0 | 1/2"   | 10 | 1-14       | 50,4  | 16,5   | 30,0 |
| 1203060   | H1222441-12100M | CR       | 12   | 19,0 | 3/4"   | 10 | 1-14       | 51,4  | 24,0   | 30,0 |
| 1202915   | H1222443-12160M | SN       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 70,7  | 24,0   | 41,0 |
| 1202819   | H1222443-10100M | SN       | 10   | 16,0 | 5/8"   | 10 | 1-14       | 57,7  | 17,0   | 30,0 |
| 1202776   | H1222443-06060M | SN       | 06   | 10,0 | 3/8"   | 06 | 11/16-16   | 47,4  | 12,0   | 22,0 |
| 1202853   | H1222443-10120M | SN       | 10   | 16,0 | 5/8"   | 12 | 1 3/16-12  | 63,1  | 21,0   | 36,0 |
| 1202775   | H1222443-04060M | SN       | 04   | 6,0  | 1/4"   | 06 | 11/16-16   | 46,1  | 11,0   | 22,0 |
| 1202797   | H1222443-16160M | SN       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 82,4  | 26,0   | 41,0 |
| 1202874   | H1222443-24240M | SN       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 104,4 | 28,0   | 60,0 |
| 1202774   | H1222443-04040M | SN       | 04   | 6,0  | 1/4"   | 04 | 9/16-18    | 41,1  | 11,0   | 17,0 |
| 1202873   | H1222443-20200M | SN       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 97,4  | 26,0   | 50,0 |
| 1202872   | H1222443-12120M | SN       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 63,5  | 21,0   | 36,0 |
| 1202777   | H1222443-06080M | SN       | 06   | 10,0 | 3/8"   | 08 | 13/16-16   | 51,2  | 15,0   | 24,0 |
| 1202854   | H1222441-08080M | CR       | 08   | 13,0 | 1/2"   | 08 | 13/16-16   | 47,1  | 16,0   | 24,0 |

### 90° ORFS Female - Short Drop

#### DK ORFS 90S

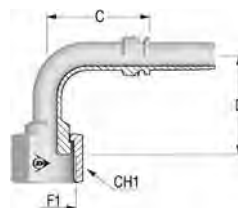
Solid one piece



| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |            |       |        |      |
| 1203054   | H1222493-08100S | SN       | 08   | 13,0 | 1/2"   | 10 | 1-14       | 46,3  | 32,5   | 30,0 |
| 1203392   | H1222491-08060S | CR       | 08   | 13,0 | 1/2"   | 06 | 11/16-16   | 44,1  | 25,0   | 22,0 |
| 1202860   | H1222493-10100S | SN       | 10   | 16,0 | 5/8"   | 10 | 1-14       | 52,3  | 32,5   | 30,0 |
| 1203135   | H1222493-16200S | SN       | 16   | 25,0 | 1"     | 20 | 1 11/16-12 | 82,6  | 64,0   | 50,0 |
| 1203133   | H1222493-20200S | SN       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 95,0  | 68,0   | 50,0 |
| 1203055   | H1222493-12160S | SN       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 61,6  | 56,0   | 41,0 |
| 1214213   | H1222493-24240S | SN       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 103,7 | 78,0   | 60,0 |
| 1202859   | H1222493-06080S | SN       | 06   | 10,0 | 3/8"   | 08 | 13/16-16   | 41,8  | 29,0   | 24,0 |
| 1202858   | H1222493-06060S | SN       | 06   | 10,0 | 3/8"   | 06 | 11/16-16   | 41,8  | 25,0   | 22,0 |
| 1202863   | H1222493-16160S | SN       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 80,0  | 58,0   | 41,0 |
| 1202862   | H1222493-12120S | SN       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 60,6  | 51,0   | 36,0 |
| 1203334   | H1222493-08120S | SN       | 08   | 13,0 | 1/2"   | 12 | 1 3/16-12  | 56,3  | 51,0   | 36,0 |
| 1202861   | H1222493-10120S | SN       | 10   | 16,0 | 5/8"   | 12 | 1 3/16-12  | 55,4  | 49,0   | 36,0 |
| 1202857   | H1222493-05060S | SN       | 05   | 8,0  | 5/16"  | 06 | 11/16-16   | 49,3  | 23,0   | 22,0 |
| 1203209   | H1222491-16120S | CR       | 16   | 25,0 | 1"     | 12 | 1 3/16-12  | 54,6  | 51,0   | 36,0 |
| 1202856   | H1222493-04060S | SN       | 04   | 6,0  | 1/4"   | 06 | 11/16-16   | 32,0  | 23,0   | 22,0 |
| 1202778   | H1222493-04040S | SN       | 04   | 6,0  | 1/4"   | 04 | 9/16-18    | 28,5  | 21,0   | 17,0 |
| 1202855   | H1222491-08080S | CR       | 08   | 13,0 | 1/2"   | 08 | 13/16-16   | 39,8  | 29,0   | 24,0 |

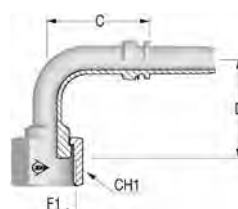


**90° ORFS Female - Medium Drop**  
**DK ORFS 90M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |            |       |        |      |
| 1202783   | H1222493-12120M | SN       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 61,6  | 58,0   | 36,0 |
| 1203069   | H1222493-16200M | SN       | 16   | 25,0 | 1"     | 20 | 1 11/16-12 | 82,6  | 78,0   | 50,0 |
| 1202782   | H1222493-10100M | SN       | 10   | 16,0 | 5/8"   | 10 | 1-14       | 55,4  | 44,0   | 30,0 |
| 1202781   | H1222491-08080M | CR       | 08   | 13,0 | 1/2"   | 08 | 13/16-16   | 34,8  | 42,0   | 24,0 |
| 1202770   | H1222493-08100M | SN       | 08   | 13,0 | 1/2"   | 10 | 1-14       | 48,3  | 47,0   | 30,0 |
| 1202780   | H1222493-06060M | SN       | 06   | 10,0 | 3/8"   | 06 | 11/16-16   | 41,8  | 38,0   | 22,0 |
| 1216748   | H1222491-16120M | CR       | 16   | 25,0 | 1"     | 12 | 1 3/16-12  | 62,6  | 58,0   | 36,0 |
| 1202916   | H1222493-12160M | SN       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 65,6  | 71,0   | 41,0 |
| 1202717   | H1222493-16160M | SN       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 82,6  | 66,0   | 41,0 |
| 1202716   | H1222493-06080M | SN       | 06   | 10,0 | 3/8"   | 08 | 13/16-16   | 43,8  | 41,0   | 24,0 |
| 1202715   | H1222493-04060M | SN       | 04   | 6,0  | 1/4"   | 06 | 11/16-16   | 37,3  | 38,0   | 22,0 |
| 1202875   | H1222493-04040M | SN       | 04   | 6,0  | 1/4"   | 04 | 9/16-18    | 29,8  | 32,0   | 17,0 |
| 1203137   | H1222493-10120M | SN       | 10   | 16,0 | 5/8"   | 12 | 1 3/16-12  | 55,4  | 58,0   | 36,0 |
| 1202779   | H1222493-05060M | SN       | 05   | 8,0  | 5/16"  | 06 | 11/16-16   | 40,7  | 34,0   | 22,0 |
| 1202877   | H1222493-24240M | SN       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 107,8 | 87,0   | 60,0 |
| 1202876   | H1222493-20200M | SN       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 97,0  | 78,0   | 50,0 |

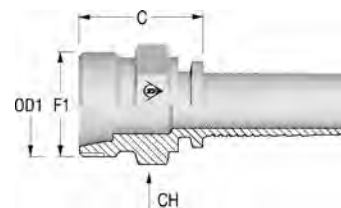
**90° ORFS Female - Long Drop**  
**DK ORFS 90L**  
**Solid one piece**



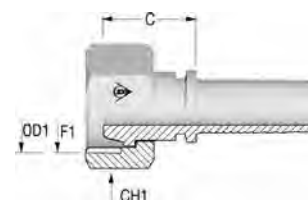
| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |            |       |        |      |
| 1203057   | H1222493-06080L | SN       | 06   | 10,0 | 3/8"   | 08 | 13/16-16   | 46,8  | 64,0   | 24,0 |
| 1203134   | H1222493-20200L | SN       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 97,0  | 129,0  | 50,0 |
| 1214208   | H1222493-08100L | SN       | 08   | 13,0 | 1/2"   | 10 | 1-14       | 46,3  | 70,0   | 30,0 |
| 1210841   | H1222493-04040L | SN       | 04   | 6,0  | 1/4"   | 04 | 9/16-18    | 32,8  | 46,0   | 17,0 |
| 1202919   | H1222493-10120L | SN       | 10   | 16,0 | 5/8"   | 12 | 1 3/16-12  | 55,4  | 96,0   | 36,0 |
| 1214212   | H1222493-24240L | SN       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 110,8 | 141,0  | 60,0 |
| 1202918   | H1222493-10100L | SN       | 10   | 16,0 | 5/8"   | 10 | 1-14       | 55,4  | 70,0   | 30,0 |
| 1203139   | H1222493-04060L | SN       | 04   | 6,0  | 1/4"   | 06 | 11/16-16   | 34,8  | 54,0   | 22,0 |
| 1203138   | H1222493-06060L | SN       | 06   | 10,0 | 3/8"   | 06 | 11/16-16   | 41,8  | 54,0   | 22,0 |
| 1203136   | H1222493-16160L | SN       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 82,6  | 114,0  | 41,0 |
| 1202922   | H1222491-08080L | CR       | 08   | 13,0 | 1/2"   | 08 | 13/16-16   | 38,3  | 64,0   | 24,0 |
| 1202921   | H1222493-12160L | SN       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 61,6  | 118,0  | 41,0 |
| 1202920   | H1222493-12120L | SN       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 61,6  | 96,0   | 36,0 |

Dimensions shown may be changed without prior notice

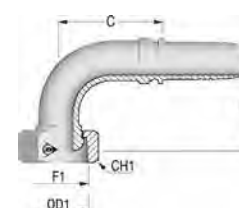
## // FRENCH INSERTS

**Metric Male  
French Type**

| Item Code | Part Number     | Nut Type | ID   |      |       | F1      | OD1<br>mm | C<br>mm | CH<br>mm |
|-----------|-----------------|----------|------|------|-------|---------|-----------|---------|----------|
|           |                 |          | Dash | mm   | in    |         |           |         |          |
| 1200317   | H1211810-062000 | NA       | 06   | 10,0 | 3/8"  | M20X1.5 | 13,25     | 25,3    | 22,0     |
| 1200361   | H1211810-082400 | NA       | 08   | 13,0 | 1/2"  | M24X1.5 | 16,75     | 27,1    | 24,0     |
| 1200404   | H1211810-103000 | NA       | 10   | 16,0 | 5/8"  | M30X1.5 | 21,25     | 31,1    | 30,0     |
| 1200522   | H1211810-052000 | NA       | 05   | 8,0  | 5/16" | M20X1.5 | 13,25     | 17,0    | 22,0     |
| 1200435   | H1211810-123600 | NA       | 12   | 19,0 | 3/4"  | M36X1.5 | 26,75     | 33,6    | 36,0     |

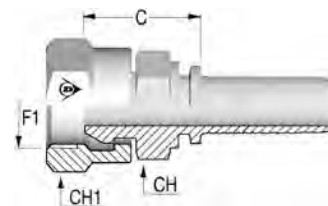
**Metric Female  
French Type**

| Item Code | Part Number     | Nut Type | ID   |      |       | F1      | OD1<br>mm | C<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|-------|---------|-----------|---------|-----------|
|           |                 |          | Dash | mm   | in    |         |           |         |           |
| 1200681   | H1221813-062000 | SN       | 06   | 10,0 | 3/8"  | M20X1.5 | 14        | 23,8    | 24,0      |
| 1200770   | H1221813-123600 | SN       | 12   | 19,0 | 3/4"  | M36X1.5 | 28        | 27,0    | 42,0      |
| 1200717   | H1221813-082400 | SN       | 08   | 13,0 | 1/2"  | M24X1.5 | 16        | 26,8    | 30,0      |
| 1200651   | H1221813-052000 | SN       | 05   | 8,0  | 5/16" | M20X1.5 | 14        | 23,8    | 24,0      |
| 1200744   | H1221813-103000 | SN       | 10   | 16,0 | 5/8"  | M30X1.5 | 22        | 26,6    | 36,0      |

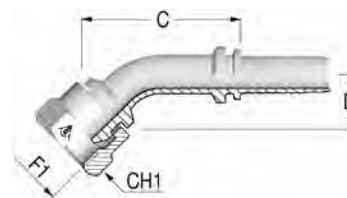
**90° Metric Female  
French type**

| Item Code | Part Number     | Nut Type | ID   |      |       | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|-------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in    |         |           |         |              |           |
| 1200719   | H1221893-082400 | SN       | 08   | 13,0 | 1/2"  | M24X1.5 | 16        | 39,5    | 46,0         | 30,0      |
| 1203156   | H1221893-103000 | SN       | 10   | 16,0 | 5/8"  | M30X1.5 | 22        | 43,0    | 49,0         | 36,0      |
| 1200773   | H1221893-123600 | SN       | 12   | 19,0 | 3/4"  | M36X1.5 | 28        | 46,6    | 48,5         | 42,0      |
| 1200683   | H1221893-062000 | SN       | 06   | 10,0 | 3/8"  | M20X1.5 | 14        | 36,7    | 44,0         | 24,0      |
| 1200654   | H1221893-052000 | SN       | 05   | 8,0  | 5/16" | M20X1.5 | 14        | 32,5    | 36,5         | 24,0      |

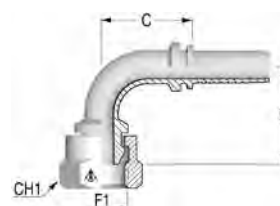
## // JIS INSERTS

**JIS Female 60° Cone - B 8363 (type C)**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |        | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1     |      |      |      |
| 1226069   | H1223711-100800 | CR       | 10   | 16,0 | 5/8" | 08        | 1/2-14 | 27,1 | 24,0 | 27,0 |
| 1226549   | H1223711-101200 | CR       | 10   | 16,0 | 5/8" | 12        | 3/4-14 | 29,6 | 30,0 | 36,0 |
| 1203108   | H1223711-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 26,1 | 22,0 | 27,0 |
| 1203107   | H1223711-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14 | 30,1 | 30,0 | 36,0 |
| 1214218   | H1223711-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1-11   | 34,9 | 36,0 | 41,0 |

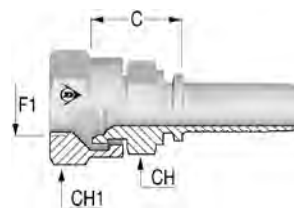
**45° JIS Female 60° Cone - B 8363 (type C)**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |        | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1     |      |        |      |
| 1216801   | H1223741-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14 | 19,9 | 25,0   | 36,0 |
| 1216800   | H1223741-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 27,0 | 22,0   | 27,0 |
| 1216799   | H1223741-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 26,5 | 21,0   | 22,0 |
| 1216798   | H1223741-040400 | CR       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 24,3 | 19,0   | 19,0 |

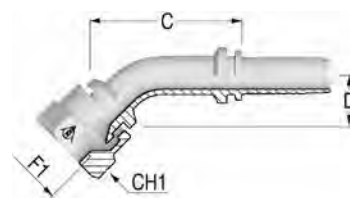
**90° JIS Female 60° Cone - B 8363 (type C)**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |        | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1     |      |        |      |
| 1216806   | H1223791-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 37,3 | 38,5   | 27,0 |
| 1216805   | H1223791-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 32,3 | 36,5   | 22,0 |
| 1216803   | H1223791-040400 | CR       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 25,3 | 33,0   | 19,0 |

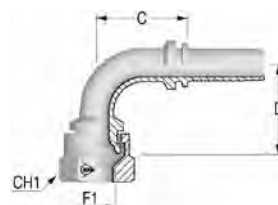
Dimensions shown may be changed without prior notice

**JIS Female 60° Seat Flare - B 8363 (type F)**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   | mm   |
| 1202947   | H122381Z-040400 | CR       | 04   | 6,0  | 1/4"   | 04        | 1/4-19   | 20,8 | 17,0 | 19,0 |
| 1203106   | H122381Z-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 27,1 | 30,0 | 36,0 |
| 1203105   | H122381Z-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1-11     | 32,9 | 36,0 | 41,0 |
| 1201585   | H122381Z-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 39,5 | 46,0 | 50,0 |
| 1202879   | H122381Z-060600 | CR       | 06   | 10,0 | 3/8"   | 06        | 3/8-19   | 21,8 | 19,0 | 22,0 |
| 1202878   | H122381Z-080800 | CR       | 08   | 13,0 | 1/2"   | 08        | 1/2-14   | 23,6 | 22,0 | 27,0 |
| 1201677   | H122381Z-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 41,5 | 50,0 | 55,0 |

**45° JIS Female 60° Seat Flare - B 8363 (type F)**

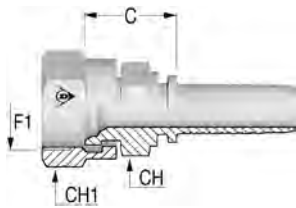
| Item Code | Part Number     | Nut Type | ID   |     |      | F1        | F1     | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|-----|------|-----------|--------|------|--------|------|
|           |                 |          | Dash | mm  | in   | Dash Size |        | mm   | mm     | mm   |
| 1203104   | H122384Z-040400 | CR       | 04   | 6,0 | 1/4" | 04        | 1/4-19 | 42,5 | 15,0   | 19,0 |

**90° JIS Female 60° Seat Flare - B 8363 (type F)**

| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1     | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|--------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |        | mm   | mm     | mm   |
| 1203095   | H122389Z-040400 | CR       | 04   | 6,0  | 1/4" | 04        | 1/4-19 | 27,3 | 29,5   | 19,0 |
| 1203094   | H122389Z-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 3/8-19 | 31,3 | 33,0   | 22,0 |
| 1203093   | H122389Z-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 37,3 | 36,5   | 27,0 |
| 1203092   | H122389Z-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 3/4-14 | 46,1 | 52,0   | 36,0 |
| 1203091   | H122389Z-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1-11   | 77,1 | 64,5   | 41,0 |

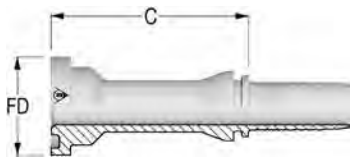
// KOMATSU INSERTS

Komatsu Female



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        |         | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|------|-----------|---------|------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size | F1      |      |      |      |
| 1216808   | H1224011-061400 | CR       | 06   | 10,0 | 3/8" | 14        | M14X1.5 | 20,8 | 17,0 | 19,0 |
| 1202688   | H1224011-082200 | CR       | 08   | 13,0 | 1/2" | 22        | M22X1.5 | 23,6 | 22,0 | 27,0 |
| 1200334   | H1224011-061800 | CR       | 06   | 10,0 | 3/8" | 18        | M18X1.5 | 21,8 | 19,0 | 22,0 |
| 1200444   | H1224011-123000 | CR       | 12   | 19,0 | 3/4" | 30        | M30X1.5 | 27,6 | 30,0 | 36,0 |
| 1201720   | H1224011-163300 | CR       | 16   | 25,0 | 1"   | 33        | M33X1.5 | 35,7 | 36,0 | 41,0 |
| 1200502   | H1224011-041400 | CR       | 04   | 6,0  | 1/4" | 14        | M14X1.5 | 20,8 | 17,0 | 19,0 |
| 1200414   | H1224011-102400 | CR       | 10   | 16,0 | 5/8" | 24        | M24X1.5 | 27,1 | 30,0 | 32,0 |

Komatsu Flange

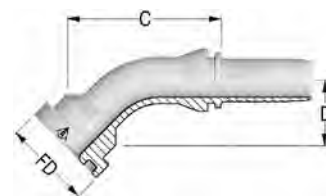


| Item Code | Part Number     | ID   |      |      | Flange    |             | C    | FD   |
|-----------|-----------------|------|------|------|-----------|-------------|------|------|
|           |                 | Dash | mm   | in   | Dash Size | Flange Size |      |      |
| 1201625   | H1244110-101000 | 10   | 16,0 | 5/8" | 10        | 5/8         | 46,7 | 34,0 |

Dimensions shown may be changed without prior notice

### 45° Komatsu Flange

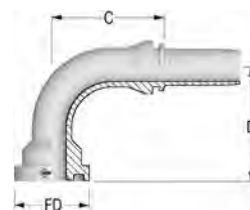
Solid one piece



| Item Code | Part Number     | ID   |      |      | Flange    | Flange Size | FD   | C    | D Drop |
|-----------|-----------------|------|------|------|-----------|-------------|------|------|--------|
|           |                 | Dash | mm   | in   | Dash Size |             |      |      |        |
| 1202066   | H1244140-101000 | 10   | 16,0 | 5/8" | 10        | 5/8         | 34,0 | 49,1 | 25,0   |

### 90° Komatsu Flange

Solid one piece

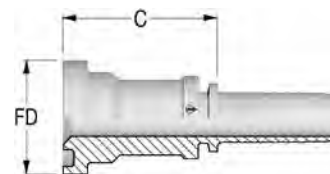


| Item Code | Part Number     | ID   |      |      | Flange    | Flange Size | FD   | C    | D Drop |
|-----------|-----------------|------|------|------|-----------|-------------|------|------|--------|
|           |                 | Dash | mm   | in   | Dash Size |             |      |      |        |
| 1202067   | H1244190-101000 | 10   | 16,0 | 5/8" | 10        | 5/8         | 34,0 | 51,0 | 51,0   |

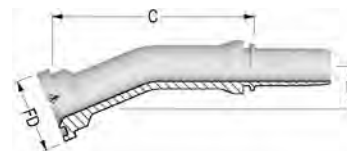


## // SAE FLANGES

## Flange SAE 3000 PSI J518 Code 61 - SFL



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | C    | FD   | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm   | psi  |
| 1202074   | H1243310-324000 | 32   | 51,0 | 2"     | 40        | 2 1/2       | 83,0 | 84,1 | 2500 |
| 1203063   | H1243310-404000 | 40   | 63,0 | 2 1/2" | 40        | 2 1/2       | 86,5 | 84,1 | 2500 |
| 1202750   | H1243310-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 50,5 | 44,5 | 5000 |
| 1226113   | H1243310-403200 | 40   | 63,0 | 2 1/2" | 32        | 2           | 86,5 | 71,4 | 3000 |
| 1201408   | H1243310-161600 | 16   | 25,0 | 1"     | 16        | 1           | 51,4 | 44,5 | 5000 |
| 1201409   | H1243310-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 53,9 | 50,8 | 4000 |
| 1221654   | H1243310-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 53,0 | 44,5 | 5000 |
| 1221662   | H1243310-322400 | 32   | 51,0 | 2"     | 24        | 1 1/2       | 66,0 | 60,3 | 3000 |
| 1201411   | H1243310-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 58,5 | 60,3 | 3000 |
| 1201412   | H1243310-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 58,5 | 60,3 | 3000 |
| 1202763   | H1243310-081200 | 08   | 13,0 | 1/2"   | 12        | 3/4         | 42,0 | 38,1 | 5000 |
| 1201410   | H1243310-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 55,5 | 50,8 | 4000 |
| 1202747   | H1243310-080800 | 08   | 13,0 | 1/2"   | 08        | 1/2         | 41,0 | 30,2 | 5000 |
| 1201734   | H1243310-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 42,5 | 38,1 | 5000 |
| 1202801   | H1243310-101200 | 10   | 16,0 | 5/8"   | 12        | 3/4         | 42,2 | 38,1 | 5000 |
| 1201413   | H1243310-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 70,0 | 71,4 | 3000 |
| 1201414   | H1243310-323200 | 32   | 51,0 | 2"     | 32        | 2           | 70,0 | 71,4 | 3000 |

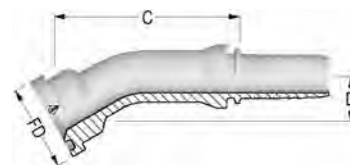
22° Flange SAE 3000 PSI J518 Code 61 - SFL 22  
Solid one piece

| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   | mm   | mm    | mm     | psi  |
| 1216856   | H1243320-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 50,8 | 113,6 | 16,0   | 4000 |
| 1216854   | H1243320-161600 | 16   | 25,0 | 1"     | 16        | 1      | 44,5 | 92,7  | 12,0   | 5000 |
| 1216859   | H1243320-323200 | 32   | 51,0 | 2"     | 32        | 2      | 71,4 | 153,0 | 30,0   | 3000 |
| 1216858   | H1243320-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 60,3 | 131,0 | 22,0   | 3000 |
| 1216857   | H1243320-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 60,3 | 114,7 | 20,5   | 3000 |

Dimensions shown may be changed without prior notice

### 30° Flange SAE 3000 PSI J518 Code 61 - SFL 30

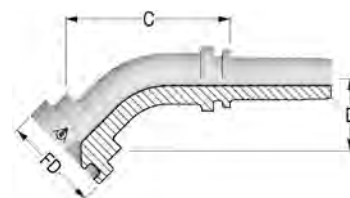
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |       |        |      |
| 1216863   | H1243330-161600 | 16   | 25,0 | 1"     | 16        | 1      | 44,5 | 89,8  | 12,0   | 5000 |
| 1216862   | H1243330-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 44,5 | 83,8  | 12,0   | 5000 |
| 1216861   | H1243330-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 38,1 | 80,8  | 12,0   | 5000 |
| 1216867   | H1243330-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 60,3 | 111,9 | 13,0   | 3000 |
| 1216866   | H1243330-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 50,8 | 102,4 | 12,0   | 4000 |
| 1216864   | H1243330-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 50,8 | 90,0  | 12,0   | 4000 |
| 1216869   | H1243330-243200 | 24   | 38,0 | 1 1/2" | 32        | 2      | 71,4 | 147,0 | 29,5   | 3000 |
| 1216868   | H1243330-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 60,3 | 128,6 | 23,0   | 3000 |

### 45° Flange SAE 3000 PSI J518 Code 61 - SFL 45

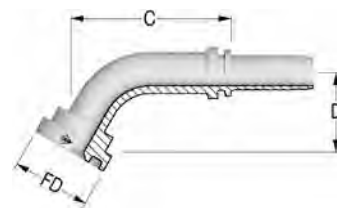
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |       |        |      |
| 1202681   | H1243340-161600 | 16   | 25,0 | 1"     | 16        | 1      | 44,5 | 82,7  | 33,5   | 5000 |
| 1201848   | H1243340-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 50,8 | 95,1  | 37,5   | 4000 |
| 1202748   | H1243340-080800 | 08   | 13,0 | 1/2"   | 08        | 1/2    | 30,2 | 52,9  | 22,0   | 5000 |
| 1216874   | H1243340-4040SL | 40   | 63,0 | 2 1/2" | 40        | 2 1/2  | 84,1 | 139,0 | 53,0   | 2500 |
| 1214223   | H1243340-122000 | 12   | 19,0 | 3/4"   | 20        | 1 1/4  | 50,8 | 81,5  | 30,0   | 5000 |
| 1216873   | H1243340-242000 | 24   | 38,0 | 1 1/2" | 20        | 1 1/4  | 50,8 | 144,9 | 49,5   | 4000 |
| 1216872   | H1243340-201600 | 20   | 32,0 | 1 1/4" | 16        | 1      | 44,5 | 114,6 | 35,1   | 5000 |
| 1202677   | H1243340-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 60,3 | 104,1 | 40,0   | 3000 |
| 1202754   | H1243340-243200 | 24   | 38,0 | 1 1/2" | 32        | 2      | 71,4 | 135,6 | 55,5   | 3000 |
| 1202753   | H1243340-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 60,3 | 116,7 | 48,0   | 3000 |
| 1202752   | H1243340-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 44,5 | 77,9  | 29,0   | 5000 |
| 1202751   | H1243340-081200 | 08   | 13,0 | 1/2"   | 12        | 3/4    | 38,1 | 60,3  | 26,0   | 5000 |
| 1201982   | H1243340-323200 | 32   | 51,0 | 2"     | 32        | 2      | 71,4 | 140,8 | 47,5   | 3000 |
| 1201845   | H1243340-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 50,8 | 82,2  | 36,0   | 4000 |
| 1202678   | H1243340-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 38,1 | 73,7  | 32,0   | 5000 |

### 60° Flange SAE 3000 PSI J518 Code 61 - SFL 60

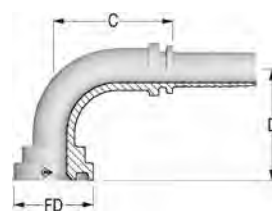
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |      |       |        |      |
| 1216881   | H1243360-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 106,6 | 43,5   | 4000 |
| 1216880   | H1243360-161600 | 16   | 25,0 | 1"     | 16        | 1           | 44,5 | 101,0 | 47,0   | 5000 |
| 1202882   | H1243360-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 151,5 | 57,0   | 3000 |
| 1216884   | H1243360-323200 | 32   | 51,0 | 2"     | 32        | 2           | 71,4 | 173,0 | 92,0   | 3000 |
| 1216882   | H1243360-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 129,5 | 56,5   | 4000 |
| 1216878   | H1243360-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 38,1 | 85,7  | 37,0   | 5000 |

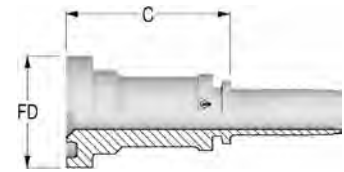
### 90° Flange SAE 3000 PSI J518 Code 61 - SFL 90

Solid one piece

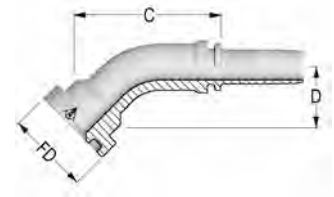


| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |      |       |        |      |
| 1202680   | H1243390-161600 | 16   | 25,0 | 1"     | 16        | 1           | 44,5 | 70,6  | 67,0   | 5000 |
| 1203364   | H1243390-4040SL | 40   | 63,0 | 2 1/2" | 40        | 2 1/2       | 84,1 | 137,2 | 125,0  | 2500 |
| 1216898   | H1243390-322400 | 32   | 51,0 | 2"     | 24        | 1 1/2       | 60,3 | 132,8 | 133,0  | 3000 |
| 1202806   | H1243390-242000 | 24   | 38,0 | 1 1/2" | 20        | 1 1/4       | 50,8 | 93,6  | 93,0   | 4000 |
| 1202805   | H1243390-101200 | 10   | 16,0 | 5/8"   | 12        | 3/4         | 38,1 | 49,4  | 51,0   | 5000 |
| 1202749   | H1243390-080800 | 08   | 13,0 | 1/2"   | 08        | 1/2         | 30,2 | 45,8  | 42,0   | 5000 |
| 1201846   | H1243390-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 73,6  | 71,0   | 4000 |
| 1201847   | H1243390-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 88,0  | 84,0   | 4000 |
| 1216894   | H1243390-162400 | 16   | 25,0 | 1"     | 24        | 1 1/2       | 60,3 | 93,1  | 75,0   | 3000 |
| 1201983   | H1243390-323200 | 32   | 51,0 | 2"     | 32        | 2           | 71,4 | 129,3 | 130,0  | 3000 |
| 1202676   | H1243390-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 60,3 | 91,5  | 87,5   | 3000 |
| 1202884   | H1243390-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 44,5 | 94,4  | 65,0   | 5000 |
| 1202883   | H1243390-122000 | 12   | 19,0 | 3/4"   | 20        | 1 1/4       | 50,8 | 69,7  | 60,0   | 4000 |
| 1203169   | H1243390-3240SO | 32   | 51,0 | 2"     | 40        | 2 1/2       | 84,1 | 103,0 | 100,0  | 2500 |
| 1202758   | H1243390-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 71,4 | 104,8 | 115,0  | 3000 |
| 1202757   | H1243390-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 104,8 | 91,0   | 3000 |
| 1202679   | H1243390-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 38,1 | 59,7  | 58,0   | 5000 |
| 1202756   | H1243390-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 44,5 | 66,2  | 64,5   | 5000 |
| 1202755   | H1243390-081200 | 08   | 13,0 | 1/2"   | 12        | 3/4         | 38,1 | 45,3  | 51,0   | 5000 |

Dimensions shown may be changed without prior notice

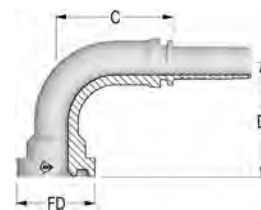
**Flange SAE 6000 PSI J518 Code 62 - SFS**

| Item Code | Part Number     | ID   |      |        | Flange<br>Dash Size | Flange Size | C<br>mm | FD<br>mm | WP<br>psi |
|-----------|-----------------|------|------|--------|---------------------|-------------|---------|----------|-----------|
|           |                 | Dash | mm   | in     |                     |             |         |          |           |
| 1216908   | H1243610-161200 | 16   | 25,0 | 1"     | 12                  | 3/4         | 56,4    | 41,3     | 6000      |
| 1202760   | H1243610-121600 | 12   | 19,0 | 3/4"   | 16                  | 1           | 55,5    | 47,6     | 6000      |
| 1201419   | H1243610-242400 | 24   | 38,0 | 1 1/2" | 24                  | 1 1/2       | 101,0   | 63,5     | 6000      |
| 1201417   | H1243610-202000 | 20   | 32,0 | 1 1/4" | 20                  | 1 1/4       | 83,0    | 54,0     | 6000      |
| 1202759   | H1243610-081200 | 08   | 13,0 | 1/2"   | 12                  | 3/4         | 52,0    | 41,3     | 6000      |
| 1201418   | H1243610-202400 | 20   | 32,0 | 1 1/4" | 24                  | 1 1/2       | 71,0    | 63,5     | 6000      |
| 1202807   | H1243610-101200 | 10   | 16,0 | 5/8"   | 12                  | 3/4         | 52,2    | 41,3     | 6000      |
| 1202511   | H1243610-080800 | 08   | 13,0 | 1/2"   | 08                  | 1/2         | 47,0    | 31,8     | 6000      |
| 1201420   | H1243610-243200 | 24   | 38,0 | 1 1/2" | 32                  | 2           | 76,0    | 79,4     | 6000      |
| 1201421   | H1243610-323200 | 32   | 51,0 | 2"     | 32                  | 2           | 76,0    | 79,4     | 6000      |
| 1201415   | H1243610-161600 | 16   | 25,0 | 1"     | 16                  | 1           | 56,4    | 47,6     | 6000      |
| 1201416   | H1243610-162000 | 16   | 25,0 | 1"     | 20                  | 1 1/4       | 63,4    | 54,0     | 6000      |
| 1202733   | H1243610-121200 | 12   | 19,0 | 3/4"   | 12                  | 3/4         | 52,5    | 41,3     | 6000      |

**45° Flange SAE 6000 PSI J518 Code 62 - SFS 45**  
**Solid one piece**

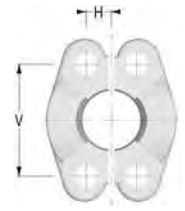
| Item Code | Part Number     | ID   |      |        | Flange<br>Dash Size | Flange Size | FD<br>mm | C<br>mm | D Drop<br>mm | WP<br>psi |
|-----------|-----------------|------|------|--------|---------------------|-------------|----------|---------|--------------|-----------|
|           |                 | Dash | mm   | in     |                     |             |          |         |              |           |
| 1202083   | H1243640-121600 | 12   | 19,0 | 3/4"   | 16                  | 1           | 47,6     | 80,0    | 33,5         | 6000      |
| 1202761   | H1243640-202000 | 20   | 32,0 | 1 1/4" | 20                  | 1 1/4       | 54,0     | 108,6   | 40,0         | 6000      |
| 1202453   | H1243640-242400 | 24   | 38,0 | 1 1/2" | 24                  | 1 1/2       | 63,5     | 122,9   | 45,0         | 6000      |
| 1202452   | H1243640-202400 | 20   | 32,0 | 1 1/4" | 24                  | 1 1/2       | 63,5     | 114,8   | 45,5         | 6000      |
| 1201729   | H1243640-080800 | 08   | 13,0 | 1/2"   | 08                  | 1/2         | 31,8     | 56,5    | 23,0         | 6000      |
| 1202764   | H1243640-081200 | 08   | 13,0 | 1/2"   | 12                  | 3/4         | 41,3     | 79,9    | 30,5         | 6000      |
| 1216910   | H1243640-101200 | 10   | 16,0 | 5/8"   | 12                  | 3/4         | 41,3     | 69,0    | 31,0         | 6000      |
| 1201794   | H1243640-161600 | 16   | 25,0 | 1"     | 16                  | 1           | 47,6     | 96,7    | 36,0         | 6000      |
| 1202082   | H1243640-121200 | 12   | 19,0 | 3/4"   | 12                  | 3/4         | 41,3     | 84,1    | 31,0         | 6000      |
| 1202091   | H1243640-162000 | 16   | 25,0 | 1"     | 20                  | 1 1/4       | 54,0     | 96,1    | 39,0         | 6000      |
| 1202734   | H1243640-323200 | 32   | 51,0 | 2"     | 32                  | 2           | 79,4     | 156,6   | 60,0         | 6000      |

**90° Flange SAE 6000 PSI J518 Code 62 - SFS 90**  
**Solid one piece**

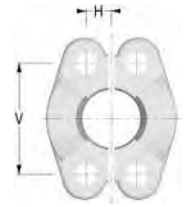


| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |       |        |      |
| 1202075   | H1243690-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 41,3 | 63,2  | 61,0   | 6000 |
| 1216913   | H1243690-161200 | 16   | 25,0 | 1"     | 12        | 3/4    | 41,3 | 72,6  | 61,0   | 6000 |
| 1201739   | H1243690-161600 | 16   | 25,0 | 1"     | 16        | 1      | 47,6 | 73,6  | 75,0   | 6000 |
| 1242230   | C12443690-10080 | 10   | 16,0 | 5/8"   | 08        | 1/2    | 31,8 | 50,0  | 52,0   | 6000 |
| 1202814   | H1243690-101200 | 10   | 16,0 | 5/8"   | 12        | 3/4    | 41,3 | 49,9  | 55,0   | 6000 |
| 1202808   | H1243690-100800 | 10   | 16,0 | 5/8"   | 08        | 1/2    | 31,8 | 50,0  | 52,0   | 6000 |
| 1202257   | H1243690-080800 | 08   | 13,0 | 1/2"   | 08        | 1/2    | 31,8 | 47,8  | 46,0   | 6000 |
| 1201795   | H1243690-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 47,6 | 63,2  | 66,0   | 6000 |
| 1202762   | H1243690-323200 | 32   | 51,0 | 2"     | 32        | 2      | 79,4 | 143,3 | 132,0  | 6000 |
| 1202736   | H1243690-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 63,5 | 99,6  | 105,0  | 6000 |
| 1202769   | H1243690-243200 | 24   | 38,0 | 1 1/2" | 32        | 2      | 79,4 | 116,9 | 123,0  | 6000 |
| 1202735   | H1243690-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 54,0 | 94,5  | 89,0   | 6000 |
| 1202768   | H1243690-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 63,5 | 98,0  | 94,0   | 6000 |
| 1202767   | H1243690-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 54,0 | 77,6  | 78,0   | 6000 |
| 1202766   | H1243690-081200 | 08   | 13,0 | 1/2"   | 12        | 3/4    | 41,3 | 47,8  | 54,0   | 6000 |

Dimensions shown may be changed without prior notice

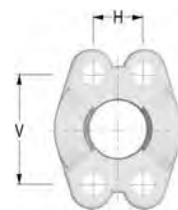
**Split Flange Clamp 3000 PSI J518 Code 61 - FHL**

| Item Code | Part Number     | FD     | V     | H    |
|-----------|-----------------|--------|-------|------|
|           |                 | in     | mm    | mm   |
| 1900455   | H10W3320-320000 | 2"     | 77,8  | 21,4 |
| 1900456   | H10W3320-400000 | 2 1/2" | 89,0  | 25,5 |
| 1900457   | H10W3320-120000 | 3/4"   | 47,6  | 11,1 |
| 1900458   | H10W3320-480000 | 3"     | 106,0 | 31,0 |
| 1900451   | H10W3320-080000 | 1/2"   | 38,1  | 8,7  |
| 1900452   | H10W3320-160000 | 1"     | 52,4  | 13,1 |
| 1901123   | H10W3320-560000 | 3 1/2" | 120,0 | 35,0 |
| 1900453   | H10W3320-240000 | 1 1/2" | 69,9  | 17,9 |
| 1900454   | H10W3320-200000 | 1 1/4" | 58,7  | 15,1 |
| 1900715   | H10W3320-640000 | 4"     | 130,0 | 39,0 |

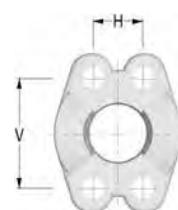
**Split Flange Clamp 6000 PSI J518 Code 62 - FHS**

| Item Code | Part Number     | FD     | V    | H    |
|-----------|-----------------|--------|------|------|
|           |                 | in     | mm   | mm   |
| 1900445   | H10W3620-080000 | 1/2"   | 40,5 | 9,1  |
| 1900446   | H10W3620-160000 | 1"     | 57,2 | 13,9 |
| 1900447   | H10W3620-240000 | 1 1/2" | 79,4 | 18,3 |
| 1900450   | H10W3620-120000 | 3/4"   | 50,8 | 11,9 |
| 1900448   | H10W3620-200000 | 1 1/4" | 66,7 | 15,9 |
| 1900449   | H10W3620-320000 | 2"     | 96,8 | 22,2 |



**4 Hole Flange Clamp 3000 PSI J518 Code 61 - VHL**

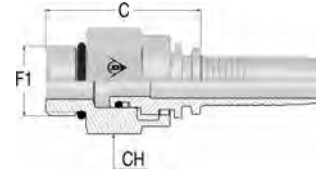
| Item Code | Part Number     | FD     | V    | H    |
|-----------|-----------------|--------|------|------|
|           |                 | in     | mm   | mm   |
| 1900440   | H10W3310-320000 | 2"     | 77,8 | 42,8 |
| 1900442   | H10W3310-120000 | 3/4"   | 47,6 | 22,2 |
| 1900437   | H10W3310-160000 | 1"     | 52,4 | 26,2 |
| 1900438   | H10W3310-240000 | 1 1/2" | 69,9 | 35,8 |
| 1900439   | H10W3310-200000 | 1 1/4" | 58,7 | 30,2 |

**4 Hole Flange Clamp 6000 PSI J518 Code 62 - VHS**

| Item Code | Part Number     | FD     | V     | H    |
|-----------|-----------------|--------|-------|------|
|           |                 | in     | mm    | mm   |
| 1900433   | H10W3610-120000 | 3/4"   | 50,8  | 23,8 |
| 1900430   | H10W3610-240000 | 1 1/2" | 79,4  | 36,6 |
| 1900431   | H10W3610-200000 | 1 1/4" | 66,7  | 31,8 |
| 1900432   | H10W3610-320000 | 2"     | 96,8  | 44,4 |
| 1900910   | H10W3610-400000 | 2 1/2" | 123,8 | 58,7 |
| 1900428   | H10W3610-080000 | 1/2"   | 40,5  | 18,2 |
| 1900429   | H10W3610-160000 | 1"     | 57,2  | 27,8 |

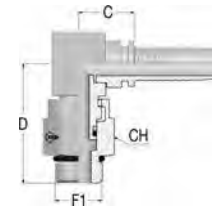
Dimensions shown may be changed without prior notice

## SAE Male Swivel O-Ring Boss



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1        | C    | CH   |
|-----------|-----------------|----------|------|------|------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |           | mm   | mm   |
| 1230553   | H1213011-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 1 1/16-12 | 49,6 | 32,0 |
| 1225927   | H1213011-060600 | CR       | 06   | 10,0 | 3/8" | 06        | 9/16-18   | 40,5 | 22,0 |
| 1225928   | H1213011-060800 | CR       | 06   | 10,0 | 3/8" | 08        | 3/4-16    | 22,0 | 22,0 |
| 1225929   | H1213011-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 3/4-16    | 23,0 | 25,0 |
| 1225930   | H1213011-081000 | CR       | 08   | 13,0 | 1/2" | 10        | 7/8-14    | 23,0 | 25,0 |

## 90° Compact SAE Male Swivel O-Ring Boss



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1        | C    | D Drop | CH   |
|-----------|-----------------|----------|------|------|------|-----------|-----------|------|--------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |           | mm   | mm     | mm   |
| 1240593   | H1213081-161600 | CR       | 16   | 25,0 | 1"   | 16        | 1 5/16-12 | 34,4 | 67,5   | 41,0 |
| 1226492   | H1213081-121200 | CR       | 12   | 19,0 | 3/4" | 12        | 1 1/16-12 | 27,0 | 61,0   | 32,0 |
| 1225933   | H1213081-060800 | CR       | 06   | 10,0 | 3/8" | 08        | 3/4-16    | 22,0 | 44,0   | 25,0 |
| 1225934   | H1213081-080800 | CR       | 08   | 13,0 | 1/2" | 08        | 3/4-16    | 23,0 | 47,0   | 25,0 |
| 1226490   | H1213081-040500 | CR       | 04   | 6,0  | 1/4" | 05        | 1/2-20    | 17,0 | 34,0   | 17,0 |
| 1225935   | H1213081-081000 | CR       | 08   | 13,0 | 1/2" | 10        | 7/8-14    | 23,0 | 49,0   | 25,0 |

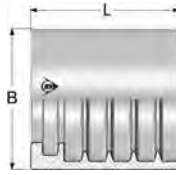


## // NEW POWERTRACK

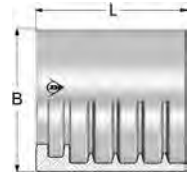
|                            |     |                          |     |
|----------------------------|-----|--------------------------|-----|
| // FERRULES.....           | 99  | // NPTF INSERTS.....     | 106 |
| // BSP INSERTS.....        | 100 | // ORFS INSERTS.....     | 107 |
| // DIN METRIC INSERTS..... | 102 | // SAE FLANGES.....      | 109 |
| // JIC 37° INSERTS.....    | 104 | // SUPERCAT FLANGES..... | 112 |

Dimensions shown may be changed without prior notice

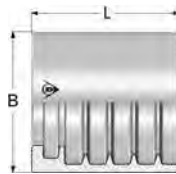
## // FERRULES

**H1300SK4**  
**Multispiral Ferrule for 4**  
**Spiral Hoses**

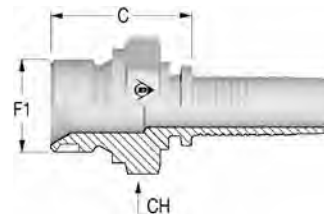
| Item Code | Part Number     | ID   |      |        | B    | L     |
|-----------|-----------------|------|------|--------|------|-------|
|           |                 | Dash | mm   | in     |      |       |
| 1240185   | H1300SK4-120000 | 12   | 19,0 | 3/4"   | 38,0 | 59,0  |
| 1240186   | H1300SK4-160000 | 16   | 25,0 | 1"     | 46,0 | 64,0  |
| 1240187   | H1300SK4-200000 | 20   | 31,0 | 1 1/4" | 56,0 | 91,0  |
| 1240188   | H1300SK4-240000 | 24   | 38,0 | 1 1/2" | 62,0 | 91,0  |
| 1240189   | H1300SK4-320000 | 32   | 51,0 | 2"     | 78,0 | 115,0 |

**H1300NS4**  
**Multispiral No-Skive**  
**Ferrule for 4 Spiral**  
**Hoses**

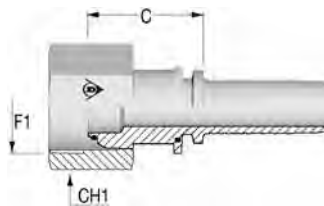
| Item Code | Part Number     | ID   |      |        | B    | L     |
|-----------|-----------------|------|------|--------|------|-------|
|           |                 | Dash | mm   | in     |      |       |
| 1236599   | H1300NS4-120000 | 12   | 19,0 | 3/4"   | 44,0 | 55,0  |
| 1236600   | H1300NS4-160000 | 16   | 25,0 | 1"     | 51,0 | 64,0  |
| 1236601   | H1300NS4-200000 | 20   | 31,0 | 1 1/4" | 61,0 | 99,0  |
| 1236602   | H1300NS4-240000 | 24   | 38,0 | 1 1/2" | 70,0 | 89,5  |
| 1236603   | H1300NS4-320000 | 32   | 51,0 | 2"     | 87,0 | 125,0 |

**H1300NS6**  
**Multispiral No-Skive**  
**Ferrule for 6 Spiral**  
**Hoses**

| Item Code | Part Number     | ID   |      |        | B    | L     |
|-----------|-----------------|------|------|--------|------|-------|
|           |                 | Dash | mm   | in     |      |       |
| 1236604   | H1300NS6-200000 | 20   | 31,0 | 1 1/4" | 65,0 | 99,0  |
| 1236605   | H1300NS6-240000 | 24   | 38,0 | 1 1/2" | 73,0 | 89,5  |
| 1236606   | H1300NS6-320000 | 32   | 51,0 | 2"     | 88,9 | 125,0 |

// **BSP INSERTS****BSPP Male 60° Flare  
AGR**

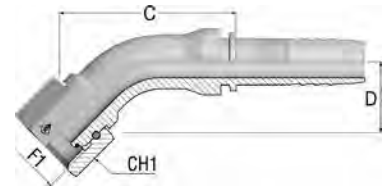
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1226162   | H1310510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1-11     | 44,5 | 41,0 |
| 1230555   | H1310510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 95,5 | 50,0 |
| 1246526   | H3310510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2-11     | 71,5 | 70,0 |
| 1246531   | H3310510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 37,5 | 32,0 |
| 1246545   | H3310510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1-11     | 44,5 | 41,0 |
| 1238090   | H1310510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 37,5 | 32,0 |
| 1241601   | H1310510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2-11     | 71,5 | 70,0 |
| 1246540   | H3310510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 51,0 | 50,0 |
| 1241600   | H1310510-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 56,0 | 55,0 |

**BSPP Female 60° Cone with O-Ring  
DKOR**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1238240   | H1320812-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2-11     | 49,0 | 70,0 |
| 1238241   | H1320812-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 35,0 | 50,0 |
| 1226178   | H1320812-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 25,2 | 32,0 |
| 1226179   | H1320812-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1-11     | 31,0 | 38,0 |
| 1239857   | H1320812-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 38,8 | 55,0 |
| 1241617   | H1320812-162000 | TN       | 16   | 25,0 | 1"     | 20        | 1 1/4-11 | 32,0 | 50,0 |
| 1241616   | H1320812-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1-11     | 27,7 | 38,0 |

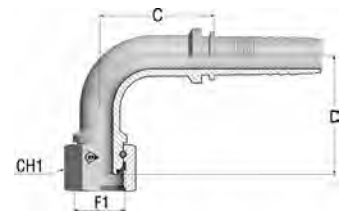
Dimensions shown may be changed without prior notice

**45° BSPP Female 60° Cone with O-Ring**  
**DKOR 45**  
**Solid one piece**



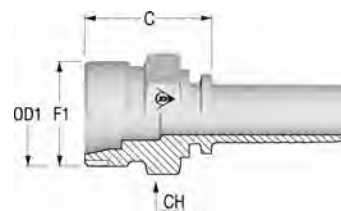
| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1       | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |          |       |        |      |
| 1242138   | H1320842-242400 | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 1/2-11 | 113,0 | 46,0   | 55,0 |
| 1241630   | H1320842-323200 | TN       | 32   | 51,0 | 2"     | 32 | 2-11     | 153,5 | 60,0   | 70,0 |
| 1237423   | H1320842-161600 | TN       | 16   | 25,0 | 1"     | 16 | 1-11     | 92,1  | 40,0   | 38,0 |
| 1241629   | H1320842-202000 | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 1/4-11 | 90,4  | 40,0   | 50,0 |
| 1241628   | H1320842-121200 | TN       | 12   | 19,0 | 3/4"   | 12 | 3/4-14   | 75,2  | 30,0   | 32,0 |

**90° BSPP Female 60° Cone with O-Ring**  
**DKOR 90**  
**Solid one piece**

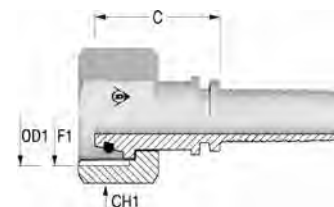


| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1       | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|----|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     |    |          |       |        |      |
| 1246645   | H1320892-202400 | TN       | 20   | 32,0 | 1 1/4" | 24 | 1 1/2-11 | 76,0  | 92,0   | 55,0 |
| 1238242   | H1320892-242400 | TN       | 24   | 38,0 | 1 1/2" | 24 | 1 1/2-11 | 98,7  | 96,0   | 55,0 |
| 1246642   | H1320892-121600 | TN       | 12   | 19,0 | 3/4"   | 16 | 1-11     | 50,0  | 62,0   | 38,0 |
| 1246643   | H1320892-162000 | TN       | 16   | 25,0 | 1"     | 20 | 1 1/4-11 | 61,0  | 76,0   | 50,0 |
| 1241625   | H1320892-202000 | TN       | 20   | 32,0 | 1 1/4" | 20 | 1 1/4-11 | 84,3  | 83,0   | 50,0 |
| 1226181   | H1320892-161600 | TN       | 16   | 25,0 | 1"     | 16 | 1-11     | 73,7  | 71,0   | 38,0 |
| 1226180   | H1320892-121200 | TN       | 12   | 19,0 | 3/4"   | 12 | 3/4-14   | 59,1  | 61,0   | 32,0 |
| 1241626   | H1320892-323200 | TN       | 32   | 51,0 | 2"     | 32 | 2-11     | 140,5 | 130,0  | 70,0 |

## // DIN METRIC INSERTS

**Metric Male 24° Seat - Heavy  
DIN 3853 - CES**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1    | OD1 | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-------|-----|------|------|
|           |                 |          | Dash | mm   | in     |       | mm  | mm   | mm   |
| 1226165   | H1311210-205200 | NA       | 20   | 32,0 | 1 1/4" | M52X2 | 38  | 51,0 | 55,0 |
| 1226164   | H1311210-164200 | NA       | 16   | 25,0 | 1"     | M42X2 | 30  | 36,2 | 46,0 |
| 1241605   | H1311210-123600 | NA       | 12   | 19,0 | 3/4"   | M36X2 | 25  | 36,5 | 36,0 |

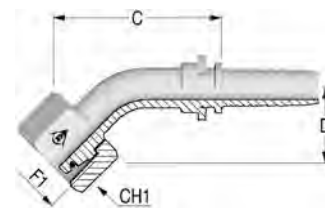
**Metric Female 24° Cone with O-Ring - Heavy  
DIN 3865 - DKOS**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1    | OD1 | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-------|-----|------|------|
|           |                 |          | Dash | mm   | in     |       | mm  | mm   | mm   |
| 1226185   | H1321613-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2 | 38  | 51,1 | 60,0 |
| 1226184   | H1321613-164200 | SN       | 16   | 25,0 | 1"     | M42X2 | 30  | 45,2 | 50,0 |
| 1238244   | H1321612-245200 | TN       | 24   | 38,0 | 1 1/2" | M52X2 | 38  | 58,0 | 60,0 |
| 1240224   | H1321612-163600 | TN       | 16   | 25,0 | 1"     | M36X2 | 25  | 46,0 | 46,0 |
| 1242139   | H1321612-204200 | TN       | 20   | 32,0 | 1 1/4" | M42X2 | 30  | 51,0 | 50,0 |
| 1226182   | H1321612-123000 | TN       | 12   | 19,0 | 3/4"   | M30X2 | 20  | 36,8 | 36,0 |



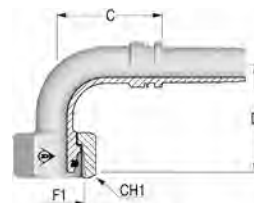
Dimensions shown may be changed without prior notice

**45° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1    | OD1 | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-------|-----|-------|--------|------|
|           |                 |          | Dash | mm   | in     |       |     |       |        |      |
| 1237408   | H1321643-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2 | 25  | 70,4  | 33,0   | 46,0 |
| 1238246   | H1321643-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2 | 38  | 112,0 | 45,0   | 60,0 |
| 1237422   | H1321643-164200 | SN       | 16   | 25,0 | 1"     | M42X2 | 30  | 109,5 | 35,5   | 50,0 |
| 1242140   | H1321642-163600 | TN       | 16   | 25,0 | 1"     | M36X2 | 25  | 93,0  | 37,5   | 46,0 |

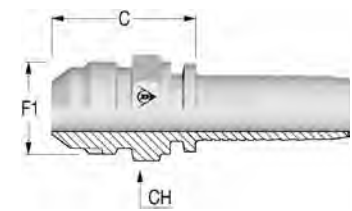
**90° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 90**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1    | OD1 | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-------|-----|------|--------|------|
|           |                 |          | Dash | mm   | in     |       |     |      |        |      |
| 1238248   | H1321693-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2 | 38  | 97,0 | 92,0   | 60,0 |
| 1237410   | H1321693-164200 | SN       | 16   | 25,0 | 1"     | M42X2 | 30  | 85,0 | 70,0   | 50,0 |
| 1240225   | H1321692-163600 | TN       | 16   | 25,0 | 1"     | M36X2 | 25  | 75,6 | 82,0   | 46,0 |
| 1241633   | H1321692-123000 | TN       | 12   | 19,0 | 3/4"   | M30X2 | 20  | 65,5 | 67,5   | 36,0 |
| 1237409   | H1321693-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2 | 25  | 51,0 | 59,5   | 46,0 |

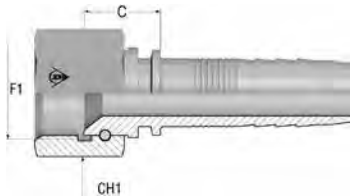
// JIC 37° INSERTS

JIC Male 37° Cone  
AGJ



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           | mm   | mm   |
| 1226169   | H1312510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 45,5 | 36,0 |
| 1226168   | H1312510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 38,5 | 27,0 |
| 1226170   | H1312510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 51,5 | 46,0 |

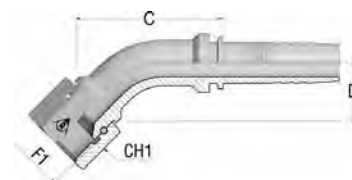
JIC Female 37° Seat  
DKJ



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           | mm   | mm   |
| 1241619   | H1322512-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 25,0 | 38,0 |
| 1241621   | H1322512-162000 | TN       | 16   | 25,0 | 1"     | 20        | 1 5/8-12  | 29,0 | 50,0 |
| 1241620   | H1322512-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 27,0 | 38,0 |
| 1241624   | H1322512-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 36,5 | 55,0 |
| 1241623   | H1322512-202400 | TN       | 20   | 32,0 | 1 1/4" | 24        | 1 7/8-12  | 34,0 | 55,0 |
| 1241622   | H1322512-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 31,5 | 50,0 |
| 1241618   | H1322512-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 22,2 | 32,0 |

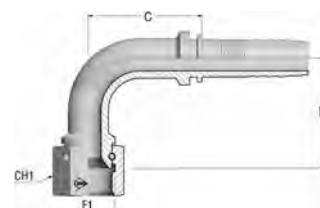
Dimensions shown may be changed without prior notice

**45° JIC Female 37° Seat - Medium Drop**  
**DKJ 45M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |           | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1        |       |        |      |
| 1238251   | H1322542-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 99,0  | 37,0   | 50,0 |
| 1241631   | H1322542-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 69,0  | 33,5   | 38,0 |
| 1226206   | H1322542-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 84,8  | 31,0   | 38,0 |
| 1226205   | H1322542-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 69,5  | 27,5   | 32,0 |
| 1226207   | H1322542-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 118,3 | 43,5   | 55,0 |

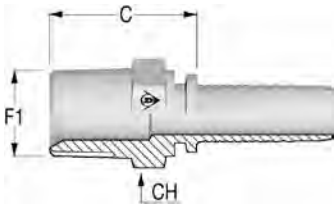
**90° JIC Female 37° Seat - Medium Drop**  
**DKJ 90M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |           | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1        |       |        |      |
| 1238254   | H1322592-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 84,0  | 78,0   | 50,0 |
| 1226211   | H1322592-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 58,1  | 63,5   | 38,0 |
| 1238255   | H1322592-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2 1/2-12  | 147,5 | 135,0  | 70,0 |
| 1226212   | H1322592-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 75,7  | 67,0   | 38,0 |
| 1230690   | H1322592-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 105,3 | 92,0   | 55,0 |
| 1226209   | H1322592-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 59,1  | 57,0   | 32,0 |

// NPTF INSERTS

NPTF Male 60° Seat  
AGN

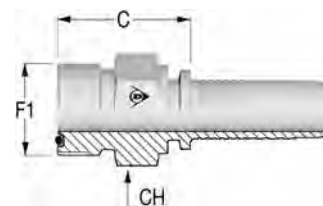


| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |          | mm   | mm   |
| 1226173   | H1312810-161600 | NA       | 16   | 25,0 | 1"   | 16        | 1-11 1/2 | 46,5 | 36,0 |
| 1226172   | H1312810-121200 | NA       | 12   | 19,0 | 3/4" | 12        | 3/4-14   | 35,5 | 27,0 |

Dimensions shown may be changed without prior notice

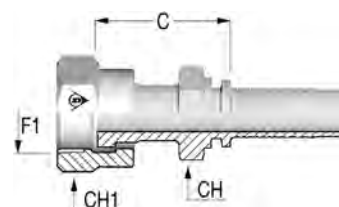
## // ORFS INSERTS

### ORFS Male



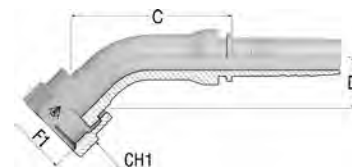
| Item Code | Part Number     | Nut Type | ID   |      |      | F1 | F1        | C    | CH   |
|-----------|-----------------|----------|------|------|------|----|-----------|------|------|
|           |                 |          | Dash | mm   | in   |    |           |      |      |
| 1226166   | H1312410-161600 | NA       | 16   | 25,0 | 1"   | 16 | 1 7/16-12 | 35,7 | 38,0 |
| 1230556   | H1312410-121200 | NA       | 12   | 19,0 | 3/4" | 12 | 1 3/16-12 | 32,7 | 32,0 |

### ORFS Female with Stem Hexagon



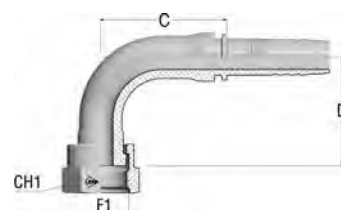
| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1         | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|--------|----|------------|------|------|------|
|           |                 |          | Dash | mm   | in     |    |            |      |      |      |
| 1226195   | H1322411-242400 | CR       | 24   | 38,0 | 1 1/2" | 24 | 2-12       | 62,5 | 50,0 | 60,0 |
| 1226190   | H1322411-121200 | CR       | 12   | 19,0 | 3/4"   | 12 | 1 3/16-12  | 44,5 | 30,0 | 36,0 |
| 1242141   | H1322411-161200 | CR       | 16   | 25,0 | 1"     | 12 | 1 3/16-12  | 42,0 | 32,0 | 36,0 |
| 1226192   | H1322411-161600 | CR       | 16   | 25,0 | 1"     | 16 | 1 7/16-12  | 52,5 | 36,0 | 41,0 |
| 1226191   | H1322411-121600 | CR       | 12   | 19,0 | 3/4"   | 16 | 1 7/16-12  | 50,5 | 36,0 | 41,0 |
| 1226194   | H1322411-202000 | CR       | 20   | 32,0 | 1 1/4" | 20 | 1 11/16-12 | 56,0 | 41,0 | 50,0 |
| 1226193   | H1322411-162000 | CR       | 16   | 25,0 | 1"     | 20 | 1 11/16-12 | 53,5 | 41,0 | 50,0 |

**45° ORFS Female - Medium Drop**  
**DK ORFS 45M**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |            | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1         |       |        |      |
| 1226196   | H1322441-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 32,5  | 26,0   | 36,0 |
| 1226198   | H1322441-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 94,0  | 28,0   | 41,0 |
| 1226197   | H1322441-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 31,2  | 28,0   | 41,0 |
| 1238249   | H1322441-202000 | CR       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 110,0 | 36,5   | 50,0 |
| 1241634   | H1322441-162000 | CR       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 88,0  | 28,0   | 50,0 |

**90° ORFS Female - Medium Drop**  
**DK ORFS 90M**  
**Solid one piece**

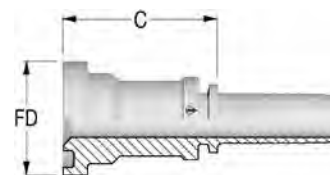


| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |            | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1         |       |        |      |
| 1226200   | H1322491-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 67,6  | 58,0   | 36,0 |
| 1226202   | H1322491-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 79,6  | 66,0   | 41,0 |
| 1226201   | H1322491-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 69,6  | 58,0   | 36,0 |
| 1241635   | H1322491-162000 | CR       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 73,0  | 66,0   | 50,0 |
| 1226203   | H1322491-202000 | CR       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 102,4 | 81,0   | 50,0 |

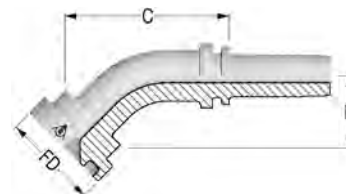
Dimensions shown may be changed without prior notice

## // SAE FLANGES

## Flange SAE 3000 PSI J518 Code 61 - SFL



| Item Code | Part Number     | ID   |      |        | Flange    |             | C    | FD   | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|------|------|
|           |                 | Dash | mm   | in     | Dash Size | Flange Size |      |      |      |
| 1226222   | H1343310-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 43,5 | 38,1 | 5000 |
| 1226224   | H1343310-161600 | 16   | 25,0 | 1"     | 16        | 1           | 53,5 | 44,5 | 5000 |
| 1241603   | H1343310-242000 | 24   | 38,0 | 1 1/2" | 20        | 1 1/4       | 55,5 | 50,8 | 5000 |
| 1226225   | H1343310-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 56,0 | 50,8 | 5000 |
| 1241602   | H1343310-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 58,5 | 44,4 | 5000 |
| 1226228   | H1343310-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 63,5 | 60,3 | 5000 |
| 1226227   | H1343310-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 58,5 | 50,8 | 5000 |
| 1235374   | H1343310-323200 | 32   | 50,0 | 2"     | 32        | 2           | 85,0 | 71,4 | 5000 |
| 1226229   | H1343310-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 75,0 | 71,4 | 5000 |
| 1241604   | H1343310-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 61,5 | 60,3 | 5000 |

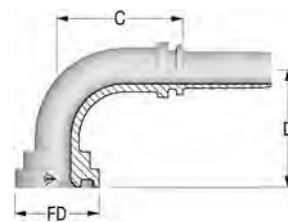
45° Flange SAE 3000 PSI J518 Code 61 - SFL 45  
Solid one piece

| Item Code | Part Number     | ID   |      |        | Flange    |             | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Flange Size |      |       |        |      |
| 1233534   | H1343340-323200 | 32   | 50,0 | 2"     | 32        | 2           | 71,4 | 154,0 | 54,0   | 5000 |
| 1226233   | H1343340-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 88,9  | 32,5   | 5000 |
| 1226235   | H1343340-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 99,8  | 43,0   | 5000 |
| 1226234   | H1343340-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 94,3  | 38,5   | 5000 |



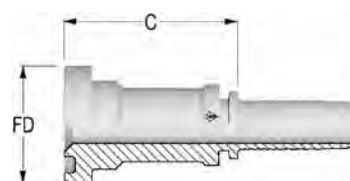
## 90° Flange SAE 3000 PSI J518 Code 61 - SFL 90

### Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |      |       |        |      |
| 1226242   | H1343390-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 74,7  | 69,0   | 5000 |
| 1226241   | H1343390-161600 | 16   | 25,0 | 1"     | 16        | 1           | 44,5 | 78,1  | 64,0   | 5000 |
| 1241608   | H1343390-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 60,3 | 87,0  | 85,0   | 5000 |
| 1226244   | H1343390-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 92,0  | 81,0   | 5000 |
| 1226245   | H1343390-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 103,0 | 93,0   | 5000 |
| 1235375   | H1343390-323200 | 32   | 50,0 | 2"     | 32        | 2           | 71,4 | 139,0 | 130,0  | 5000 |

## Flange SAE 6000 PSI J518 Code 62 - SFS

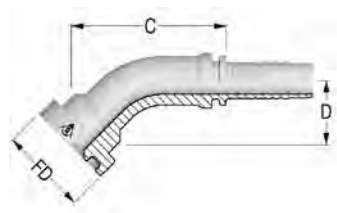


| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | C     | FD   | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|-------|------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |       |      |      |
| 1226250   | H1343610-161600 | 16   | 25,0 | 1"     | 16        | 1           | 58,5  | 47,6 | 6000 |
| 1226253   | H1343610-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 74,0  | 63,5 | 6000 |
| 1226252   | H1343610-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 64,0  | 54,0 | 6000 |
| 1226255   | H1343610-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 88,0  | 79,4 | 6000 |
| 1226254   | H1343610-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 76,0  | 63,5 | 6000 |
| 1235378   | H1343610-323200 | 32   | 50,0 | 2"     | 32        | 2           | 103,0 | 79,4 | 6000 |
| 1226248   | H1343610-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 56,5  | 47,6 | 6000 |
| 1241614   | H1343610-242000 | 24   | 38,0 | 1 1/2" | 20        | 1 1/4       | 71,0  | 54,0 | 6000 |
| 1226247   | H1343610-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 53,5  | 41,3 | 6000 |
| 1236992   | H1343610-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 61,0  | 47,6 | 6000 |
| 1226624   | H1343610-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 65,5  | 54,0 | 6000 |
| 1226623   | H1343610-161200 | 16   | 25,0 | 1"     | 12        | 3/4         | 58,5  | 41,3 | 6000 |
| 1241615   | H1343610-322400 | 32   | 51,0 | 2"     | 24        | 1 1/2       | 86,0  | 63,5 | 6000 |

Dimensions shown may be changed without prior notice

### 45° Flange SAE 6000 PSI J518 Code 62 - SFS 45

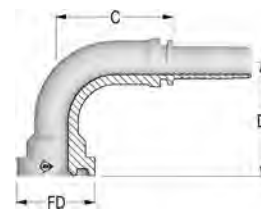
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |       |        |      |
| 1226262   | H1343640-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 47,6 | 65,4  | 33,0   | 6000 |
| 1226261   | H1343640-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 41,3 | 62,8  | 30,0   | 6000 |
| 1241609   | H1343640-161200 | 16   | 25,0 | 1"     | 12        | 3/4    | 41,3 | 77,0  | 29,5   | 6000 |
| 1226264   | H1343640-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 54,0 | 78,0  | 44,0   | 6000 |
| 1226263   | H1343640-161600 | 16   | 25,0 | 1"     | 16        | 1      | 47,6 | 82,9  | 38,5   | 6000 |
| 1242142   | H1343640-201600 | 20   | 32,0 | 1 1/4" | 16        | 1      | 47,6 | 104,7 | 34,5   | 6000 |
| 1241610   | H1343640-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 63,5 | 117,0 | 48,0   | 6000 |
| 1235379   | H1343640-323200 | 32   | 50,0 | 2"     | 32        | 2      | 79,4 | 177,0 | 61,0   | 6000 |
| 1226265   | H1343640-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 63,5 | 122,5 | 48,0   | 6000 |
| 1238305   | H1343640-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 54,0 | 103,0 | 41,0   | 6000 |

### 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90

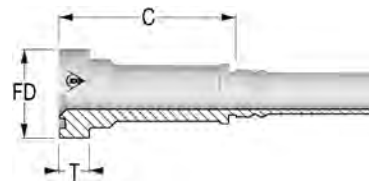
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |       |        |      |
| 1226273   | H1343690-161600 | 16   | 25,0 | 1"     | 16        | 1      | 47,6 | 74,8  | 74,0   | 6000 |
| 1226274   | H1343690-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 54,0 | 78,8  | 85,0   | 6000 |
| 1238310   | H1343690-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 63,5 | 99,0  | 103,5  | 6000 |
| 1226276   | H1343690-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2  | 63,5 | 113,8 | 109,0  | 6000 |
| 1226633   | H1343690-161200 | 16   | 25,0 | 1"     | 12        | 3/4    | 41,3 | 74,7  | 61,0   | 6000 |
| 1241611   | H1343690-201600 | 20   | 32,0 | 1 1/4" | 16        | 1      | 47,6 | 87,0  | 72,0   | 6000 |
| 1230765   | H1343690-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 54,0 | 96,0  | 91,0   | 6000 |
| 1226271   | H1343690-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 47,6 | 64,7  | 66,0   | 6000 |
| 1226270   | H1343690-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 41,3 | 64,7  | 64,0   | 6000 |
| 1235381   | H1343690-323200 | 32   | 50,0 | 2"     | 32        | 2      | 79,4 | 172,0 | 131,0  | 6000 |

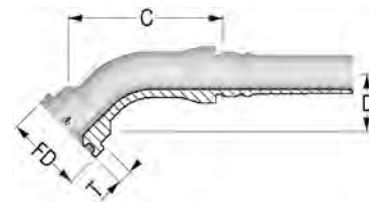
## // SUPERCAT FLANGES

### Flange SUPERCAT



| Item Code | Part Number     | ID   |      |        | Flange    |  | Flange Size | FD   | T    | C    |
|-----------|-----------------|------|------|--------|-----------|--|-------------|------|------|------|
|           |                 | Dash | mm   | in     | Dash Size |  |             | mm   | mm   | mm   |
| 1226283   | H1343910-202400 | 20   | 32,0 | 1 1/4" | 24        |  | 1 1/2       | 63,5 | 14,3 | 87,0 |
| 1226279   | H1343910-121600 | 12   | 19,0 | 3/4"   | 16        |  | 1           | 47,6 | 14,3 | 85,5 |
| 1226278   | H1343910-121200 | 12   | 19,0 | 3/4"   | 12        |  | 3/4         | 41,3 | 14,3 | 85,5 |
| 1226280   | H1343910-161600 | 16   | 25,0 | 1"     | 16        |  | 1           | 47,6 | 14,3 | 94,5 |
| 1226282   | H1343910-202000 | 20   | 32,0 | 1 1/4" | 20        |  | 1 1/4       | 54,0 | 14,3 | 92,0 |
| 1226281   | H1343910-162000 | 16   | 25,0 | 1"     | 20        |  | 1 1/4       | 54,0 | 14,3 | 94,5 |

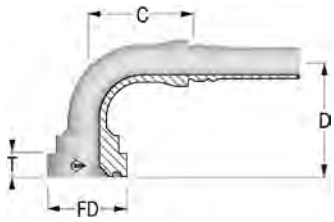
### 45° Flange SUPERCAT Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    |  | Flange Size | FD   | T    | C     | D Drop |
|-----------|-----------------|------|------|--------|-----------|--|-------------|------|------|-------|--------|
|           |                 | Dash | mm   | in     | Dash Size |  |             | mm   | mm   | mm    | mm     |
| 1241612   | H1343940-121600 | 12   | 19,0 | 3/4"   | 16        |  | 1           | 47,6 | 14,3 | 112,0 | 34,0   |
| 1226291   | H1343940-162000 | 16   | 25,0 | 1"     | 20        |  | 1 1/4       | 54,0 | 14,3 | 128,0 | 40,0   |
| 1226290   | H1343940-161600 | 16   | 25,0 | 1"     | 16        |  | 1           | 47,6 | 14,3 | 129,0 | 42,5   |
| 1226292   | H1343940-202000 | 20   | 32,0 | 1 1/4" | 20        |  | 1 1/4       | 54,0 | 14,3 | 150,0 | 45,1   |

Dimensions shown may be changed without prior notice

**90° Flange SUPERCAT**  
**Solid one piece**



| Item Code | Part Number     | ID   |      |        | Flange    | Flange | FD   | T    | C    | D Drop |
|-----------|-----------------|------|------|--------|-----------|--------|------|------|------|--------|
|           |                 | Dash | mm   | in     | Dash Size | Size   |      |      |      |        |
| 1226297   | H1343990-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4    | 41,3 | 14,3 | 67,2 | 67,0   |
| 1226299   | H1343990-161600 | 16   | 25,0 | 1"     | 16        | 1      | 47,6 | 14,3 | 84,8 | 79,0   |
| 1226298   | H1343990-121600 | 12   | 19,0 | 3/4"   | 16        | 1      | 47,6 | 14,3 | 68,7 | 70,0   |
| 1226301   | H1343990-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4  | 54,0 | 14,3 | 79,8 | 82,5   |
| 1238312   | H1343990-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4  | 54,0 | 14,3 | 97,0 | 93,0   |
| 1238315   | H1343990-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2  | 63,5 | 14,3 | 97,0 | 101,0  |



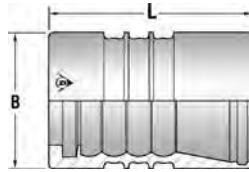
# // WATERBLAST

// FERRULES..... 115

// WATERBLAST INSERTS..... 116

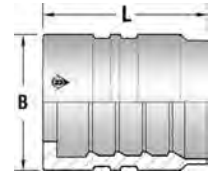
Dimensions shown may be changed without prior notice

## // FERRULES

**D990000**  
**Waterblast Ferrule**  
**for WB10L - WB15L -**  
**WB20L\***

| Item Code | Part Number  | ID   |      |       | B    | L    |
|-----------|--------------|------|------|-------|------|------|
|           |              | Dash | mm   | in    |      |      |
| 1240103   | D99000H-04/0 | 04   | 6,0  | 1/4"  | 22,0 | 25,5 |
| 1240105   | D99000H-05/0 | 05   | 8,0  | 5/16" | 27,0 | 35,0 |
| 1215264   | D990000-06/0 | 06   | 10,0 | 3/8"  | 28,0 | 47,0 |
| 1223163   | D99000N-08/0 | 08   | 13,0 | 1/2"  | 33,0 | 50,0 |
| 1215266   | D990000-12/0 | 12   | 19,0 | 3/4"  | 41,0 | 63,0 |
| 1215267   | D990000-16/0 | 16   | 25,0 | 1"    | 49,0 | 75,0 |

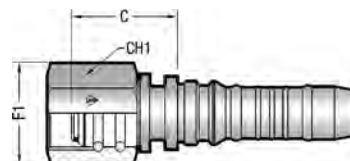
\* For WB20L: 1/4" and 5/16" only

**D980000**  
**Waterblast Ferrule for**  
**WB20L**

| Item Code | Part Number  | ID   |      |      | B    | L    |
|-----------|--------------|------|------|------|------|------|
|           |              | Dash | mm   | in   |      |      |
| 1242379   | D980000-06/0 | 06   | 10,0 | 3/8" | 32,0 | 45,0 |
| 1215257   | D980000-08/0 | 08   | 13,0 | 1/2" | 37,4 | 46,0 |
| 1241935   | D980000-12/0 | 12   | 19,0 | 3/4" | 46,0 | 63,0 |

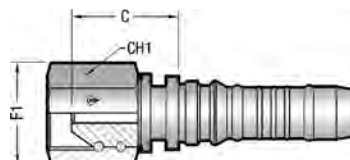
## // WATERBLAST INSERTS

## BSP Female 60° with O-Ring



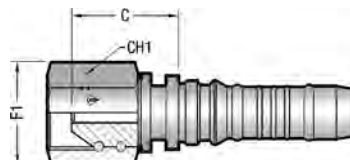
| Item Code | Part Number    | Nut Type | ID   |      |       | F1        |        | C    | CH1  |
|-----------|----------------|----------|------|------|-------|-----------|--------|------|------|
|           |                |          | Dash | mm   | in    | Dash Size | F1     |      |      |
| 1214927   | DA99001-1212/0 | TN       | 12   | 19,0 | 3/4"  | 12        | 3/4-14 | 37,3 | 36,0 |
| 1214925   | DA99001-0606/0 | TN       | 06   | 10,0 | 3/8"  | 06        | 3/8-19 | 32,1 | 22,0 |
| 1225828   | DA9900N-0808/0 | TN       | 08   | 13,0 | 1/2"  | 08        | 1/2-14 | 36,0 | 30,0 |
| 1240158   | DA99001-0404/0 | SN       | 04   | 6,0  | 1/4"  | 04        | 1/4-19 | 26,0 | 22,0 |
| 1240159   | DA99001-0605/0 | SN       | 05   | 8,0  | 5/16" | 06        | 3/8-19 | 31,0 | 25,0 |

## BSP Female 60° without O-Ring



| Item Code | Head/Tail | Nut Type | ID   |      |      | F1        |        | C    | CH1  |
|-----------|-----------|----------|------|------|------|-----------|--------|------|------|
|           | Dash      |          | Dash | mm   | in   | Dash Size | F1     |      |      |
| 1245682   | -0808     | TN       | 08   | 13,0 | 1/2" | 08        | 1/2-14 | 36,0 | 30,0 |

## UNF Type "M Swivel"

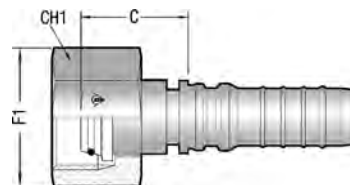


| Item Code | Part Number    | Nut Type | ID   |      |      | F1        |          | C    | CH1  |
|-----------|----------------|----------|------|------|------|-----------|----------|------|------|
|           |                |          | Dash | mm   | in   | Dash Size | F1       |      |      |
| 1230563   | DA99061-1008/0 | TN       | 08   | 13,0 | 1/2" | 10        | 1-12 UNF | 41,0 | 32,0 |



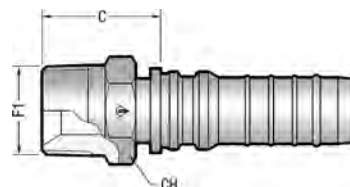
Dimensions shown may be changed without prior notice

**Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS**  
**Slip on Nut with Relief Bore**



| Item Code | Part Number    | Nut Type | ID   |      |       | F1      | OD1 | C    | CH1  |
|-----------|----------------|----------|------|------|-------|---------|-----|------|------|
|           |                |          | Dash | mm   | in    |         | mm  | mm   | mm   |
| 1214929   | DA99179-0606/0 | SN       | 06   | 10,0 | 3/8"  | M22X1.5 | 14  | 36,5 | 27,0 |
| 1240100   | DA99179-0204/0 | SN       | 04   | 6,0  | 1/4"  | M14X1.5 | 6   | 28,0 | 22,0 |
| 1240101   | DA99179-0405/0 | SN       | 05   | 8,0  | 5/16" | M18X1.5 | 10  | 34,3 | 27,0 |
| 1214930   | DA99179-0806/0 | SN       | 06   | 10,0 | 3/8"  | M24X1.5 | 16  | 39,5 | 30,0 |
| 1214931   | DA9917N-0808/0 | SN       | 08   | 13,0 | 1/2"  | M24X1.5 | 16  | 40,0 | 30,0 |
| 1214932   | DA99179-1212/0 | SN       | 12   | 19,0 | 3/4"  | M36X2   | 25  | 47,3 | 46,0 |
| 1214933   | DA99179-1616/0 | SN       | 16   | 25,0 | 1"    | M42X2   | 30  | 49,6 | 50,0 |

**NPTF Male 60° Seat**  
**AGN**



| Item Code | Part Number    | Nut Type | ID   |      |       | F1        | F1       | C    | CH   |
|-----------|----------------|----------|------|------|-------|-----------|----------|------|------|
|           |                |          | Dash | mm   | in    | Dash Size |          | mm   | mm   |
| 1215274   | D990170-1616/0 | NA       | 16   | 25,0 | 1"    | 16        | 1-11 1/2 | 47,3 | 36,0 |
| 1215272   | D99017N-0808/0 | NA       | 08   | 13,0 | 1/2"  | 08        | 1/2-14   | 35,0 | 22,0 |
| 1215273   | D990170-1212/0 | NA       | 12   | 19,0 | 3/4"  | 12        | 3/4-14   | 37,9 | 30,0 |
| 1240135   | D990170-0605/0 | NA       | 05   | 8,0  | 5/16" | 06        | 3/8-18   | 30,5 | 19,0 |
| 1240134   | D990170-0404/0 | NA       | 04   | 6,0  | 1/4"  | 04        | 1/4-18   | 27,5 | 17,0 |
| 1215271   | D990170-0606/0 | NA       | 06   | 10,0 | 3/8"  | 06        | 3/8-18   | 31,0 | 19,0 |

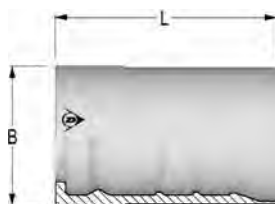


## // INTERLOCK

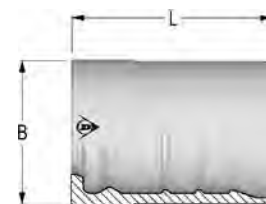
|                            |     |                          |     |
|----------------------------|-----|--------------------------|-----|
| // FERRULES.....           | 119 | // NPTF INSERTS.....     | 127 |
| // HOSE MENDER.....        | 120 | // ORFS INSERTS.....     | 128 |
| // BSP INSERTS.....        | 121 | // SAE FLANGES.....      | 130 |
| // DIN METRIC INSERTS..... | 123 | // SUPERCAT FLANGES..... | 134 |
| // JIC 37° INSERTS.....    | 125 | // HAMMER UNION.....     | 135 |

Dimensions shown may be changed without prior notice

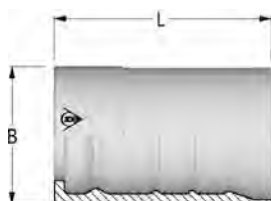
## // FERRULES

**H1400200**  
**Interlock Dual Skive**  
**Ferrule for 4 Spiral**  
**Hoses**

| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1201571   | H1400200-060000 | 06   | 10,0 | 3/8"   | 27,0 | 49,0 |
| 1201856   | H1400200-080000 | 08   | 13,0 | 1/2"   | 30,0 | 52,5 |
| 1201502   | H1400200-100000 | 10   | 16,0 | 5/8"   | 34,0 | 57,5 |
| 1201503   | H1400200-120000 | 12   | 19,0 | 3/4"   | 38,0 | 60,2 |
| 1201504   | H1400200-160000 | 16   | 25,0 | 1"     | 46,0 | 74,7 |
| 1200098   | H1400200-200000 | 20   | 31,0 | 1 1/4" | 55,0 | 88,2 |
| 1200099   | H1400200-240000 | 24   | 38,0 | 1 1/2" | 62,0 | 94,2 |
| 1201284   | H1400200-320000 | 32   | 51,0 | 2"     | 78,0 | 99,2 |

**H1400301**  
**Interlock Dual Skive**  
**Ferrule for 4-6 Spiral**  
**Hoses**

| Item Code | Part Number     | ID   |      |        | B    | L    |
|-----------|-----------------|------|------|--------|------|------|
|           |                 | Dash | mm   | in     |      |      |
| 1202585   | H1400301-100000 | 10   | 16,0 | 5/8"   | 35,5 | 57,5 |
| 1202730   | H1400301-120000 | 12   | 19,0 | 3/4"   | 43,5 | 60,0 |
| 1202222   | H1400301-160000 | 16   | 25,0 | 1"     | 52,0 | 75,0 |
| 1201761   | H1400301-200000 | 20   | 31,0 | 1 1/4" | 62,0 | 88,0 |
| 1201805   | H1400301-240000 | 24   | 38,0 | 1 1/2" | 69,5 | 94,0 |
| 1202006   | H1400301-320000 | 32   | 51,0 | 2"     | 88,0 | 99,0 |

**H1T00600**  
**Interlock Special Dual**  
**Skive Ferrule**

| Item Code | Part Number     | ID   |      |    | B    | L     |
|-----------|-----------------|------|------|----|------|-------|
|           |                 | Dash | mm   | in |      |       |
| 1225872   | H1T00600-320000 | 32   | 51,0 | 2" | 88,1 | 108,2 |

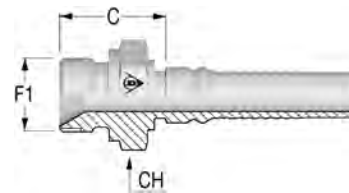
// HOSE MENDER

Hose Mender

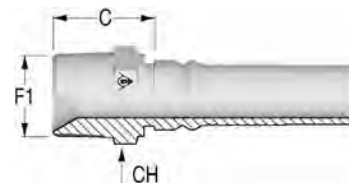


| Item Code | Part Number     | ID   |      |        |
|-----------|-----------------|------|------|--------|
|           |                 | Dash | mm   | in     |
| 1219636   | H14C5610-101000 | 10   | 16,0 | 5/8"   |
| 1235393   | H14C5610-242400 | 24   | 38,0 | 1 1/2" |
| 1235394   | H14C5610-323200 | 32   | 51,0 | 2"     |
| 1235392   | H14C5610-202000 | 20   | 32,0 | 1 1/4" |

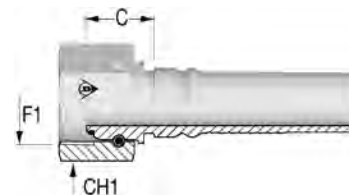
Dimensions shown may be changed without prior notice

// **BSP INSERTS****BSPP Male 60° Flare  
AGR**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1200218   | H1410510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 34,0 | 32,0 |
| 1201219   | H1410510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 45,2 | 50,0 |
| 1200280   | H1410510-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 48,5 | 55,0 |
| 1201080   | H1410510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2-11     | 55,5 | 70,0 |
| 1200239   | H1410510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1-11     | 40,0 | 41,0 |

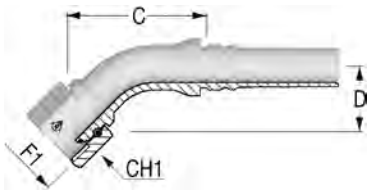
**BSPT Male  
AGR K**

| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1200261   | H1410710-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 46,2 | 46,0 |
| 1200278   | H1410710-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 48,0 | 50,0 |
| 1200215   | H1410710-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 32,0 | 27,0 |

**BSPP Female 60° Cone with O-Ring  
DKOR**

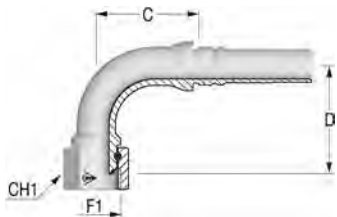
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1       | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |          | mm   | mm   |
| 1201132   | H1420812-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 30,2 | 50,0 |
| 1202440   | H1420812-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1-11     | 25,5 | 38,0 |
| 1202424   | H1420812-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 22,5 | 32,0 |
| 1201136   | H1420812-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2-11     | 35,0 | 70,0 |
| 1201134   | H1420812-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 33,5 | 55,0 |
| 1214247   | H1420811-080800 | CR       | 08   | 13,0 | 1/2"   | 08        | 1/2-14   | 19,5 | 27,0 |

45° BSPP Female 60° Cone with O-Ring  
DKOR 45  
Solid one piece



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |          | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1       |       |        |      |
| 1202442   | H1420842-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 113,0 | 46,0   | 55,0 |
| 1202446   | H1420842-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1-11     | 81,0  | 34,0   | 38,0 |
| 1202444   | H1420842-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 97,2  | 40,0   | 50,0 |
| 1202447   | H1420842-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 72,0  | 30,0   | 32,0 |
| 1201535   | H1420842-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2-11     | 151,0 | 60,0   | 70,0 |

90° BSPP Female 60° Cone with O-Ring  
DKOR 90  
Solid one piece

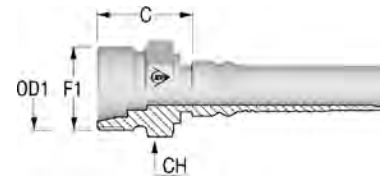


| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |          | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1       |       |        |      |
| 1202441   | H1420892-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 1/2-11 | 93,5  | 96,0   | 55,0 |
| 1202445   | H1420892-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1-11     | 75,0  | 71,0   | 38,0 |
| 1202443   | H1420892-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 1/4-11 | 79,2  | 83,0   | 50,0 |
| 1200288   | H1420892-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2-11     | 134,0 | 125,0  | 70,0 |
| 1200217   | H1420892-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 3/4-14   | 58,0  | 61,0   | 32,0 |

Dimensions shown may be changed without prior notice

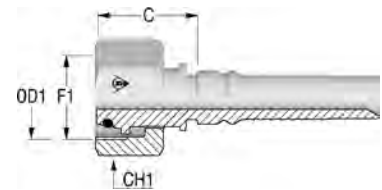
## // DIN METRIC INSERTS

### Metric Male 24° Seat - Heavy DIN 3853 - CES



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1 | C    | CH   |
|-----------|-----------------|----------|------|------|--------|---------|-----|------|------|
|           |                 |          | Dash | mm   | in     |         |     |      |      |
| 1216929   | H1411210-082400 | NA       | 08   | 13,0 | 1/2"   | M24X1.5 | 16  | 27,0 | 24,0 |
| 1200260   | H1411210-205200 | NA       | 20   | 32,0 | 1 1/4" | M52X2   | 38  | 45,2 | 55,0 |
| 1201077   | H1411210-103000 | NA       | 10   | 16,0 | 5/8"   | M30X2   | 20  | 31,0 | 32,0 |
| 1200212   | H1411210-123600 | NA       | 12   | 19,0 | 3/4"   | M36X2   | 25  | 35,0 | 36,0 |
| 1200236   | H1411210-164200 | NA       | 16   | 25,0 | 1"     | M42X2   | 30  | 40,0 | 46,0 |

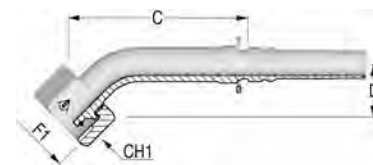
### Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1 | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|---------|-----|------|------|
|           |                 |          | Dash | mm   | in     |         |     |      |      |
| 1201857   | H1421613-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16  | 29,6 | 30,0 |
| 1202584   | H1421612-123000 | TN       | 12   | 19,0 | 3/4"   | M30X2   | 20  | 37,5 | 36,0 |
| 1201125   | H1421613-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30  | 40,7 | 50,0 |
| 1201118   | H1421613-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20  | 34,4 | 36,0 |
| 1201129   | H1421613-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38  | 45,3 | 60,0 |
| 1201092   | H1421613-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25  | 37,6 | 46,0 |
| 1216936   | H1421612-245200 | TN       | 24   | 38,0 | 1 1/2" | M52X2   | 38  | 50,8 | 60,0 |
| 1216935   | H1421612-204200 | TN       | 20   | 32,0 | 1 1/4" | M42X2   | 30  | 43,6 | 50,0 |
| 1202887   | H1421612-163600 | TN       | 16   | 25,0 | 1"     | M36X2   | 25  | 38,8 | 46,0 |

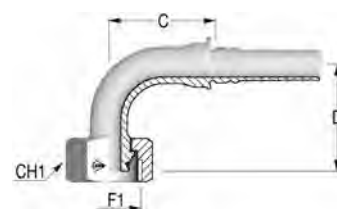


**45° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1202073   | H1421643-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20        | 59,0    | 31,5         | 36,0      |
| 1202079   | H1421643-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 78,1    | 36,0         | 46,0      |
| 1216940   | H1421642-163600 | TN       | 16   | 25,0 | 1"     | M36X2   | 25        | 86,5    | 37,5         | 46,0      |
| 1202583   | H1421642-123000 | TN       | 12   | 19,0 | 3/4"   | M30X2   | 20        | 74,0    | 33,0         | 36,0      |
| 1216942   | H1421643-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16        | 83,0    | 29,0         | 30,0      |
| 1202003   | H1421643-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38        | 112,7   | 48,0         | 60,0      |
| 1216941   | H1421642-245200 | TN       | 24   | 38,0 | 1 1/2" | M52X2   | 38        | 111,0   | 44,0         | 60,0      |
| 1201724   | H1421643-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30        | 96,8    | 38,0         | 50,0      |

**90° Metric Female 24° Cone with O-Ring - Heavy**  
**DIN 3865 - DKOS 90**  
**Solid one piece**

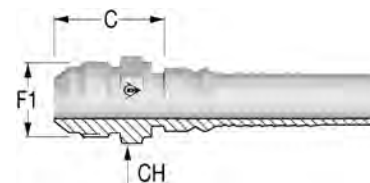


| Item Code | Part Number     | Nut Type | ID   |      |        | F1      | OD1<br>mm | C<br>mm | D Drop<br>mm | CH1<br>mm |
|-----------|-----------------|----------|------|------|--------|---------|-----------|---------|--------------|-----------|
|           |                 |          | Dash | mm   | in     |         |           |         |              |           |
| 1202072   | H1421693-103000 | SN       | 10   | 16,0 | 5/8"   | M30X2   | 20        | 48,0    | 55,0         | 36,0      |
| 1202582   | H1421692-123000 | TN       | 12   | 19,0 | 3/4"   | M30X2   | 20        | 61,0    | 67,5         | 36,0      |
| 1201059   | H1421693-205200 | SN       | 20   | 32,0 | 1 1/4" | M52X2   | 38        | 90,9    | 101,0        | 60,0      |
| 1203126   | H1421692-163600 | TN       | 16   | 25,0 | 1"     | M36X2   | 25        | 76,5    | 76,5         | 46,0      |
| 1203125   | H1421693-082400 | SN       | 08   | 13,0 | 1/2"   | M24X1.5 | 16        | 52,0    | 50,0         | 30,0      |
| 1201740   | H1421693-164200 | SN       | 16   | 25,0 | 1"     | M42X2   | 30        | 86,4    | 79,0         | 50,0      |
| 1201723   | H1421693-123600 | SN       | 12   | 19,0 | 3/4"   | M36X2   | 25        | 61,7    | 65,0         | 46,0      |
| 1216945   | H1421692-245200 | TN       | 24   | 38,0 | 1 1/2" | M52X2   | 38        | 100,5   | 102,0        | 60,0      |

Dimensions shown may be changed without prior notice

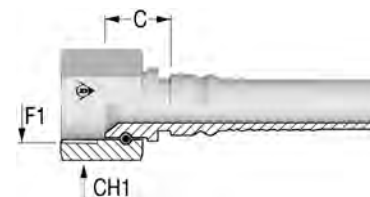
## // JIC 37° INSERTS

### JIC Male 37° Cone AGJ



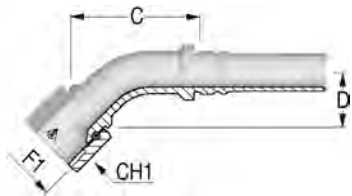
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH   |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           |      |      |
| 1201094   | H1412510-121600 | NA       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 40,0 | 36,0 |
| 1200262   | H1412510-202000 | NA       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 45,7 | 46,0 |
| 1200279   | H1412510-242400 | NA       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 50,0 | 50,0 |
| 1216931   | H1412510-202400 | NA       | 20   | 32,0 | 1 1/4" | 24        | 1 7/8-12  | 49,7 | 50,0 |
| 1200216   | H1412510-121200 | NA       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 37,0 | 32,0 |
| 1200238   | H1412510-161600 | NA       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 41,0 | 36,0 |
| 1201787   | H1412510-162000 | NA       | 16   | 25,0 | 1"     | 20        | 1 5/8-12  | 44,5 | 46,0 |
| 1201798   | H1412510-323200 | NA       | 32   | 51,0 | 2"     | 32        | 2 1/2-12  | 61,0 | 65,0 |

### JIC Female 37° Seat DKJ



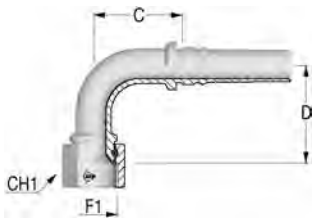
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1        | C    | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |           |      |      |
| 1201121   | H1422512-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 18,7 | 32,0 |
| 1216973   | H1422512-202400 | TN       | 20   | 32,0 | 1 1/4" | 24        | 1 7/8-12  | 28,2 | 55,0 |
| 1201265   | H1422512-101200 | TN       | 10   | 16,0 | 5/8"   | 12        | 1 1/16-12 | 18,7 | 32,0 |
| 1201122   | H1422512-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 21,5 | 38,0 |
| 1201133   | H1422512-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 29,0 | 55,0 |
| 1201131   | H1422512-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 25,7 | 50,0 |
| 1201126   | H1422512-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 22,5 | 38,0 |
| 1201135   | H1422512-323200 | TN       | 32   | 51,0 | 2"     | 32        | 2 1/2-12  | 34,0 | 70,0 |
| 1201127   | H1422512-162000 | TN       | 16   | 25,0 | 1"     | 20        | 1 5/8-12  | 24,5 | 50,0 |

45° JIC Female 37° Seat  
DKJ 45  
Solid one piece



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |           | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1        |       |        |      |
| 1201485   | H1422542-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 66,0  | 27,5   | 32,0 |
| 1202098   | H1422542-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 72,0  | 30,0   | 38,0 |
| 1201486   | H1422542-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 79,5  | 31,0   | 38,0 |
| 1201487   | H1422542-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 93,0  | 37,0   | 50,0 |
| 1201765   | H1422542-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 121,0 | 38,0   | 55,0 |

90° JIC Female 37° Seat  
DKJ 90  
Solid one piece

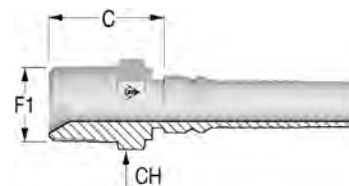


| Item Code | Part Number     | Nut Type | ID   |      |        | F1        |           | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|-----------|------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size | F1        |      |        |      |
| 1201491   | H1422592-242400 | TN       | 24   | 38,0 | 1 1/2" | 24        | 1 7/8-12  | 94,5 | 92,0   | 55,0 |
| 1201490   | H1422592-202000 | TN       | 20   | 32,0 | 1 1/4" | 20        | 1 5/8-12  | 79,2 | 78,0   | 50,0 |
| 1201488   | H1422592-121200 | TN       | 12   | 19,0 | 3/4"   | 12        | 1 1/16-12 | 45,0 | 57,0   | 32,0 |
| 1201489   | H1422592-161600 | TN       | 16   | 25,0 | 1"     | 16        | 1 5/16-12 | 71,0 | 67,0   | 38,0 |
| 1202103   | H1422592-121600 | TN       | 12   | 19,0 | 3/4"   | 16        | 1 5/16-12 | 58,0 | 60,5   | 38,0 |

Dimensions shown may be changed without prior notice

## // NPTF INSERTS

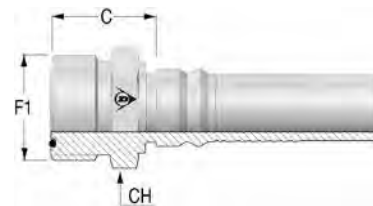
### NPTF Male 60° Seat AGN



| Item Code | Part Number     | Nut Type | ID   |      |        | F1 | F1           | C    | CH   |
|-----------|-----------------|----------|------|------|--------|----|--------------|------|------|
|           |                 |          | Dash | mm   | in     |    |              |      |      |
| 1200193   | H1412810-121200 | NA       | 12   | 19,0 | 3/4"   | 12 | 3/4-14       | 32,0 | 27,0 |
| 1200281   | H1412810-323200 | NA       | 32   | 51,0 | 2"     | 32 | 2-11 1/2     | 53,2 | 65,0 |
| 1200219   | H1412810-161600 | NA       | 16   | 25,0 | 1"     | 16 | 1-11 1/2     | 42,0 | 36,0 |
| 1200263   | H1412810-242400 | NA       | 24   | 38,0 | 1 1/2" | 24 | 1 1/2-11 1/2 | 48,0 | 50,0 |
| 1201609   | H1412810-060600 | NA       | 06   | 10,0 | 3/8"   | 06 | 3/8-18       | 26,5 | 19,0 |
| 1200240   | H1412810-202000 | NA       | 20   | 32,0 | 1 1/4" | 20 | 1 1/4-11 1/2 | 46,2 | 46,0 |
| 1203127   | H1412810-080800 | NA       | 08   | 13,0 | 1/2"   | 08 | 1/2-14       | 30,0 | 22,0 |

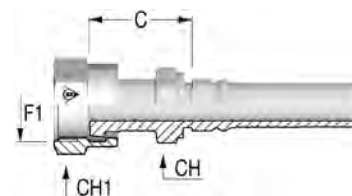
## // ORFS INSERTS

### ORFS Male



| Item Code | Part Number     | Nut Type | ID   |      |      | F1        | F1        | C       | CH   |
|-----------|-----------------|----------|------|------|------|-----------|-----------|---------|------|
|           |                 |          | Dash | mm   | in   | Dash Size |           |         |      |
| 1231483   | H1412410-161600 | NA       | 16   | 25,0 | 1"   | 16        | 1 7/16-12 | 35,8    | 38,0 |
| 1214664   | H1412410-121200 | NA       | 12   | 19,0 | 3/4" | 12        | 1 3/16-12 | 30200,0 | 30,0 |

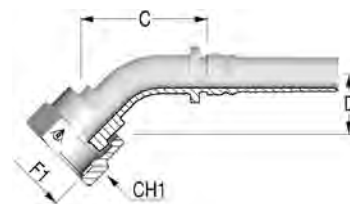
### ORFS Female with Stem Hexagon



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1         | C    | CH   | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|------------|------|------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |            | mm   | mm   | mm   |
| 1202099   | H1422411-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 40,0 | 30,0 | 36,0 |
| 1201807   | H1422411-202000 | CR       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 47,2 | 46,0 | 50,0 |
| 1202864   | H1422411-101200 | CR       | 10   | 16,0 | 5/8"   | 12        | 1 3/16-12  | 40,0 | 30,0 | 36,0 |
| 1216955   | H1422411-201600 | CR       | 20   | 32,0 | 1 1/4" | 16        | 1 7/16-12  | 47,2 | 41,0 | 41,0 |
| 1216952   | H1422411-161200 | CR       | 16   | 25,0 | 1"     | 12        | 1 3/16-12  | 42,0 | 32,0 | 36,0 |
| 1202071   | H1422411-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 47,0 | 36,0 | 41,0 |
| 1202107   | H1422411-162000 | CR       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 49,0 | 46,0 | 50,0 |
| 1202106   | H1422411-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 43,0 | 36,0 | 41,0 |
| 1216956   | H1422411-242400 | CR       | 24   | 38,0 | 1 1/2" | 24        | 2-12       | 52,0 | 50,0 | 60,0 |

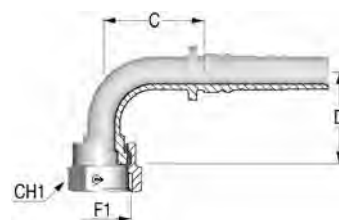
Dimensions shown may be changed without prior notice

**45° ORFS Female**  
**DK ORFS 45**  
**Solid one piece**



| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1         | C     | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|------------|-------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |            | mm    | mm     | mm   |
| 1202112   | H1422441-202000 | CR       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 100,7 | 33,0   | 50,0 |
| 1202111   | H1422441-162000 | CR       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 83,4  | 28,0   | 50,0 |
| 1202110   | H1422441-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 114,0 | 28,0   | 41,0 |
| 1202109   | H1422441-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 68,4  | 28,0   | 41,0 |
| 1202108   | H1422441-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 77,7  | 26,0   | 36,0 |

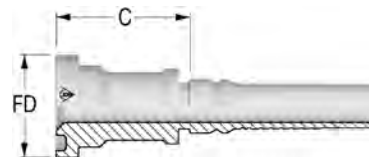
**90° ORFS Female**  
**DK ORFS 90**  
**Solid one piece**



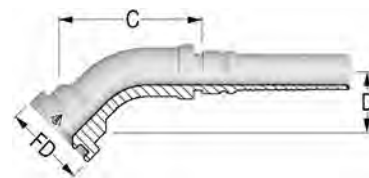
| Item Code | Part Number     | Nut Type | ID   |      |        | F1        | F1         | C    | D Drop | CH1  |
|-----------|-----------------|----------|------|------|--------|-----------|------------|------|--------|------|
|           |                 |          | Dash | mm   | in     | Dash Size |            | mm   | mm     | mm   |
| 1203123   | H1422491-101200 | CR       | 10   | 16,0 | 5/8"   | 12        | 1 3/16-12  | 48,1 | 58,0   | 36,0 |
| 1202116   | H1422491-121600 | CR       | 12   | 19,0 | 3/4"   | 16        | 1 7/16-12  | 66,2 | 58,0   | 41,0 |
| 1202115   | H1422491-161600 | CR       | 16   | 25,0 | 1"     | 16        | 1 7/16-12  | 75,2 | 66,0   | 41,0 |
| 1202114   | H1422491-162000 | CR       | 16   | 25,0 | 1"     | 20        | 1 11/16-12 | 73,2 | 66,0   | 50,0 |
| 1202113   | H1422491-202000 | CR       | 20   | 32,0 | 1 1/4" | 20        | 1 11/16-12 | 91,7 | 81,0   | 50,0 |
| 1202117   | H1422491-121200 | CR       | 12   | 19,0 | 3/4"   | 12        | 1 3/16-12  | 64,2 | 58,0   | 36,0 |

## // SAE FLANGES

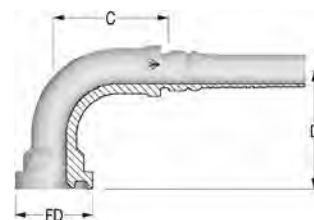
## Flange SAE 3000 PSI J518 Code 61 - SFL



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | C    | FD   | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm   | psi  |
| 1200234   | H1443310-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 51,5 | 50,8 | 4000 |
| 1200256   | H1443310-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 55,7 | 60,3 | 3000 |
| 1200257   | H1443310-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 52,7 | 50,8 | 4000 |
| 1200276   | H1443310-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 56,0 | 60,3 | 3000 |
| 1200287   | H1443310-323200 | 32   | 51,0 | 2"     | 32        | 2           | 69,0 | 71,4 | 3000 |
| 1200233   | H1443310-161600 | 16   | 25,0 | 1"     | 16        | 1           | 49,0 | 44,5 | 5000 |
| 1200277   | H1443310-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 67,5 | 71,4 | 3000 |

45° Flange SAE 3000 PSI J518 Code 61 - SFL 45  
Solid one piece

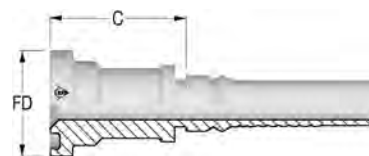
| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm    | mm     | psi  |
| 1200230   | H1443340-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 95,6  | 30,0   | 4000 |
| 1200252   | H1443340-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 60,3 | 92,8  | 40,0   | 3000 |
| 1200285   | H1443340-323200 | 32   | 51,0 | 2"     | 32        | 2           | 71,4 | 138,1 | 54,0   | 3000 |
| 1200253   | H1443340-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 100,9 | 32,5   | 4000 |
| 1200272   | H1443340-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 103,7 | 43,0   | 3000 |
| 1200273   | H1443340-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 71,4 | 132,7 | 56,5   | 3000 |

90° Flange SAE 3000 PSI J518 Code 61 - SFL 90  
Solid one piece

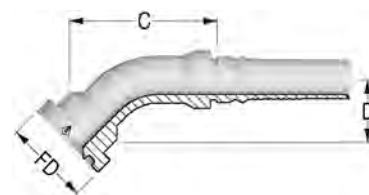
| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm    | mm     | psi  |
| 1200274   | H1443390-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 60,3 | 95,5  | 93,0   | 3000 |
| 1200231   | H1443390-161600 | 16   | 25,0 | 1"     | 16        | 1           | 44,5 | 72,2  | 64,0   | 5000 |
| 1200275   | H1443390-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 71,4 | 130,3 | 97,0   | 3000 |
| 1200286   | H1443390-323200 | 32   | 51,0 | 2"     | 32        | 2           | 71,4 | 134,4 | 130,0  | 3000 |
| 1200232   | H1443390-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 50,8 | 70,2  | 69,0   | 4000 |
| 1200254   | H1443390-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 60,3 | 81,2  | 85,0   | 3000 |
| 1200255   | H1443390-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 50,8 | 86,2  | 81,0   | 4000 |



Dimensions shown may be changed without prior notice

**Flange SAE 6000 PSI J518 Code 62 - SFS**

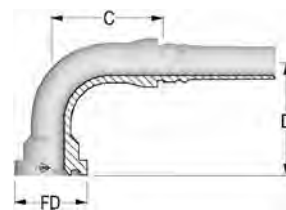
| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | C    | FD   | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm   | psi  |
| 1200270   | H1443610-242000 | 24   | 38,0 | 1 1/2" | 20        | 1 1/4       | 62,5 | 54,0 | 6000 |
| 1200271   | H1443610-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 80,5 | 79,4 | 6000 |
| 1200198   | H1443610-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 53,0 | 47,6 | 6000 |
| 1200284   | H1443610-323200 | 32   | 51,0 | 2"     | 32        | 2           | 87,0 | 79,4 | 6000 |
| 1200245   | H1443610-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 68,2 | 63,5 | 6000 |
| 1200224   | H1443610-161600 | 16   | 25,0 | 1"     | 16        | 1           | 54,0 | 47,6 | 6000 |
| 1200246   | H1443610-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 62,2 | 54,0 | 6000 |
| 1200268   | H1443610-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 68,5 | 63,5 | 6000 |
| 1200199   | H1443610-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 50,0 | 41,3 | 6000 |
| 1201218   | H1443610-161200 | 16   | 25,0 | 1"     | 12        | 3/4         | 51,0 | 41,3 | 6000 |
| 1200225   | H1443610-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 61,0 | 54,0 | 6000 |
| 1201556   | H1443610-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 80,2 | 47,6 | 6000 |

**45° Flange SAE 6000 PSI J518 Code 62 - SFS 45  
Solid one piece**

| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             | mm   | mm    | mm     | psi  |
| 1200194   | H1443640-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 47,6 | 76,8  | 33,0   | 6000 |
| 1200282   | H1443640-323200 | 32   | 51,0 | 2"     | 32        | 2           | 79,4 | 160,6 | 63,0   | 6000 |
| 1200241   | H1443640-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 63,5 | 111,7 | 48,0   | 6000 |
| 1200220   | H1443640-161600 | 16   | 25,0 | 1"     | 16        | 1           | 47,6 | 94,8  | 35,0   | 6000 |
| 1200242   | H1443640-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 54,0 | 102,0 | 39,5   | 6000 |
| 1200264   | H1443640-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 63,5 | 136,3 | 48,0   | 6000 |
| 1200195   | H1443640-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 41,3 | 72,1  | 30,0   | 6000 |
| 1202890   | H1443640-161200 | 16   | 25,0 | 1"     | 12        | 3/4         | 41,3 | 80,3  | 29,5   | 6000 |
| 1200221   | H1443640-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 54,0 | 105,3 | 44,0   | 6000 |
| 1200265   | H1443640-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 79,4 | 129,1 | 55,0   | 6000 |
| 1201557   | H1443640-201600 | 20   | 32,0 | 1 1/4" | 16        | 1           | 47,6 | 104,7 | 34,5   | 6000 |

### 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90

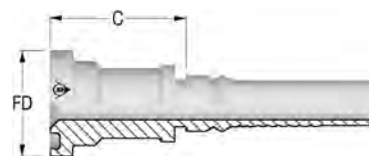
Solid one piece



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |      |       |        |      |
| 1200197   | H1443690-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4         | 41,3 | 61,2  | 64,0   | 6000 |
| 1200283   | H1443690-323200 | 32   | 51,0 | 2"     | 32        | 2           | 79,4 | 146,0 | 138,5  | 6000 |
| 1200196   | H1443690-121600 | 12   | 19,0 | 3/4"   | 16        | 1           | 47,6 | 61,2  | 66,0   | 6000 |
| 1200223   | H1443690-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4       | 54,0 | 77,2  | 80,0   | 6000 |
| 1200267   | H1443690-243200 | 24   | 38,0 | 1 1/2" | 32        | 2           | 79,4 | 106,5 | 121,5  | 6000 |
| 1200243   | H1443690-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2       | 63,5 | 92,9  | 103,5  | 6000 |
| 1200222   | H1443690-161600 | 16   | 25,0 | 1"     | 16        | 1           | 47,6 | 70,4  | 74,0   | 6000 |
| 1200244   | H1443690-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4       | 54,0 | 88,2  | 91,0   | 6000 |
| 1200266   | H1443690-242400 | 24   | 38,0 | 1 1/2" | 24        | 1 1/2       | 63,5 | 106,3 | 109,0  | 6000 |
| 1202811   | H1443690-161200 | 16   | 25,0 | 1"     | 12        | 3/4         | 41,3 | 70,2  | 61,0   | 6000 |

### Flange SAE 6000 PSI J518 Code 62 - SFS

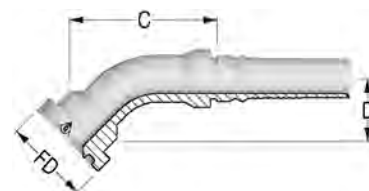
Special version



| Item Code | Part Number     | ID   |      |        | Flange    | Flange Size | C     | FD    | WP   |
|-----------|-----------------|------|------|--------|-----------|-------------|-------|-------|------|
|           |                 | Dash | mm   | in     | Dash Size |             |       |       |      |
| 1223388   | H1T43610-323200 | 32   | 51,0 | 2"     | 32        | 2           | 104,0 | 79,4  | 6000 |
| 1235395   | H1T43610-404000 | 40   | 63,0 | 2 1/2" | 40        | 2 1/2       | 124,3 | 108,0 | 6000 |

### 45° Flange SAE 6000 PSI J518 Code 62 - SFS 45

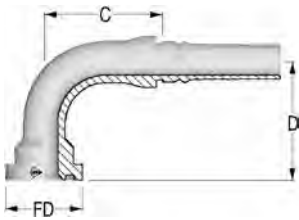
Solid one piece  
Special version



| Item Code | Part Number     | ID   |      |    | Flange    | Flange Size | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|----|-----------|-------------|------|-------|--------|------|
|           |                 | Dash | mm   | in | Dash Size |             |      |       |        |      |
| 1223389   | H1T43640-323200 | 32   | 51,0 | 2" | 32        | 2           | 79,4 | 141,0 | 63,0   | 6000 |

Dimensions shown may be changed without prior notice

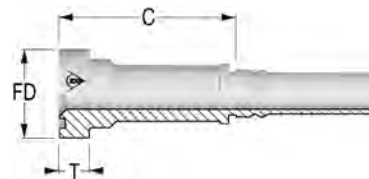
**90° Flange SAE 6000 PSI J518 Code 62 - SFS 90**  
**Solid one piece**  
**Special version**



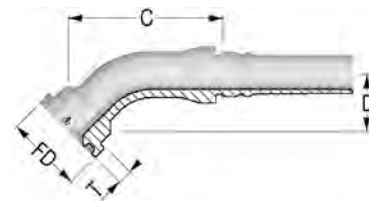
| Item Code | Part Number     | ID   |      |    | Flange    | Flange | FD   | C     | D Drop | WP   |
|-----------|-----------------|------|------|----|-----------|--------|------|-------|--------|------|
|           |                 | Dash | mm   | in | Dash Size | Size   |      |       |        |      |
| 1223168   | H1T43690-322400 | 32   | 51,0 | 2" | 24        | 1 1/2  | 63,5 | 134,0 | 112,0  | 6000 |
| 1228051   | H1T43690-323200 | 32   | 51,0 | 2" | 32        | 2      | 79,4 | 132,0 | 145,0  | 6000 |

## // SUPERCAT FLANGES

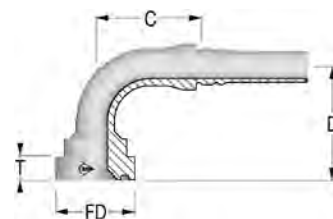
## Flange SUPERCAT



| Item Code | Part Number     | ID   |      |        | Flange    |           | Flange Size | FD   | T    | C |
|-----------|-----------------|------|------|--------|-----------|-----------|-------------|------|------|---|
|           |                 | Dash | mm   | in     | Dash Size | Dash Size |             |      |      |   |
| 1202392   | H1443910-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2     | 63,5        | 14,3 | 83,2 |   |
| 1202391   | H1443910-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4     | 54,0        | 14,3 | 86,2 |   |
| 1202389   | H1443910-161600 | 16   | 25,0 | 1"     | 16        | 1         | 47,6        | 14,3 | 90,0 |   |
| 1202388   | H1443910-121600 | 12   | 19,0 | 3/4"   | 16        | 1         | 47,6        | 14,3 | 82,0 |   |
| 1202219   | H1443910-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4       | 41,3        | 14,3 | 82,0 |   |
| 1202390   | H1443910-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4     | 54,0        | 14,3 | 90,0 |   |

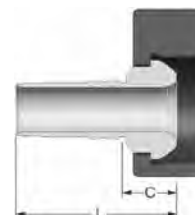
45° Flange SUPERCAT  
Solid one piece

| Item Code | Part Number     | ID   |      |        | Flange    |           | Flange Size | FD   | T     | C    | D Drop |
|-----------|-----------------|------|------|--------|-----------|-----------|-------------|------|-------|------|--------|
|           |                 | Dash | mm   | in     | Dash Size | Dash Size |             |      |       |      |        |
| 1202394   | H1443940-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4     | 54,0        | 14,3 | 103,6 | 43,0 |        |
| 1202393   | H1443940-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2     | 63,5        | 14,3 | 110,1 | 49,5 |        |
| 1202398   | H1443940-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4       | 41,3        | 14,3 | 82,9  | 34,0 |        |
| 1202397   | H1443940-121600 | 12   | 19,0 | 3/4"   | 16        | 1         | 47,6        | 14,3 | 87,4  | 34,0 |        |
| 1202396   | H1443940-161600 | 16   | 25,0 | 1"     | 16        | 1         | 47,6        | 14,3 | 93,9  | 40,0 |        |
| 1202395   | H1443940-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4     | 54,0        | 14,3 | 95,4  | 40,0 |        |

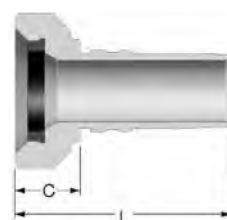
90° Flange SUPERCAT  
Solid one piece

| Item Code | Part Number     | ID   |      |        | Flange    |           | Flange Size | FD   | T    | C     | D Drop |
|-----------|-----------------|------|------|--------|-----------|-----------|-------------|------|------|-------|--------|
|           |                 | Dash | mm   | in     | Dash Size | Dash Size |             |      |      |       |        |
| 1202402   | H1443990-162000 | 16   | 25,0 | 1"     | 20        | 1 1/4     | 54,0        | 14,3 | 75,4 | 82,5  |        |
| 1202401   | H1443990-161600 | 16   | 25,0 | 1"     | 16        | 1         | 47,6        | 14,3 | 80,4 | 79,0  |        |
| 1202400   | H1443990-121600 | 12   | 19,0 | 3/4"   | 16        | 1         | 47,6        | 14,3 | 65,2 | 70,0  |        |
| 1202399   | H1443990-121200 | 12   | 19,0 | 3/4"   | 12        | 3/4       | 41,3        | 14,3 | 63,7 | 67,0  |        |
| 1202404   | H1443990-202400 | 20   | 32,0 | 1 1/4" | 24        | 1 1/2     | 63,5        | 14,3 | 91,4 | 101,0 |        |
| 1202403   | H1443990-202000 | 20   | 32,0 | 1 1/4" | 20        | 1 1/4     | 54,0        | 14,3 | 89,2 | 93,0  |        |

Dimensions shown may be changed without prior notice

**// HAMMER UNION****Male Hammer Union Fig. 1502 integral fitting with Lug Nut  
Special version**

| Item Code | Part Number     | ID   |      |    | C    | L      |
|-----------|-----------------|------|------|----|------|--------|
|           |                 | Dash | mm   | in | mm   | mm     |
| 1235624   | H1T13F13-323200 | 32   | 51,0 | 2" | 60,8 | 162,20 |

**Female Hammer Union Fig. 1502 integral fitting with Rubber  
Ring  
Special version**

| Item Code | Part Number     | ID   |      |    | C    | L      |
|-----------|-----------------|------|------|----|------|--------|
|           |                 | Dash | mm   | in | mm   | mm     |
| 1235623   | H1T23F10-323200 | 32   | 51,0 | 2" | 57,3 | 158,70 |



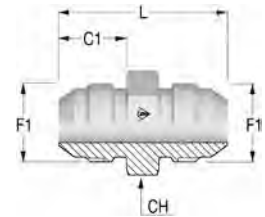
## // JIC 37° ADAPTERS

|                             |     |                     |     |
|-----------------------------|-----|---------------------|-----|
| // MALE UNION.....          | 137 | // SAE UNF.....     | 161 |
| // MALE / FEMALE UNION..... | 139 | // NPTF.....        | 169 |
| // BULKHEAD.....            | 142 | // FLANGES.....     | 172 |
| // BSPP.....                | 145 | // ACCESSORIES..... | 175 |
| // METRIC.....              | 155 | // PLUG.....        | 176 |

Dimensions shown may be changed without prior notice

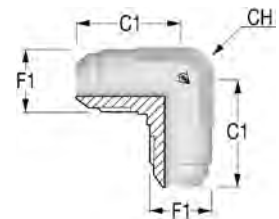
## // MALE UNION

## Straight union JIC - JIC Male

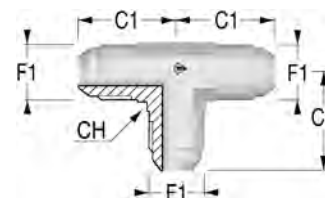


| Item Code | Part Number     | OD1    | F1        | C1   | CH   | L    |
|-----------|-----------------|--------|-----------|------|------|------|
|           |                 | in     |           | mm   | mm   | mm   |
| 1203670   | R1A25M125M-0808 | 1/2"   | 3/4-16    | 16,5 | 22,0 | 41,0 |
| 1203628   | R1A25M125M-0505 | 5/16"  | 1/2-20    | 14,0 | 14,0 | 35,0 |
| 1203639   | R1A25M125M-1616 | 1"     | 1 5/16-12 | 23,0 | 36,0 | 57,0 |
| 1203685   | R1A25M125M-0404 | 1/4"   | 7/16-20   | 14,0 | 12,0 | 35,0 |
| 1203698   | R1A25M125M-1010 | 5/8"   | 7/8-14    | 19,5 | 24,0 | 48,0 |
| 1203653   | R1A25M125M-2424 | 1 1/2" | 1 7/8-12  | 27,5 | 50,0 | 70,0 |
| 1203616   | R1A25M125M-1212 | 3/4"   | 1 1/16-12 | 22,0 | 30,0 | 55,0 |
| 1216393   | R1A25M125M-1414 | 7/8"   | 1 3/16-12 | 22,5 | 32,0 | 56,5 |
| 1203713   | R1A25M125M-0606 | 3/8"   | 9/16-18   | 14,0 | 17,0 | 36,0 |
| 1203646   | R1A25M125M-2020 | 1 1/4" | 1 5/8-12  | 24,5 | 46,0 | 61,5 |

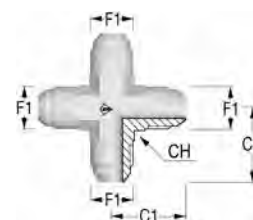
## 90° union JIC - JIC Male



| Item Code | Part Number     | OD1    | F1        | C1   | CH   |
|-----------|-----------------|--------|-----------|------|------|
|           |                 | in     |           | mm   | mm   |
| 1206334   | R1A25M925M-2424 | 1 1/2" | 1 7/8-12  | 59,0 | 48,0 |
| 1203849   | R1A25M925M-1616 | 1"     | 1 5/16-12 | 46,0 | 33,0 |
| 1216421   | R1A25M925M-1414 | 7/8"   | 1 3/16-12 | 44,0 | 33,0 |
| 1203876   | R1A25M925M-0404 | 1/4"   | 7/16-20   | 22,5 | 12,0 |
| 1203842   | R1A25M925M-0505 | 5/16"  | 1/2-20    | 24,0 | 14,0 |
| 1203897   | R1A25M925M-0606 | 3/8"   | 9/16-18   | 27,0 | 14,0 |
| 1203884   | R1A25M925M-1010 | 5/8"   | 7/8-14    | 37,0 | 22,0 |
| 1203836   | R1A25M925M-1212 | 3/4"   | 1 1/16-12 | 42,0 | 27,0 |
| 1203866   | R1A25M925M-0808 | 1/2"   | 3/4-16    | 32,0 | 19,0 |
| 1203855   | R1A25M925M-2020 | 1 1/4" | 1 5/8-12  | 52,5 | 41,0 |

**Tee union JIC - JIC Male**

| Item Code | Part Number     | OD1   | F1        | C1   | CH   |
|-----------|-----------------|-------|-----------|------|------|
|           |                 | in    |           | mm   | mm   |
| 1203948   | R1A25MT25M-0808 | 1/2"  | 3/4-16    | 32,0 | 19,0 |
| 1206335   | R1A25MT25M-2424 | 1"1/2 | 1 7/8-12  | 59,0 | 48,0 |
| 1216460   | R1A25MT25M-1414 | 7/8"  | 1 3/16-12 | 44,0 | 33,0 |
| 1203947   | R1A25MT25M-1616 | 1"    | 1 5/16-12 | 46,0 | 33,0 |
| 1203952   | R1A25MT25M-1010 | 5/8"  | 7/8-14    | 37,0 | 22,0 |
| 1203950   | R1A25MT25M-0404 | 1/4"  | 7/16-20   | 22,5 | 12,0 |
| 1205959   | R1A25MT25M-2020 | 1"1/4 | 1 5/8-12  | 52,5 | 41,0 |
| 1203945   | R1A25MT25M-0505 | 5/16" | 1/2-20    | 24,0 | 14,0 |
| 1203944   | R1A25MT25M-1212 | 3/4"  | 1 1/16-12 | 42,0 | 27,0 |
| 1203954   | R1A25MT25M-0606 | 3/8"  | 9/16-18   | 27,0 | 14,0 |

**Cross union JIC - JIC Male**

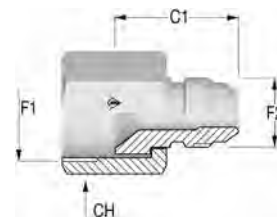
| Item Code | Part Number     | OD1   | F1        | C1   | CH   |
|-----------|-----------------|-------|-----------|------|------|
|           |                 | in    |           | mm   | mm   |
| 1205453   | R1A25MX25M-0808 | 1/2"  | 3/4-16    | 32,0 | 19,0 |
| 1205454   | R1A25MX25M-1010 | 5/8"  | 7/8-14    | 37,0 | 22,0 |
| 1212824   | R1A25MX25M-2424 | 1"1/2 | 1 7/8-12  | 59,0 | 48,0 |
| 1205455   | R1A25MX25M-0606 | 3/8"  | 9/16-18   | 27,0 | 14,0 |
| 1216494   | R1A25MX25M-1414 | 7/8"  | 1 3/16-12 | 44,0 | 33,0 |
| 1205451   | R1A25MX25M-0505 | 5/16" | 1/2-20    | 24,0 | 14,0 |
| 1206909   | R1A25MX25M-0404 | 1/4"  | 7/16-20   | 22,5 | 12,0 |
| 1205452   | R1A25MX25M-1616 | 1"    | 1 5/16-12 | 46,0 | 33,0 |
| 1212823   | R1A25MX25M-2020 | 1"1/4 | 1 5/8-12  | 52,5 | 41,0 |
| 1206835   | R1A25MX25M-1212 | 3/4"  | 1 1/16-12 | 42,0 | 27,0 |



Dimensions shown may be changed without prior notice

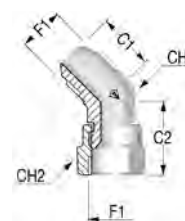
## // MALE / FEMALE UNION

## Straight reducing JIC Female - JIC Male

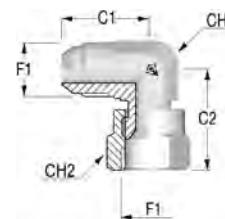


| Item Code | Part Number     | OD1   | F1        | F2        | C1   | CH   |
|-----------|-----------------|-------|-----------|-----------|------|------|
|           |                 | in    |           |           | mm   | mm   |
| 1207357   | R1A253125M-0604 | 3/8"  | 9/16-18   | 7/16-20   | 24,5 | 19,0 |
| 1207368   | R1A253125M-2016 | 1"1/4 | 1 5/8-12  | 1 5/16-12 | 40,0 | 50,0 |
| 1207367   | R1A253125M-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 37,5 | 41,0 |
| 1207359   | R1A253125M-0805 | 1/2"  | 3/4-16    | 1/2-20    | 25,5 | 22,0 |
| 1207369   | R1A253125M-2420 | 1"1/2 | 1 7/8-12  | 1 5/8-12  | 47,8 | 60,0 |
| 1207358   | R1A253125M-0804 | 1/2"  | 3/4-16    | 7/16-20   | 25,5 | 22,0 |
| 1207364   | R1A253125M-1206 | 3/4"  | 1 1/16-12 | 9/16-18   | 27,0 | 32,0 |
| 1207363   | R1A253125M-1204 | 3/4"  | 1 1/16-12 | 7/16-20   | 27,0 | 32,0 |
| 1207366   | R1A253125M-2012 | 1"1/4 | 1 5/8-12  | 1 1/16-12 | 39,1 | 50,0 |
| 1207365   | R1A253125M-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 30,5 | 32,0 |
| 1207360   | R1A253125M-0806 | 1/2"  | 3/4-16    | 9/16-18   | 25,5 | 22,0 |
| 1208272   | R1A253125M-1610 | 1"    | 1 5/16-12 | 7/8-14    | 34,0 | 41,0 |
| 1213168   | R1A251125M-1614 | 1"    | 1 5/16-12 | 1 3/16-12 | 39,5 | 38,0 |
| 1207362   | R1A253125M-1006 | 5/8"  | 7/8-14    | 9/16-18   | 26,5 | 27,0 |
| 1207361   | R1A253125M-1004 | 5/8"  | 7/8-14    | 7/16-20   | 26,5 | 27,0 |
| 1216367   | R1A253125M-2416 | 1"1/2 | 1 7/8-12  | 1 5/16-12 | 46,3 | 60,0 |
| 1216366   | R1A253125M-1608 | 1"    | 1 5/16-12 | 3/4-16    | 31,0 | 41,0 |
| 1216344   | R/A251125M-1412 | 7/8"  | 1 3/16-12 | 1 1/16-12 | 36,4 | 36,0 |
| 1216365   | R1A253125M-1606 | 1"    | 1 5/16-12 | 9/16-18   | 28,5 | 41,0 |
| 1207617   | R1A251125M-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 34,5 | 32,0 |
| 1207616   | R1A251125M-1008 | 5/8"  | 7/8-14    | 3/4-16    | 32,5 | 27,0 |
| 1207615   | R/A251125M-0605 | 3/8"  | 9/16-18   | 1/2-20    | 25,0 | 19,0 |

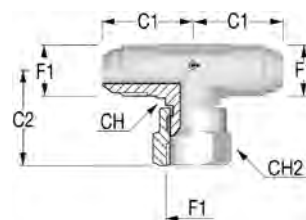
## 45° union JIC Male - JIC Female



| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|-----------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   |
| 1207346   | R1A25M4251-1616 | 1"    | 1 5/16-12 | 36,5 | 44,6 | 33,0 | 38,0 |
| 1207345   | R1A25M4251-1212 | 3/4"  | 1 1/16-12 | 32,5 | 38,3 | 27,0 | 32,0 |
| 1207347   | R1A25M4252-2020 | 1"1/4 | 1 5/8-12  | 40,5 | 51,4 | 41,0 | 50,0 |
| 1207342   | R1A25M4251-0505 | 5/16" | 1/2-20    | 20,0 | 25,5 | 14,0 | 17,0 |
| 1207341   | R1A25M4251-0606 | 3/8"  | 9/16-18   | 21,5 | 28,5 | 14,0 | 19,0 |
| 1207344   | R1A25M4251-0808 | 1/2"  | 3/4-16    | 24,5 | 32,7 | 19,0 | 25,0 |
| 1216410   | R1A25M4251-1414 | 7/8"  | 1 3/16-12 | 35,4 | 43,0 | 33,0 | 36,0 |
| 1207343   | R1A25M4251-0404 | 1/4"  | 7/16-20   | 18,5 | 23,7 | 12,0 | 16,0 |
| 1206944   | R1A25M4251-1010 | 5/8"  | 7/8-14    | 28,0 | 36,7 | 22,0 | 27,0 |
| 1210765   | R1A25M4252-2424 | 1"1/2 | 1 7/8-12  | 45,0 | 57,1 | 48,0 | 55,0 |

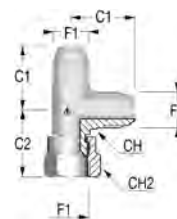
**90° union JIC Male - JIC Female**

| Item Code | Part Number     | OD1    | F1        | C1   | C2   | CH   | CH2  |
|-----------|-----------------|--------|-----------|------|------|------|------|
|           |                 | in     |           | mm   | mm   | mm   | mm   |
| 1207269   | R1A25M9251-0808 | 1/2"   | 3/4-16    | 32,5 | 35,2 | 19,0 | 25,0 |
| 1207268   | R1A25M9251-0606 | 3/8"   | 9/16-18   | 27,0 | 32,0 | 14,0 | 19,0 |
| 1207267   | R1A25M9251-0505 | 5/16"  | 1/2-20    | 24,5 | 27,0 | 14,0 | 17,0 |
| 1207266   | R1A25M9251-0404 | 1/4"   | 7/16-20   | 22,5 | 25,2 | 12,0 | 16,0 |
| 1216420   | R1A25M9251-1414 | 7/8"   | 1 3/16-12 | 45,5 | 48,0 | 33,0 | 36,0 |
| 1207272   | R1A25M9251-1616 | 1"     | 1 5/16-12 | 46,0 | 50,6 | 33,0 | 38,0 |
| 1207271   | R1A25M9251-1212 | 3/4"   | 1 1/16-12 | 42,0 | 44,3 | 27,0 | 32,0 |
| 1207274   | R1A25M9252-2424 | 1 1/2" | 1 7/8-12  | 59,0 | 65,6 | 48,0 | 55,0 |
| 1207273   | R1A25M9252-2020 | 1 1/4" | 1 5/8-12  | 52,5 | 58,9 | 41,0 | 50,0 |
| 1207270   | R1A25M9251-1010 | 5/8"   | 7/8-14    | 36,5 | 41,5 | 22,0 | 27,0 |

**Branch Tee union JIC Male - JIC Female**

| Item Code | Part Number     | OD1    | F1        | C1   | C2   | CH   | CH2  |
|-----------|-----------------|--------|-----------|------|------|------|------|
|           |                 | in     |           | mm   | mm   | mm   | mm   |
| 1207312   | R1A25MT252-2424 | 1 1/2" | 1 7/8-12  | 59,0 | 59,0 | 48,0 | 50,0 |
| 1207304   | R1A25MT251-0404 | 1/4"   | 7/16-20   | 22,5 | 22,5 | 12,0 | 16,0 |
| 1207311   | R1A25MT252-2020 | 1 1/4" | 1 5/8-12  | 52,5 | 52,5 | 41,0 | 50,0 |
| 1207310   | R1A25MT251-1616 | 1"     | 1 5/16-12 | 46,0 | 46,0 | 33,0 | 38,0 |
| 1207309   | R1A25MT251-1212 | 3/4"   | 1 1/16-12 | 42,0 | 42,0 | 27,0 | 32,0 |
| 1216459   | R1A25MT251-1414 | 7/8"   | 1 3/16-12 | 45,5 | 45,5 | 33,0 | 36,0 |
| 1207306   | R1A25MT251-0606 | 3/8"   | 9/16-18   | 27,0 | 27,0 | 14,0 | 19,0 |
| 1207305   | R1A25MT251-0505 | 5/16"  | 1/2-20    | 24,0 | 24,0 | 14,0 | 17,0 |
| 1207308   | R1A25MT251-1010 | 5/8"   | 7/8-14    | 36,5 | 36,5 | 22,0 | 27,0 |
| 1207307   | R1A25MT251-0808 | 1/2"   | 3/4-16    | 32,0 | 32,0 | 19,0 | 25,0 |

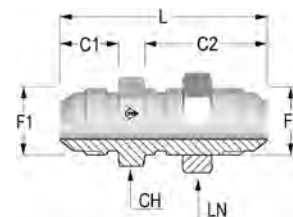
Dimensions shown may be changed without prior notice

**Run Tee union JIC Male - JIC Female**

| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|-----------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   |
| 1207287   | R1A25ML251-1010 | 5/8"  | 7/8-14    | 36,5 | 41,5 | 22,0 | 27,0 |
| 1216434   | R1A25ML251-1414 | 7/8"  | 1 3/16-12 | 45,5 | 46,5 | 33,0 | 36,0 |
| 1207286   | R1A25ML251-0808 | 1/2"  | 3/4-16    | 32,0 | 35,2 | 19,0 | 25,0 |
| 1207289   | R1A25ML251-1616 | 1"    | 1 5/16-12 | 46,0 | 50,5 | 33,0 | 38,0 |
| 1207288   | R1A25ML251-1212 | 3/4"  | 1 1/16-12 | 42,0 | 44,3 | 27,0 | 32,0 |
| 1207283   | R1A25ML251-0404 | 1/4"  | 7/16-20   | 22,5 | 25,2 | 12,0 | 16,0 |
| 1207285   | R1A25ML251-0606 | 3/8"  | 9/16-18   | 27,0 | 32,0 | 14,0 | 19,0 |
| 1207284   | R1A25ML251-0505 | 5/16" | 1/2-20    | 24,0 | 27,0 | 14,0 | 17,0 |
| 1207290   | R1A25ML252-2020 | 1"1/4 | 1 5/8-12  | 52,5 | 59,0 | 41,0 | 50,0 |
| 1207291   | R1A25ML252-2424 | 1"1/2 | 1 7/8-12  | 59,0 | 65,6 | 48,0 | 55,0 |

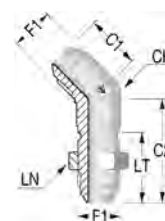
## // BULKHEAD

## Straight union JIC - JIC Bulkhead



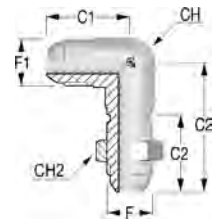
| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | LN   | L    |
|-----------|-----------------|-------|-----------|------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   | mm   |
| 1203629   | R1A25M125T-0505 | 5/16" | 1/2-20    | 14,0 | 30,5 | 19,0 | 19,0 | 52,5 |
| 1203617   | R1A25M125T-1212 | 3/4"  | 1 1/16-12 | 22,0 | 44,5 | 36,0 | 36,0 | 78,5 |
| 1216394   | R1A25M125T-1414 | 7/8"  | 1 3/16-12 | 22,5 | 44,5 | 38,0 | 41,0 | 79,2 |
| 1203640   | R1A25M125T-1616 | 1"    | 1 5/16-12 | 23,0 | 44,5 | 41,0 | 41,0 | 80,0 |
| 1203671   | R1A25M125T-0808 | 1/2"  | 3/4-16    | 16,5 | 36,5 | 24,0 | 24,0 | 62,0 |
| 1203699   | R1A25M125T-1010 | 5/8"  | 7/8-14    | 19,5 | 40,0 | 30,0 | 30,0 | 69,5 |
| 1203686   | R1A25M125T-0404 | 1/4"  | 7/16-20   | 14,0 | 30,5 | 17,0 | 17,0 | 52,5 |
| 1211675   | R1A25M125T-2424 | 1"1/2 | 1 7/8-12  | 27,5 | 46,0 | 55,0 | 55,0 | 89,5 |
| 1203714   | R1A25M125T-0606 | 3/8"  | 9/16-18   | 14,0 | 32,5 | 22,0 | 22,0 | 55,5 |
| 1203647   | R1A25M125T-2020 | 1"1/4 | 1 5/8-12  | 24,5 | 45,5 | 50,0 | 50,0 | 84,0 |

## 45° union JIC - JIC Bulkhead

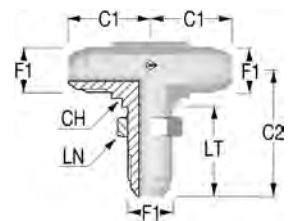


| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|-----------|------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   | mm   |
| 1210767   | R1A25M425T-0808 | 1/2"  | 3/4-16    | 25,0 | 49,5 | 19,0 | 24,0 | 31,8 |
| 1210768   | R1A25M425T-1010 | 5/8"  | 7/8-14    | 28,0 | 55,0 | 22,0 | 30,0 | 35,3 |
| 1210769   | R1A25M425T-1212 | 3/4"  | 1 1/16-12 | 32,5 | 62,0 | 27,0 | 36,0 | 39,6 |
| 1211706   | R1A25M425T-0505 | 5/16" | 1/2-20    | 19,5 | 42,0 | 14,0 | 19,0 | 25,9 |
| 1208045   | R/A25M425T-0606 | 3/8"  | 9/16-18   | 20,0 | 42,7 | 14,0 | 22,0 | 27,7 |
| 1216411   | R1A25M425T-1414 | 7/8"  | 1 3/16-12 | 35,0 | 63,5 | 33,0 | 38,0 | 39,6 |
| 1211707   | R/A25M425T-2020 | 1"1/4 | 1 5/8-12  | 40,0 | 67,5 | 41,0 | 50,0 | 40,9 |
| 1211708   | R/A25M425T-2424 | 1"1/2 | 1 7/8-12  | 45,0 | 68,0 | 48,0 | 55,0 | 41,1 |
| 1210770   | R1A25M425T-1616 | 1"    | 1 5/16-12 | 37,5 | 65,0 | 33,0 | 41,0 | 39,6 |
| 1210766   | R/A25M425T-0404 | 1/4"  | 7/16-20   | 18,5 | 39,0 | 12,0 | 17,0 | 25,9 |

Dimensions shown may be changed without prior notice

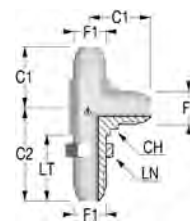
**90° union JIC - JIC Bulkhead**

| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|-----------|------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   | mm   |
| 1211735   | R1A25M925T-1616 | 1"    | 1 5/16-12 | 49,5 | 71,0 | 33,0 | 41,0 | 39,6 |
| 1205564   | R1A25M925T-0404 | 1/4"  | 7/16-20   | 24,5 | 40,5 | 12,0 | 17,0 | 25,9 |
| 1211736   | R1A25M925T-2020 | 1"1/4 | 1 5/8-12  | 55,0 | 79,0 | 41,0 | 50,0 | 40,9 |
| 1208117   | R1A25M925T-2424 | 1"1/2 | 1 7/8-12  | 59,5 | 87,0 | 48,0 | 55,0 | 41,1 |
| 1216422   | R1A25M925T-1414 | 7/8"  | 1 3/16-12 | 47,0 | 69,0 | 33,0 | 38,0 | 39,6 |
| 1206783   | R1A25M925T-1212 | 3/4"  | 1 1/16-12 | 45,0 | 68,0 | 27,0 | 36,0 | 39,6 |
| 1203898   | R1A25M925T-0606 | 3/8"  | 9/16-18   | 27,5 | 46,0 | 14,0 | 22,0 | 27,7 |
| 1203885   | R1A25M925T-1010 | 5/8"  | 7/8-14    | 39,5 | 60,5 | 22,0 | 30,0 | 35,3 |
| 1206405   | R1A25M925T-0505 | 5/16" | 1/2-20    | 27,0 | 43,5 | 14,0 | 19,0 | 25,9 |
| 1203867   | R1A25M925T-0808 | 1/2"  | 3/4-16    | 34,5 | 53,5 | 19,0 | 24,0 | 31,8 |

**Branch Tee union JIC - JIC Bulkhead**

| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|-----------|------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   | mm   |
| 1205586   | R1A25MT25T-0808 | 1/2"  | 3/4-16    | 34,5 | 53,5 | 19,0 | 24,0 | 31,8 |
| 1211637   | R1A25MT25T-1010 | 5/8"  | 7/8-14    | 39,5 | 60,5 | 22,0 | 30,0 | 35,3 |
| 1216462   | R1A25MT25T-1414 | 7/8"  | 1 3/16-12 | 49,0 | 69,0 | 33,0 | 38,0 | 39,6 |
| 1208225   | R1A25MT25T-2020 | 1"1/4 | 1 5/8-12  | 55,0 | 79,0 | 41,0 | 50,0 | 40,9 |
| 1210747   | R/A25MT25T-0505 | 5/16" | 1/2-20    | 27,0 | 43,5 | 14,0 | 19,0 | 25,9 |
| 1211638   | R1A25MT25T-1212 | 3/4"  | 1 1/16-12 | 45,0 | 68,0 | 27,0 | 36,0 | 39,6 |
| 1208139   | R/A25MT25T-0404 | 1/4"  | 7/16-20   | 24,5 | 40,5 | 12,0 | 17,0 | 25,9 |
| 1210748   | R1A25MT25T-0606 | 3/8"  | 9/16-18   | 27,5 | 46,0 | 14,0 | 22,0 | 27,7 |
| 1212775   | R1A25MT25T-1616 | 1"    | 1 5/16-12 | 49,5 | 71,0 | 33,0 | 41,0 | 39,6 |
| 1212776   | R1A25MT25T-2424 | 1"1/2 | 1 7/8-12  | 59,5 | 87,0 | 48,0 | 55,0 | 41,1 |

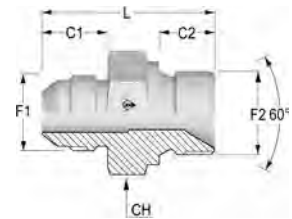
## Run Tee union JIC - JIC Bulkhead



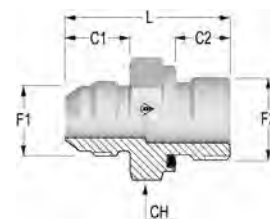
| Item Code | Part Number     | OD1   | F1        | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|-----------|------|------|------|------|------|
|           |                 | in    |           | mm   | mm   | mm   | mm   | mm   |
| 1212715   | R1A25ML25T-2424 | 1"1/2 | 1 7/8-12  | 59,5 | 87,0 | 48,0 | 55,0 | 41,1 |
| 1212714   | R1A25ML25T-2020 | 1"1/4 | 1 5/8-12  | 55,0 | 79,0 | 41,0 | 50,0 | 40,9 |
| 1211617   | R/A25ML25T-0404 | 1/4"  | 7/16-20   | 24,5 | 40,5 | 12,0 | 17,0 | 25,9 |
| 1206974   | R1A25ML25T-0606 | 3/8"  | 9/16-18   | 27,5 | 46,0 | 14,0 | 22,0 | 27,7 |
| 1211618   | R1A25ML25T-0505 | 5/16" | 1/2-20    | 27,0 | 43,5 | 14,0 | 19,0 | 25,9 |
| 1211619   | R1A25ML25T-0808 | 1/2"  | 3/4-16    | 34,5 | 53,5 | 19,0 | 24,0 | 32,0 |
| 1211620   | R1A25ML25T-1212 | 3/4"  | 1 1/16-12 | 45,0 | 68,0 | 27,0 | 36,0 | 39,6 |
| 1216435   | R1A25ML25T-1414 | 7/8"  | 1 3/16-12 | 47,0 | 69,0 | 33,0 | 38,0 | 39,6 |
| 1210743   | R/A25ML25T-1010 | 5/8"  | 7/8-14    | 39,5 | 60,5 | 22,0 | 30,0 | 35,3 |
| 1212713   | R1A25ML25T-1616 | 1"    | 1 5/16-12 | 49,5 | 71,0 | 33,0 | 41,0 | 39,6 |

Dimensions shown may be changed without prior notice

// BSPP

**Straight connector JIC Male - BSPP cylindric Male 60°**

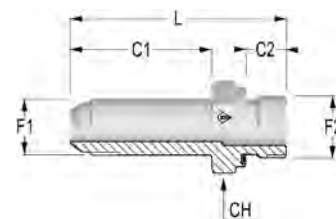
| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|----------|------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm   |
| 1212827   | R1A25M105M-0404 | 1/4"  | 7/16-20   | 1/4-19   | 14,0 | 13,0 | 19,0 | 34,0 |
| 1212826   | R1A25M105M-0402 | 1/4"  | 7/16-20   | 1/8-28   | 14,0 | 9,5  | 14,0 | 29,0 |
| 1212829   | R1A25M105M-0408 | 1/4"  | 7/16-20   | 1/2-14   | 14,0 | 17,0 | 27,0 | 40,0 |
| 1212828   | R1A25M105M-0406 | 1/4"  | 7/16-20   | 3/8-19   | 14,0 | 15,5 | 22,0 | 35,5 |
| 1212841   | R1A25M105M-1616 | 1"    | 1 5/16-12 | 1-11     | 23,0 | 22,0 | 41,0 | 54,0 |
| 1212840   | R1A25M105M-1612 | 1"    | 1 5/16-12 | 3/4-14   | 23,0 | 20,0 | 36,0 | 55,0 |
| 1212843   | R1A25M105M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 24,5 | 23,0 | 50,0 | 59,5 |
| 1231525   | R1A25M105M-1012 | 5/8"  | 7/8-14    | 3/4-14   | 19,5 | 20,0 | 32,0 | 48,5 |
| 1212842   | R1A25M105M-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 23,0 | 23,0 | 50,0 | 56,0 |
| 1212845   | R1A25M105M-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 27,5 | 25,0 | 55,0 | 64,5 |
| 1212844   | R1A25M105M-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 27,5 | 23,0 | 50,0 | 62,5 |
| 1216372   | R1A25M105M-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 22,5 | 20,0 | 32,0 | 51,5 |
| 1212835   | R1A25M105M-0804 | 1/2"  | 3/4-16    | 1/4-19   | 16,5 | 13,0 | 19,0 | 36,0 |
| 1212838   | R1A25M105M-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 22,0 | 20,0 | 32,0 | 50,0 |
| 1212837   | R1A25M105M-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 22,0 | 17,0 | 32,0 | 50,0 |
| 1212839   | R1A25M105M-1216 | 3/4"  | 1 1/16-12 | 1-11     | 22,0 | 18,0 | 41,0 | 53,0 |
| 1212830   | R1A25M105M-0502 | 5/16" | 1/2-20    | 1/8-28   | 14,0 | 9,5  | 14,0 | 29,0 |
| 1212832   | R1A25M105M-0604 | 3/8"  | 9/16-18   | 1/4-19   | 14,0 | 13,0 | 19,0 | 34,0 |
| 1212831   | R1A25M105M-0504 | 5/16" | 1/2-20    | 1/4-19   | 14,0 | 13,0 | 19,0 | 32,0 |
| 1212834   | R1A25M105M-0608 | 3/8"  | 9/16-18   | 1/2-14   | 14,0 | 17,0 | 27,0 | 41,0 |
| 1212833   | R1A25M105M-0606 | 3/8"  | 9/16-18   | 3/8-19   | 14,0 | 15,5 | 22,0 | 35,5 |
| 1207739   | R1A25M105M-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 24,5 | 22,0 | 46,0 | 58,5 |
| 1207738   | R1A25M105M-1006 | 5/8"  | 7/8-14    | 3/8-19   | 19,5 | 15,5 | 24,0 | 41,5 |
| 1207735   | R1A25M105M-0806 | 1/2"  | 3/4-16    | 3/8-19   | 16,5 | 15,5 | 22,0 | 38,0 |
| 1205996   | R1A25M105M-1008 | 5/8"  | 7/8-14    | 1/2-14   | 19,5 | 17,0 | 27,0 | 45,5 |
| 1207737   | R1A25M105M-0812 | 1/2"  | 3/4-16    | 3/4-14   | 16,5 | 20,0 | 32,0 | 45,5 |
| 1207736   | R1A25M105M-0808 | 1/2"  | 3/4-16    | 1/2-14   | 16,5 | 17,0 | 27,0 | 41,0 |

**Straight connector JIC Male - BSPP cylindric Male with elastomer**

| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|----------|------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm   |
| 1207412   | R1A25M106I-0406 | 1/4"  | 7/16-20   | 3/8-19   | 14,0 | 12,0 | 22,0 | 35,5 |
| 1208006   | R1A25M106I-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 24,5 | 18,0 | 46,0 | 62,0 |
| 1207434   | R1A25M106I-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 27,5 | 22,0 | 55,0 | 67,0 |
| 1207411   | R1A25M106I-0404 | 1/4"  | 7/16-20   | 1/4-19   | 14,0 | 12,0 | 19,0 | 36,0 |
| 1207433   | R1A25M106I-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 27,5 | 20,0 | 50,0 | 64,0 |
| 1207414   | R1A25M106I-0504 | 5/16" | 1/2-20    | 1/4-19   | 14,0 | 12,0 | 19,0 | 35,0 |
| 1207413   | R1A25M106I-0408 | 1/4"  | 7/16-20   | 1/2-14   | 14,0 | 14,0 | 27,0 | 39,0 |
| 1207430   | R1A25M106I-1616 | 1"    | 1 5/16-12 | 1-11     | 23,0 | 18,0 | 41,0 | 54,5 |
| 1207993   | R1A25M106I-0502 | 5/16" | 1/2-20    | 1/8-28   | 14,0 | 8,0  | 14,0 | 30,5 |
| 1207410   | R1A25M106I-0402 | 1/4"  | 7/16-20   | 1/8-28   | 14,0 | 8,0  | 14,0 | 30,0 |
| 1207432   | R1A25M106I-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 24,5 | 20,0 | 50,0 | 60,0 |
| 1207431   | R1A25M106I-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 23,0 | 20,0 | 50,0 | 58,5 |
| 1207427   | R1A25M106I-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 22,0 | 16,0 | 32,0 | 51,0 |
| 1207426   | R1A25M106I-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 22,0 | 14,0 | 32,0 | 49,0 |
| 1207429   | R1A25M106I-1612 | 1"    | 1 5/16-12 | 3/4-14   | 23,0 | 16,0 | 36,0 | 51,5 |
| 1207428   | R1A25M106I-1216 | 3/4"  | 1 1/16-12 | 1-11     | 22,0 | 18,0 | 41,0 | 53,5 |
| 1207423   | R1A25M106I-1006 | 5/8"  | 7/8-14    | 3/8-19   | 19,5 | 12,0 | 24,0 | 42,5 |
| 1207422   | R1A25M106I-0812 | 1/2"  | 3/4-16    | 3/4-14   | 16,5 | 16,0 | 32,0 | 45,5 |
| 1207425   | R1A25M106I-1012 | 5/8"  | 7/8-14    | 3/4-14   | 19,5 | 16,0 | 32,0 | 49,5 |
| 1207424   | R1A25M106I-1008 | 5/8"  | 7/8-14    | 1/2-14   | 19,5 | 14,0 | 27,0 | 44,5 |
| 1207421   | R1A25M106I-0808 | 1/2"  | 3/4-16    | 1/2-14   | 16,5 | 14,0 | 27,0 | 42,0 |
| 1207420   | R1A25M106I-0806 | 1/2"  | 3/4-16    | 3/8-19   | 16,5 | 12,0 | 22,0 | 38,5 |
| 1212875   | R1A25M106I-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 22,5 | 16,0 | 32,0 | 53,5 |
| 1207419   | R1A25M106I-0804 | 1/2"  | 3/4-16    | 1/4-19   | 16,5 | 12,0 | 19,0 | 38,5 |
| 1207416   | R1A25M106I-0604 | 3/8"  | 9/16-18   | 1/4-19   | 14,0 | 12,0 | 19,0 | 35,0 |
| 1207415   | R1A25M106I-0506 | 5/16" | 1/2-20    | 3/8-19   | 14,0 | 12,0 | 22,0 | 35,5 |
| 1207418   | R1A25M106I-0608 | 3/8"  | 9/16-18   | 1/2-14   | 14,0 | 14,0 | 27,0 | 39,5 |
| 1207417   | R1A25M106I-0606 | 3/8"  | 9/16-18   | 3/8-19   | 14,0 | 12,0 | 22,0 | 36,0 |

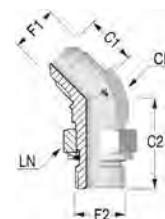


Dimensions shown may be changed without prior notice

**Long connector JIC Male - BSPP cylindric Male with elastomer**

| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | L     |
|-----------|-----------------|-------|-----------|----------|------|------|------|-------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm    |
| 1212847   | R1A25M106H-0404 | 1/4"  | 7/16-20   | 1/4-19   | 35,0 | 12,0 | 19,0 | 55,5  |
| 1212869   | R1A25M106H-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 88,0 | 18,0 | 46,0 | 123,0 |
| 1212846   | R1A25M106H-0402 | 1/4"  | 7/16-20   | 1/8-28   | 35,0 | 8,0  | 14,0 | 50,0  |
| 1212868   | R1A25M106H-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 72,1 | 20,0 | 50,0 | 107,6 |
| 1212849   | R1A25M106H-0408 | 1/4"  | 7/16-20   | 1/2-14   | 35,0 | 14,0 | 27,0 | 60,3  |
| 1212848   | R1A25M106H-0406 | 1/4"  | 7/16-20   | 3/8-19   | 35,0 | 12,0 | 22,0 | 56,8  |
| 1212861   | R1A25M106H-1008 | 5/8"  | 7/8-14    | 1/2-14   | 53,1 | 14,0 | 27,0 | 78,1  |
| 1212860   | R1A25M106H-1006 | 5/8"  | 7/8-14    | 3/8-19   | 53,0 | 12,0 | 24,0 | 74,0  |
| 1212863   | R1A25M106H-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 63,5 | 14,0 | 30,0 | 90,5  |
| 1212862   | R1A25M106H-1012 | 5/8"  | 7/8-14    | 3/4-14   | 53,1 | 16,0 | 32,0 | 84,1  |
| 1212865   | R1A25M106H-1216 | 3/4"  | 1 1/16-12 | 1-11     | 63,5 | 18,0 | 41,0 | 95,0  |
| 1212864   | R1A25M106H-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 64,0 | 16,0 | 32,0 | 92,5  |
| 1212867   | R1A25M106H-1616 | 1"    | 1 5/16-12 | 1-11     | 72,1 | 18,0 | 41,0 | 103,6 |
| 1212866   | R1A25M106H-1612 | 1"    | 1 5/16-12 | 3/4-14   | 72,0 | 16,0 | 36,0 | 100,0 |
| 1212870   | R1A25M106H-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 88,1 | 20,0 | 50,0 | 123,6 |
| 1212858   | R1A25M106H-0808 | 1/2"  | 3/4-16    | 1/2-14   | 48,0 | 14,0 | 27,0 | 73,5  |
| 1212857   | R1A25M106H-0806 | 1/2"  | 3/4-16    | 3/8-19   | 47,8 | 12,0 | 22,0 | 70,8  |
| 1212859   | R1A25M106H-0812 | 1/2"  | 3/4-16    | 3/4-14   | 48,0 | 16,0 | 32,0 | 76,8  |
| 1212850   | R1A25M106H-0502 | 5/16" | 1/2-20    | 1/8-28   | 37,0 | 8,0  | 14,0 | 53,3  |
| 1212872   | R1A25M106H-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 98,6 | 22,0 | 55,0 | 138,1 |
| 1212871   | R1A25M106H-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 98,6 | 20,0 | 50,0 | 135,1 |
| 1212852   | R1A25M106H-0506 | 5/16" | 1/2-20    | 3/8-19   | 37,0 | 12,0 | 22,0 | 57,5  |
| 1212851   | R1A25M106H-0504 | 5/16" | 1/2-20    | 1/4-19   | 37,0 | 12,0 | 19,0 | 57,5  |
| 1212854   | R1A25M106H-0606 | 3/8"  | 9/16-18   | 3/8-19   | 39,5 | 12,0 | 22,0 | 62,0  |
| 1212853   | R1A25M106H-0604 | 3/8"  | 9/16-18   | 1/4-19   | 39,0 | 12,0 | 19,0 | 59,5  |
| 1212856   | R1A25M106H-0804 | 1/2"  | 3/4-16    | 1/4-19   | 47,8 | 12,0 | 22,0 | 69,8  |
| 1212855   | R1A25M106H-0608 | 3/8"  | 9/16-18   | 1/2-14   | 39,0 | 14,0 | 27,0 | 63,0  |
| 1216388   | R1A25M106H-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 68,3 | 16,0 | 32,0 | 99,3  |

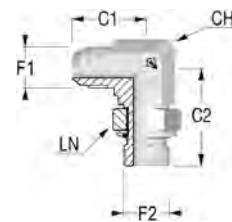
### 45° adjustable elbow connector JIC Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1    | F1        | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|-----------|----------|------|------|------|------|
|           |                 | in     |           |          | mm   | mm   | mm   | mm   |
| 1211702   | R/A25M406Q-0504 | 5/16"  | 1/2-20    | 1/4-19   | 19,5 | 26,5 | 14,0 | 19,0 |
| 1212968   | R/A25M406Q-1412 | 7/8"   | 1 3/16-12 | 3/4-14   | 35,0 | 45,5 | 33,0 | 36,0 |
| 1212967   | R1A25M406N-1216 | 3/4"   | 1 1/16-12 | 1-11     | 37,0 | 47,0 | 33,0 | 41,0 |
| 1207334   | R1A25M406N-1616 | 1"     | 1 5/16-12 | 1-11     | 37,0 | 47,0 | 33,0 | 41,0 |
| 1211703   | R/A25M406Q-2424 | 1 1/2" | 1 7/8-12  | 1 1/2-11 | 45,0 | 48,0 | 48,0 | 55,0 |
| 1207326   | R1A25M406N-0404 | 1/4"   | 7/16-20   | 1/4-19   | 21,0 | 29,0 | 14,0 | 19,0 |
| 1212959   | R1A25M406Q-0406 | 1/4"   | 7/16-20   | 3/8-19   | 22,0 | 33,0 | 17,0 | 22,0 |
| 1207325   | R1A25M406N-0402 | 1/4"   | 7/16-20   | 1/8-28   | 19,5 | 26,5 | 12,0 | 14,0 |
| 1212969   | R1A25M406N-1612 | 1"     | 1 5/16-12 | 3/4-14   | 37,0 | 47,0 | 33,0 | 36,0 |
| 1207331   | R1A25M406N-1008 | 5/8"   | 7/8-14    | 1/2-14   | 28,0 | 38,5 | 22,0 | 27,0 |
| 1207330   | R1A25M406N-0808 | 1/2"   | 3/4-16    | 1/2-14   | 25,5 | 38,5 | 22,0 | 27,0 |
| 1207333   | R1A25M406N-1212 | 3/4"   | 1 1/16-12 | 3/4-14   | 32,5 | 44,0 | 27,0 | 36,0 |
| 1212960   | R/A25M406Q-0408 | 1/4"   | 7/16-20   | 1/2-14   | 22,5 | 38,5 | 22,0 | 27,0 |
| 1212962   | R/A25M406Q-0506 | 5/16"  | 1/2-20    | 3/8-19   | 21,0 | 32,5 | 17,0 | 22,0 |
| 1212961   | R1A25M406N-0502 | 5/16"  | 1/2-20    | 1/8-28   | 19,5 | 26,5 | 14,0 | 14,0 |
| 1212964   | R1A25M406N-0804 | 1/2"   | 3/4-16    | 1/4-19   | 25,5 | 30,0 | 19,0 | 19,0 |
| 1212963   | R1A25M406N-0608 | 3/8"   | 9/16-18   | 1/2-14   | 22,5 | 38,5 | 22,0 | 27,0 |
| 1208292   | R1A25M406N-1012 | 5/8"   | 7/8-14    | 3/4-14   | 30,0 | 44,0 | 27,0 | 36,0 |
| 1208380   | R1A25M406N-2020 | 1 1/4" | 1 5/8-12  | 1 1/4-11 | 39,5 | 48,5 | 41,0 | 50,0 |
| 1207328   | R1A25M406N-0606 | 3/8"   | 9/16-18   | 3/8-19   | 22,0 | 33,0 | 17,0 | 22,0 |
| 1207327   | R/A25M406Q-0604 | 3/8"   | 9/16-18   | 1/4-19   | 21,0 | 29,0 | 14,0 | 19,0 |
| 1207329   | R1A25M406N-0806 | 1/2"   | 3/4-16    | 3/8-19   | 25,5 | 33,0 | 19,0 | 22,0 |

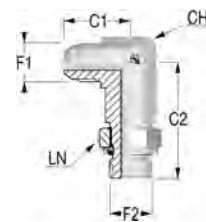
Dimensions shown may be changed without prior notice

### 90° adjustable elbow connector JIC Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|----------|------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm   |
| 1208226   | R1A25M906N-0608 | 3/8"  | 9/16-18   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1207238   | R1A25M906N-0402 | 1/4"  | 7/16-20   | 1/8-28   | 22,5 | 26,0 | 12,0 | 14,0 |
| 1207254   | R1A25M906N-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 52,0 | 57,0 | 41,0 | 50,0 |
| 1207253   | R1A25M906N-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 52,0 | 57,0 | 41,0 | 41,0 |
| 1207255   | R1A25M906N-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 59,0 | 61,0 | 48,0 | 55,0 |
| 1207250   | R1A25M906N-1216 | 3/4"  | 1 1/16-12 | 1-11     | 44,5 | 52,0 | 33,0 | 41,0 |
| 1207252   | R1A25M906N-1616 | 1"    | 1 5/16-12 | 1-11     | 46,0 | 52,0 | 33,0 | 41,0 |
| 1207251   | R1A25M906N-1612 | 1"    | 1 5/16-12 | 3/4-14   | 46,0 | 52,0 | 33,0 | 36,0 |
| 1213024   | R/A25M906Q-0406 | 1/4"  | 7/16-20   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1207746   | R1A25M906N-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 51,0 | 57,0 | 41,0 | 50,0 |
| 1207745   | R1A25M906N-1012 | 5/8"  | 7/8-14    | 3/4-14   | 39,5 | 49,0 | 27,0 | 27,0 |
| 1207247   | R1A25M906N-1008 | 5/8"  | 7/8-14    | 1/2-14   | 36,5 | 43,0 | 22,0 | 27,0 |
| 1207246   | R1A25M906N-0808 | 1/2"  | 3/4-16    | 1/2-14   | 34,1 | 43,0 | 22,0 | 27,0 |
| 1207744   | R1A25M906N-1006 | 5/8"  | 7/8-14    | 3/8-19   | 36,5 | 39,5 | 22,0 | 22,0 |
| 1207249   | R1A25M906N-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 42,0 | 49,0 | 27,0 | 36,0 |
| 1207743   | R/A25M906Q-0506 | 5/16" | 1/2-20    | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1207248   | R1A25M906N-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 42,0 | 45,5 | 27,0 | 27,0 |
| 1207243   | R1A25M906N-0606 | 3/8"  | 9/16-18   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1207242   | R1A25M906N-0604 | 3/8"  | 9/16-18   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1207245   | R1A25M906N-0806 | 1/2"  | 3/4-16    | 3/8-19   | 31,5 | 36,5 | 19,0 | 22,0 |
| 1207244   | R1A25M906N-0804 | 1/2"  | 3/4-16    | 1/4-19   | 31,5 | 33,5 | 19,0 | 19,0 |
| 1213026   | R1A25M906N-0812 | 1/2"  | 3/4-16    | 3/4-14   | 37,0 | 49,0 | 27,0 | 36,0 |
| 1213025   | R/A25M906Q-0408 | 1/4"  | 7/16-20   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1207241   | R1A25M906N-0504 | 5/16" | 1/2-20    | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1213028   | R/A25M906Q-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 59,0 | 61,0 | 48,0 | 50,0 |
| 1213027   | R1A25M906Q-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 44,0 | 50,5 | 33,0 | 36,0 |
| 1207240   | R1A25M906N-0502 | 5/16" | 1/2-20    | 1/8-28   | 24,0 | 27,5 | 14,0 | 14,0 |
| 1207239   | R1A25M906N-0404 | 1/4"  | 7/16-20   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |

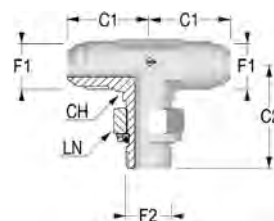
# 90° adjustable long elbow connector JIC Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|-----------|----------|------|-------|------|------|
|           |                 | in    |           |          | mm   | mm    | mm   | mm   |
| 1213037   | R1A25M906Y-0606 | 3/8"  | 9/16-18   | 3/8-19   | 28,5 | 67,0  | 17,0 | 22,0 |
| 1213036   | R1A25M906Y-0604 | 3/8"  | 9/16-18   | 1/4-19   | 27,0 | 56,5  | 14,0 | 19,0 |
| 1213039   | R1A25M906Y-0804 | 1/2"  | 3/4-16    | 1/4-19   | 31,5 | 64,0  | 22,0 | 19,0 |
| 1213038   | R1A25M906Y-0608 | 3/8"  | 9/16-18   | 1/2-14   | 28,5 | 78,0  | 22,0 | 27,0 |
| 1213040   | R1A25M906Y-0806 | 1/2"  | 3/4-16    | 3/8-19   | 31,5 | 67,0  | 22,0 | 22,0 |
| 1213042   | R1A25M906Y-0812 | 1/2"  | 3/4-16    | 3/4-14   | 37,0 | 92,0  | 27,0 | 36,0 |
| 1213041   | R1A25M906Y-0808 | 1/2"  | 3/4-16    | 1/2-14   | 34,1 | 78,0  | 22,0 | 27,0 |
| 1213044   | R/A25M906Y-1008 | 5/8"  | 7/8-14    | 1/2-14   | 36,5 | 78,0  | 22,0 | 27,0 |
| 1213043   | R1A25M906Y-1006 | 5/8"  | 7/8-14    | 3/8-19   | 36,5 | 75,0  | 22,0 | 22,0 |
| 1213046   | R1A25M906Y-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 42,0 | 88,0  | 27,0 | 27,0 |
| 1213045   | R1A25M906Y-1012 | 5/8"  | 7/8-14    | 3/4-14   | 39,5 | 92,0  | 27,0 | 36,0 |
| 1213048   | R1A25M906Y-1616 | 1"    | 1 5/16-12 | 1-11     | 46,0 | 105,0 | 33,0 | 41,0 |
| 1213047   | R1A25M906Y-1216 | 3/4"  | 1 1/16-12 | 1-11     | 44,5 | 105,0 | 33,0 | 41,0 |
| 1213049   | R1A25M906Y-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 51,0 | 123,0 | 41,0 | 50,0 |
| 1213029   | R1A25M906Y-0402 | 1/4"  | 7/16-20   | 1/8-28   | 24,0 | 46,0  | 14,0 | 14,0 |
| 1216418   | R1A25M906Y-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 44,0 | 99,0  | 33,0 | 36,0 |
| 1213051   | R1A25M906Y-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 52,0 | 123,0 | 41,0 | 50,0 |
| 1213050   | R1A25M906Y-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 52,0 | 124,0 | 41,0 | 41,0 |
| 1213031   | R/A25M906Y-0406 | 1/4"  | 7/16-20   | 3/8-19   | 28,5 | 67,0  | 17,0 | 22,0 |
| 1213053   | R1A25M906Y-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 59,0 | 135,0 | 48,0 | 55,0 |
| 1213030   | R1A25M906Y-0404 | 1/4"  | 7/16-20   | 1/4-19   | 27,0 | 56,5  | 14,0 | 19,0 |
| 1213052   | R1A25M906Y-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 59,0 | 134,0 | 48,0 | 50,0 |
| 1213033   | R1A25M906Y-0502 | 5/16" | 1/2-20    | 1/8-28   | 24,0 | 49,5  | 14,0 | 14,0 |
| 1213032   | R1A25M906Y-0408 | 1/4"  | 7/16-20   | 1/2-14   | 31,0 | 78,0  | 22,0 | 27,0 |
| 1213035   | R1A25M906Y-0506 | 5/16" | 1/2-20    | 3/8-19   | 28,5 | 61,0  | 17,0 | 22,0 |
| 1213034   | R1A25M906Y-0504 | 5/16" | 1/2-20    | 1/4-19   | 27,0 | 56,5  | 14,0 | 19,0 |

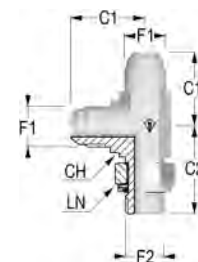
Dimensions shown may be changed without prior notice

### Branch Tee adjustable elbow connector JIC Male - BSPP cylindric Male with O-Ring and retaining ring



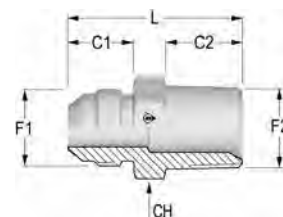
| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|----------|------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm   |
| 1210701   | R/A25MT06Q-0404 | 1/4"  | 7/16-20   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1207313   | R/A25MT06Q-0604 | 3/8"  | 9/16-18   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1212769   | R1A25MT06N-1006 | 5/8"  | 7/8-14    | 3/8-19   | 36,5 | 39,5 | 22,0 | 22,0 |
| 1207314   | R/A25MT06Q-0504 | 5/16" | 1/2-20    | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1216449   | R1A25MT06N-1412 | 7/8"  | 1 3/16-12 | -        | 44,0 | 50,5 | 33,0 | 27,0 |
| 1212762   | R/A25MT06Q-0406 | 1/4"  | 7/16-20   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1212764   | R1A25MT06N-0502 | 5/16" | 1/2-20    | 1/8-28   | 24,0 | 27,5 | 14,0 | 14,0 |
| 1212763   | R1A25MT06Q-0408 | 1/4"  | 7/16-20   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1211631   | R1A25MT06N-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 52,0 | 57,0 | 41,0 | 50,0 |
| 1212766   | R1A25MT06N-0608 | 3/8"  | 9/16-18   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1211632   | R1A25MT06N-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 | 59,0 | 61,0 | 48,0 | 50,0 |
| 1212765   | R/A25MT06Q-0506 | 5/16" | 1/2-20    | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1211633   | R/A25MT06Q-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 59,0 | 61,0 | 48,0 | 55,0 |
| 1212768   | R/A25MT06Q-0812 | 1/2"  | 3/4-16    | 3/4-14   | 37,0 | 49,0 | 27,0 | 36,0 |
| 1210744   | R/A25MT06Q-0606 | 3/8"  | 9/16-18   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1212767   | R/A25MT06Q-0804 | 1/2"  | 3/4-16    | 1/4-19   | 31,5 | 33,5 | 19,0 | 19,0 |
| 1212771   | R/A25MT06Q-1216 | 3/4"  | 1 1/16-12 | 1-11     | 44,5 | 52,0 | 33,0 | 41,0 |
| 1212770   | R1A25MT06N-1012 | 5/8"  | 7/8-14    | 3/4-14   | 36,5 | 43,0 | 27,0 | 36,0 |
| 1208134   | R1A25MT06N-0402 | 1/4"  | 7/16-20   | 1/8-28   | 24,5 | 26,0 | 12,0 | 14,0 |
| 1207320   | R1A25MT06N-1616 | 1"    | 1 5/16-12 | 1-11     | 46,0 | 52,0 | 33,0 | 41,0 |
| 1212773   | R1A25MT06N-1620 | 1"    | 1 5/16-12 | 1 1/4-11 | 51,0 | 57,0 | 41,0 | 50,0 |
| 1240190   | R1A25MT06N-0806 | 1/2"  | 3/4-16    | 3/8-19   | 31,5 | 36,5 | 19,0 | 22,0 |
| 1212772   | R/A25MT06Q-1612 | 1"    | 1 5/16-12 | 3/4-14   | 46,0 | 52,0 | 33,0 | 27,0 |
| 1212774   | R1A25MT06N-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 52,0 | 57,0 | 41,0 | 41,0 |
| 1207317   | R1A25MT06N-1008 | 5/8"  | 7/8-14    | 1/2-14   | 36,5 | 43,0 | 22,0 | 27,0 |
| 1207316   | R1A25MT06N-0808 | 1/2"  | 3/4-16    | 1/2-14   | 34,0 | 43,0 | 22,0 | 27,0 |
| 1207319   | R1A25MT06N-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 42,0 | 49,0 | 27,0 | 27,0 |
| 1207318   | R/A25MT06Q-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 42,0 | 45,5 | 27,0 | 27,0 |

## Run Tee adjustable elbow connector JIC Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1    | F1        | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|-----------|----------|------|------|------|------|
|           |                 | in     |           |          | mm   | mm   | mm   | mm   |
| 1212704   | R1A25ML06N-0506 | 5/16"  | 1/2-20    | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1212703   | R1A25ML06N-0408 | 1/4"   | 7/16-20   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1212706   | R1A25ML06N-0804 | 1/2"   | 3/4-16    | 1/4-19   | 31,5 | 33,5 | 19,0 | 19,0 |
| 1212705   | R1A25ML06N-0608 | 3/8"   | 9/16-18   | 1/2-14   | 31,0 | 43,0 | 22,0 | 27,0 |
| 1212708   | R1A25ML06N-1006 | 5/8"   | 7/8-14    | 3/8-19   | 36,5 | 39,5 | 22,0 | 22,0 |
| 1212707   | R1A25ML06N-0812 | 1/2"   | 3/4-16    | 3/4-14   | 37,0 | 49,0 | 27,0 | 36,0 |
| 1207297   | R1A25ML06Q-1616 | 1"     | 1 5/16-12 | 1-11     | 46,0 | 52,0 | 33,0 | 41,0 |
| 1208125   | R/A25ML06Q-2424 | 1 1/2" | 1 7/8-12  | 1 1/2-11 | 59,0 | 61,0 | 48,0 | 55,0 |
| 1207299   | R/A25ML06Q-1208 | 3/4"   | 1 1/16-12 | 1/2-14   | 42,0 | 45,5 | 27,0 | 27,0 |
| 1208124   | R1A25ML06N-1216 | 3/4"   | 1 1/16-12 | 1-11     | 44,5 | 52,0 | 33,0 | 41,0 |
| 1207294   | R1A25ML06N-0806 | 1/2"   | 3/4-16    | 3/8-19   | 31,5 | 36,5 | 19,0 | 22,0 |
| 1207293   | R1A25ML06N-0606 | 3/8"   | 9/16-18   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1207296   | R1A25ML06N-1212 | 3/4"   | 1 1/16-12 | 3/4-14   | 42,0 | 49,0 | 27,0 | 36,0 |
| 1210740   | R/A25ML06Q-0402 | 1/4"   | 7/16-20   | 1/8-28   | 22,5 | 26,5 | 12,0 | 14,0 |
| 1207295   | R/A25ML06Q-0808 | 1/2"   | 3/4-16    | 1/2-14   | 34,0 | 43,0 | 22,0 | 27,0 |
| 1210742   | R/A25ML06Q-0404 | 1/4"   | 7/16-20   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1212702   | R1A25ML06N-0406 | 1/4"   | 7/16-20   | 3/8-19   | 28,5 | 36,5 | 17,0 | 22,0 |
| 1207292   | R1A25ML06N-0604 | 3/8"   | 9/16-18   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1207748   | R1A25ML06N-1008 | 5/8"   | 7/8-14    | 1/2-14   | 36,5 | 43,0 | 22,0 | 27,0 |
| 1208277   | R/A25ML06Q-1612 | 1"     | 1 5/16-12 | 3/4-14   | 46,0 | 52,0 | 33,0 | 36,0 |
| 1210694   | R1A25ML06N-0504 | 5/16"  | 1/2-20    | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1208030   | R/A25ML06Q-1012 | 5/8"   | 7/8-14    | 3/4-14   | 39,5 | 49,0 | 27,0 | 36,0 |
| 1212711   | R1A25ML06N-2016 | 1 1/4" | 1 5/8-12  | 1-11     | 52,0 | 57,0 | 41,0 | 41,0 |
| 1212710   | R/A25ML06Q-1620 | 1"     | 1 5/16-12 | 1 1/4-11 | 52,0 | 56,0 | 41,0 | 50,0 |
| 1212712   | R1A25ML06N-2420 | 1 1/2" | 1 7/8-12  | 1 1/4-11 | 59,0 | 61,0 | 48,0 | 50,0 |

Dimensions shown may be changed without prior notice

**Straight connector JIC Male - BSPT Male**

| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|----------|------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   | mm   |
| 1203696   | R1A25M107M-1006 | 5/8"  | 7/8-14    | 3/8-19   | 19,5 | 14,5 | 24,0 | 42,0 |
| 1203652   | R1A25M107M-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 27,5 | 25,5 | 50,0 | 68,0 |
| 1203695   | R1A25M107M-1012 | 5/8"  | 7/8-14    | 3/4-14   | 19,5 | 19,0 | 27,0 | 48,5 |
| 1203683   | R1A25M107M-0402 | 1/4"  | 7/16-20   | 1/8-28   | 14,0 | 10,0 | 14,0 | 30,5 |
| 1203694   | R1A25M107M-1008 | 5/8"  | 7/8-14    | 1/2-14   | 19,5 | 19,0 | 24,0 | 46,5 |
| 1203682   | R1A25M107M-0404 | 1/4"  | 7/16-20   | 1/4-19   | 14,0 | 14,5 | 14,0 | 35,5 |
| 1203711   | R1A25M107M-0604 | 3/8"  | 9/16-18   | 1/4-19   | 14,0 | 14,5 | 17,0 | 35,5 |
| 1203667   | R1A25M107M-0804 | 1/2"  | 3/4-16    | 1/4-19   | 16,5 | 14,5 | 19,0 | 38,5 |
| 1203645   | R1A25M107M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 24,5 | 25,0 | 46,0 | 61,0 |
| 1203710   | R1A25M107M-0608 | 3/8"  | 9/16-18   | 1/2-14   | 14,0 | 19,0 | 22,0 | 41,0 |
| 1203666   | R1A25M107M-0808 | 1/2"  | 3/4-16    | 1/2-14   | 16,5 | 19,0 | 22,0 | 43,5 |
| 1203644   | R1A25M107M-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 24,5 | 24,0 | 46,0 | 60,5 |
| 1203638   | R1A25M107M-1612 | 1"    | 1 5/16-12 | 3/4-14   | 23,0 | 19,0 | 36,0 | 53,0 |
| 1203626   | R1A25M107M-0502 | 5/16" | 1/2-20    | 1/8-28   | 14,0 | 10,0 | 14,0 | 30,5 |
| 1203615   | R1A25M107M-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 22,0 | 19,0 | 27,0 | 51,0 |
| 1203625   | R1A25M107M-0504 | 5/16" | 1/2-20    | 1/4-19   | 14,0 | 14,5 | 14,0 | 35,5 |
| 1203669   | R1A25M107M-0806 | 1/2"  | 3/4-16    | 3/8-19   | 16,5 | 14,5 | 19,0 | 38,5 |
| 1203614   | R1A25M107M-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 22,0 | 19,0 | 27,0 | 51,0 |
| 1216391   | R1A25M107M-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 22,5 | 19,0 | 32,0 | 50,5 |
| 1203636   | R1A25M107M-1616 | 1"    | 1 5/16-12 | 1-11     | 23,0 | 24,0 | 36,0 | 58,0 |
| 1203712   | R1A25M107M-0606 | 3/8"  | 9/16-18   | 3/8-19   | 14,0 | 14,5 | 19,0 | 35,5 |
| 1203613   | R1A25M107M-1216 | 3/4"  | 1 1/16-12 | 1-11     | 22,0 | 24,0 | 36,0 | 56,5 |

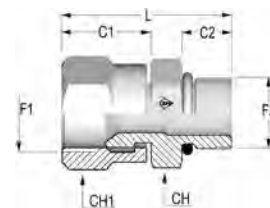
**90° elbow connector JIC Male - BSPT Male**

| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   |
|-----------|-----------------|-------|-----------|----------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   |
| 1203894   | R1A25M907M-0608 | 3/8"  | 9/16-18   | 1/2-14   | 31,0 | 37,5 | 22,0 |
| 1203883   | R1A25M907M-1006 | 5/8"  | 7/8-14    | 3/8-19   | 36,5 | 32,5 | 22,0 |
| 1205460   | R1A25M907M-2016 | 1"1/4 | 1 5/8-12  | 1-11     | 52,0 | 59,5 | 41,0 |
| 1203882   | R1A25M907M-1012 | 5/8"  | 7/8-14    | 3/4-14   | 39,5 | 40,5 | 27,0 |
| 1203881   | R1A25M907M-1008 | 5/8"  | 7/8-14    | 1/2-14   | 36,5 | 40,0 | 22,0 |
| 1216419   | R1A25M907M-1412 | 7/8"  | 1 3/16-12 | 3/4-14   | 44,0 | 43,0 | 33,0 |
| 1203839   | R1A25M907M-0504 | 5/16" | 1/2-20    | 1/4-19   | 27,0 | 27,0 | 14,0 |
| 1213054   | R1A25M907M-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 | 59,0 | 67,0 | 48,0 |
| 1203865   | R1A25M907M-0806 | 1/2"  | 3/4-16    | 3/8-19   | 31,5 | 31,0 | 19,0 |
| 1203864   | R/A25M907M-0804 | 1/2"  | 3/4-16    | 1/4-19   | 31,5 | 31,0 | 19,0 |
| 1203853   | R/A25M907M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 | 52,0 | 60,5 | 41,0 |
| 1203874   | R1A25M907M-0402 | 1/4"  | 7/16-20   | 1/8-28   | 22,5 | 19,5 | 12,0 |
| 1203896   | R1A25M907M-0606 | 3/8"  | 9/16-18   | 3/8-19   | 28,5 | 31,0 | 17,0 |
| 1203863   | R1A25M907M-0808 | 1/2"  | 3/4-16    | 1/2-14   | 34,0 | 37,0 | 22,0 |
| 1203873   | R1A25M907M-0404 | 1/4"  | 7/16-20   | 1/4-19   | 27,0 | 27,5 | 14,0 |
| 1203840   | R/A25M907M-0502 | 5/16" | 1/2-20    | 1/8-28   | 24,0 | 20,0 | 14,0 |
| 1203895   | R1A25M907M-0604 | 3/8"  | 9/16-18   | 1/4-19   | 27,0 | 27,0 | 14,0 |
| 1203847   | R1A25M907M-1612 | 1"    | 1 5/16-12 | 3/4-14   | 46,0 | 45,0 | 33,0 |
| 1203835   | R1A25M907M-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 42,0 | 40,5 | 27,0 |
| 1203846   | R1A25M907M-1616 | 1"    | 1 5/16-12 | 1-11     | 46,0 | 50,0 | 33,0 |
| 1203833   | R1A25M907M-1216 | 3/4"  | 1 1/16-12 | 1-11     | 44,5 | 50,0 | 33,0 |

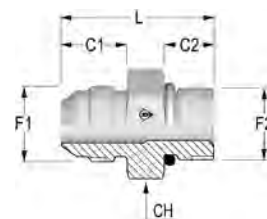


Dimensions shown may be changed without prior notice

// METRIC

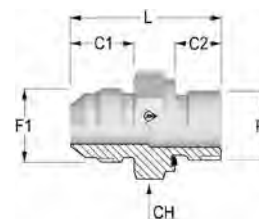
**Straight connector JIC Female - Metric Male with O-Ring**

| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | CH1  | L    |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   | mm   |
| 1207444   | R/A2511525-0614 | 3/8"  | 9/16-18   | M14X1.5 | 18,5 | 13,5 | 19,0 | 19,0 | 41,0 |
| 1207447   | R/A2511525-1227 | 3/4"  | 1 1/16-12 | M27X2   | 27,3 | 18,5 | 32,0 | 32,0 | 57,5 |
| 1207446   | R1A2511525-1022 | 5/8"  | 7/8-14    | M22X1.5 | 25,2 | 15,5 | 27,0 | 27,0 | 50,7 |
| 1207443   | R/A2511525-0512 | 5/16" | 1/2-20    | M12X1.5 | 18,5 | 13,5 | 17,0 | 17,0 | 39,0 |
| 1207442   | R1A2511525-0410 | 1/4"  | 7/16-20   | M10X1.0 | 17,0 | 11,0 | 14,0 | 16,0 | 34,5 |
| 1216349   | R1A2511525-0514 | 5/16" | 1/2-20    | M14X1.5 | 18,5 | 13,5 | 19,0 | 17,0 | 40,0 |
| 1216348   | R1A2511525-0510 | 5/16" | 1/2-20    | M10X1.0 | 18,5 | 11,0 | 14,0 | 17,0 | 36,5 |
| 1216347   | R1A2511525-0412 | 1/4"  | 7/16-20   | M12X1.5 | 17,0 | 13,5 | 17,0 | 16,0 | 36,5 |
| 1216353   | R1A2511525-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 27,3 | 15,5 | 27,0 | 32,0 | 53,5 |
| 1216352   | R1A2511525-1020 | 5/8"  | 7/8-14    | M20X1.5 | 25,2 | 16,5 | 24,0 | 27,0 | 49,7 |
| 1216351   | R1A2511525-0818 | 1/2"  | 3/4-16    | M18X1.5 | 22,2 | 15,0 | 24,0 | 25,0 | 45,5 |
| 1216350   | R1A2511525-0616 | 3/8"  | 9/16-18   | M16X1.5 | 18,5 | 14,0 | 22,0 | 19,0 | 42,5 |
| 1216355   | R1A2511525-1627 | 1"    | 1 5/16-12 | M27X2   | 29,6 | 18,5 | 36,0 | 38,0 | 60,0 |
| 1216354   | R1A2511525-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 27,0 | 21,0 | 32,0 | 36,0 | 60,0 |
| 1207629   | R1A2511525-1018 | 5/8"  | 7/8-14    | M18X1.5 | 25,2 | 15,0 | 24,0 | 27,0 | 48,2 |
| 1207448   | R1A2511525-1633 | 1"    | 1 5/16-12 | M33X2.0 | 29,6 | 19,0 | 41,0 | 38,0 | 61,0 |

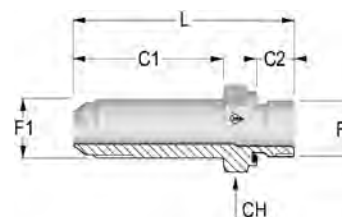
**Straight connector JIC Male - Metric Male with O-Ring**

| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   |
| 1224083   | R1A25M1525-0512 | 5/16" | 1/2-20    | M12X1.5 | 14,0 | 13,5 | 17,0 | 33,5 |
| 1207401   | R1A25M1525-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 24,5 | 19,0 | 50,0 | 55,0 |
| 1207400   | R/A25M1525-2448 | 1"1/2 | 1 7/8-12  | M48X2.0 | 27,5 | 17,5 | 55,0 | 60,0 |
| 1207403   | R/A25M1525-1227 | 3/4"  | 1 1/16-12 | M27X2   | 22,0 | 18,5 | 32,0 | 49,0 |
| 1212958   | R1A25M1525-1020 | 5/8"  | 7/8-14    | M20X1.5 | 19,5 | 16,5 | 24,0 | 41,5 |
| 1207402   | R/A25M1525-1633 | 1"    | 1 5/16-12 | M33X2.0 | 23,0 | 19,0 | 41,0 | 51,0 |
| 1207387   | R1A25M1525-0818 | 1/2"  | 3/4-16    | M18X1.5 | 16,5 | 15,0 | 24,0 | 38,5 |
| 1211696   | R1A25M1525-0816 | 1/2"  | 3/4-16    | M16X1.5 | 16,5 | 14,0 | 22,0 | 38,0 |
| 1216402   | R1A25M1525-1627 | 1"    | 1 5/16-12 | M27X2   | 23,0 | 18,5 | 36,0 | 50,5 |
| 1225818   | R/A25M1525-1018 | 5/8"  | 7/8-14    | M18X1.5 | 19,5 | 15,0 | 24,0 | 42,0 |
| 1207408   | R/A25M1525-0614 | 3/8"  | 9/16-18   | M14X1.5 | 14,0 | 13,5 | 19,0 | 33,5 |
| 1207639   | R1A25M1525-0616 | 3/8"  | 9/16-18   | M16X1.5 | 14,0 | 14,0 | 22,0 | 35,0 |
| 1207636   | R1A25M1525-0510 | 5/16" | 1/2-20    | M10X1.0 | 14,0 | 11,0 | 14,0 | 30,5 |
| 1207405   | R1A25M1525-1022 | 5/8"  | 7/8-14    | M22X1.5 | 19,5 | 15,5 | 27,0 | 43,0 |
| 1207635   | R1A25M1525-0412 | 1/4"  | 7/16-20   | M12X1.5 | 14,0 | 13,5 | 17,0 | 31,5 |
| 1207404   | R1A25M1525-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 22,0 | 15,5 | 27,0 | 45,5 |

Dimensions shown may be changed without prior notice

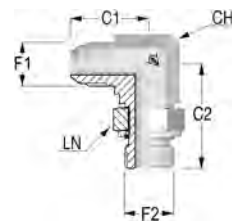
**Straight connector JIC Male - Metric Male with elastomer**

| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   |
| 1212957   | R1A25M152I-1627 | 1"    | 1 5/16-12 | M27X2   | 23,0 | 16,0 | 36,0 | 55,0 |
| 1207389   | R1A25M152I-1018 | 5/8"  | 7/8-14    | M18X1.5 | 19,5 | 12,0 | 24,0 | 41,5 |
| 1207397   | R1A25M152I-1633 | 1"    | 1 5/16-12 | M33X2.0 | 23,0 | 18,0 | 41,0 | 51,5 |
| 1207396   | R1A25M152I-1227 | 3/4"  | 1 1/16-12 | M27X2   | 22,0 | 16,0 | 32,0 | 49,0 |
| 1207388   | R1A25M152I-0818 | 1/2"  | 3/4-16    | M18X1.5 | 16,5 | 12,0 | 24,0 | 39,0 |
| 1207399   | R1A25M152I-2448 | 1"1/2 | 1 7/8-12  | M48X2.0 | 27,5 | 22,0 | 55,0 | 60,5 |
| 1207398   | R1A25M152I-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 24,5 | 20,0 | 50,0 | 55,0 |
| 1207393   | R1A25M152I-0816 | 1/2"  | 3/4-16    | M16X1.5 | 16,5 | 12,0 | 22,0 | 37,5 |
| 1216405   | R1A25M152I-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 22,5 | 16,0 | 32,0 | 49,5 |
| 1207392   | R1A25M152I-0614 | 3/8"  | 9/16-18   | M14X1.5 | 14,0 | 12,0 | 19,0 | 33,5 |
| 1212951   | R1A25M152I-0510 | 5/16" | 1/2-20    | M10X1.0 | 14,0 | 8,0  | 14,0 | 30,5 |
| 1207395   | R1A25M152I-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 22,0 | 14,0 | 27,0 | 45,5 |
| 1212950   | R1A25M152I-0412 | 1/4"  | 7/16-20   | M12X1.5 | 14,0 | 12,0 | 17,0 | 33,5 |
| 1207394   | R1A25M152I-1022 | 5/8"  | 7/8-14    | M22X1.5 | 19,5 | 14,0 | 27,0 | 43,0 |
| 1212953   | R1A25M152I-1020 | 5/8"  | 7/8-14    | M20X1.5 | 19,5 | 14,0 | 24,0 | 43,5 |
| 1212952   | R1A25M152I-0616 | 3/8"  | 9/16-18   | M16X1.5 | 14,0 | 12,0 | 22,0 | 35,5 |
| 1207391   | R1A25M152I-0512 | 5/16" | 1/2-20    | M12X1.5 | 14,0 | 12,0 | 17,0 | 33,5 |
| 1207390   | R1A25M152I-0410 | 1/4"  | 7/16-20   | M10X1.0 | 14,0 | 8,0  | 14,0 | 31,0 |
| 1208306   | R1A25M152I-0514 | 5/16" | 1/2-20    | M14X1.5 | 14,0 | 12,0 | 19,0 | 35,0 |

**Long connector JIC Male - Metric Male with elastomer**

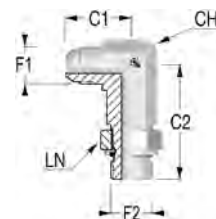
| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | L     |
|-----------|-----------------|-------|-----------|---------|------|------|------|-------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm    |
| 1212935   | R1A25M152H-0510 | 5/16" | 1/2-20    | M10X1.0 | 37,0 | 9,5  | 14,0 | 53,0  |
| 1212946   | R1A25M152H-1627 | 1"    | 1 5/16-12 | M27X2   | 72,0 | 19,0 | 36,0 | 102,0 |
| 1212934   | R1A25M152H-0410 | 1/4"  | 7/16-20   | M10X1.0 | 35,0 | 9,5  | 14,0 | 51,0  |
| 1212945   | R1A25M152H-1227 | 3/4"  | 1 1/16-12 | M27X2   | 63,0 | 19,0 | 32,0 | 92,5  |
| 1212937   | R1A25M152H-0514 | 5/16" | 1/2-20    | M14X1.5 | 37,0 | 14,0 | 19,0 | 56,5  |
| 1212948   | R1A25M152H-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 88,0 | 23,0 | 50,0 | 121,0 |
| 1212936   | R1A25M152H-0512 | 5/16" | 1/2-20    | M12X1.5 | 37,0 | 14,0 | 17,0 | 55,5  |
| 1212947   | R1A25M152H-1633 | 1"    | 1 5/16-12 | M33X2.0 | 72,0 | 21,0 | 41,0 | 102,5 |
| 1212939   | R1A25M152H-0616 | 3/8"  | 9/16-18   | M16X1.5 | 39,0 | 14,0 | 22,0 | 60,0  |
| 1212938   | R1A25M152H-0614 | 3/8"  | 9/16-18   | M14X1.5 | 39,0 | 14,0 | 19,0 | 58,5  |
| 1212949   | R1A25M152H-2448 | 1"1/2 | 1 7/8-12  | M48X2.0 | 88,0 | 25,0 | 55,0 | 136,0 |
| 1212940   | R1A25M152H-0816 | 1/2"  | 3/4-16    | M16X1.5 | 48,0 | 14,0 | 22,0 | 69,0  |
| 1212942   | R1A25M152H-1018 | 5/8"  | 7/8-14    | M18X1.5 | 53,0 | 14,5 | 24,0 | 75,5  |
| 1212941   | R1A25M152H-0818 | 1/2"  | 3/4-16    | M18X1.5 | 48,0 | 14,5 | 24,0 | 70,5  |
| 1212944   | R1A25M152H-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 63,0 | 17,0 | 27,0 | 89,0  |
| 1212943   | R1A25M152H-1022 | 5/8"  | 7/8-14    | M22X1.5 | 53,0 | 17,0 | 27,0 | 78,0  |

# 90° adjustable elbow connector JIC Male - Metric Male with O-Ring and retaining ring



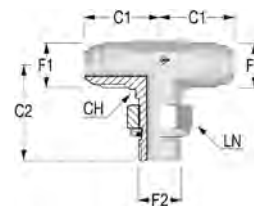
| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   |
| 1207279   | R1A25M952Q-1018 | 5/8"  | 7/8-14    | M18X1.5 | 36,5 | 41,5 | 22,0 | 24,0 |
| 1207523   | R1A25M952Q-0818 | 1/2"  | 3/4-16    | M18X1.5 | 31,5 | 39,5 | 19,0 | 24,0 |
| 1207276   | R/A25M952Q-0512 | 5/16" | 1/2-20    | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1207275   | R1A25M952Q-0410 | 1/4"  | 7/16-20   | M10X1.0 | 22,5 | 27,5 | 12,0 | 14,0 |
| 1207278   | R1A25M952Q-0816 | 1/2"  | 3/4-16    | M16X1.5 | 31,5 | 36,5 | 19,0 | 22,0 |
| 1207277   | R1A25M952Q-0614 | 3/8"  | 9/16-18   | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1210693   | R1A25M952Q-1227 | 3/4"  | 1 1/16-12 | M27X2   | 42,0 | 51,5 | 27,0 | 32,0 |
| 1213147   | R1A25M952Q-2448 | 1"1/2 | 1 7/8-12  | M48X1.5 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1213146   | R1A25M952Q-1627 | 1"    | 1 5/16-12 | M27X2   | 46,0 | 55,0 | 33,0 | 32,0 |
| 1207282   | R1A25M952Q-1633 | 1"    | 1 5/16-12 | M33X1.5 | 46,0 | 55,0 | 33,0 | 41,0 |
| 1213138   | R1A25M952Q-0412 | 1/4"  | 7/16-20   | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1211742   | R1A25M952Q-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 52,0 | 60,0 | 41,0 | 50,0 |
| 1207281   | R/A25M952Q-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 42,0 | 45,5 | 27,0 | 27,0 |
| 1207280   | R1A25M952Q-1022 | 5/8"  | 7/8-14    | M22X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |
| 1213141   | R1A25M952Q-0514 | 5/16" | 1/2-20    | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1213140   | R1A25M952Q-0510 | 5/16" | 1/2-20    | M10X1.0 | 24,0 | 27,5 | 14,0 | 14,0 |
| 1213142   | R/A25M952Q-0616 | 3/8"  | 9/16-18   | M16X1.5 | 28,5 | 36,5 | 17,0 | 22,0 |
| 1213145   | R1A25M952Q-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 44,0 | 50,5 | 27,0 | 36,0 |
| 1213144   | R1A25M952Q-1020 | 5/8"  | 7/8-14    | M20X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |

Dimensions shown may be changed without prior notice

**90° adjustable long elbow connector JIC Male - Metric Male with O-Ring and retaining ring**

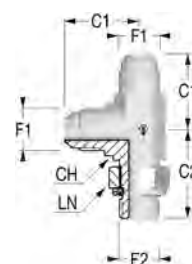
| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|-----------|---------|------|-------|------|------|
|           |                 | in    |           |         | mm   | mm    | mm   | mm   |
| 1213158   | R1A25M952Y-1020 | 5/8"  | 7/8-14    | M20X1.5 | 36,5 | 78,0  | 22,0 | 27,0 |
| 1213157   | R/A25M952Y-1018 | 5/8"  | 7/8-14    | M18X1.5 | 36,5 | 75,0  | 22,0 | 24,0 |
| 1213149   | R1A25M952Y-0412 | 1/4"  | 7/16-20   | M12X1.5 | 27,0 | 53,5  | 14,0 | 17,0 |
| 1213148   | R1A25M952Y-0410 | 1/4"  | 7/16-20   | M10X1.0 | 22,5 | 46,0  | 12,0 | 14,0 |
| 1213159   | R1A25M952Y-1022 | 5/8"  | 7/8-14    | M22X1.5 | 36,5 | 78,0  | 22,0 | 27,0 |
| 1213150   | R1A25M952Y-0510 | 5/16" | 1/2-20    | M10X1.0 | 24,0 | 49,5  | 14,0 | 14,0 |
| 1213161   | R1A25M952Y-1227 | 3/4"  | 1 1/16-12 | M27X2   | 42,0 | 95,0  | 27,0 | 32,0 |
| 1213160   | R1A25M952Y-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 42,0 | 88,0  | 27,0 | 27,0 |
| 1213152   | R1A25M952Y-0514 | 5/16" | 1/2-20    | M14X1.5 | 27,0 | 56,5  | 14,0 | 19,0 |
| 1213163   | R1A25M952Y-1633 | 1"    | 1 5/16-12 | M33X1.5 | 46,0 | 105,0 | 33,0 | 41,0 |
| 1213151   | R1A25M952Y-0512 | 5/16" | 1/2-20    | M12X1.5 | 27,0 | 53,5  | 14,0 | 17,0 |
| 1213162   | R1A25M952Y-1627 | 1"    | 1 5/16-12 | M27X2   | 46,0 | 105,0 | 33,0 | 32,0 |
| 1213154   | R/A25M952Y-0616 | 3/8"  | 9/16-18   | M16X1.5 | 28,5 | 67,0  | 17,0 | 22,0 |
| 1213165   | R1A25M952Y-2448 | 1"1/2 | 1 7/8-12  | M48X1.5 | 59,0 | 141,0 | 48,0 | 55,0 |
| 1213153   | R1A25M952Y-0614 | 3/8"  | 9/16-18   | M14X1.5 | 27,0 | 56,5  | 14,0 | 19,0 |
| 1213164   | R1A25M952Y-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 52,0 | 124,0 | 41,0 | 50,0 |
| 1213156   | R1A25M952Y-0818 | 1/2"  | 3/4-16    | M18X1.5 | 31,5 | 67,0  | 19,0 | 24,0 |
| 1216432   | R1A25M952Y-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 44,0 | 97,0  | 27,0 | 36,0 |
| 1213155   | R1A25M952Y-0816 | 1/2"  | 3/4-16    | M16X1.5 | 31,5 | 67,0  | 19,0 | 22,0 |

### Branch Tee adjustable elbow connector JIC Male - Metric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   |
| 1207324   | R/A25MT52Q-0614 | 3/8"  | 9/16-18   | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1212816   | R1A25MT52Q-0510 | 5/16" | 1/2-20    | M10X1.0 | 24,0 | 27,5 | 14,0 | 14,0 |
| 1212815   | R1A25MT52Q-0412 | 1/4"  | 7/16-20   | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1212818   | R1A25MT52Q-0616 | 3/8"  | 9/16-18   | M16X1.5 | 28,5 | 36,5 | 17,0 | 22,0 |
| 1210706   | R/A25MT52Q-0512 | 5/16" | 1/2-20    | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1212817   | R1A25MT52Q-0514 | 5/16" | 1/2-20    | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1210707   | R/A25MT52Q-0816 | 1/2"  | 3/4-16    | M16X1.5 | 31,5 | 36,5 | 19,0 | 22,0 |
| 1212819   | R1A25MT52Q-0818 | 1/2"  | 3/4-16    | M18X1.5 | 31,5 | 39,5 | 19,0 | 24,0 |
| 1211640   | R1A25MT52Q-0410 | 1/4"  | 7/16-20   | M10X1.0 | 22,5 | 27,5 | 12,0 | 14,0 |
| 1211641   | R1A25MT52Q-1022 | 5/8"  | 7/8-14    | M22X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |
| 1211642   | R1A25MT52Q-1227 | 3/4"  | 1 1/16-12 | M27X1.5 | 42,0 | 51,5 | 27,0 | 32,0 |
| 1212821   | R1A25MT52Q-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 42,0 | 45,5 | 27,0 | 27,0 |
| 1211643   | R/A25MT52Q-1633 | 1"    | 1 5/16-12 | M33X1.5 | 46,0 | 55,0 | 33,0 | 41,0 |
| 1212820   | R1A25MT52Q-1020 | 5/8"  | 7/8-14    | M20X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |
| 1211644   | R1A25MT52Q-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 52,0 | 60,0 | 41,0 | 50,0 |
| 1211645   | R1A25MT52Q-2448 | 1"1/2 | 1 7/8-12  | M48X1.5 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1212822   | R1A25MT52Q-1627 | 1"    | 1 5/16-12 | M27X2   | 46,0 | 55,0 | 33,0 | 32,0 |
| 1216493   | R1A25MT52Q-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 44,0 | 50,5 | 27,0 | 36,0 |

### Run Tee adjustable elbow connector JIC Male - Metric Male with O-Ring and retaining ring

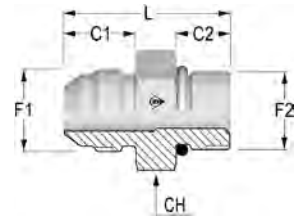


| Item Code | Part Number     | OD1   | F1        | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|---------|------|------|------|------|
|           |                 | in    |           |         | mm   | mm   | mm   | mm   |
| 1207302   | R1A25ML52Q-0816 | 1/2"  | 3/4-16    | M16X1.5 | 31,5 | 36,5 | 19,0 | 22,0 |
| 1212759   | R1A25ML52Q-1020 | 5/8"  | 7/8-14    | M20X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |
| 1211626   | R1A25ML52Q-0512 | 5/16" | 1/2-20    | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1212758   | R1A25ML52Q-1018 | 5/8"  | 7/8-14    | M18X1.5 | 36,5 | 41,5 | 22,0 | 24,0 |
| 1211627   | R/A25ML52Q-1227 | 3/4"  | 1 1/16-12 | M27X2   | 42,0 | 51,5 | 27,0 | 32,0 |
| 1207303   | R/A25ML52Q-0614 | 3/8"  | 9/16-18   | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1211628   | R/A25ML52Q-1633 | 1"    | 1 5/16-12 | M33X1.5 | 46,0 | 55,0 | 33,0 | 41,0 |
| 1211629   | R1A25ML52Q-2042 | 1"1/4 | 1 5/8-12  | M42X2   | 52,0 | 60,0 | 41,0 | 50,0 |
| 1216448   | R1A25ML52Q-1426 | 7/8"  | 1 3/16-12 | M26X1.5 | 44,0 | 50,5 | 27,0 | 36,0 |
| 1212761   | R1A25ML52Q-1627 | 1"    | 1 5/16-12 | M27X2   | 46,0 | 55,0 | 33,0 | 32,0 |
| 1212753   | R1A25ML52Q-0412 | 1/4"  | 7/16-20   | M12X1.5 | 27,0 | 31,5 | 14,0 | 17,0 |
| 1211630   | R1A25ML52Q-2448 | 1"1/2 | 1 7/8-12  | M48X1.5 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1212755   | R1A25ML52Q-0514 | 5/16" | 1/2-20    | M14X1.5 | 27,0 | 32,5 | 14,0 | 19,0 |
| 1212754   | R1A25ML52Q-0510 | 5/16" | 1/2-20    | M10X1.0 | 24,0 | 27,5 | 14,0 | 14,0 |
| 1210699   | R/A25ML52Q-0410 | 1/4"  | 7/16-20   | M10X1.0 | 22,5 | 27,5 | 12,0 | 14,0 |
| 1212757   | R1A25ML52Q-0818 | 1/2"  | 3/4-16    | M18X1.5 | 31,5 | 39,5 | 19,0 | 24,0 |
| 1212756   | R1A25ML52Q-0616 | 3/8"  | 9/16-18   | M16X1.5 | 28,5 | 36,5 | 17,0 | 22,0 |
| 1210700   | R1A25ML52Q-1022 | 5/8"  | 7/8-14    | M22X1.5 | 36,5 | 43,0 | 22,0 | 27,0 |
| 1212760   | R1A25ML52Q-1222 | 3/4"  | 1 1/16-12 | M22X1.5 | 42,0 | 45,5 | 27,0 | 27,0 |

Dimensions shown may be changed without prior notice

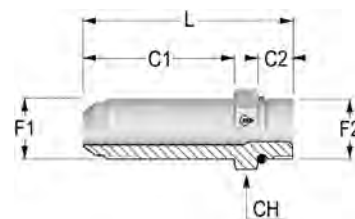
## // SAE UNF

## Straight connector JIC Male - SAE UNF/UN Male with O-Ring



| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|-----------|------|------|------|------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm   |
| 1207632   | R1A25M1305-1008 | 5/8"  | 7/8-14    | 3/4-16    | 19,5 | 14,3 | 27,0 | 41,5 |
| 1207379   | R1A25M1305-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 22,0 | 12,5 | 27,0 | 47,5 |
| 1207631   | R1A25M1305-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 16,5 | 15,0 | 32,0 | 44,5 |
| 1207378   | R1A25M1305-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 22,0 | 14,3 | 27,0 | 48,5 |
| 1207634   | R1A25M1305-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 23,0 | 15,0 | 46,0 | 54,0 |
| 1207633   | R1A25M1305-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 19,5 | 15,0 | 32,0 | 47,0 |
| 1207375   | R1A25M1305-0808 | 1/2"  | 3/4-16    | 3/4-16    | 16,5 | 11,0 | 22,0 | 38,0 |
| 1207374   | R1A25M1305-0608 | 3/8"  | 9/16-18   | 3/4-16    | 14,0 | 11,0 | 22,0 | 35,0 |
| 1207630   | R1A25M1305-0406 | 1/4"  | 7/16-20   | 9/16-18   | 14,0 | 10,0 | 17,0 | 32,5 |
| 1207377   | R1A25M1305-1010 | 5/8"  | 7/8-14    | 7/8-14    | 19,5 | 12,5 | 27,0 | 43,0 |
| 1207376   | R1A25M1305-0810 | 1/2"  | 3/4-16    | 7/8-14    | 16,5 | 12,5 | 27,0 | 40,5 |
| 1207371   | R1A25M1305-0405 | 1/4"  | 7/16-20   | 1/2-20    | 14,0 | 9,0  | 16,0 | 31,0 |
| 1207370   | R1A25M1305-0404 | 1/4"  | 7/16-20   | 7/16-20   | 14,0 | 9,0  | 14,0 | 31,0 |
| 1207373   | R1A25M1305-0606 | 3/8"  | 9/16-18   | 9/16-18   | 14,0 | 10,0 | 17,0 | 33,0 |
| 1207372   | R1A25M1305-0505 | 5/16" | 1/2-20    | 1/2-20    | 14,0 | 9,0  | 17,0 | 31,0 |
| 1216397   | R1A25M1305-0605 | 3/8"  | 9/16-18   | 1/2-20    | 14,0 | 9,0  | 17,0 | 32,5 |
| 1216398   | R1A25M1305-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 22,5 | 15,0 | 36,0 | 50,5 |
| 1207385   | R1A25M1305-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 27,5 | 15,0 | 55,0 | 60,5 |
| 1208278   | R1A25M1305-0604 | 3/8"  | 9/16-18   | 7/16-20   | 14,0 | 9,0  | 17,0 | 32,0 |
| 1207382   | R1A25M1305-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 23,0 | 18,3 | 36,0 | 50,5 |
| 1207381   | R1A25M1305-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 22,0 | 15,0 | 38,0 | 50,5 |
| 1207384   | R1A25M1305-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 24,5 | 15,0 | 46,0 | 55,0 |
| 1207383   | R1A25M1305-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 23,0 | 15,0 | 38,0 | 52,0 |
| 1207380   | R1A25M1305-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 22,0 | 15,0 | 32,0 | 50,0 |
| 1205938   | R1A25M1305-2016 | 1"1/4 | 1 5/8-12  | 1 5/16-12 | 24,5 | 19,1 | 46,0 | 55,5 |

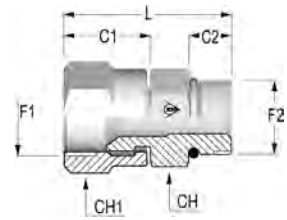
## Long connector JIC Male - SAE UNF/UN Male with O-Ring



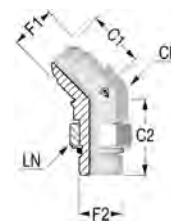
| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | L     |
|-----------|-----------------|-------|-----------|-----------|------|------|------|-------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm    |
| 1212901   | R1A25M130J-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 72,0 | 15,0 | 41,0 | 101,0 |
| 1212904   | R1A25M130J-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 98,0 | 15,0 | 55,0 | 131,0 |
| 1212903   | R1A25M130J-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 88,0 | 15,0 | 50,0 | 119,0 |
| 1212883   | R1A25M130J-0404 | 1/4"  | 7/16-20   | 7/16-20   | 35,0 | 9,0  | 17,0 | 52,5  |
| 1212894   | R1A25M130J-1010 | 5/8"  | 7/8-14    | 7/8-14    | 53,0 | 12,5 | 27,0 | 77,0  |
| 1212893   | R1A25M130J-1008 | 5/8"  | 7/8-14    | 3/4-16    | 53,0 | 11,0 | 27,0 | 75,5  |
| 1212885   | R1A25M130J-0406 | 1/4"  | 7/16-20   | 9/16-18   | 35,0 | 10,0 | 19,0 | 54,5  |
| 1212884   | R1A25M130J-0405 | 1/4"  | 7/16-20   | 1/2-20    | 35,0 | 9,0  | 17,0 | 52,5  |
| 1212895   | R1A25M130J-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 53,0 | 15,0 | 32,0 | 81,5  |
| 1212898   | R1A25M130J-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 63,0 | 15,0 | 32,0 | 91,5  |
| 1212886   | R1A25M130J-0505 | 5/16" | 1/2-20    | 1/2-20    | 37,0 | 9,0  | 16,0 | 54,5  |
| 1212889   | R1A25M130J-0608 | 3/8"  | 9/16-18   | 3/4-16    | 39,0 | 11,0 | 24,0 | 60,0  |
| 1212900   | R1A25M130J-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 72,0 | 15,0 | 41,0 | 100,0 |
| 1212888   | R1A25M130J-0606 | 3/8"  | 9/16-18   | 9/16-18   | 39,0 | 10,0 | 19,0 | 58,5  |
| 1212899   | R1A25M130J-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 63,0 | 15,0 | 41,0 | 92,5  |
| 1212890   | R1A25M130J-0808 | 1/2"  | 3/4-16    | 3/4-16    | 48,0 | 11,0 | 24,0 | 68,5  |
| 1216400   | R1A25M130J-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 68,0 | 15,0 | 36,0 | 96,5  |
| 1212892   | R1A25M130J-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 48,0 | 15,0 | 32,0 | 71,5  |
| 1212891   | R1A25M130J-0810 | 1/2"  | 3/4-16    | 7/8-14    | 48,0 | 12,5 | 27,0 | 71,5  |



Dimensions shown may be changed without prior notice

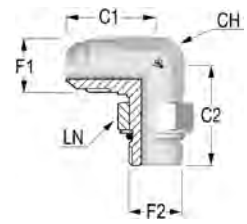
**Straight connector JIC Female - SAE UNF/UN Male with O-Ring**

| Item Code | Part Number     | OD1    | F1        | F2        | C1   | C2   | CH   | CH1  | L    |
|-----------|-----------------|--------|-----------|-----------|------|------|------|------|------|
|           |                 | in     |           |           |      |      |      |      |      |
| 1207436   | R1A2511305-0505 | 5/16"  | 1/2-20    | 1/2-20    | 18,5 | 9,0  | 17,0 | 17,0 | 35,5 |
| 1207435   | R/A2511305-0404 | 1/4"   | 7/16-20   | 7/16-20   | 17,0 | 9,0  | 14,0 | 16,0 | 34,0 |
| 1207441   | R/A2511305-1616 | 1"     | 1 5/16-12 | 1 5/16-12 | 29,6 | 15,0 | 41,0 | 38,0 | 56,6 |
| 1207440   | R/A2511305-1212 | 3/4"   | 1 1/16-12 | 1 1/16-12 | 27,3 | 15,0 | 32,0 | 32,0 | 54,3 |
| 1213179   | R1A2511305-0812 | 1/2"   | 3/4-16    | 1 1/16-12 | 22,2 | 15,0 | 32,0 | 25,0 | 49,2 |
| 1213208   | R1A2521305-2424 | 1" 1/2 | 1 7/8-12  | 1 7/8-12  | 18,4 | 15,0 | 50,0 | 55,0 | 67,0 |
| 1213183   | R1A2511305-1210 | 3/4"   | 1 1/16-12 | 7/8-14    | 27,3 | 12,5 | 27,0 | 32,0 | 51,3 |
| 1213185   | R1A2511305-1612 | 1"     | 1 5/16-12 | 1 1/16-12 | 29,6 | 15,0 | 32,0 | 38,0 | 56,6 |
| 1213184   | R1A2511305-1216 | 3/4"   | 1 1/16-12 | 1 5/16-12 | 27,3 | 15,0 | 38,0 | 32,0 | 54,3 |
| 1213176   | R1A2511305-0406 | 1/4"   | 7/16-20   | 9/16-18   | 17,0 | 10,0 | 17,0 | 16,0 | 35,0 |
| 1213175   | R1A2511305-0405 | 1/4"   | 7/16-20   | 1/2-20    | 17,0 | 9,0  | 16,0 | 16,0 | 34,0 |
| 1216346   | R1A2511305-1414 | 7/8"   | 1 3/16-12 | 1 3/16-12 | 27,0 | 15,0 | 36,0 | 36,0 | 54,0 |
| 1213178   | R1A2511305-0810 | 1/2"   | 3/4-16    | 7/8-14    | 22,2 | 12,5 | 27,0 | 27,0 | 46,2 |
| 1213177   | R1A2511305-0608 | 3/8"   | 9/16-18   | 3/4-16    | 18,5 | 11,0 | 22,0 | 19,0 | 39,5 |
| 1207438   | R1A2511305-0808 | 1/2"   | 3/4-16    | 3/4-16    | 22,2 | 11,0 | 22,0 | 25,0 | 43,2 |
| 1207437   | R1A2511305-0606 | 3/8"   | 9/16-18   | 9/16-18   | 18,5 | 10,0 | 17,0 | 19,0 | 36,5 |
| 1213181   | R1A2511305-1012 | 5/8"   | 7/8-14    | 1 1/16-12 | 25,2 | 15,0 | 32,0 | 27,0 | 52,2 |
| 1213180   | R1A2511305-1008 | 5/8"   | 7/8-14    | 3/4-16    | 25,2 | 11,0 | 22,0 | 27,0 | 46,2 |
| 1207439   | R1A2511305-1010 | 5/8"   | 7/8-14    | 7/8-14    | 25,2 | 12,5 | 27,0 | 27,0 | 49,2 |

**45° adjustable elbow connector JIC Male - SAE UNF/UN Male with O-Ring**

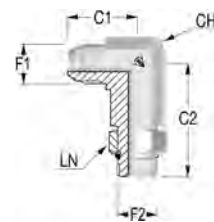
| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|-----------|------|------|------|------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm   |
| 1212979   | R1A25M4305-0405 | 1/4"  | 7/16-20   | 1/2-20    | 21,0 | 26,5 | 14,0 | 19,0 |
| 1207335   | R/A25M4305-0505 | 5/16" | 1/2-20    | 1/2-20    | 21,0 | 26,5 | 14,0 | 19,0 |
| 1207337   | R/A25M4305-0808 | 1/2"  | 3/4-16    | 3/4-16    | 25,0 | 33,0 | 19,0 | 24,0 |
| 1207336   | R1A25M4305-0606 | 3/8"  | 9/16-18   | 9/16-18   | 19,5 | 26,5 | 14,0 | 22,0 |
| 1212982   | R/A25M4305-1008 | 5/8"  | 7/8-14    | 3/4-16    | 28,0 | 37,0 | 22,0 | 24,0 |
| 1212981   | R/A25M4305-0810 | 1/2"  | 3/4-16    | 7/8-14    | 27,5 | 42,5 | 22,0 | 30,0 |
| 1212984   | R1A25M4305-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 32,5 | 47,0 | 33,0 | 41,0 |
| 1207340   | R1A25M4305-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 37,5 | 47,0 | 33,0 | 41,0 |
| 1216413   | R/A25M4305-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 28,5 | 44,0 | 27,0 | 36,0 |
| 1212983   | R/A25M4305-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 32,5 | 37,5 | 27,0 | 24,0 |
| 1212986   | R1A25M4305-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 37,5 | 44,0 | 33,0 | 36,0 |
| 1211710   | R1A25M4305-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 32,5 | 40,5 | 27,0 | 27,0 |
| 1212985   | R1A25M4305-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 37,0 | 47,0 | 33,0 | 38,0 |
| 1211711   | R1A25M4305-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 40,5 | 48,5 | 41,0 | 50,0 |
| 1212987   | R1A25M4305-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 40,0 | 48,5 | 41,0 | 50,0 |
| 1211712   | R1A25M4305-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 45,0 | 48,5 | 48,0 | 55,0 |
| 1212980   | R1A25M4305-0608 | 3/8"  | 9/16-18   | 3/4-16    | 22,5 | 38,0 | 19,0 | 24,0 |
| 1207339   | R1A25M4305-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 32,5 | 44,0 | 27,0 | 36,0 |
| 1207338   | R1A25M4305-1010 | 5/8"  | 7/8-14    | 7/8-14    | 28,0 | 38,5 | 22,0 | 30,0 |

Dimensions shown may be changed without prior notice

**90° adjustable elbow connector JIC Male - SAE UNF/UN Male with O-Ring**

| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|-----------|------|------|------|------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm   |
| 1207258   | R1A25M9305-0606 | 3/8"  | 9/16-18   | 9/16-18   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1207643   | R1A25M9305-1008 | 5/8"  | 7/8-14    | 3/4-16    | 36,5 | 39,5 | 22,0 | 24,0 |
| 1207257   | R/A25M9305-0505 | 5/16" | 1/2-20    | 1/2-20    | 24,0 | 27,5 | 14,0 | 17,0 |
| 1207642   | R1A25M9305-0810 | 1/2"  | 3/4-16    | 7/8-14    | 34,0 | 43,0 | 22,0 | 27,0 |
| 1207259   | R1A25M9305-0808 | 1/2"  | 3/4-16    | 3/4-16    | 31,5 | 36,5 | 19,0 | 24,0 |
| 1211738   | R1A25M9305-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 59,0 | 61,0 | 48,0 | 55,0 |
| 1207265   | R1A25M9305-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 52,0 | 57,0 | 41,0 | 50,0 |
| 1207264   | R1A25M9305-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 46,0 | 54,0 | 33,0 | 41,0 |
| 1207641   | R1A25M9305-0608 | 3/8"  | 9/16-18   | 3/4-16    | 28,5 | 36,5 | 19,0 | 24,0 |
| 1207256   | R1A25M9305-0404 | 1/4"  | 7/16-20   | 7/16-20   | 22,5 | 26,0 | 12,0 | 17,0 |
| 1207640   | R/A25M9305-0405 | 1/4"  | 7/16-20   | 1/2-20    | 24,0 | 27,5 | 14,0 | 17,0 |
| 1207261   | R1A25M9305-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 42,0 | 45,5 | 27,0 | 27,0 |
| 1207260   | R1A25M9305-1010 | 5/8"  | 7/8-14    | 7/8-14    | 36,5 | 43,0 | 22,0 | 27,0 |
| 1207263   | R1A25M9305-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 46,0 | 52,0 | 33,0 | 32,0 |
| 1207262   | R1A25M9305-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 42,0 | 49,0 | 27,0 | 32,0 |
| 1216429   | R1A25M9305-0610 | 3/8"  | 9/16-18   | 7/8-14    | 31,0 | 43,5 | 22,0 | 27,0 |
| 1213084   | R1A25M9305-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 51,0 | 57,0 | 41,0 | 50,0 |
| 1213083   | R1A25M9305-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 44,0 | 50,5 | 33,0 | 41,0 |
| 1213077   | R1A25M9305-0406 | 1/4"  | 7/16-20   | 9/16-18   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1213079   | R1A25M9305-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 37,0 | 49,0 | 27,0 | 32,0 |
| 1213080   | R1A25M9305-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 39,5 | 49,0 | 27,0 | 32,0 |
| 1213082   | R1A25M9305-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 44,5 | 52,0 | 33,0 | 41,0 |
| 1213081   | R1A25M9305-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 42,0 | 42,0 | 27,0 | 22,0 |

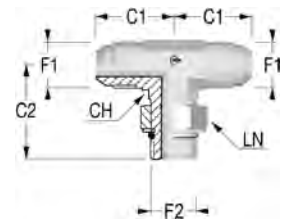
## 90° adjustable long elbow connector JIC Male - SAE UNF/UN Male with O-Ring



| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|-----------|-----------|------|-------|------|------|
|           |                 | in    |           |           | mm   | mm    | mm   | mm   |
| 1213059   | R1A25M930J-0505 | 5/16" | 1/2-20    | 1/2-20    | 24,0 | 49,5  | 14,0 | 17,0 |
| 1213058   | R1A25M930J-0406 | 1/4"  | 7/16-20   | 9/16-18   | 27,0 | 56,5  | 17,0 | 19,0 |
| 1213069   | R1A25M930J-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 44,6 | 88,0  | 27,0 | 27,0 |
| 1213062   | R1A25M930J-0808 | 1/2"  | 3/4-16    | 3/4-16    | 31,5 | 67,0  | 22,0 | 24,0 |
| 1213073   | R1A25M930J-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 46,0 | 105,0 | 33,0 | 41,0 |
| 1213061   | R1A25M930J-0608 | 3/8"  | 9/16-18   | 3/4-16    | 28,5 | 67,0  | 22,0 | 24,0 |
| 1213072   | R1A25M930J-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 46,0 | 105,0 | 33,0 | 32,0 |
| 1213064   | R1A25M930J-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 37,0 | 92,0  | 27,0 | 32,0 |
| 1213075   | R1A25M930J-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 52,0 | 124,0 | 41,0 | 50,0 |
| 1213063   | R1A25M930J-0810 | 1/2"  | 3/4-16    | 7/8-14    | 34,0 | 78,0  | 22,0 | 27,0 |
| 1213074   | R1A25M930J-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 51,0 | 124,0 | 41,0 | 50,0 |
| 1213066   | R1A25M930J-1010 | 5/8"  | 7/8-14    | 7/8-14    | 36,5 | 78,0  | 22,0 | 27,0 |
| 1213065   | R1A25M930J-1008 | 5/8"  | 7/8-14    | 3/4-16    | 36,5 | 75,0  | 22,0 | 24,0 |
| 1213076   | R1A25M930J-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 59,0 | 135,0 | 48,0 | 55,0 |
| 1213057   | R1A25M930J-0405 | 1/4"  | 7/16-20   | 1/2-20    | 24,0 | 49,5  | 14,0 | 17,0 |
| 1213068   | R1A25M930J-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 42,0 | 85,0  | 27,0 | 24,0 |
| 1213056   | R1A25M930J-0404 | 1/4"  | 7/16-20   | 7/16-20   | 23,5 | 46,0  | 14,0 | 17,0 |
| 1213067   | R1A25M930J-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 39,5 | 92,0  | 27,0 | 32,0 |
| 1216431   | R1A25M930J-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 44,0 | 92,0  | 33,0 | 41,0 |
| 1213060   | R1A25M930J-0606 | 3/8"  | 9/16-18   | 9/16-18   | 27,0 | 56,5  | 17,0 | 19,0 |
| 1213071   | R1A25M930J-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 44,5 | 105,0 | 33,0 | 41,0 |
| 1213070   | R1A25M930J-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 42,0 | 92,0  | 27,0 | 32,0 |

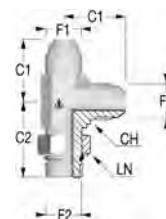
Dimensions shown may be changed without prior notice

## Branch Tee adjustable elbow connector JIC Male - SAE UNF/UN Male with O-Ring



| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|-----------|------|------|------|------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm   |
| 1210702   | R/A25MT305-0404 | 1/4"  | 7/16-20   | 7/16-20   | 22,5 | 26,0 | 12,0 | 16,0 |
| 1207323   | R/A25MT305-1010 | 5/8"  | 7/8-14    | 7/8-14    | 36,5 | 43,0 | 22,0 | 27,0 |
| 1210703   | R1A25MT305-0505 | 5/16" | 1/2-20    | 1/2-20    | 24,0 | 27,5 | 14,0 | 17,0 |
| 1210704   | R1A25MT305-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 42,0 | 49,0 | 27,0 | 32,0 |
| 1210705   | R1A25MT305-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 46,0 | 54,6 | 33,0 | 41,0 |
| 1207322   | R/A25MT305-0808 | 1/2"  | 3/4-16    | 3/4-16    | 31,5 | 36,5 | 19,0 | 24,0 |
| 1207321   | R/A25MT305-0606 | 3/8"  | 9/16-18   | 9/16-18   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1212784   | R1A25MT305-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 42,0 | 42,0 | 27,0 | 24,0 |
| 1212783   | R1A25MT305-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 36,5 | 49,0 | 22,0 | 32,0 |
| 1212786   | R1A25MT305-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 44,5 | 52,0 | 33,0 | 41,0 |
| 1212785   | R1A25MT305-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 42,0 | 45,5 | 27,0 | 27,0 |
| 1212777   | R1A25MT305-0405 | 1/4"  | 7/16-20   | 1/2-20    | 24,0 | 27,5 | 14,0 | 17,0 |
| 1212788   | R1A25MT305-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 51,0 | 57,0 | 41,0 | 50,0 |
| 1212787   | R1A25MT305-1612 | 1"    | 1 5/16-12 | 1 1/16-12 | 46,0 | 52,0 | 33,0 | 32,0 |
| 1212779   | R1A25MT305-0608 | 3/8"  | 9/16-18   | 3/4-16    | 28,5 | 36,5 | 19,0 | 24,0 |
| 1212778   | R1A25MT305-0406 | 1/4"  | 7/16-20   | 9/16-18   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1212789   | R1A25MT305-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 52,0 | 57,0 | 41,0 | 50,0 |
| 1212780   | R1A25MT305-0810 | 1/2"  | 3/4-16    | 7/8-14    | 34,0 | 43,0 | 22,0 | 27,0 |
| 1212790   | R1A25MT305-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 59,0 | 61,0 | 48,0 | 55,0 |
| 1212782   | R1A25MT305-1008 | 5/8"  | 7/8-14    | 3/4-16    | 36,5 | 39,5 | 22,0 | 24,0 |
| 1212781   | R1A25MT305-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 37,0 | 49,0 | 27,0 | 32,0 |
| 1216491   | R1A25MT305-1414 | 7/8"  | 1 3/16-12 | 1 3/16-12 | 44,0 | 50,5 | 33,0 | 38,0 |

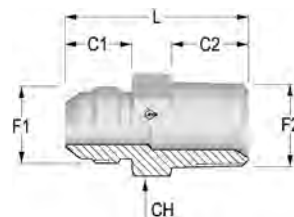
## Run Tee adjustable elbow connector JIC Male - SAE UNF/UN Male with O-Ring



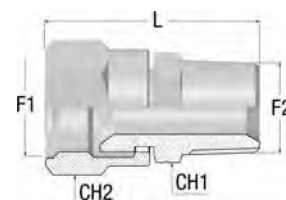
| Item Code | Part Number     | OD1   | F1        | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|-----------|-----------|------|------|------|------|
|           |                 | in    |           |           | mm   | mm   | mm   | mm   |
| 1211625   | R1A25ML305-2020 | 1"1/4 | 1 5/8-12  | 1 5/8-12  | 52,0 | 57,0 | 41,0 | 50,0 |
| 1207301   | R/A25ML305-1212 | 3/4"  | 1 1/16-12 | 1 1/16-12 | 42,0 | 49,0 | 27,0 | 32,0 |
| 1212725   | R1A25ML305-1216 | 3/4"  | 1 1/16-12 | 1 5/16-12 | 44,5 | 52,0 | 33,0 | 41,0 |
| 1212717   | R1A25ML305-0406 | 1/4"  | 7/16-20   | 9/16-18   | 27,0 | 31,5 | 14,0 | 22,0 |
| 1212728   | R1A25ML305-2424 | 1"1/2 | 1 7/8-12  | 1 7/8-12  | 59,0 | 61,0 | 48,0 | 55,0 |
| 1212716   | R1A25ML305-0405 | 1/4"  | 7/16-20   | 1/2-20    | 24,0 | 27,5 | 14,0 | 17,0 |
| 1212727   | R1A25ML305-1620 | 1"    | 1 5/16-12 | 1 5/8-12  | 51,0 | 57,0 | 41,0 | 50,0 |
| 1212719   | R1A25ML305-0810 | 1/2"  | 3/4-16    | 7/8-14    | 34,0 | 43,0 | 22,0 | 30,0 |
| 1212718   | R1A25ML305-0608 | 3/8"  | 9/16-18   | 3/4-16    | 28,5 | 36,5 | 19,0 | 24,0 |
| 1207300   | R/A25ML305-0606 | 3/8"  | 9/16-18   | 9/16-18   | 27,0 | 31,5 | 14,0 | 22,0 |
| 1210695   | R/A25ML305-0404 | 1/4"  | 7/16-20   | 7/16-20   | 22,5 | 26,0 | 12,0 | 17,0 |
| 1212720   | R1A25ML305-0812 | 1/2"  | 3/4-16    | 1 1/16-12 | 37,0 | 49,0 | 27,0 | 32,0 |
| 1210696   | R1A25ML305-0505 | 5/16" | 1/2-20    | 1/2-20    | 24,0 | 27,5 | 14,0 | 19,0 |
| 1210697   | R/A25ML305-0808 | 1/2"  | 3/4-16    | 3/4-16    | 31,5 | 36,5 | 19,0 | 24,0 |
| 1212722   | R1A25ML305-1012 | 5/8"  | 7/8-14    | 1 1/16-12 | 39,5 | 49,0 | 27,0 | 32,0 |
| 1212721   | R1A25ML305-1008 | 5/8"  | 7/8-14    | 3/4-16    | 36,5 | 39,5 | 22,0 | 24,0 |
| 1210698   | R1A25ML305-1010 | 5/8"  | 7/8-14    | 7/8-14    | 36,5 | 39,5 | 22,0 | 24,0 |
| 1212724   | R1A25ML305-1210 | 3/4"  | 1 1/16-12 | 7/8-14    | 42,0 | 45,5 | 27,0 | 27,0 |
| 1212723   | R1A25ML305-1208 | 3/4"  | 1 1/16-12 | 3/4-16    | 42,0 | 42,0 | 27,0 | 24,0 |
| 1211624   | R/A25ML305-1616 | 1"    | 1 5/16-12 | 1 5/16-12 | 46,0 | 54,6 | 33,0 | 41,0 |

Dimensions shown may be changed without prior notice

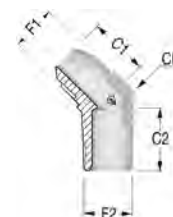
// NPTF

**Straight connector JIC - NPTF Male**

| Item Code | Part Number     | OD1   | F1        | F2           | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|-----------|--------------|------|------|------|------|
|           |                 | in    |           |              |      |      |      |      |
| 1203691   | R1A25M128M-1006 | 5/8"  | 7/8-14    | 3/8-18       | 19,5 | 14,5 | 24,0 | 43,5 |
| 1203690   | R1A25M128M-1012 | 5/8"  | 7/8-14    | 3/4-14       | 19,5 | 19,0 | 27,0 | 49,5 |
| 1212882   | R1A25M128M-2420 | 1"1/2 | 1 7/8-12  | 1 1/4-11 1/2 | 27,5 | 25,0 | 50,0 | 67,5 |
| 1203609   | R1A25M128M-1212 | 3/4"  | 1 1/16-12 | 3/4-14       | 22,0 | 19,0 | 27,0 | 52,5 |
| 1203608   | R1A25M128M-1208 | 3/4"  | 1 1/16-12 | 1/2-14       | 22,0 | 18,0 | 27,0 | 51,5 |
| 1216396   | R1A25M128M-1412 | 7/8"  | 1 3/16-12 | 3/4-14       | 22,5 | 19,0 | 30,0 | 53,0 |
| 1203607   | R1A25M128M-1216 | 3/4"  | 1 1/16-12 | 1-11 1/2     | 22,0 | 24,0 | 36,0 | 57,0 |
| 1203705   | R1A25M128M-0606 | 3/8"  | 9/16-18   | 3/8-18       | 14,0 | 14,5 | 19,0 | 36,5 |
| 1203689   | R1A25M128M-1008 | 5/8"  | 7/8-14    | 1/2-14       | 19,5 | 18,0 | 24,0 | 47,0 |
| 1203621   | R1A25M128M-0502 | 5/16" | 1/2-20    | 1/8-27       | 14,0 | 10,0 | 14,0 | 31,0 |
| 1203643   | R1A25M128M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 1/2 | 24,5 | 25,0 | 46,0 | 62,5 |
| 1203620   | R1A25M128M-0504 | 5/16" | 1/2-20    | 1/4-18       | 14,0 | 14,5 | 14,0 | 36,0 |
| 1203642   | R1A25M128M-2016 | 1"1/4 | 1 5/8-12  | 1-11 1/2     | 24,5 | 24,0 | 46,0 | 61,5 |
| 1203704   | R1A25M128M-0602 | 3/8"  | 9/16-18   | 1/8-27       | 14,0 | 10,0 | 17,0 | 32,0 |
| 1203649   | R1A25M128M-2424 | 1"1/2 | 1 7/8-12  | 1 1/2-11 1/2 | 27,5 | 25,5 | 50,0 | 68,0 |
| 1203703   | R1A25M128M-0604 | 3/8"  | 9/16-18   | 1/4-18       | 14,0 | 14,5 | 17,0 | 36,5 |
| 1203702   | R1A25M128M-0608 | 3/8"  | 9/16-18   | 1/2-14       | 14,0 | 18,0 | 22,0 | 43,0 |
| 1203661   | R1A25M128M-0806 | 1/2"  | 3/4-16    | 3/8-18       | 16,5 | 14,5 | 19,0 | 39,0 |
| 1203660   | R1A25M128M-0812 | 1/2"  | 3/4-16    | 3/4-14       | 16,5 | 19,0 | 27,0 | 47,0 |
| 1212881   | R/A25M128M-1004 | 5/8"  | 7/8-14    | 1/4-18       | 19,5 | 14,5 | 24,0 | 43,0 |
| 1203678   | R1A25M128M-0404 | 1/4"  | 7/16-20   | 1/4-18       | 14,0 | 14,5 | 14,0 | 36,0 |
| 1203633   | R1A25M128M-1612 | 1"    | 1 5/16-12 | 3/4-14       | 23,0 | 19,0 | 36,0 | 53,5 |
| 1203631   | R1A25M128M-1616 | 1"    | 1 5/16-12 | 1-11 1/2     | 23,0 | 24,0 | 36,0 | 58,5 |
| 1203659   | R1A25M128M-0804 | 1/2"  | 3/4-16    | 1/4-18       | 16,5 | 14,5 | 19,0 | 39,0 |
| 1203658   | R1A25M128M-0808 | 1/2"  | 3/4-16    | 1/2-14       | 16,5 | 18,0 | 22,0 | 44,5 |
| 1203679   | R1A25M128M-0402 | 1/4"  | 7/16-20   | 1/8-27       | 14,0 | 10,0 | 14,0 | 31,0 |

**Straight connector JIC Female - NPTF Male**

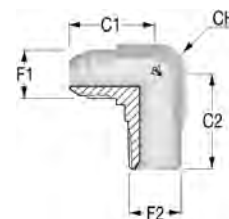
| Item Code | Part Number     | OD1   | F1        | F2           | CH1  | CH2  | L    |
|-----------|-----------------|-------|-----------|--------------|------|------|------|
|           |                 | in    |           |              | mm   | mm   | mm   |
| 1207621   | R1A251128M-0606 | 3/8"  | 9/16-18   | 3/8-18       | 19,0 | 19,0 | 41,5 |
| 1207620   | R/A251128M-0604 | 3/8"  | 9/16-18   | 1/4-18       | 19,0 | 14,0 | 41,0 |
| 1207622   | R1A251128M-0806 | 1/2"  | 3/4-16    | 3/8-18       | 25,0 | 19,0 | 43,2 |
| 1210848   | R1A251128M-0402 | 1/4"  | 7/16-20   | 1/8-27       | 16,0 | 14,0 | 34,2 |
| 1213206   | R/A252128M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 1/2 | 50,0 | 46,0 | 69,4 |
| 1213171   | R1A251128M-0602 | 3/8"  | 9/16-18   | 1/8-27       | 19,0 | 14,0 | 36,5 |
| 1213174   | R1A251128M-1012 | 5/8"  | 7/8-14    | 3/4-14       | 27,0 | 27,0 | 52,5 |
| 1213173   | R1A251128M-0804 | 1/2"  | 3/4-16    | 1/4-18       | 25,0 | 19,0 | 44,0 |
| 1216345   | R1A251128M-1412 | 7/8"  | 1 3/16-12 | 3/4-14       | 36,0 | 30,0 | 55,2 |
| 1207618   | R1A251128M-0404 | 1/4"  | 7/16-20   | 1/4-18       | 16,0 | 14,0 | 39,2 |
| 1207628   | R1A251128M-1616 | 1"    | 1 5/16-12 | 1-11 1/2     | 38,0 | 36,0 | 64,0 |
| 1207619   | R/A251128M-0504 | 5/16" | 1/2-20    | 1/4-18       | 17,0 | 14,0 | 41,0 |
| 1207625   | R/A251128M-1208 | 3/4"  | 1 1/16-12 | 1/2-14       | 32,0 | 27,0 | 54,3 |
| 1207624   | R1A251128M-1008 | 5/8"  | 7/8-14    | 1/2-14       | 27,0 | 22,0 | 49,7 |
| 1213170   | R1A251128M-0502 | 5/16" | 1/2-20    | 1/8-27       | 17,0 | 14,0 | 35,0 |
| 1207627   | R/A251128M-1612 | 1"    | 1 5/16-12 | 3/4-14       | 38,0 | 32,0 | 58,6 |
| 1207626   | R1A251128M-1212 | 3/4"  | 1 1/16-12 | 3/4-14       | 32,0 | 27,0 | 55,3 |

**45° elbow connector JIC - NPTF Male**

| Item Code | Part Number     | OD1   | F1        | F2       | C1   | C2   | CH   |
|-----------|-----------------|-------|-----------|----------|------|------|------|
|           |                 | in    |           |          | mm   | mm   | mm   |
| 1210674   | R1A25M428M-0504 | 5/16" | 1/2-20    | 1/4-18   | 21,0 | 21,5 | 14,0 |
| 1212975   | R/A25M428M-1006 | 5/8"  | 7/8-14    | 3/8-18   | 28,0 | 24,5 | 22,0 |
| 1212976   | R1A25M428M-1012 | 5/8"  | 7/8-14    | 3/4-14   | 30,0 | 30,5 | 27,0 |
| 1203927   | R/A25M428M-0606 | 3/8"  | 9/16-18   | 3/8-18   | 22,0 | 24,0 | 19,0 |
| 1203916   | R1A25M428M-0806 | 1/2"  | 3/4-16    | 3/8-18   | 25,0 | 24,0 | 19,0 |
| 1203915   | R1A25M428M-0808 | 1/2"  | 3/4-16    | 1/2-14   | 25,5 | 29,5 | 22,0 |
| 1203925   | R/A25M428M-0604 | 3/8"  | 9/16-18   | 1/4-18   | 21,0 | 21,5 | 14,0 |
| 1203919   | R1A25M428M-0404 | 1/4"  | 7/16-20   | 1/4-18   | 21,0 | 21,5 | 14,0 |
| 1203908   | R1A25M428M-1212 | 3/4"  | 1 1/16-12 | 3/4-14   | 32,5 | 30,5 | 27,0 |
| 1203907   | R1A25M428M-1208 | 3/4"  | 1 1/16-12 | 1/2-14   | 32,5 | 30,5 | 27,0 |
| 1203920   | R1A25M428M-0402 | 1/4"  | 7/16-20   | 1/8-27   | 19,0 | 16,0 | 12,0 |
| 1203913   | R1A25M428M-1616 | 1"    | 1 5/16-12 | 1-11 1/2 | 37,0 | 37,5 | 33,0 |
| 1203923   | R/A25M428M-1008 | 5/8"  | 7/8-14    | 1/2-14   | 28,0 | 29,0 | 22,0 |



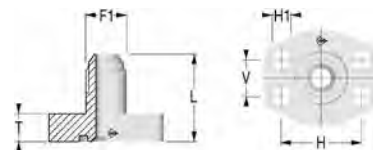
Dimensions shown may be changed without prior notice

**90° elbow connector JIC - NPTF Male**

| Item Code | Part Number     | OD1   | F1        | F2           | C1   | C2   | CH   |
|-----------|-----------------|-------|-----------|--------------|------|------|------|
|           |                 | in    |           |              | mm   | mm   | mm   |
| 1203872   | R1A25M928M-0402 | 1/4"  | 7/16-20   | 1/8-27       | 22,5 | 19,5 | 12,0 |
| 1203861   | R1A25M928M-0806 | 1/2"  | 3/4-16    | 3/8-18       | 31,5 | 31,0 | 19,0 |
| 1203871   | R1A25M928M-0404 | 1/4"  | 7/16-20   | 1/4-18       | 27,0 | 27,5 | 14,0 |
| 1203860   | R/A25M928M-0812 | 1/2"  | 3/4-16    | 3/4-14       | 37,0 | 40,5 | 27,0 |
| 1203891   | R1A25M928M-0606 | 3/8"  | 9/16-18   | 3/8-18       | 28,5 | 31,0 | 19,0 |
| 1203838   | R/A25M928M-0502 | 5/16" | 1/2-20    | 1/8-27       | 24,0 | 19,5 | 14,0 |
| 1203837   | R1A25M928M-0504 | 5/16" | 1/2-20    | 1/4-18       | 26,5 | 27,5 | 14,0 |
| 1203832   | R/A25M928M-1212 | 3/4"  | 1 1/16-12 | 3/4-14       | 42,0 | 40,5 | 27,0 |
| 1203843   | R1A25M928M-1616 | 1"    | 1 5/16-12 | 1-11 1/2     | 46,0 | 50,0 | 33,0 |
| 1203831   | R1A25M928M-1208 | 3/4"  | 1 1/16-12 | 1/2-14       | 42,0 | 40,5 | 27,0 |
| 1203852   | R/A25M928M-2020 | 1"1/4 | 1 5/8-12  | 1 1/4-11 1/2 | 52,0 | 60,0 | 41,0 |
| 1203851   | R/A25M928M-2016 | 1"1/4 | 1 5/8-12  | 1-11 1/2     | 52,0 | 59,0 | 41,0 |
| 1203858   | R1A25M928M-0808 | 1/2"  | 3/4-16    | 1/2-14       | 34,0 | 37,5 | 22,0 |
| 1203879   | R1A25M928M-1012 | 5/8"  | 7/8-14    | 3/4-14       | 39,5 | 40,5 | 27,0 |
| 1203889   | R1A25M928M-0604 | 3/8"  | 9/16-18   | 1/4-18       | 27,0 | 27,5 | 14,0 |
| 1203878   | R1A25M928M-1008 | 5/8"  | 7/8-14    | 1/2-14       | 36,5 | 37,0 | 22,0 |
| 1203888   | R/A25M928M-0608 | 3/8"  | 9/16-18   | 1/2-14       | 31,0 | 37,0 | 22,0 |

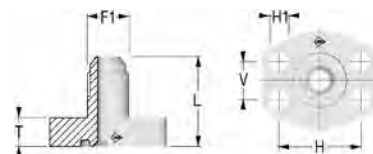
## // FLANGES

## Straight flange SAE J518 code 61 - JIC - Low pressure



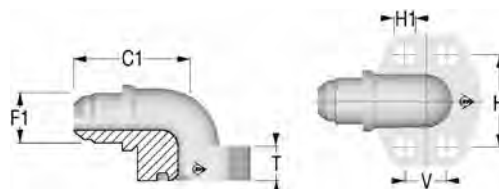
| Item Code | Part Number     | OD1    | F1        | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|--------|-----------|-------------|------|------|------|------|------|
|           |                 | in     |           |             |      |      |      |      |      |
| 1212913   | R1A25M133W-1616 | 1"     | 1 5/16-12 | 1           | 52,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212912   | R1A25M133W-1612 | 1"     | 1 5/16-12 | 3/4         | 50,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212915   | R1A25M133W-2016 | 1 1/4" | 1 5/8-12  | 1           | 54,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212914   | R1A25M133W-1620 | 1"     | 1 5/16-12 | 3/4         | 56,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212906   | R1A25M133W-0808 | 1/2"   | 3/4-16    | 1/2         | 41,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212917   | R1A25M133W-2024 | 1 1/4" | 1 5/8-12  | 1           | 64,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212916   | R1A25M133W-2020 | 1 1/4" | 1 5/8-12  | 1 1/4       | 58,0 | 21,0 | 58,4 | 30,2 | 11,5 |
| 1212908   | R1A25M133W-1012 | 5/8"   | 7/8-14    | 3/4         | 47,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212919   | R1A25M133W-2424 | 1 1/2" | 1 7/8-12  | 1 1/2       | 67,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212907   | R1A25M133W-1008 | 5/8"   | 7/8-14    | 1/2         | 44,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212918   | R1A25M133W-2420 | 1 1/2" | 1 7/8-12  | 1 1/4       | 61,0 | 21,0 | 58,4 | 30,2 | 11,5 |
| 1212911   | R1A25M133W-1216 | 3/4"   | 1 1/16-12 | 1           | 51,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212910   | R1A25M133W-1212 | 3/4"   | 1 1/16-12 | 3/4         | 49,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212909   | R1A25M133W-1208 | 3/4"   | 1 1/16-12 | 1/2         | 46,0 | 14,0 | 38,1 | 17,5 | 9,0  |

## Straight flange SAE J518 code 62 - JIC - High pressure

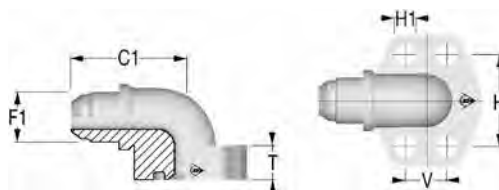


| Item Code | Part Number     | OD1    | F1        | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|--------|-----------|-------------|------|------|------|------|------|
|           |                 | in     |           |             |      |      |      |      |      |
| 1212924   | R1A25M136W-1212 | 3/4"   | 1 1/16-12 | 3/4         | 51,0 | 17,0 | 50,8 | 23,8 | 11,0 |
| 1212923   | R1A25M136W-1208 | 3/4"   | 1 1/16-12 | 1/2         | 47,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212926   | R1A25M136W-1612 | 1"     | 1 5/16-12 | 3/4         | 52,0 | 17,0 | 50,8 | 23,8 | 11,0 |
| 1212925   | R1A25M136W-1216 | 3/4"   | 1 1/16-12 | 1           | 58,0 | 21,0 | 57,2 | 27,8 | 13,0 |
| 1212928   | R1A25M136W-1620 | 1"     | 1 5/16-12 | 1 1/4       | 64,0 | 24,0 | 66,7 | 31,8 | 15,0 |
| 1212927   | R1A25M136W-1616 | 1"     | 1 5/16-12 | 1           | 59,0 | 21,0 | 57,2 | 27,8 | 13,0 |
| 1212929   | R1A25M136W-2016 | 1 1/4" | 1 5/8-12  | 1           | 61,0 | 21,0 | 57,2 | 27,8 | 13,0 |
| 1212920   | R1A25M136W-0808 | 1/2"   | 3/4-16    | 1/2         | 42,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212931   | R1A25M136W-2024 | 1 1/4" | 1 5/8-12  | 1 1/2       | 70,0 | 27,0 | 79,4 | 36,5 | 17,0 |
| 1212930   | R1A25M136W-2020 | 1 1/4" | 1 5/8-12  | 1 1/4       | 66,0 | 24,0 | 66,7 | 31,8 | 15,0 |
| 1212922   | R1A25M136W-1012 | 5/8"   | 7/8-14    | 3/4         | 49,0 | 17,0 | 50,8 | 23,8 | 11,0 |
| 1212933   | R1A25M136W-2424 | 1 1/2" | 1 7/8-12  | 1 1/2       | 73,0 | 27,0 | 79,4 | 36,5 | 17,0 |
| 1212921   | R1A25M136W-1008 | 5/8"   | 7/8-14    | 1/2         | 45,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212932   | R1A25M136W-2420 | 1 1/2" | 1 7/8-12  | 1 1/4       | 69,0 | 24,0 | 66,7 | 31,8 | 15,0 |

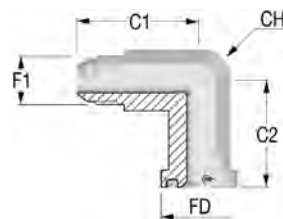
Dimensions shown may be changed without prior notice

**90° flange SAE J518 code 61 - JIC - Low pressure**

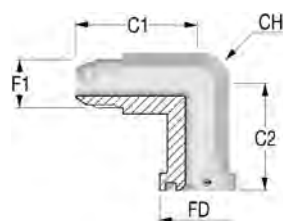
| Item Code | Part Number     | OD1   | F1        | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|-------|-----------|-------------|------|------|------|------|------|
|           | Part Number     | in    |           |             | mm   | mm   | mm   | mm   | mm   |
| 1213095   | R1A25M933W-2020 | 1"1/4 | 1 5/8-12  | 1 1/4       | 58,0 | 31,0 | 58,4 | 30,2 | 11,5 |
| 1213094   | R1A25M933W-2016 | 1"1/4 | 1 5/8-12  | 1           | 53,0 | 31,0 | 52,4 | 26,2 | 11,0 |
| 1213086   | R1A25M933W-1008 | 5/8"  | 7/8-14    | 1/2         | 42,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1213097   | R1A25M933W-2420 | 1"1/2 | 1 7/8-12  | 1 1/4       | 58,0 | 37,0 | 58,4 | 30,2 | 11,5 |
| 1213085   | R1A25M933W-0808 | 1/2"  | 3/4-16    | 1/2         | 40,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1213096   | R1A25M933W-2024 | 1"1/4 | 1 5/8-12  | 1 1/2       | 63,0 | 31,0 | 69,9 | 35,7 | 13,5 |
| 1213088   | R1A25M933W-1208 | 3/4"  | 1 1/16-12 | 1/2         | 42,0 | 20,0 | 38,1 | 17,5 | 9,0  |
| 1213087   | R1A25M933W-1012 | 5/8"  | 7/8-14    | 3/4         | 45,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1213098   | R1A25M933W-2424 | 1"1/2 | 1 7/8-12  | 1 1/2       | 66,0 | 37,0 | 69,9 | 35,7 | 13,5 |
| 1213089   | R1A25M933W-1212 | 3/4"  | 1 1/16-12 | 3/4         | 47,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1213091   | R1A25M933W-1612 | 1"    | 1 5/16-12 | 3/4         | 48,0 | 25,0 | 47,6 | 22,2 | 11,0 |
| 1213090   | R1A25M933W-1216 | 3/4"  | 1 1/16-12 | 1           | 50,0 | 20,0 | 52,4 | 26,2 | 11,0 |
| 1213093   | R1A25M933W-1620 | 1"    | 1 5/16-12 | 1 1/4       | 56,0 | 25,0 | 58,7 | 30,2 | 11,5 |
| 1213092   | R1A25M933W-1616 | 1"    | 1 5/16-12 | 1           | 51,0 | 25,0 | 52,4 | 26,2 | 11,0 |

**90° flange SAE J518 code 62 - JIC - High pressure**

| Item Code | Part Number     | OD1   | F1        | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|-------|-----------|-------------|------|------|------|------|------|
|           | Part Number     | in    |           |             | mm   | mm   | mm   | mm   | mm   |
| 1213114   | R1A25M936W-1208 | 3/4"  | 1 1/16-12 | 1/2         | 42,0 | 20,0 | 40,5 | 18,2 | 9,0  |
| 1213113   | R1A25M936W-1012 | 5/8"  | 7/8-14    | 3/4         | 49,0 | 20,0 | 50,8 | 23,8 | 11,0 |
| 1213124   | R1A25M936W-2424 | 1"1/2 | 1 7/8-12  | 1 1/2       | 70,0 | 37,0 | 79,4 | 36,5 | 17,0 |
| 1213116   | R1A25M936W-1216 | 3/4"  | 1 1/16-12 | 1           | 55,0 | 25,0 | 57,2 | 27,8 | 13,0 |
| 1213115   | R1A25M936W-1212 | 3/4"  | 1 1/16-12 | 3/4         | 51,0 | 20,0 | 50,8 | 23,8 | 11,0 |
| 1213118   | R1A25M936W-1616 | 1"    | 1 5/16-12 | 1           | 56,0 | 25,0 | 57,2 | 27,8 | 13,0 |
| 1213117   | R1A25M936W-1612 | 1"    | 1 5/16-12 | 3/4         | 52,0 | 25,0 | 50,8 | 23,8 | 11,0 |
| 1213119   | R1A25M936W-1620 | 1"    | 1 5/16-12 | 1 1/4       | 56,0 | 31,0 | 66,7 | 31,8 | 15,0 |
| 1213121   | R1A25M936W-2020 | 1"1/4 | 1 5/8-12  | 1 1/4       | 63,0 | 31,0 | 66,7 | 31,8 | 15,0 |
| 1213120   | R1A25M936W-2016 | 1"1/4 | 1 5/8-12  | 1           | 58,0 | 31,0 | 57,2 | 27,8 | 13,0 |
| 1213112   | R1A25M936W-1008 | 5/8"  | 7/8-14    | 1/2         | 42,0 | 17,0 | 40,5 | 18,2 | 9,0  |
| 1213123   | R1A25M936W-2420 | 1"1/2 | 1 7/8-12  | 1 1/4       | 63,0 | 37,0 | 66,7 | 31,8 | 15,0 |
| 1213111   | R1A25M936W-0808 | 1/2"  | 3/4-16    | 1/2         | 40,0 | 17,0 | 40,5 | 18,2 | 9,0  |
| 1213122   | R1A25M936W-2024 | 1"1/4 | 1 5/8-12  | 1 1/2       | 67,0 | 37,0 | 79,4 | 36,5 | 17,0 |

**90° adjustable split flange SAE J518 code 61 - JIC - Low pressure**

| Item Code | Part Number     | OD1   | F1        | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|-------|-----------|-------------|------|------|------|------|
|           |                 | in    |           |             | mm   | mm   | mm   | mm   |
| 1213103   | R1A25M9334-1216 | 3/4"  | 1 1/16-12 | 1           | 65,0 | 60,0 | 44,5 | 27,0 |
| 1213102   | R1A25M9334-1212 | 3/4"  | 1 1/16-12 | 3/4         | 64,0 | 53,0 | 38,1 | 27,0 |
| 1213105   | R1A25M9334-1616 | 1"    | 1 5/16-12 | 1           | 65,0 | 60,0 | 44,5 | 34,0 |
| 1213104   | R1A25M9334-1612 | 1"    | 1 5/16-12 | 3/4         | 64,0 | 53,0 | 38,1 | 34,0 |
| 1213107   | R1A25M9334-2016 | 1"1/4 | 1 5/8-12  | 1           | 65,0 | 60,0 | 44,5 | 42,0 |
| 1213106   | R1A25M9334-1620 | 1"    | 1 5/16-12 | 1 1/4       | 64,0 | 55,0 | 50,8 | 34,0 |
| 1213109   | R1A25M9334-2024 | 1"1/4 | 1 5/8-12  | 1 1/2       | 78,0 | 66,0 | 60,3 | 42,0 |
| 1213108   | R1A25M9334-2020 | 1"1/4 | 1 5/8-12  | 1 1/4       | 64,0 | 55,0 | 50,8 | 42,0 |
| 1213099   | R1A25M9334-0808 | 1/2"  | 3/4-16    | 1/2         | 48,0 | 42,0 | 30,2 | 22,0 |
| 1213110   | R1A25M9334-2424 | 1"1/2 | 1 7/8-12  | 1 1/2       | 78,0 | 66,0 | 60,3 | 50,0 |
| 1213101   | R1A25M9334-1012 | 5/8"  | 7/8-14    | 3/4         | 64,0 | 53,0 | 38,1 | 22,0 |
| 1213100   | R1A25M9334-1008 | 5/8"  | 7/8-14    | 1/2         | 50,0 | 44,0 | 30,2 | 22,0 |

**90° adjustable split flange SAE J518 code 62 - JIC - High pressure**

| Item Code | Part Number     | OD1   | F1        | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|-------|-----------|-------------|------|------|------|------|
|           |                 | in    |           |             | mm   | mm   | mm   | mm   |
| 1213125   | R1A25M9364-0808 | 1/2"  | 3/4-16    | 1/2         | 49,0 | 43,0 | 31,8 | 22,0 |
| 1213136   | R1A25M9364-2424 | 1"1/2 | 1 7/8-12  | 1 1/2       | 78,0 | 66,0 | 63,5 | 50,0 |
| 1213135   | R1A25M9364-2024 | 1"1/4 | 1 5/8-12  | 1 1/2       | 78,0 | 66,0 | 63,5 | 42,0 |
| 1213127   | R1A25M9364-1012 | 5/8"  | 7/8-14    | 3/4         | 64,0 | 53,0 | 41,3 | 22,0 |
| 1213126   | R1A25M9364-1008 | 5/8"  | 7/8-14    | 1/2         | 50,0 | 44,0 | 31,8 | 22,0 |
| 1213129   | R1A25M9364-1216 | 3/4"  | 1 1/16-12 | 1           | 65,0 | 60,0 | 47,6 | 27,0 |
| 1213128   | R1A25M9364-1212 | 3/4"  | 1 1/16-12 | 3/4         | 64,0 | 53,0 | 41,3 | 27,0 |
| 1213130   | R1A25M9364-1612 | 1"    | 1 5/16-12 | 3/4         | 64,0 | 53,0 | 41,3 | 34,0 |
| 1213132   | R1A25M9364-1620 | 1"    | 1 5/16-12 | 1 1/4       | 64,0 | 55,0 | 54,0 | 34,0 |
| 1213131   | R1A25M9364-1616 | 1"    | 1 5/16-12 | 1           | 65,0 | 60,0 | 47,6 | 34,0 |
| 1213134   | R1A25M9364-2020 | 1"1/4 | 1 5/8-12  | 1 1/4       | 64,0 | 55,0 | 54,0 | 42,0 |
| 1213133   | R1A25M9364-2016 | 1"1/4 | 1 5/8-12  | 1           | 65,0 | 60,0 | 47,6 | 42,0 |

Dimensions shown may be changed without prior notice

## // ACCESSORIES

## Nut JIC



| Item Code | Item Code       | OD1<br>mm | F1        | CH<br>mm | L<br>mm |
|-----------|-----------------|-----------|-----------|----------|---------|
| 1208049   | RXA25D0000-1000 | 14        | 7/8-14    | 27,0     | 25,10   |
| 1208046   | RXA25D0000-0400 | 6         | 7/16-20   | 14,0     | 15,80   |
| 1208048   | RXA25D0000-0800 | 12        | 3/4-16    | 22,0     | 21,80   |
| 1208047   | RXA25D0000-0500 | 8         | 1/2-20    | 17,0     | 17,30   |
| 1246561   | RXA25D0000-100X | 14        | 7/8-14    | 27,0     | 25,10   |
| 1207580   | RXA25D0000-0600 | 10        | 9/16-18   | 19,0     | 18,80   |
| 1208053   | RXA25D0000-2400 | 38        | 1 7/8-12  | 60,0     | 36,10   |
| 1208052   | RXA25D0000-2000 | 30        | 1 5/8-12  | 50,0     | 31,20   |
| 1208051   | RXA25D0000-1600 | 25        | 1 5/16-12 | 41,0     | 28,70   |
| 1208050   | RXA25D0000-1200 | 18        | 1 1/16-12 | 32,0     | 26,20   |
| 1245938   | RXA25D0000-060X | 10        | 9/16-18   | 19,0     | 18,80   |
| 1245939   | RXA25D0000-080X | 12        | 3/4-16    | 22,0     | 21,80   |
| 1245937   | RXA25D0000-040X | 6         | 7/16-20   | 14,0     | 15,80   |
| 1203514   | RXA25D0000-1220 | 20        | 1 1/16-12 | 32,0     | 26,20   |

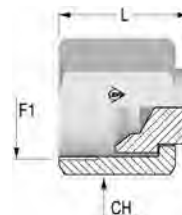
## Sleeve JIC



| Item Code | Part Number     | OD1<br>in | L<br>mm |
|-----------|-----------------|-----------|---------|
| 1203719   | R1A25R0000-0508 | 5/16"     | 11,0    |
| 1203729   | R1A25R0000-0610 | 3/8"      | 12,5    |
| 1203718   | R1A25R0000-1220 | 3/4"      | 17,5    |
| 1216495   | R1A25R0000-1422 | 7/8"      | 19,5    |
| 1203728   | R1A25R0000-1016 | 5/8"      | 17,0    |
| 1203717   | R1A25R0000-1218 | 3/4"      | 17,5    |
| 1203727   | R1A25R0000-1015 | 5/8"      | 17,0    |
| 1203722   | R1A25R0000-2032 | 1"1/4     | 23,0    |
| 1203721   | R1A25R0000-2030 | 1"1/4     | 23,0    |
| 1203720   | R1A25R0000-1625 | 1"        | 20,0    |
| 1203726   | R1A25R0000-1014 | 5/8"      | 17,0    |
| 1203725   | R1A25R0000-0406 | 1/4"      | 10,5    |
| 1203724   | R1A25R0000-0812 | 1/2"      | 14,0    |
| 1203723   | R1A25R0000-2438 | 1"1/2     | 28,5    |

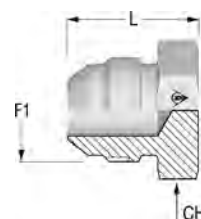
## // PLUG

## Cap JIC Female



| Item Code | Part Number     | OD1   | F1        | CH   | L    |
|-----------|-----------------|-------|-----------|------|------|
|           |                 | in    |           | mm   | mm   |
| 1207356   | R1A2531000-2400 | 1 1/2 | 1 7/8-12  | 60,0 | 43,0 |
| 1207348   | R1A2531000-0400 | 1/4"  | 7/16-20   | 14,0 | 17,0 |
| 1207353   | R1A2531000-1200 | 3/4"  | 1 1/16-12 | 32,0 | 31,5 |
| 1207352   | R1A2531000-1000 | 5/8"  | 7/8-14    | 27,0 | 27,0 |
| 1207355   | R1A2531000-2000 | 1 1/4 | 1 5/8-12  | 50,0 | 35,5 |
| 1207354   | R1A2531000-1600 | 1"    | 1 5/16-12 | 41,0 | 32,5 |
| 1213213   | R1A2531000-1400 | 7/8"  | 1 3/16-12 | 36,0 | 32,0 |
| 1207351   | R1A2531000-0800 | 1/2"  | 3/4-16    | 22,0 | 24,0 |
| 1207350   | R1A2531000-0600 | 3/8"  | 9/16-18   | 19,0 | 20,5 |
| 1207349   | R1A2531000-0500 | 5/16" | 1/2-20    | 17,0 | 19,5 |

## Plug JIC Male



| Item Code | Part Number     | OD1   | F1        | CH   | L    |
|-----------|-----------------|-------|-----------|------|------|
|           |                 | in    |           | mm   | mm   |
| 1212825   | R1A25M1000-1400 | 7/8"  | 1 3/16-12 | 33,0 | 33,0 |
| 1207456   | R1A25M1000-2000 | 1 1/4 | 1 5/8-12  | 46,0 | 37,0 |
| 1207455   | R1A25M1000-1600 | 1"    | 1 5/16-12 | 36,0 | 34,0 |
| 1207457   | R1A25M1000-2400 | 1 1/2 | 1 7/8-12  | 50,0 | 42,0 |
| 1207452   | R1A25M1000-0800 | 1/2"  | 3/4-16    | 22,0 | 24,0 |
| 1207451   | R1A25M1000-0600 | 3/8"  | 9/16-18   | 14,0 | 21,5 |
| 1207454   | R1A25M1000-1200 | 3/4"  | 1 1/16-12 | 30,0 | 32,5 |
| 1207453   | R1A25M1000-1000 | 5/8"  | 7/8-14    | 24,0 | 28,0 |
| 1207450   | R1A25M1000-0500 | 5/16" | 1/2-20    | 14,0 | 20,5 |
| 1207449   | R1A25M1000-0400 | 1/4"  | 7/16-20   | 12,0 | 20,5 |



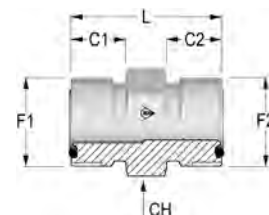
## // ORFS ADAPTERS

|                             |     |
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| // MALE UNION.....          | 178 |
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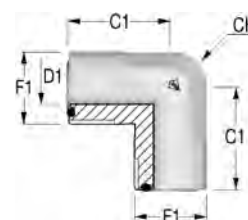
## // MALE UNION

## Straight union ORFS Male



| Item Code | Part Number     | OD1   | F1         | F2         | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|------------|------------|------|------|------|------|
|           |                 | in    |            |            | mm   | mm   | mm   | mm   |
| 1207588   | R1A2451245-1010 | 5/8"  | 1-14       | 1-14       | 15,5 | 15,5 | 27,0 | 42,5 |
| 1207587   | R1A2451245-0606 | 3/8"  | 11/16-16   | 11/16-16   | 11,0 | 11,0 | 19,0 | 31,0 |
| 1207579   | R1A2451245-0808 | 1/2"  | 13/16-16   | 13/16-16   | 13,0 | 13,0 | 22,0 | 35,5 |
| 1207589   | R1A2451245-1212 | 3/4"  | 1 3/16-12  | 1 3/16-12  | 17,0 | 17,0 | 32,0 | 47,0 |
| 1208177   | R1A2451245-1612 | 1"    | 1 7/16-12  | 13/16-16   | 17,5 | 17,0 | 41,0 | 49,5 |
| 1207586   | R1A2451245-0404 | 1/4"  | 9/16-18    | 9/16-18    | 10,0 | 10,0 | 17,0 | 27,0 |
| 1208179   | R1A2451245-2016 | 1"1/4 | 1 11/16-12 | 1 7/16-12  | 17,5 | 17,5 | 46,0 | 51,5 |
| 1208174   | R/A2451245-0806 | 1/2"  | 13/16-16   | 11/16-16   | 13,0 | 11,0 | 22,0 | 33,5 |
| 1208173   | R/A2451245-0604 | 3/8"  | 11/16-16   | 9/16-18    | 11,0 | 10,0 | 19,0 | 30,0 |
| 1207590   | R1A2451245-1616 | 1"    | 1 7/16-12  | 1 7/16-12  | 17,5 | 17,5 | 41,0 | 49,5 |
| 1208176   | R/A2451245-1210 | 3/4"  | 1 3/16-12  | 1-14       | 17,0 | 15,5 | 32,0 | 45,5 |
| 1208175   | R1A2451245-1008 | 5/8"  | 1-14       | 13/16-16   | 15,5 | 13,0 | 27,0 | 40,0 |
| 1211533   | R1A2451245-2424 | 1"1/2 | 2-12       | 2-12       | 17,5 | 17,5 | 55,0 | 53,0 |
| 1208180   | R1A2451245-2020 | 1"1/4 | 1 11/16-12 | 1 11/16-12 | 17,5 | 17,5 | 46,0 | 51,5 |

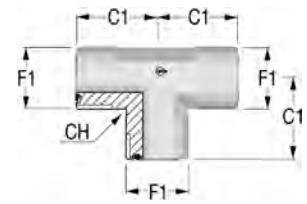
## 90° union ORFS Male



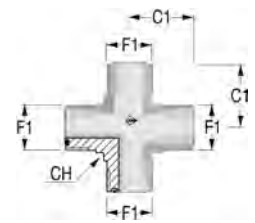
| Item Code | Part Number     | OD1   | F1         | C1   | CH   |
|-----------|-----------------|-------|------------|------|------|
|           |                 | in    |            | mm   | mm   |
| 1208129   | R/A2459245-1010 | 5/8"  | 1-14       | 33,5 | 27,0 |
| 1208128   | R1A2459245-0606 | 3/8"  | 11/16-16   | 25,0 | 17,0 |
| 1207578   | R1A2459245-0808 | 1/2"  | 13/16-16   | 28,0 | 19,0 |
| 1207045   | R/A2459245-0404 | 1/4"  | 9/16-18    | 21,5 | 14,0 |
| 1211560   | R/A2459245-2424 | 1"1/2 | 2-12       | 49,0 | 48,0 |
| 1208130   | R1A2459245-1212 | 3/4"  | 1 3/16-12  | 37,5 | 27,0 |
| 1208132   | R1A2459245-2020 | 1"1/4 | 1 11/16-12 | 45,0 | 41,0 |
| 1208131   | R1A2459245-1616 | 1"    | 1 7/16-12  | 42,0 | 36,0 |



Dimensions shown may be changed without prior notice

**Branch Tee union ORFS Male**

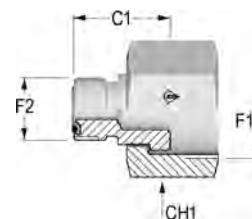
| Item Code | Part Number     | OD1   | F1         | C1   | CH   |
|-----------|-----------------|-------|------------|------|------|
|           |                 | in    |            | mm   | mm   |
| 1207601   | R1A245T245-0606 | 3/8"  | 11/16-16   | 25,0 | 17,0 |
| 1208206   | R1A245T245-2020 | 1"1/4 | 1 11/16-12 | 45,0 | 41,0 |
| 1207600   | R1A245T245-0404 | 1/4"  | 9/16-18    | 21,5 | 14,0 |
| 1208205   | R1A245T245-1212 | 3/4"  | 1 3/16-12  | 37,5 | 27,0 |
| 1207572   | R1A245T245-0808 | 1/2"  | 13/16-16   | 28,0 | 19,0 |
| 1207571   | R1A245T245-1010 | 5/8"  | 1-14       | 33,5 | 27,0 |
| 1211520   | R1A245T245-2424 | 1"1/2 | 2-12       | 49,0 | 48,0 |
| 1207602   | R1A245T245-1616 | 1"    | 1 7/16-12  | 42,0 | 36,0 |

**Cross union ORFS Male**

| Item Code | Part Number     | OD1   | F1         | C1   | CH   |
|-----------|-----------------|-------|------------|------|------|
|           |                 | in    |            | mm   | mm   |
| 1212538   | R1A245X245-2424 | 1"1/2 | 2-12       | 49,0 | 48,0 |
| 1212531   | R1A245X245-0404 | 1/4"  | 9/16-18    | 21,5 | 14,0 |
| 1212533   | R1A245X245-0808 | 1/2"  | 13/16-16   | 28,0 | 19,0 |
| 1212532   | R1A245X245-0606 | 3/8"  | 11/16-16   | 25,0 | 17,0 |
| 1212535   | R1A245X245-1212 | 3/4"  | 1 3/16-12  | 37,5 | 27,0 |
| 1212534   | R1A245X245-1010 | 5/8"  | 1-14       | 33,5 | 27,0 |
| 1212537   | R1A245X245-2020 | 1"1/4 | 1 11/16-12 | 45,0 | 41,0 |
| 1212536   | R1A245X245-1616 | 1"    | 1 7/16-12  | 42,0 | 36,0 |

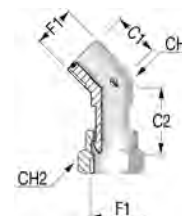
## // MALE / FEMALE UNION

## Straight union ORFS Female - ORFS Male



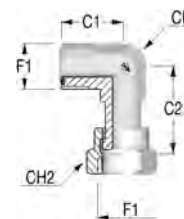
| Item Code | Part Number     | OD1   | F1         | F2         | C1   | CH1  |
|-----------|-----------------|-------|------------|------------|------|------|
|           |                 | in    |            |            | mm   | mm   |
| 1208347   | R1A2411245-0806 | 1/2"  | 13/16-16   | 11/16-16   | 23,0 | 24,0 |
| 1208214   | R/A2431245-2012 | 1"1/4 | 1 11/16-12 | 13/16-16   | 33,5 | 50,0 |
| 1212519   | R1A2431245-1204 | 3/4"  | 1 3/16-12  | 9/16-18    | 25,0 | 36,0 |
| 1212518   | R1A2431245-1006 | 5/8"  | 1-14       | 11/16-16   | 24,0 | 30,0 |
| 1208211   | R1A2431245-1206 | 3/4"  | 1 3/16-12  | 11/16-16   | 26,0 | 36,0 |
| 1207661   | R/A2431245-1610 | 1"    | 1 7/16-12  | 1-14       | 32,0 | 41,0 |
| 1208210   | R1A2431245-0804 | 1/2"  | 13/16-16   | 9/16-18    | 22,0 | 24,0 |
| 1207033   | R/A2431245-1004 | 5/8"  | 1-14       | 9/16-18    | 23,0 | 30,0 |
| 1207660   | R/A2431245-1008 | 5/8"  | 1-14       | 13/16-16   | 26,0 | 30,0 |
| 1208213   | R1A2431245-1608 | 1"    | 1 7/16-12  | 13/16-16   | 29,5 | 41,0 |
| 1208037   | R1A2431245-2016 | 1"1/4 | 1 11/16-12 | 1 7/16-12  | 38,5 | 50,0 |
| 1208212   | R1A2431245-1208 | 3/4"  | 1 3/16-12  | 13/16-16   | 28,0 | 36,0 |
| 1212498   | R1A2411245-0604 | 3/8"  | 11/16-16   | 9/16-18    | 19,5 | 22,0 |
| 1211497   | R1A2431245-2416 | 1"1/2 | 2-12       | 1 7/16-12  | 34,0 | 60,0 |
| 1211498   | R1A2431245-2420 | 1"1/2 | 2-12       | 1 11/16-12 | 34,0 | 60,0 |
| 1214621   | R1A2411245-1210 | 3/4"  | 1 3/16-12  | 1-14       | 30,5 | 36,0 |
| 1212499   | R1A2411245-1612 | 1"    | 1 7/16-12  | 1 3/16-12  | 33,5 | 41,0 |

## 45° union ORFS Male - ORFS Female

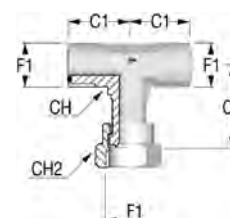


| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|------------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   |
| 1212616   | R1A2454241-1010 | 5/8"  | 1-14       | 23,5 | 36,0 | 27,0 | 30,0 |
| 1212615   | R1A2454241-0808 | 1/2"  | 13/16-16   | 20,5 | 30,0 | 19,0 | 24,0 |
| 1212618   | R1A2454241-2020 | 1"1/4 | 1 11/16-12 | 32,0 | 45,0 | 41,0 | 50,0 |
| 1212617   | R1A2454241-1616 | 1"    | 1 7/16-12  | 30,0 | 45,0 | 36,0 | 41,0 |
| 1212619   | R1A2454241-2424 | 1"1/2 | 2-12       | 32,0 | 47,5 | 48,0 | 60,0 |
| 1211542   | R1A2454241-1212 | 3/4"  | 1 3/16-12  | 26,0 | 41,0 | 27,0 | 36,0 |
| 1212614   | R1A2454241-0606 | 3/8"  | 11/16-16   | 19,0 | 25,0 | 17,0 | 22,0 |
| 1212613   | R/A2454241-0404 | 1/4"  | 9/16-18    | 16,0 | 26,5 | 14,0 | 17,0 |

Dimensions shown may be changed without prior notice

**90° union ORFS Male - ORFS Female**

| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|------------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   |
| 1211559   | R1A2459241-2424 | 1"1/2 | 2-12       | 49,0 | 61,0 | 48,0 | 60,0 |
| 1208126   | R1A2459241-2020 | 1"1/4 | 1 11/16-12 | 44,5 | 58,0 | 41,0 | 50,0 |
| 1207595   | R1A2459241-1616 | 1"    | 1 7/16-12  | 41,5 | 53,5 | 36,0 | 41,0 |
| 1207594   | R1A2459241-1212 | 3/4"  | 1 3/16-12  | 37,5 | 46,5 | 27,0 | 36,0 |
| 1206968   | R1A2459241-1010 | 5/8"  | 1-14       | 33,5 | 41,5 | 27,0 | 30,0 |
| 1207593   | R1A2459241-0606 | 3/8"  | 11/16-16   | 25,0 | 29,0 | 17,0 | 22,0 |
| 1208021   | R1A2459241-0404 | 1/4"  | 9/16-18    | 21,5 | 26,5 | 14,0 | 17,0 |
| 1207569   | R1A2459241-0808 | 1/2"  | 13/16-16   | 28,0 | 38,0 | 19,0 | 24,0 |

**Branch Tee union ORFS Male - ORFS Female**

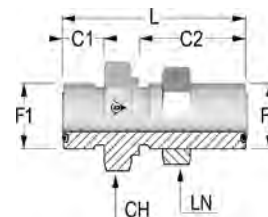
| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|------------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   |
| 1208204   | R/A245T241-2020 | 1"1/4 | 1 11/16-12 | 44,5 | 58,0 | 41,0 | 50,0 |
| 1208203   | R1A245T241-1616 | 1"    | 1 7/16-12  | 41,5 | 53,5 | 36,0 | 41,0 |
| 1208200   | R1A245T241-0404 | 1/4"  | 9/16-18    | 21,5 | 26,5 | 14,0 | 17,0 |
| 1211519   | R1A245T241-2424 | 1"1/2 | 2-12       | 49,0 | 61,0 | 48,0 | 60,0 |
| 1208202   | R1A245T241-1212 | 3/4"  | 1 3/16-12  | 37,5 | 46,5 | 27,0 | 36,0 |
| 1208201   | R1A245T241-1010 | 5/8"  | 1-14       | 33,5 | 41,5 | 27,0 | 30,0 |
| 1208033   | R1A245T241-0606 | 3/8"  | 11/16-16   | 25,0 | 29,0 | 17,0 | 22,0 |
| 1207570   | R1A245T241-0808 | 1/2"  | 13/16-16   | 28,0 | 38,0 | 19,0 | 24,0 |

**Run Tee union ORFS Male - ORFS Female**

| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|------------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   |
| 1207599   | R1A245L241-1616 | 1"    | 1 7/16-12  | 41,5 | 53,5 | 36,0 | 41,0 |
| 1207598   | R1A245L241-0808 | 1/2"  | 13/16-16   | 28,0 | 38,0 | 19,0 | 27,0 |
| 1207573   | R1A245L241-0606 | 3/8"  | 11/16-16   | 25,0 | 29,0 | 17,0 | 22,0 |
| 1211508   | R1A245L241-2424 | 1"1/2 | 2-12       | 48,5 | 61,0 | 48,0 | 60,0 |
| 1207597   | R1A245L241-0404 | 1/4"  | 9/16-18    | 21,5 | 26,5 | 14,0 | 19,0 |
| 1207032   | R1A245L241-1010 | 5/8"  | 1-14       | 33,5 | 41,5 | 27,0 | 30,0 |
| 1207559   | R1A245L241-1212 | 3/4"  | 1 3/16-12  | 37,5 | 46,5 | 27,0 | 36,0 |
| 1208209   | R1A245L241-2020 | 1"1/4 | 1 11/16-12 | 44,0 | 58,0 | 41,0 | 50,0 |

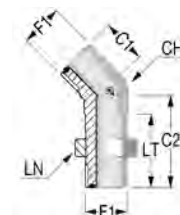
## // BULKHEAD

## Straight union ORFS Bulkhead



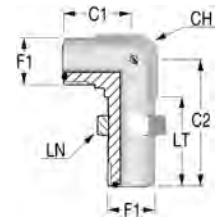
| Item Code | Part Number     | OD1<br>in | F1         | C1<br>mm | C2<br>mm | CH<br>mm | LN<br>mm | L<br>mm |
|-----------|-----------------|-----------|------------|----------|----------|----------|----------|---------|
| 1208189   | R1A245124T-2020 | 1"1/4     | 1 11/16-12 | 17,5     | 39,0     | 50,0     | 50,0     | 70,0    |
| 1208188   | R1A245124T-1616 | 1"        | 1 7/16-12  | 17,5     | 39,0     | 46,0     | 46,0     | 70,0    |
| 1207035   | R1A245124T-0606 | 3/8"      | 11/16-16   | 11,0     | 32,5     | 27,0     | 27,0     | 53,0    |
| 1239974   | R1A245124T-0812 | 1/2"      | 13/16-16   | 13,0     | 38,5     | 41,0     | 41,0     | 65,0    |
| 1208185   | R1A245124T-0808 | 1/2"      | 13/16-16   | 13,0     | 34,0     | 30,0     | 30,0     | 58,0    |
| 1208184   | R1A245124T-0404 | 1/4"      | 9/16-18    | 10,0     | 30,0     | 22,0     | 22,0     | 48,0    |
| 1208187   | R1A245124T-1212 | 3/4"      | 1 3/16-12  | 17,0     | 38,5     | 41,0     | 41,0     | 69,0    |
| 1211532   | R1A245124T-2424 | 1"1/2     | 2-12       | 17,5     | 39,0     | 60,0     | 60,0     | 70,0    |
| 1206967   | R1A245124T-1010 | 5/8"      | 1-14       | 15,5     | 38,0     | 36,0     | 36,0     | 65,5    |

## 45° union ORFS Bulkhead

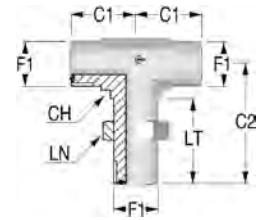


| Item Code | Part Number     | OD1<br>in | F1        | C1<br>mm | C2<br>mm | CH<br>mm | LN<br>mm | LT<br>mm |
|-----------|-----------------|-----------|-----------|----------|----------|----------|----------|----------|
| 1212605   | R1A245424T-0404 | 1/4"      | 9/16-18   | 16,0     | 44,0     | 14,0     | 22,0     | 31,5     |
| 1212607   | R1A245424T-0808 | 1/2"      | 13/16-16  | 20,5     | 51,0     | 19,0     | 30,0     | 36,5     |
| 1212606   | R1A245424T-0606 | 3/8"      | 11/16-16  | 19,0     | 48,5     | 17,0     | 27,0     | 34,0     |
| 1212609   | R1A245424T-1212 | 3/4"      | 1 3/16-12 | 26,0     | 60,5     | 27,0     | 41,0     | 41,5     |
| 1212608   | R1A245424T-1010 | 5/8"      | 1-14      | 23,5     | 56,5     | 27,0     | 36,0     | 40,5     |
| 1212610   | R1A245424T-1616 | 1"        | 1 7/16-12 | 30,0     | 65,0     | 36,0     | 46,0     | 42,0     |
| 1212612   | R1A245424T-2424 | 1"1/2     | 2-12      | 37,0     | 67,0     | 48,0     | 60,0     | 42,0     |

Dimensions shown may be changed without prior notice

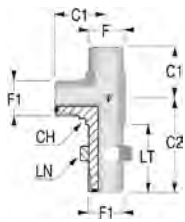
**90° union ORFS Bulkhead**

| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|------------|------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   | mm   |
| 1208158   | R1A245924T-2020 | 1"1/4 | 1 11/16-12 | 45,5 | 75,5 | 41,0 | 50,0 | 42,0 |
| 1208157   | R1A245924T-1212 | 3/4"  | 1 3/16-12  | 38,5 | 67,0 | 27,0 | 41,0 | 41,5 |
| 1207560   | R1A245924T-1010 | 5/8"  | 1-14       | 34,5 | 63,0 | 27,0 | 36,0 | 40,5 |
| 1210753   | R1A245924T-0404 | 1/4"  | 9/16-18    | 22,5 | 47,0 | 14,0 | 22,0 | 31,5 |
| 1210754   | R1A245924T-0606 | 3/8"  | 11/16-16   | 26,0 | 52,0 | 17,0 | 27,0 | 34,0 |
| 1211557   | R1A245924T-1616 | 1"    | 1 7/16-12  | 42,5 | 71,0 | 36,0 | 46,0 | 42,0 |
| 1210755   | R1A245924T-0808 | 1/2"  | 13/16-16   | 29,0 | 55,5 | 19,0 | 30,0 | 36,5 |
| 1211558   | R1A245924T-2424 | 1"1/2 | 2-12       | 49,5 | 79,5 | 48,0 | 60,0 | 42,0 |

**Branch Tee union ORFS Bulkhead**

| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|------------|------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   | mm   |
| 1212528   | R1A245T24T-1616 | 1"    | 1 7/16-12  | 42,5 | 71,0 | 36,0 | 46,0 | 42,0 |
| 1212527   | R1A245T24T-1212 | 3/4"  | 1 3/16-12  | 38,5 | 67,0 | 27,0 | 41,0 | 41,5 |
| 1212529   | R1A245T24T-2020 | 1"1/4 | 1 11/16-12 | 45,5 | 75,5 | 41,0 | 50,0 | 42,0 |
| 1208224   | R1A245T24T-0808 | 1/2"  | 13/16-16   | 29,0 | 55,5 | 19,0 | 30,0 | 36,5 |
| 1212530   | R1A245T24T-2424 | 1"1/2 | 2-12       | 49,5 | 79,5 | 48,0 | 60,0 | 42,0 |
| 1212524   | R1A245T24T-0404 | 1/4"  | 9/16-18    | 22,5 | 47,0 | 14,0 | 22,0 | 31,5 |
| 1212526   | R1A245T24T-1010 | 5/8"  | 1-14       | 34,5 | 63,0 | 27,0 | 36,0 | 40,5 |
| 1212525   | R1A245T24T-0606 | 3/8"  | 11/16-16   | 26,0 | 52,0 | 17,0 | 27,0 | 34,0 |

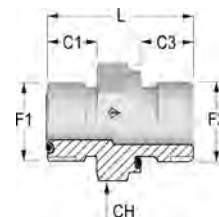
Run Tee union ORFS Bulkhead



| Item Code | Part Number     | OD1   | F1         | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|------------|------|------|------|------|------|
|           |                 | in    |            | mm   | mm   | mm   | mm   | mm   |
| 1211504   | R1A245L24T-1212 | 3/4"  | 1 3/16-12  | 38,5 | 67,0 | 27,0 | 41,0 | 44,5 |
| 1211505   | R1A245L24T-1616 | 1"    | 1 7/16-12  | 42,5 | 71,0 | 36,0 | 46,0 | 46,0 |
| 1211506   | R1A245L24T-2020 | 1"1/4 | 1 11/16-12 | 45,5 | 75,5 | 41,0 | 50,0 | 46,5 |
| 1211507   | R1A245L24T-2424 | 1"1/2 | 2-12       | 49,5 | 79,5 | 48,0 | 60,0 | 45,0 |
| 1240057   | R1A245L24T-0404 | 1/4"  | 9/16-18    | 22,5 | 47,0 | 14,0 | 22,0 | 35,0 |
| 1210797   | R1A245L24T-0808 | 1/2"  | 13/16-16   | 29,0 | 55,5 | 19,0 | 30,0 | 40,0 |
| 1211502   | R1A245L24T-0606 | 3/8"  | 11/16-16   | 26,0 | 52,0 | 17,0 | 27,0 | 39,0 |
| 1211503   | R1A245L24T-1010 | 5/8"  | 1-14       | 34,5 | 63,0 | 27,0 | 36,0 | 43,5 |

Dimensions shown may be changed without prior notice

// BSPP

**Straight connector ORFS Male - BSPP cylindric Male with elastomer**

| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|------------|----------|------|------|------|------|
|           |                 | in    |            |          | mm   | mm   | mm   | mm   |
| 1207577   | R1A245106I-1616 | 1"    | 1 7/16-12  | 1-11     | 17,5 | 18,0 | 41,0 | 49,0 |
| 1207576   | R1A245106I-0806 | 1/2"  | 13/16-16   | 3/8-19   | 13,0 | 12,0 | 22,0 | 34,5 |
| 1207996   | R1A245106I-0608 | 3/8"  | 11/16-16   | 1/2-14   | 11,0 | 14,0 | 27,0 | 37,0 |
| 1207990   | R1A245106I-0402 | 1/4"  | 9/16-18    | 1/8-28   | 10,0 | 8,0  | 17,0 | 25,5 |
| 1207575   | R1A245106I-0604 | 3/8"  | 11/16-16   | 1/4-19   | 11,0 | 12,0 | 19,0 | 31,5 |
| 1207574   | R1A245106I-0606 | 3/8"  | 11/16-16   | 3/8-19   | 11,0 | 12,0 | 22,0 | 33,5 |
| 1208003   | R1A245106I-1612 | 1"    | 1 7/16-12  | 3/4-14   | 17,5 | 16,0 | 41,0 | 51,0 |
| 1208022   | R1A245106I-0812 | 1/2"  | 13/16-16   | 3/4-14   | 13,0 | 16,0 | 32,0 | 42,0 |
| 1208000   | R1A245106I-1208 | 3/4"  | 1 3/16-12  | 1/2-14   | 17,0 | 14,0 | 32,0 | 48,5 |
| 1206957   | R1A245106I-0406 | 1/4"  | 9/16-18    | 3/8-19   | 10,0 | 12,0 | 22,0 | 31,5 |
| 1206958   | R1A245106I-0808 | 1/2"  | 13/16-16   | 1/2-14   | 13,0 | 14,0 | 27,0 | 38,5 |
| 1206955   | R1A245106I-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 17,0 | 16,0 | 32,0 | 46,0 |
| 1206956   | R1A245106I-0404 | 1/4"  | 9/16-18    | 1/4-19   | 10,0 | 12,0 | 19,0 | 30,5 |
| 1208017   | R1A245106I-0408 | 1/4"  | 9/16-18    | 1/2-14   | 10,0 | 14,0 | 27,0 | 35,5 |
| 1211527   | R1A245106I-1216 | 3/4"  | 1 3/16-12  | 1-11     | 17,0 | 18,0 | 41,0 | 49,5 |
| 1211528   | R1A245106I-2024 | 1"1/4 | 1 11/16-12 | 1 1/2-11 | 17,5 | 22,0 | 55,0 | 57,5 |
| 1208018   | R1A245106I-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 17,5 | 20,0 | 50,0 | 54,0 |
| 1211529   | R1A245106I-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 17,5 | 22,0 | 55,0 | 57,5 |
| 1208034   | R1A245106I-2016 | 1"1/4 | 1 11/16-12 | 1-11     | 17,5 | 18,0 | 46,0 | 57,5 |
| 1208010   | R1A245106I-1008 | 5/8"  | 1-14       | 1/2-14   | 15,5 | 14,0 | 27,0 | 41,0 |
| 1207959   | R1A245106I-1012 | 5/8"  | 1-14       | 3/4-14   | 15,5 | 16,0 | 32,0 | 44,5 |
| 1207999   | R1A245106I-1006 | 5/8"  | 1-14       | 3/8-19   | 15,5 | 12,0 | 27,0 | 43,0 |
| 1207998   | R1A245106I-0804 | 1/2"  | 13/16-16   | 1/4-19   | 13,0 | 12,0 | 22,0 | 39,5 |
| 1207979   | R1A245106I-1620 | 1"    | 1 7/16-12  | 1 1/4-11 | 17,5 | 20,0 | 50,0 | 54,0 |

### 45° adjustable elbow connector ORFS Male - BSPP cylindric Male with O-Ring and retaining ring

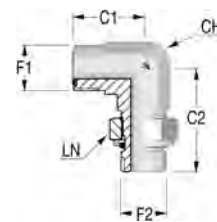


| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|----------|------|------|------|------|
|           |                 | in    |            |          | mm   | mm   | mm   | mm   |
| 1210800   | R/A245406Q-0402 | 1/4"  | 9/16-18    | 1/8-28   | 16,0 | 28,0 | 14,0 | 14,0 |
| 1207720   | R1A245406N-1616 | 1"    | 1 7/16-12  | 1-11     | 30,0 | 52,5 | 36,0 | 41,0 |
| 1210801   | R1A245406N-0404 | 1/4"  | 9/16-18    | 1/4-19   | 17,5 | 31,0 | 14,0 | 19,0 |
| 1212604   | R/A245406Q-0808 | 1/2"  | 13/16-16   | 1/2-14   | 22,0 | 42,0 | 27,0 | 27,0 |
| 1210802   | R1A245406Q-0604 | 3/8"  | 11/16-16   | 1/4-19   | 19,0 | 32,0 | 19,0 | 19,0 |
| 1211539   | R1A245406Q-1216 | 3/4"  | 1 3/16-12  | 1-11     | 29,5 | 52,5 | 36,0 | 41,0 |
| 1210803   | R1A245406N-0606 | 3/8"  | 11/16-16   | 3/8-19   | 19,0 | 33,0 | 19,0 | 22,0 |
| 1210804   | R1A245406Q-0608 | 3/8"  | 11/16-16   | 1/2-14   | 19,5 | 43,0 | 27,0 | 27,0 |
| 1210805   | R/A245406Q-0806 | 1/2"  | 13/16-16   | 3/8-19   | 20,5 | 33,5 | 19,0 | 22,0 |
| 1210806   | R1A245406Q-1008 | 5/8"  | 1-14       | 1/2-14   | 23,5 | 42,0 | 27,0 | 27,0 |
| 1210807   | R/A245406Q-1012 | 5/8"  | 1-14       | 3/4-14   | 24,5 | 46,5 | 30,0 | 36,0 |
| 1211540   | R/A245406Q-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 32,0 | 53,5 | 41,0 | 50,0 |
| 1211541   | R/A245406Q-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 37,0 | 53,5 | 48,0 | 55,0 |
| 1210733   | R1A245406N-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 26,0 | 50,0 | 30,0 | 36,0 |



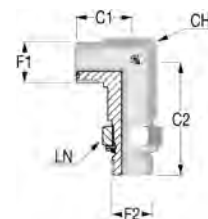
Dimensions shown may be changed without prior notice

**90° adjustable elbow connector ORFS Male - BSPP cylindric**  
**Male with O-Ring and retaining ring**



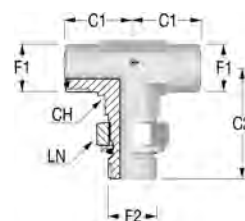
| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|----------|------|------|------|------|
|           |                 | in    |            |          | mm   | mm   | mm   | mm   |
| 1207722   | R/A245906Q-0604 | 3/8"  | 11/16-16   | 1/4-19   | 25,0 | 38,0 | 19,0 | 19,0 |
| 1207568   | R1A245906N-0606 | 3/8"  | 11/16-16   | 3/8-19   | 26,5 | 38,0 | 19,0 | 22,0 |
| 1208118   | R/A245906Q-1006 | 5/8"  | 1-14       | 3/8-19   | 33,5 | 43,0 | 27,0 | 22,0 |
| 1207557   | R1A245906N-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 37,5 | 51,5 | 30,0 | 36,0 |
| 1210714   | R1A245906N-1612 | 1"    | 1 7/16-12  | 3/4-14   | 42,0 | 56,0 | 36,0 | 36,0 |
| 1207721   | R1A245906N-0404 | 1/4"  | 9/16-18    | 1/4-19   | 23,5 | 35,0 | 14,0 | 19,0 |
| 1207567   | R1A245906N-0608 | 3/8"  | 11/16-16   | 1/2-14   | 29,5 | 48,0 | 27,0 | 27,0 |
| 1208029   | R1A245906N-1208 | 3/4"  | 1 3/16-12  | 1/2-14   | 37,5 | 49,5 | 30,0 | 27,0 |
| 1207034   | R1A245906Q-1008 | 5/8"  | 1-14       | 1/2-14   | 33,5 | 48,0 | 27,0 | 27,0 |
| 1210739   | R/A245906Q-0402 | 1/4"  | 9/16-18    | 1/8-28   | 21,5 | 30,0 | 14,0 | 14,0 |
| 1211552   | R/A245906Q-1620 | 1"    | 1 7/16-12  | 1 1/4-11 | 45,0 | 60,5 | 41,0 | 50,0 |
| 1208121   | R1A245906N-1616 | 1"    | 1 7/16-12  | 1-11     | 42,0 | 63,5 | 36,0 | 41,0 |
| 1211553   | R1A245906N-2016 | 1"1/4 | 1 11/16-12 | 1-11     | 45,0 | 60,0 | 41,0 | 41,0 |
| 1207581   | R/A245906Q-0406 | 1/4"  | 9/16-18    | 3/8-19   | 25,0 | 38,0 | 19,0 | 22,0 |
| 1211554   | R/A245906Q-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 45,0 | 67,5 | 41,0 | 50,0 |
| 1210741   | R/A245906Q-1012 | 5/8"  | 1-14       | 3/4-14   | 36,0 | 51,5 | 30,0 | 36,0 |
| 1211555   | R/A245906Q-2024 | 1"1/4 | 1 11/16-12 | 1 1/2-11 | 49,0 | 64,5 | 48,0 | 55,0 |
| 1211556   | R1A245906Q-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 49,0 | 64,5 | 48,0 | 55,0 |
| 1207724   | R1A245906N-0806 | 1/2"  | 13/16-16   | 3/8-19   | 28,0 | 38,0 | 19,0 | 22,0 |
| 1207723   | R/A245906Q-0804 | 1/2"  | 13/16-16   | 1/4-19   | 28,0 | 35,0 | 19,0 | 19,0 |
| 1208119   | R1A245906N-1216 | 3/4"  | 1 3/16-12  | 1-11     | 41,5 | 58,0 | 36,0 | 41,0 |
| 1207725   | R1A245906N-0808 | 1/2"  | 13/16-16   | 1/2-14   | 31,0 | 48,0 | 27,0 | 27,0 |

### 90° adjustable long elbow connector ORFS Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|------------|----------|------|-------|------|------|
|           |                 | in    |            |          | mm   | mm    | mm   | mm   |
| 1212627   | R1A245906Y-1012 | 5/8"  | 1-14       | 3/4-14   | 36,0 | 90,0  | 33,0 | 36,0 |
| 1212626   | R1A245906Y-1008 | 5/8"  | 1-14       | 1/2-14   | 33,0 | 82,0  | 27,0 | 27,0 |
| 1212629   | R1A245906Y-1216 | 3/4"  | 1 3/16-12  | 1-11     | 41,5 | 104,0 | 36,0 | 41,0 |
| 1212628   | R1A245906Y-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 37,5 | 97,0  | 33,0 | 36,0 |
| 1212630   | R1A245906Y-1616 | 1"    | 1 7/16-12  | 1-11     | 42,0 | 112,0 | 36,0 | 41,0 |
| 1212621   | R1A245906Y-0406 | 1/4"  | 9/16-18    | 3/8-19   | 25,0 | 62,0  | 22,0 | 22,0 |
| 1212632   | R1A245906Y-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 45,0 | 113,0 | 41,0 | 50,0 |
| 1212620   | R1A245906Y-0404 | 1/4"  | 9/16-18    | 1/4-19   | 23,5 | 59,0  | 14,0 | 19,0 |
| 1212631   | R1A245906Y-1620 | 1"    | 1 7/16-12  | 1 1/4-11 | 45,0 | 113,0 | 41,0 | 50,0 |
| 1212623   | R1A245906Y-0608 | 3/8"  | 11/16-16   | 1/2-14   | 36,5 | 93,1  | 27,0 | 27,0 |
| 1212634   | R1A245906Y-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 49,0 | 137,0 | 48,0 | 55,0 |
| 1212622   | R1A245906Y-0606 | 3/8"  | 11/16-16   | 3/8-19   | 26,5 | 67,0  | 22,0 | 22,0 |
| 1212633   | R1A245906Y-2024 | 1"1/4 | 1 11/16-12 | 1 1/2-11 | 45,0 | 113,0 | 41,0 | 50,0 |
| 1212625   | R1A245906Y-0808 | 1/2"  | 13/16-16   | 1/2-14   | 31,0 | 82,0  | 27,0 | 27,0 |
| 1212624   | R1A245906Y-0806 | 1/2"  | 13/16-16   | 3/8-19   | 28,0 | 73,0  | 22,0 | 22,0 |

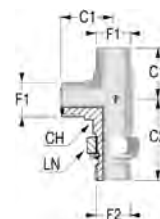
### Branch Tee adjustable elbow connector ORFS Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|----------|------|------|------|------|
|           |                 | in    |            |          | mm   | mm   | mm   | mm   |
| 1211516   | R/A245T06Q-1616 | 1"    | 1 7/16-12  | 1-11     | 42,0 | 58,0 | 36,0 | 41,0 |
| 1211517   | R/A245T06Q-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 45,0 | 60,5 | 41,0 | 50,0 |
| 1210825   | R/A245T06Q-0402 | 1/4"  | 9/16-18    | 1/8-28   | 21,5 | 30,0 | 14,0 | 14,0 |
| 1211518   | R1A245T06N-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 49,0 | 64,5 | 48,0 | 55,0 |
| 1210826   | R1A245T06N-0404 | 1/4"  | 9/16-18    | 1/4-19   | 23,5 | 35,0 | 14,0 | 19,0 |
| 1210827   | R1A245T06Q-0604 | 3/8"  | 11/16-16   | 1/4-19   | 25,0 | 36,0 | 17,0 | 19,0 |
| 1210828   | R/A245T06Q-0606 | 3/8"  | 11/16-16   | 3/8-19   | 26,5 | 38,0 | 17,0 | 22,0 |
| 1210829   | R/A245T06Q-0806 | 1/2"  | 13/16-16   | 3/8-19   | 28,0 | 38,0 | 19,0 | 22,0 |
| 1210830   | R1A245T06Q-1012 | 5/8"  | 1-14       | 3/4-14   | 36,0 | 51,5 | 30,0 | 36,0 |
| 1212523   | R1A245T06N-0808 | 1/2"  | 13/16-16   | 1/2-14   | 31,0 | 48,0 | 22,0 | 27,0 |
| 1207558   | R/A245T06Q-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 37,5 | 51,5 | 30,0 | 36,0 |
| 1207726   | R/A245T06Q-1008 | 5/8"  | 1-14       | 1/2-14   | 33,5 | 48,0 | 27,0 | 27,0 |

Dimensions shown may be changed without prior notice

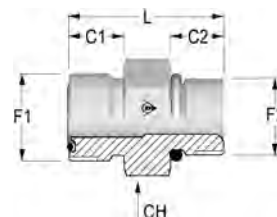
# Run Tee adjustable elbow connector ORFS Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1         | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|----------|------|------|------|------|
|           |                 | in    |            |          | mm   | mm   | mm   | mm   |
| 1210789   | R/A245L06Q-0402 | 1/4"  | 9/16-18    | 1/8-28   | 21,5 | 30,0 | 14,0 | 14,0 |
| 1210791   | R/A245L06Q-0604 | 3/8"  | 11/16-16   | 1/4-19   | 25,0 | 36,0 | 17,0 | 19,0 |
| 1210792   | R/A245L06Q-0606 | 3/8"  | 11/16-16   | 3/8-19   | 26,5 | 38,0 | 17,0 | 22,0 |
| 1210793   | R1A245L06Q-0808 | 1/2"  | 13/16-16   | 1/2-14   | 31,0 | 48,0 | 22,0 | 27,0 |
| 1210794   | R1A245L06N-1008 | 5/8"  | 1-14       | 1/2-14   | 33,5 | 48,0 | 27,0 | 27,0 |
| 1211499   | R/A245L06Q-0806 | 1/2"  | 13/16-16   | 3/8-19   | 28,0 | 38,0 | 19,0 | 22,0 |
| 1210795   | R/A245L06Q-1012 | 5/8"  | 1-14       | 3/4-14   | 38,0 | 51,5 | 30,0 | 36,0 |
| 1210796   | R/A245L06Q-1212 | 3/4"  | 1 3/16-12  | 3/4-14   | 37,5 | 51,5 | 30,0 | 36,0 |
| 1208208   | R/A245L06Q-1616 | 1"    | 1 7/16-12  | 1-11     | 42,0 | 58,0 | 36,0 | 41,0 |
| 1211500   | R/A245L06Q-2020 | 1"1/4 | 1 11/16-12 | 1 1/4-11 | 45,0 | 60,5 | 41,0 | 50,0 |
| 1211501   | R/A245L06Q-2424 | 1"1/2 | 2-12       | 1 1/2-11 | 49,0 | 64,5 | 48,0 | 55,0 |

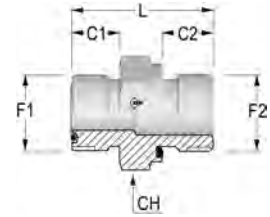
## // METRIC

## Straight connector ORFS Male - Metric Male with O-Ring



| Item Code | Part Number     | OD1    | F1         | F2      | C1   | C2   | CH   | L    |
|-----------|-----------------|--------|------------|---------|------|------|------|------|
|           |                 | in     |            |         | mm   | mm   | mm   | mm   |
| 1211538   | R1A2451525-0822 | 1/2"   | 13/16-16   | M22X1.5 | 13,0 | 17,5 | 27,0 | 39,0 |
| 1208019   | R1A2451525-0414 | 1/4"   | 9/16-18    | M14X1.5 | 10,0 | 13,5 | 19,0 | 29,5 |
| 1208020   | R1A2451525-1022 | 5/8"   | 1-14       | M22X1.5 | 15,5 | 17,5 | 27,0 | 42,0 |
| 1208032   | R1A2451525-0616 | 3/8"   | 11/16-16   | M16X1.5 | 11,0 | 15,0 | 22,0 | 33,5 |
| 1208040   | R1A2451525-0818 | 1/2"   | 13/16-16   | M18X1.5 | 13,0 | 16,5 | 24,0 | 38,0 |
| 1216276   | R1A2451525-1227 | 3/4"   | 1 3/16-12  | M27X2   | 17,0 | 21,0 | 32,0 | 48,5 |
| 1216274   | R1A2451525-1027 | 5/8"   | 1-14       | M27X2   | 15,5 | 18,5 | 32,0 | 46,0 |
| 1216268   | R1A2451525-0412 | 1/4"   | 9/16-18    | M12X1.5 | 10,0 | 13,5 | 17,0 | 28,5 |
| 1216279   | R1A2451525-1642 | 1"     | 1 7/16-12  | M42X2   | 17,5 | 22,0 | 50,0 | 54,5 |
| 1216277   | R1A2451525-1233 | 3/4"   | 1 3/16-12  | M33X2.0 | 17,0 | 21,5 | 41,0 | 51,5 |
| 1216267   | R1A2451525-0410 | 1/4"   | 9/16-18    | M10X1.0 | 10,0 | 12,0 | 17,0 | 27,0 |
| 1216278   | R1A2451525-1633 | 1"     | 1 7/16-12  | M33X2.0 | 17,5 | 21,5 | 41,0 | 52,0 |
| 1216282   | R1A2451525-2448 | 1 1/2" | 2-12       | M48X2.0 | 17,5 | 24,5 | 55,0 | 57,0 |
| 1216272   | R1A2451525-0816 | 1/2"   | 13/16-16   | M16X1.5 | 13,0 | 15,0 | 24,0 | 36,5 |
| 1207957   | R1A2451525-0614 | 3/8"   | 11/16-16   | M14X1.5 | 11,0 | 13,5 | 22,0 | 32,0 |
| 1216280   | R1A2451525-2042 | 1 1/4" | 1 11/16-12 | M42X2   | 17,5 | 22,0 | 50,0 | 54,5 |
| 1216270   | R1A2451525-0618 | 3/8"   | 11/16-16   | M18X1.5 | 11,0 | 16,5 | 24,0 | 36,0 |
| 1207956   | R1A2451525-0814 | 1/2"   | 13/16-16   | M14X1.5 | 13,0 | 13,5 | 22,0 | 35,0 |
| 1216281   | R1A2451525-2048 | 1 1/4" | 1 11/16-12 | M48X2.0 | 17,5 | 24,5 | 55,0 | 55,5 |

Dimensions shown may be changed without prior notice

**Straight connector ORFS Male - Metric Male with elastomer**

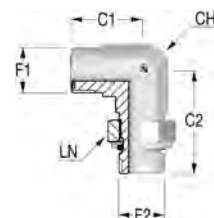
| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|------------|---------|------|------|------|------|
|           |                 | in    |            |         | mm   | mm   | mm   | mm   |
| 1206960   | R1A245152I-0412 | 1/4"  | 9/16-18    | M12X1.5 | 10,0 | 12,0 | 17,0 | 29,5 |
| 1211537   | R1A245152I-2448 | 1"1/2 | 2-12       | M48X2.0 | 17,5 | 22,0 | 55,0 | 57,5 |
| 1206961   | R1A245152I-0616 | 3/8"  | 11/16-16   | M16X1.5 | 11,0 | 12,0 | 22,0 | 32,0 |
| 1206962   | R1A245152I-0818 | 1/2"  | 13/16-16   | M18X1.5 | 13,0 | 12,0 | 24,0 | 36,5 |
| 1208035   | R1A245152I-0414 | 1/4"  | 9/16-18    | M14X1.5 | 10,0 | 12,0 | 19,0 | 30,5 |
| 1208036   | R1A245152I-0614 | 3/8"  | 11/16-16   | M14X1.5 | 11,0 | 12,0 | 22,0 | 32,0 |
| 1212597   | R1A245152I-1642 | 1"    | 1 7/16-12  | M42X2   | 17,5 | 20,0 | 50,0 | 54,0 |
| 1208192   | R1A245152I-1227 | 3/4"  | 1 3/16-12  | M27X2   | 17,0 | 16,0 | 32,0 | 46,0 |
| 1208191   | R1A245152I-1022 | 5/8"  | 1-14       | M22X1.5 | 15,5 | 14,0 | 27,0 | 41,0 |
| 1211535   | R1A245152I-1633 | 1"    | 1 7/16-12  | M33X2.0 | 17,5 | 18,0 | 41,0 | 50,0 |
| 1211536   | R1A245152I-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 17,5 | 20,0 | 50,0 | 54,0 |
| 1212593   | R1A245152I-0822 | 1/2"  | 13/16-16   | M22X1.5 | 13,0 | 14,0 | 27,0 | 38,5 |
| 1212592   | R1A245152I-0814 | 1/2"  | 13/16-16   | M14X1.5 | 13,0 | 12,0 | 22,0 | 34,0 |
| 1212594   | R1A245152I-1222 | 3/4"  | 1 3/16-12  | M22X1.5 | 17,0 | 14,0 | 32,0 | 44,0 |
| 1206959   | R1A245152I-0410 | 1/4"  | 9/16-18    | M10X1.0 | 10,0 | 8,0  | 17,0 | 25,0 |
| 1216283   | R1A245152I-0816 | 1/2"  | 13/16-16   | M16X1.5 | 13,0 | 12,0 | 22,0 | 34,0 |

### 45° adjustable elbow connector ORFS Male - Metric Male with O-Ring and retaining ring



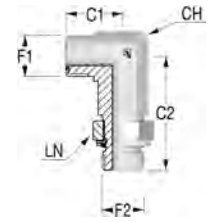
| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|---------|------|------|------|------|
|           |                 | in    |            |         | mm   | mm   | mm   | mm   |
| 1211548   | R1A245452Q-1227 | 3/4"  | 1 3/16-12  | M27X2   | 26,0 | 50,5 | 27,0 | 32,0 |
| 1208115   | R1A245452Q-0616 | 3/8"  | 11/16-16   | M16X1.5 | 19,0 | 33,5 | 17,0 | 22,0 |
| 1211549   | R1A245452Q-1633 | 1"    | 1 7/16-12  | M33X2.0 | 30,0 | 52,5 | 36,0 | 41,0 |
| 1210736   | R/A245452Q-0412 | 1/4"  | 9/16-18    | M12X1.5 | 16,0 | 30,0 | 14,0 | 17,0 |
| 1210737   | R1A245452Q-0818 | 1/2"  | 13/16-16   | M18X1.5 | 20,5 | 37,0 | 19,0 | 24,0 |
| 1210738   | R/A245452Q-1022 | 5/8"  | 1-14       | M22X1.5 | 23,5 | 44,0 | 27,0 | 27,0 |
| 1211550   | R1A245452Q-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 32,0 | 54,0 | 41,0 | 50,0 |
| 1211551   | R1A245452Q-2448 | 1"1/2 | 2-12       | M48X2.0 | 37,0 | 56,5 | 48,0 | 55,0 |

### 90° adjustable elbow connector ORFS Male - Metric Male with O-Ring and retaining ring

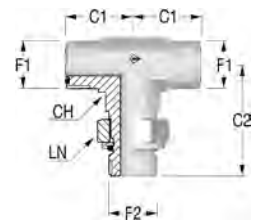


| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|---------|------|------|------|------|
|           |                 | in    |            |         | mm   | mm   | mm   | mm   |
| 1208159   | R1A245952Q-0412 | 1/4"  | 9/16-18    | M12X1.5 | 21,5 | 33,0 | 14,0 | 17,0 |
| 1210758   | R1A245952Q-0410 | 1/4"  | 9/16-18    | M10X1.0 | 21,5 | 30,5 | 14,0 | 14,0 |
| 1210759   | R1A245952Q-0818 | 1/2"  | 13/16-16   | M18X1.5 | 28,0 | 41,0 | 19,0 | 24,0 |
| 1208042   | R1A245952Q-0614 | 3/8"  | 11/16-16   | M14X1.5 | 25,0 | 35,5 | 17,0 | 19,0 |
| 1210760   | R1A245952Q-0822 | 1/2"  | 13/16-16   | M22X1.5 | 31,0 | 49,0 | 19,0 | 27,0 |
| 1210761   | R/A245952Q-1022 | 5/8"  | 1-14       | M22X1.5 | 33,5 | 49,0 | 27,0 | 27,0 |
| 1208043   | R1A245952Q-0616 | 3/8"  | 11/16-16   | M16X1.5 | 25,0 | 37,5 | 17,0 | 22,0 |
| 1210762   | R1A245952Q-1027 | 5/8"  | 1-14       | M27X2   | 33,5 | 55,0 | 27,0 | 32,0 |
| 1210763   | R1A245952Q-1227 | 3/4"  | 1 3/16-12  | M27X2   | 37,5 | 55,5 | 27,0 | 32,0 |
| 1210764   | R1A245952Q-1233 | 3/4"  | 1 3/16-12  | M33X2.0 | 37,5 | 59,5 | 36,0 | 41,0 |
| 1211568   | R1A245952Q-1633 | 1"    | 1 7/16-12  | M33X2.0 | 41,5 | 59,5 | 36,0 | 41,0 |
| 1211569   | R/A245952Q-1642 | 1"    | 1 7/16-12  | M42X2   | 41,5 | 62,0 | 41,0 | 50,0 |
| 1212692   | R1A245952Q-0612 | 3/8"  | 11/16-16   | M12X1.5 | 25,0 | 35,5 | 17,0 | 17,0 |
| 1211570   | R/A245952Q-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 43,5 | 63,0 | 41,0 | 50,0 |
| 1211571   | R1A245952Q-2048 | 1"1/4 | 1 11/16-12 | M48X2.0 | 44,5 | 71,5 | 48,0 | 55,0 |
| 1212693   | R1A245952Q-1627 | 1"    | 1 7/16-12  | M27X2   | 41,5 | 59,5 | 36,0 | 32,0 |
| 1211572   | R/A245952Q-2448 | 1"1/2 | 2-12       | M48X2.0 | 44,5 | 66,0 | 48,0 | 55,0 |

Dimensions shown may be changed without prior notice

**90° adjustable long elbow connector ORFS Male - Metric Male  
with O-Ring and retaining ring**

| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|------------|---------|------|-------|------|------|
|           |                 | in    |            |         | mm   | mm    | mm   | mm   |
| 1212694   | R1A245952Y-0412 | 1/4"  | 9/16-18    | M12X1.5 | 21,5 | 56,5  | 14,0 | 17,0 |
| 1212696   | R1A245952Y-0818 | 1/2"  | 13/16-16   | M18X1.5 | 28,0 | 75,0  | 19,0 | 24,0 |
| 1212695   | R1A245952Y-0616 | 3/8"  | 11/16-16   | M16X1.5 | 25,0 | 67,0  | 17,0 | 22,0 |
| 1212698   | R1A245952Y-1227 | 3/4"  | 1 3/16-12  | M27X2   | 37,5 | 100,0 | 27,0 | 32,0 |
| 1212697   | R1A245952Y-1022 | 5/8"  | 1-14       | M22X1.5 | 33,5 | 89,0  | 27,0 | 27,0 |
| 1212700   | R1A245952Y-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 44,5 | 125,0 | 41,0 | 50,0 |
| 1212699   | R1A245952Y-1633 | 1"    | 1 7/16-12  | M33X2.0 | 41,5 | 113,0 | 36,0 | 41,0 |
| 1212701   | R1A245952Y-2448 | 1"1/2 | 2-12       | M48X2.0 | 49,0 | 139,0 | 48,0 | 55,0 |

**Branch Tee adjustable elbow connector ORFS Male - Metric  
Male with O-Ring and retaining ring**

| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|---------|------|------|------|------|
|           |                 | in    |            |         | mm   | mm   | mm   | mm   |
| 1211526   | R1A245T52Q-2448 | 1"1/2 | 2-12       | M48X2.0 | 49,0 | 71,5 | 48,0 | 55,0 |
| 1210784   | R1A245T52Q-0412 | 1/4"  | 9/16-18    | M12X1.5 | 21,5 | 33,0 | 14,0 | 17,0 |
| 1210785   | R1A245T52Q-0616 | 3/8"  | 11/16-16   | M16X1.5 | 25,0 | 37,5 | 17,0 | 22,0 |
| 1210786   | R/A245T52Q-0818 | 1/2"  | 13/16-16   | M18X1.5 | 28,0 | 41,0 | 19,0 | 24,0 |
| 1210787   | R1A245T52Q-1022 | 5/8"  | 1-14       | M22X1.5 | 33,5 | 49,0 | 27,0 | 27,0 |
| 1211524   | R1A245T52Q-1633 | 1"    | 1 7/16-12  | M33X2.0 | 41,5 | 59,5 | 36,0 | 41,0 |
| 1210788   | R1A245T52Q-1227 | 3/4"  | 1 3/16-12  | M27X2   | 37,5 | 55,5 | 27,0 | 32,0 |
| 1211525   | R1A245T52Q-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 44,5 | 63,0 | 41,0 | 36,0 |

Run Tee adjustable elbow connector ORFS Male - Metric Male  
with O-Ring and retaining ring



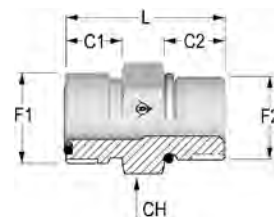
| Item Code | Part Number     | OD1   | F1         | F2      | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|---------|------|------|------|------|
|           |                 | in    |            |         | mm   | mm   | mm   | mm   |
| 1210822   | R/A245L52Q-0818 | 1/2"  | 13/16-16   | M18X1.5 | 28,0 | 41,0 | 19,0 | 24,0 |
| 1211515   | R/A245L52Q-2448 | 1"1/2 | 2-12       | M48X2.0 | 49,0 | 71,5 | 48,0 | 55,0 |
| 1210823   | R1A245L52Q-1227 | 3/4"  | 1 3/16-12  | M27X2   | 37,5 | 55,5 | 27,0 | 32,0 |
| 1210709   | R/A245L52Q-1022 | 5/8"  | 1-14       | M22X1.5 | 33,5 | 49,0 | 27,0 | 27,0 |
| 1210820   | R1A245L52Q-0412 | 1/4"  | 9/16-18    | M12X1.5 | 21,5 | 33,0 | 14,0 | 17,0 |
| 1211513   | R1A245L52Q-1633 | 1"    | 1 7/16-12  | M33X2.0 | 41,5 | 59,5 | 36,0 | 41,0 |
| 1210821   | R1A245L52Q-0616 | 3/8"  | 11/16-16   | M16X1.5 | 25,0 | 37,5 | 17,0 | 22,0 |
| 1211514   | R1A245L52Q-2042 | 1"1/4 | 1 11/16-12 | M42X2   | 44,5 | 63,0 | 41,0 | 50,0 |



Dimensions shown may be changed without prior notice

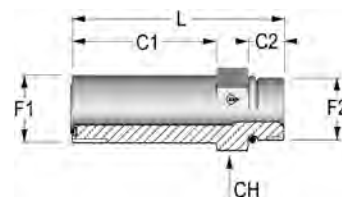
## // SAE UNF

## Straight connector ORFS Male - SAE UNF/UN Male with O-Ring



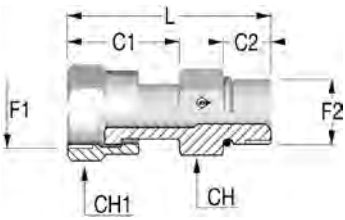
| Item Code | Part Number     | OD1<br>in | F1         | F2        | C1<br>mm | C2<br>mm | CH<br>mm | L<br>mm |
|-----------|-----------------|-----------|------------|-----------|----------|----------|----------|---------|
| 1210723   | R1A2451305-0608 | 3/8"      | 11/16-16   | 3/4-16    | 11,0     | 14,0     | 22,0     | 35,0    |
| 1207973   | R1A2451305-0810 | 1/2"      | 13/16-16   | 7/8-14    | 13,0     | 16,0     | 27,0     | 40,5    |
| 1210778   | R1A2451305-2020 | 1"1/4     | 1 11/16-12 | 1 5/8-12  | 17,5     | 18,5     | 46,0     | 52,0    |
| 1207972   | R1A2451305-0606 | 3/8"      | 11/16-16   | 9/16-18   | 11,0     | 12,0     | 22,0     | 32,0    |
| 1206963   | R1A2451305-0404 | 1/4"      | 9/16-18    | 7/16-20   | 10,0     | 11,0     | 17,0     | 29,0    |
| 1208013   | R1A2451305-0808 | 1/2"      | 13/16-16   | 3/4-16    | 13,0     | 14,0     | 22,0     | 36,5    |
| 1208012   | R/A2451305-0806 | 1/2"      | 13/16-16   | 9/16-18   | 13,0     | 12,0     | 22,0     | 37,5    |
| 1207561   | R1A2451305-1216 | 3/4"      | 1 3/16-12  | 1 5/16-12 | 17,0     | 18,5     | 41,0     | 50,0    |
| 1208015   | R/A2451305-1616 | 1"        | 1 7/16-12  | 1 5/16-12 | 17,5     | 18,5     | 41,0     | 50,5    |
| 1208014   | R1A2451305-1008 | 5/8"      | 1-14       | 3/4-16    | 15,5     | 14,0     | 27,0     | 45,0    |
| 1212564   | R1A2451305-0604 | 3/8"      | 11/16-16   | 7/16-20   | 11,0     | 11,0     | 19,0     | 34,0    |
| 1212566   | R1A2451305-1210 | 3/4"      | 1 3/16-12  | 7/8-14    | 17,0     | 16,0     | 32,0     | 50,5    |
| 1212565   | R1A2451305-0812 | 1/2"      | 13/16-16   | 1 1/16-12 | 13,0     | 18,5     | 32,0     | 44,5    |
| 1207592   | R1A2451305-1212 | 3/4"      | 1 3/16-12  | 1 1/16-12 | 17,0     | 18,0     | 32,0     | 48,5    |
| 1212568   | R1A2451305-2016 | 1"1/4     | 1 11/16-12 | 1 5/16-12 | 17,5     | 18,5     | 46,0     | 58,0    |
| 1212567   | R1A2451305-1220 | 3/4"      | 1 3/16-12  | 1 5/8-12  | 17,0     | 18,5     | 46,0     | 50,5    |
| 1211534   | R1A2451305-2424 | 1"1/2     | 2-12       | 1 7/8-12  | 17,5     | 18,5     | 55,0     | 54,0    |
| 1210721   | R/A2451305-1612 | 1"        | 1 7/16-12  | 1 1/16-12 | 17,5     | 18,5     | 41,0     | 54,0    |
| 1210777   | R1A2451305-1620 | 1"        | 1 7/16-12  | 1 5/8-12  | 17,5     | 18,5     | 46,0     | 52,0    |
| 1206964   | R1A2451305-0406 | 1/4"      | 9/16-18    | 9/16-18   | 10,0     | 12,0     | 19,0     | 30,5    |
| 1206965   | R/A2451305-1010 | 5/8"      | 1-14       | 7/8-14    | 15,5     | 16,0     | 27,0     | 43,0    |
| 1207968   | R1A2451305-1012 | 5/8"      | 1-14       | 1 1/16-12 | 15,5     | 18,5     | 32,0     | 47,0    |

## Long connector ORFS Male - SAE UNF/UN Male with O-Ring



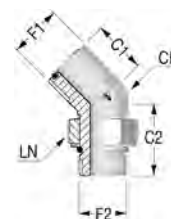
| Item Code | Part Number     | OD1<br>in | F1         | F2        | C1<br>mm | C2<br>mm | CH<br>mm | L<br>mm |
|-----------|-----------------|-----------|------------|-----------|----------|----------|----------|---------|
| 1212560   | R1A245130J-1212 | 3/4"      | 1 3/16-12  | 1 1/16-12 | 64,0     | 15,0     | 32,0     | 95,5    |
| 1212562   | R1A245130J-2020 | 1"1/4     | 1 11/16-12 | 1 5/8-12  | 86,0     | 15,0     | 46,0     | 121,0   |
| 1212561   | R1A245130J-1616 | 1"        | 1 7/16-12  | 1 5/16-12 | 72,5     | 15,0     | 41,0     | 105,0   |
| 1212563   | R1A245130J-2424 | 1"1/2     | 2-12       | 1 7/8-12  | 97,0     | 15,0     | 55,0     | 133,5   |
| 1212557   | R1A245130J-0606 | 3/8"      | 11/16-16   | 9/16-18   | 37,0     | 10,0     | 22,0     | 58,0    |
| 1212556   | R1A245130J-0404 | 1/4"      | 9/16-18    | 7/16-20   | 34,0     | 9,0      | 17,0     | 52,5    |
| 1212559   | R1A245130J-1010 | 5/8"      | 1-14       | 7/8-14    | 52,0     | 12,5     | 27,0     | 79,5    |
| 1212558   | R1A245130J-0808 | 1/2"      | 13/16-16   | 3/4-16    | 44,0     | 11,0     | 22,0     | 68,0    |

Straight connector ORFS Female - SAE UNF/UN Male with O-Ring



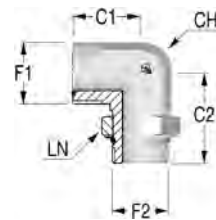
| Item Code | Part Number     | OD1   | F1         | F2        | C1   | C2   | CH   | CH1  | L    |
|-----------|-----------------|-------|------------|-----------|------|------|------|------|------|
|           |                 | in    |            |           | mm   | mm   | mm   | mm   | mm   |
| 1208302   | R1A2411305-1008 | 5/8"  | 1-14       | 3/4-16    | 37,5 | 14,0 | 24,0 | 30,0 | 65,0 |
| 1212508   | R1A2411305-0404 | 1/4"  | 9/16-18    | 7/16-20   | 24,4 | 11,0 | 17,0 | 19,0 | 45,2 |
| 1212509   | R1A2411305-0606 | 3/8"  | 11/16-16   | 9/16-18   | 27,5 | 12,0 | 19,0 | 22,0 | 50,0 |
| 1212511   | R1A2411305-1010 | 5/8"  | 1-14       | 7/8-14    | 37,5 | 16,0 | 27,0 | 30,0 | 66,5 |
| 1212510   | R1A2411305-0808 | 1/2"  | 13/16-16   | 3/4-16    | 33,0 | 14,0 | 22,0 | 24,0 | 60,0 |
| 1212513   | R1A2411305-1616 | 1"    | 1 7/16-12  | 1 5/16-12 | 43,8 | 18,5 | 41,0 | 41,0 | 82,0 |
| 1212512   | R1A2411305-1212 | 3/4"  | 1 3/16-12  | 1 1/16-12 | 41,5 | 18,0 | 32,0 | 36,0 | 73,5 |
| 1212515   | R1A2411305-2424 | 1"1/2 | 2-12       | 1 7/8-12  | 47,5 | 18,5 | 55,0 | 60,0 | 81,0 |
| 1212514   | R1A2411305-2020 | 1"1/4 | 1 11/16-12 | 1 5/8-12  | 43,8 | 18,5 | 50,0 | 50,0 | 82,0 |

Dimensions shown may be changed without prior notice

**45° adjustable elbow connector ORFS Male - SAE UNF/UN Male with O-Ring**

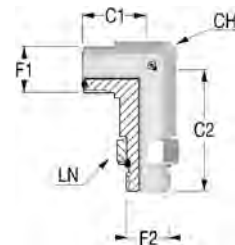
| Item Code | Part Number     | OD1    | F1         | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|------------|-----------|------|------|------|------|
|           |                 | in     |            |           | mm   | mm   | mm   | mm   |
| 1210811   | R/A2454305-0806 | 1/2"   | 13/16-16   | 9/16-18   | 20,5 | 32,5 | 19,0 | 19,0 |
| 1210812   | R1A2454305-0808 | 1/2"   | 13/16-16   | 3/4-16    | 20,5 | 36,5 | 19,0 | 24,0 |
| 1210813   | R1A2454305-0810 | 1/2"   | 13/16-16   | 7/8-14    | 21,0 | 45,0 | 22,0 | 27,0 |
| 1207975   | R1A2454305-1212 | 3/4"   | 1 3/16-12  | 1 1/16-12 | 26,0 | 44,0 | 27,0 | 32,0 |
| 1210814   | R1A2454305-1010 | 5/8"   | 1-14       | 7/8-14    | 23,5 | 45,0 | 27,0 | 27,0 |
| 1207974   | R1A2454305-1612 | 1"     | 1 7/16-12  | 1 1/16-12 | 30,0 | 51,5 | 33,0 | 32,0 |
| 1210815   | R1A2454305-1012 | 5/8"   | 1-14       | 1 1/16-12 | 24,5 | 50,0 | 27,0 | 32,0 |
| 1210816   | R1A2454305-1210 | 3/4"   | 1 3/16-12  | 7/8-14    | 26,0 | 46,0 | 30,0 | 27,0 |
| 1210817   | R1A2454305-1616 | 1"     | 1 7/16-12  | 1 5/16-12 | 30,0 | 52,5 | 36,0 | 41,0 |
| 1211543   | R1A2454305-1008 | 5/8"   | 1-14       | 3/4-16    | 23,5 | 40,5 | 27,0 | 24,0 |
| 1211544   | R1A2454305-1216 | 3/4"   | 1 3/16-12  | 1 5/16-12 | 29,5 | 52,5 | 36,0 | 41,0 |
| 1211545   | R1A2454305-1620 | 1"     | 1 7/16-12  | 1 5/8-12  | 32,0 | 53,5 | 41,0 | 50,0 |
| 1211546   | R1A2454305-2020 | 1 1/4" | 1 11/16-12 | 1 5/8-12  | 32,0 | 48,5 | 41,0 | 50,0 |
| 1210810   | R1A2454305-0604 | 3/8"   | 11/16-16   | 7/16-20   | 19,0 | 31,0 | 17,0 | 16,0 |
| 1210722   | R1A2454305-0606 | 3/8"   | 11/16-16   | 9/16-18   | 19,0 | 33,0 | 17,0 | 19,0 |
| 1211547   | R1A2454305-2424 | 1 1/2" | 2-12       | 1 7/8-12  | 33,5 | 48,5 | 48,0 | 55,0 |
| 1210808   | R/A2454305-0404 | 1/4"   | 9/16-18    | 7/16-20   | 16,0 | 30,0 | 14,0 | 16,0 |
| 1210809   | R1A2454305-0406 | 1/4"   | 9/16-18    | 9/16-18   | 17,5 | 33,0 | 14,0 | 19,0 |
| 1207936   | R1A2454305-0608 | 3/8"   | 11/16-16   | 3/4-16    | 19,0 | 36,5 | 19,0 | 24,0 |

### 90° adjustable elbow connector ORFS Male - SAE UNF/UN Male with O-Ring



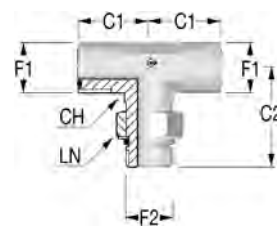
| Item Code | Part Number     | OD1   | F1         | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|------------|-----------|------|------|------|------|
|           |                 | in    |            |           | mm   | mm   | mm   | mm   |
| 1210756   | R1A2459305-1210 | 3/4"  | 1 3/16-12  | 7/8-14    | 37,5 | 51,0 | 30,0 | 27,0 |
| 1208016   | R1A2459305-0604 | 3/8"  | 11/16-16   | 7/16-20   | 25,0 | 35,0 | 17,0 | 17,0 |
| 1210724   | R1A2459305-0608 | 3/8"  | 11/16-16   | 3/4-16    | 26,5 | 40,5 | 19,0 | 24,0 |
| 1210757   | R/A2459305-1616 | 1"    | 1 7/16-12  | 1 5/16-12 | 42,0 | 60,0 | 36,0 | 41,0 |
| 1210725   | R/A2459305-0806 | 1/2"  | 13/16-16   | 9/16-18   | 28,0 | 36,5 | 19,0 | 19,0 |
| 1210726   | R/A2459305-1008 | 5/8"  | 1-14       | 3/4-16    | 33,5 | 46,0 | 27,0 | 24,0 |
| 1207980   | R1A2459305-0404 | 1/4"  | 9/16-18    | 7/16-20   | 22,5 | 32,5 | 14,0 | 16,0 |
| 1207971   | R1A2459305-1010 | 5/8"  | 1-14       | 7/8-14    | 33,5 | 50,0 | 27,0 | 27,0 |
| 1207497   | R1A2459305-0606 | 3/8"  | 11/16-16   | 9/16-18   | 25,0 | 37,0 | 17,0 | 19,0 |
| 1207596   | R1A2459305-0808 | 1/2"  | 13/16-16   | 3/4-16    | 28,0 | 40,5 | 19,0 | 24,0 |
| 1207970   | R1A2459305-0810 | 1/2"  | 13/16-16   | 7/8-14    | 31,0 | 50,0 | 22,0 | 27,0 |
| 1211562   | R1A2459305-2016 | 1"1/4 | 1 11/16-12 | 1 5/16-12 | 45,0 | 62,0 | 41,0 | 41,0 |
| 1211563   | R1A2459305-2020 | 1"1/4 | 1 11/16-12 | 1 5/8-12  | 44,5 | 62,0 | 41,0 | 50,0 |
| 1211564   | R1A2459305-2024 | 1"1/4 | 1 11/16-12 | 1 7/8-12  | 49,0 | 66,0 | 48,0 | 55,0 |
| 1211565   | R/A2459305-2424 | 1"1/2 | 2-12       | 1 7/8-12  | 49,0 | 66,0 | 48,0 | 55,0 |
| 1210711   | R1A2459305-1216 | 3/4"  | 1 3/16-12  | 1 5/16-12 | 41,5 | 60,0 | 36,0 | 41,0 |
| 1211561   | R1A2459305-1620 | 1"    | 1 7/16-12  | 1 5/8-12  | 45,0 | 62,0 | 41,0 | 50,0 |
| 1207969   | R/A2459305-1012 | 5/8"  | 1-14       | 1 1/16-12 | 36,0 | 55,0 | 27,0 | 32,0 |
| 1207977   | R1A2459305-1212 | 3/4"  | 1 3/16-12  | 1 1/16-12 | 37,5 | 55,0 | 30,0 | 32,0 |
| 1207976   | R1A2459305-0406 | 1/4"  | 9/16-18    | 9/16-18   | 23,5 | 37,0 | 14,0 | 19,0 |
| 1207978   | R/A2459305-1612 | 1"    | 1 7/16-12  | 1 1/16-12 | 42,0 | 59,0 | 33,0 | 32,0 |

### 90° adjustable long elbow connector ORFS Male - SAE UNF/UN Male with O-Ring

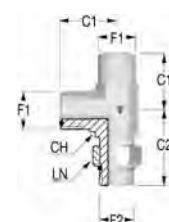


| Item Code | Part Number     | OD1   | F1         | F2        | C1   | C2    | CH   | LN   |
|-----------|-----------------|-------|------------|-----------|------|-------|------|------|
|           |                 | in    |            |           | mm   | mm    | mm   | mm   |
| 1212638   | R1A245930J-0608 | 3/8"  | 11/16-16   | 3/4-16    | 26,5 | 75,0  | 19,0 | 24,0 |
| 1212649   | R1A245930J-2424 | 1"1/2 | 2-12       | 1 7/8-12  | 49,0 | 139,0 | 48,0 | 55,0 |
| 1212637   | R1A245930J-0606 | 3/8"  | 11/16-16   | 9/16-18   | 25,0 | 66,0  | 17,0 | 19,0 |
| 1212648   | R1A245930J-2024 | 1"1/4 | 1 11/16-12 | 1 7/8-12  | 49,0 | 139,0 | 48,0 | 55,0 |
| 1212639   | R1A245930J-0808 | 1/2"  | 13/16-16   | 3/4-16    | 28,0 | 75,0  | 19,0 | 24,0 |
| 1212641   | R1A245930J-1010 | 5/8"  | 1-14       | 7/8-14    | 33,5 | 89,0  | 27,0 | 27,0 |
| 1212640   | R1A245930J-0810 | 1/2"  | 13/16-16   | 7/8-14    | 31,0 | 89,0  | 22,0 | 27,0 |
| 1212643   | R1A245930J-1212 | 3/4"  | 1 3/16-12  | 1 1/16-12 | 37,5 | 101,0 | 30,0 | 32,0 |
| 1212642   | R1A245930J-1012 | 5/8"  | 1-14       | 1 1/16-12 | 36,0 | 101,0 | 27,0 | 32,0 |
| 1212645   | R1A245930J-1616 | 1"    | 1 7/16-12  | 1 5/16-12 | 42,0 | 114,0 | 36,0 | 41,0 |
| 1212644   | R1A245930J-1216 | 3/4"  | 1 3/16-12  | 1 5/16-12 | 41,5 | 114,0 | 36,0 | 41,0 |
| 1212636   | R1A245930J-0406 | 1/4"  | 9/16-18    | 9/16-18   | 23,5 | 66,0  | 14,0 | 19,0 |
| 1212647   | R1A245930J-2020 | 1"1/4 | 1 11/16-12 | 1 5/8-12  | 45,0 | 126,0 | 41,0 | 50,0 |
| 1212635   | R1A245930J-0404 | 1/4"  | 9/16-18    | 7/16-20   | 21,5 | 56,5  | 14,0 | 16,0 |
| 1212646   | R1A245930J-1620 | 1"    | 1 7/16-12  | 1 5/8-12  | 45,0 | 126,0 | 41,0 | 50,0 |

Dimensions shown may be changed without prior notice

**Branch Tee adjustable elbow connector ORFS Male - SAE UNF/  
UN Male with O-Ring**

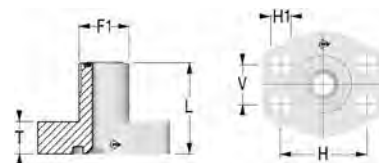
| Item Code | Part Number     | OD1    | F1         | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|------------|-----------|------|------|------|------|
|           |                 | in     |            |           | mm   | mm   | mm   | mm   |
| 1210780   | R/A245T305-0606 | 3/8"   | 11/16-16   | 9/16-18   | 25,0 | 37,0 | 17,0 | 19,0 |
| 1210781   | R1A245T305-0808 | 1/2"   | 13/16-16   | 3/4-16    | 28,0 | 40,5 | 19,0 | 24,0 |
| 1210782   | R1A245T305-1010 | 5/8"   | 1-14       | 7/8-14    | 33,5 | 50,0 | 27,0 | 27,0 |
| 1210783   | R1A245T305-1212 | 3/4"   | 1 3/16-12  | 1 1/16-12 | 37,5 | 55,0 | 30,0 | 32,0 |
| 1211521   | R1A245T305-1616 | 1"     | 1 7/16-12  | 1 5/16-12 | 42,0 | 60,0 | 36,0 | 41,0 |
| 1211522   | R1A245T305-2020 | 1 1/4" | 1 11/16-12 | 1 5/8-12  | 45,0 | 62,0 | 41,0 | 50,0 |
| 1210720   | R/A245T305-0404 | 1/4"   | 9/16-18    | 7/16-20   | 21,5 | 32,5 | 14,0 | 16,0 |
| 1211523   | R1A245T305-2424 | 1 1/2" | 2-12       | 1 7/8-12  | 49,0 | 66,0 | 48,0 | 55,0 |

**Run Tee adjustable elbow connector ORFS Male - SAE UNF/UN  
Male with O-Ring**

| Item Code | Part Number     | OD1    | F1         | F2        | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|------------|-----------|------|------|------|------|
|           |                 | in     |            |           | mm   | mm   | mm   | mm   |
| 1211509   | R/A245L305-1212 | 3/4"   | 1 3/16-12  | 1 1/16-12 | 37,5 | 55,0 | 30,0 | 32,0 |
| 1210818   | R1A245L305-0808 | 1/2"   | 13/16-16   | 3/4-16    | 28,0 | 40,5 | 19,0 | 24,0 |
| 1210819   | R1A245L305-1010 | 5/8"   | 1-14       | 7/8-14    | 33,5 | 50,0 | 27,0 | 27,0 |
| 1211510   | R/A245L305-1616 | 1"     | 1 7/16-12  | 1 5/16-12 | 42,0 | 60,0 | 36,0 | 41,0 |
| 1211511   | R1A245L305-2020 | 1 1/4" | 1 11/16-12 | 1 5/8-12  | 45,0 | 62,0 | 41,0 | 50,0 |
| 1211512   | R1A245L305-2424 | 1 1/2" | 2-12       | 1 7/8-12  | 49,0 | 66,0 | 48,0 | 55,0 |
| 1210798   | R/A245L305-0404 | 1/4"   | 9/16-18    | 7/16-20   | 21,5 | 32,5 | 14,0 | 16,0 |
| 1210799   | R/A245L305-0606 | 3/8"   | 11/16-16   | 9/16-18   | 25,0 | 37,0 | 17,0 | 19,0 |

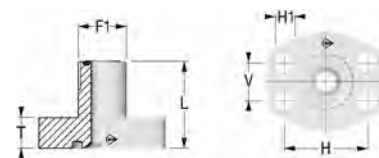
## // FLANGES

## Straight flange SAE J518 code 61 - ORFS Male - Low pressure



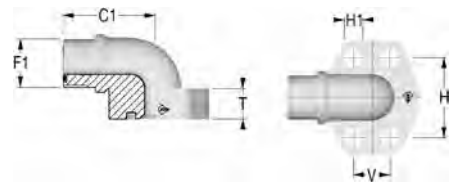
| Item Code | Part Number     | OD1   | F1         | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|-------|------------|-------------|------|------|------|------|------|
|           |                 | in    |            |             |      |      |      |      |      |
| 1212571   | R1A245133W-1008 | 5/8"  | 1-14       | 1/2         | 40,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212570   | R1A245133W-0808 | 1/2"  | 13/16-16   | 1/2         | 39,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212573   | R1A245133W-1212 | 3/4"  | 1 3/16-12  | 3/4         | 45,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212572   | R1A245133W-1012 | 5/8"  | 1-14       | 3/4         | 44,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212575   | R1A245133W-1616 | 1"    | 1 7/16-12  | 1           | 49,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212574   | R1A245133W-1216 | 3/4"  | 1 3/16-12  | 1           | 48,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212577   | R1A245133W-2020 | 1 1/4 | 1 11/16-12 | 1 1/4       | 55,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212576   | R1A245133W-1620 | 1"    | 1 7/16-12  | 1 1/4       | 55,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212579   | R1A245133W-2424 | 1 1/2 | 2-12       | 1 1/2       | 61,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212578   | R1A245133W-2024 | 1 1/4 | 1 11/16-12 | 1 1/2       | 59,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212569   | R1A245133W-0608 | 3/8"  | 11/16-16   | 1/2         | 37,0 | 14,0 | 38,1 | 17,5 | 9,0  |

## Straight flange SAE J518 code 62 - ORFS Male - High pressure

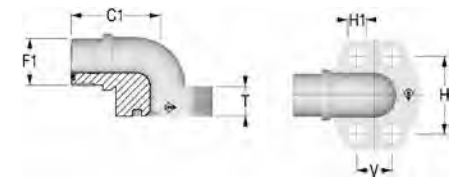


| Item Code | Part Number     | OD1   | F1         | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|-------|------------|-------------|------|------|------|------|------|
|           |                 | in    |            |             |      |      |      |      |      |
| 1212580   | R1A245136W-0608 | 3/8"  | 11/16-16   | 1/2         | 37,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212590   | R1A245136W-2424 | 1 1/2 | 2-12       | 1 1/2       | 61,0 | 27,0 | 79,4 | 36,5 | 17,0 |
| 1212582   | R1A245136W-1008 | 5/8"  | 1-14       | 1/2         | 40,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212581   | R1A245136W-0808 | 1/2"  | 13/16-16   | 1/2         | 39,0 | 15,0 | 40,5 | 18,2 | 9,0  |
| 1212584   | R1A245136W-1212 | 3/4"  | 1 3/16-12  | 3/4         | 45,0 | 17,0 | 50,8 | 23,8 | 11,0 |
| 1212583   | R1A245136W-1012 | 5/8"  | 1-14       | 3/4         | 44,0 | 17,0 | 50,8 | 23,8 | 11,0 |
| 1212586   | R1A245136W-1616 | 1"    | 1 7/16-12  | 1           | 49,0 | 21,0 | 57,2 | 27,8 | 13,0 |
| 1212585   | R1A245136W-1216 | 3/4"  | 1 3/16-12  | 1           | 48,0 | 21,0 | 57,2 | 27,8 | 13,0 |
| 1212588   | R1A245136W-2020 | 1 1/4 | 1 11/16-12 | 1 1/4       | 55,0 | 24,0 | 66,7 | 31,8 | 15,0 |
| 1212587   | R1A245136W-1620 | 1"    | 1 7/16-12  | 1 1/4       | 55,0 | 24,0 | 66,7 | 31,8 | 15,0 |
| 1212589   | R1A245136W-2024 | 1 1/4 | 1 11/16-12 | 1 1/2       | 59,0 | 27,0 | 79,4 | 36,5 | 17,0 |

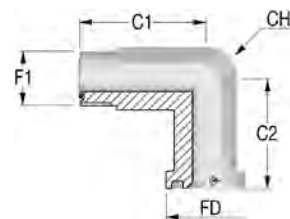
Dimensions shown may be changed without prior notice

**90° flange SAE J518 code 61 - ORFS Male - Low pressure**

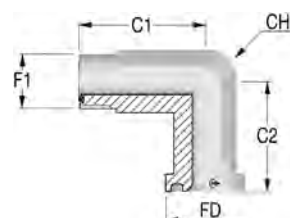
| Item Code | Part Number     | OD1   | F1         | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|-------|------------|-------------|------|------|------|------|------|
|           | Part Number     | in    |            |             | mm   | mm   | mm   | mm   | mm   |
| 1212659   | R1A245933W-2024 | 1"1/4 | 1 11/16-12 | 1 1/2       | 59,0 | 31,0 | 69,9 | 35,7 | 13,5 |
| 1212650   | R1A245933W-0608 | 3/8"  | 11/16-16   | 1/2         | 37,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212660   | R1A245933W-2424 | 1"1/2 | 2-12       | 1 1/2       | 61,0 | 37,0 | 69,9 | 35,7 | 13,5 |
| 1212652   | R1A245933W-1008 | 5/8"  | 1-14       | 1/2         | 40,0 | 20,0 | 38,1 | 17,5 | 9,0  |
| 1212651   | R1A245933W-0808 | 1/2"  | 13/16-16   | 1/2         | 39,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212654   | R1A245933W-1212 | 3/4"  | 1 3/16-12  | 3/4         | 45,0 | 25,0 | 47,6 | 22,2 | 11,0 |
| 1212653   | R1A245933W-1012 | 5/8"  | 1-14       | 3/4         | 44,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1212656   | R1A245933W-1616 | 1"    | 1 7/16-12  | 1           | 49,0 | 31,0 | 52,4 | 26,2 | 11,0 |
| 1212655   | R1A245933W-1216 | 3/4"  | 1 3/16-12  | 1           | 48,0 | 25,0 | 52,4 | 26,2 | 11,0 |
| 1212658   | R1A245933W-2020 | 1"1/4 | 1 11/16-12 | 1 1/4       | 55,0 | 31,0 | 58,7 | 30,2 | 11,5 |
| 1212657   | R1A245933W-1620 | 1"    | 1 7/16-12  | 1 1/4       | 55,0 | 31,0 | 58,7 | 30,2 | 11,5 |

**90° flange SAE J518 code 62 - ORFS Male - High pressure**

| Item Code | Part Number     | OD1   | F1         | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|-------|------------|-------------|------|------|------|------|------|
|           | Part Number     | in    |            |             | mm   | mm   | mm   | mm   | mm   |
| 1212670   | R1A245936W-0608 | 3/8"  | 11/16-16   | 1/2         | 37,0 | 17,0 | 40,5 | 18,2 | 9,0  |
| 1212680   | R1A245936W-2424 | 1"1/2 | 2-12       | 1 1/2       | 61,0 | 37,0 | 79,4 | 36,5 | 17,0 |
| 1212672   | R1A245936W-1008 | 5/8"  | 1-14       | 1/2         | 40,0 | 20,0 | 40,5 | 18,2 | 9,0  |
| 1212671   | R1A245936W-0808 | 1/2"  | 13/16-16   | 1/2         | 39,0 | 17,0 | 40,5 | 18,2 | 9,0  |
| 1212674   | R1A245936W-1212 | 3/4"  | 1 3/16-12  | 3/4         | 45,0 | 25,0 | 50,8 | 23,8 | 11,0 |
| 1212673   | R1A245936W-1012 | 5/8"  | 1-14       | 3/4         | 44,0 | 20,0 | 50,8 | 23,8 | 11,0 |
| 1212676   | R1A245936W-1616 | 1"    | 1 7/16-12  | 1           | 49,0 | 31,0 | 57,2 | 27,8 | 13,0 |
| 1212675   | R1A245936W-1216 | 3/4"  | 1 3/16-12  | 1           | 48,0 | 25,0 | 57,2 | 27,8 | 13,0 |
| 1212678   | R1A245936W-2020 | 1"1/4 | 1 11/16-12 | 1 1/4       | 55,0 | 31,0 | 66,7 | 31,8 | 15,0 |
| 1212677   | R1A245936W-1620 | 1"    | 1 7/16-12  | 1 1/4       | 55,0 | 31,0 | 66,7 | 31,8 | 15,0 |
| 1212679   | R1A245936W-2024 | 1"1/4 | 1 11/16-12 | 1 1/2       | 59,0 | 37,0 | 79,4 | 36,5 | 17,0 |

**90° adjustable flange SAE J518 code 61 - ORFS Male - Low pressure**

| Item Code | Part Number     | OD1    | F1         | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|--------|------------|-------------|------|------|------|------|
|           |                 | in     |            |             | mm   | mm   | mm   | mm   |
| 1212663   | R1A2459334-1008 | 5/8"   | 1-14       | 1/2         | 50,0 | 44,0 | 30,2 | 22,0 |
| 1212662   | R1A2459334-0808 | 1/2"   | 13/16-16   | 1/2         | 48,0 | 42,0 | 30,2 | 22,0 |
| 1212665   | R1A2459334-1616 | 1"     | 1 7/16-12  | 1           | 65,0 | 60,0 | 44,4 | 34,0 |
| 1212664   | R1A2459334-1212 | 3/4"   | 1 3/16-12  | 3/4         | 64,0 | 53,0 | 38,1 | 27,0 |
| 1212667   | R1A2459334-2020 | 1 1/4" | 1 11/16-12 | 1 1/4       | 64,0 | 55,0 | 50,8 | 42,0 |
| 1212666   | R1A2459334-1620 | 1"     | 1 7/16-12  | 1 1/4       | 64,0 | 55,0 | 50,8 | 42,0 |
| 1212669   | R1A2459334-2424 | 1 1/2" | 2-12       | 1 1/2       | 78,0 | 66,0 | 60,3 | 50,0 |
| 1212668   | R1A2459334-2024 | 1 1/4" | 1 11/16-12 | 1 1/2       | 78,0 | 66,0 | 60,3 | 50,0 |

**90° adjustable flange SAE J518 code 62 - ORFS Male - High pressure**

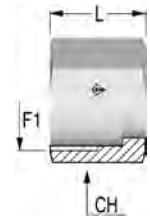
| Item Code | Part Number     | OD1    | F1         | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|--------|------------|-------------|------|------|------|------|
|           |                 | in     |            |             | mm   | mm   | mm   | mm   |
| 1212690   | R1A2459364-2024 | 1 1/4" | 1 11/16-12 | 1 1/2       | 84,0 | 80,0 | 63,5 | 50,0 |
| 1212681   | R1A2459364-0608 | 3/8"   | 11/16-16   | 1/2         | 50,0 | 44,0 | 31,8 | 22,0 |
| 1212691   | R1A2459364-2424 | 1 1/2" | 2-12       | 1 1/2       | 84,0 | 80,0 | 63,5 | 50,0 |
| 1212683   | R1A2459364-1008 | 5/8"   | 1-14       | 1/2         | 50,0 | 44,0 | 31,8 | 22,0 |
| 1212682   | R1A2459364-0808 | 1/2"   | 13/16-16   | 1/2         | 43,0 | 49,0 | 31,8 | 22,0 |
| 1212685   | R1A2459364-1212 | 3/4"   | 1 3/16-12  | 3/4         | 64,0 | 53,0 | 41,3 | 27,0 |
| 1212684   | R1A2459364-1012 | 5/8"   | 1-14       | 3/4         | 64,0 | 53,0 | 41,3 | 27,0 |
| 1212687   | R1A2459364-1616 | 1"     | 1 7/16-12  | 1           | 62,0 | 60,0 | 47,6 | 34,0 |
| 1212686   | R1A2459364-1216 | 3/4"   | 1 3/16-12  | 1           | 62,0 | 60,0 | 47,6 | 34,0 |
| 1212689   | R1A2459364-2020 | 1 1/4" | 1 11/16-12 | 1 1/4       | 72,0 | 70,0 | 54,0 | 42,0 |
| 1212688   | R1A2459364-1620 | 1"     | 1 7/16-12  | 1 1/4       | 72,0 | 70,0 | 54,0 | 42,0 |



Dimensions shown may be changed without prior notice

## // ACCESSORIES

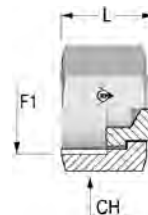
## Nut ORFS



| Item Code | Part Number     | OD1 | F1         | CH   | L     |
|-----------|-----------------|-----|------------|------|-------|
|           |                 | mm  |            | mm   | mm    |
| 1217530   | HX0D2403-240000 | 35  | 2-12       | 57,0 | 28,00 |
| 1221423   | HX0D2403-060000 | 8   | 11/16-16   | 22,0 | 17,00 |
| 1209992   | HX0D2403-100000 | 14  | 1-14       | 30,0 | 23,50 |
| 1210042   | HX0D2403-120000 | 18  | 1 3/16-12  | 36,0 | 26,00 |
| 1223385   | HX0D2403-040000 | 6   | 9/16-18    | 17,0 | 14,50 |
| 1209980   | HX0D2403-080000 | 12  | 13/16-16   | 24,0 | 21,00 |
| 1217529   | HX0D2403-200000 | 28  | 1 11/16-12 | 50,0 | 28,00 |
| 1217528   | HX0D2403-160000 | 22  | 1 7/16-12  | 41,0 | 28,00 |

## // PLUG

## Cap ORFS Female



| Item Code | Part Number     | OD1   | F1         | CH   | L    |
|-----------|-----------------|-------|------------|------|------|
|           |                 | in    |            | mm   | mm   |
| 1208259   | R1A2431000-1600 | 1"    | 1 7/16-12  | 41,0 | 31,0 |
| 1210844   | R/A2431000-2400 | 1"1/2 | 2-12       | 57,0 | 31,0 |
| 1208258   | R1A2431000-2000 | 1"1/4 | 1 11/16-12 | 50,0 | 31,0 |
| 1207711   | R1A2431000-0600 | 3/8"  | 11/16-16   | 22,0 | 20,0 |
| 1208261   | R1A2431000-1000 | 5/8"  | 1-14       | 30,0 | 27,0 |
| 1207933   | R1A2431000-0800 | 1/2"  | 13/16-16   | 24,0 | 23,0 |
| 1207932   | R1A2431000-0400 | 1/4"  | 9/16-18    | 17,0 | 17,0 |
| 1208260   | R1A2431000-1200 | 3/4"  | 1 3/16-12  | 36,0 | 30,0 |

## Plug ORFS Male



| Item Code | Part Number     | OD1   | F1         | CH   | L    |
|-----------|-----------------|-------|------------|------|------|
|           |                 | in    |            | mm   | mm   |
| 1208215   | R1A2451000-1000 | 5/8"  | 1-14       | 27,0 | 26,0 |
| 1208217   | R1A2451000-1600 | 1"    | 1 7/16-12  | 41,0 | 28,0 |
| 1210824   | R1A2451000-2400 | 1"1/2 | 2-12       | 55,0 | 28,0 |
| 1208216   | R1A2451000-1200 | 3/4"  | 1 3/16-12  | 32,0 | 27,5 |
| 1207772   | R1A2451000-0600 | 3/8"  | 11/16-16   | 19,0 | 19,0 |
| 1208218   | R1A2451000-2000 | 1"1/4 | 1 11/16-12 | 46,0 | 28,0 |
| 1207935   | R1A2451000-0800 | 1/2"  | 13/16-16   | 22,0 | 22,0 |
| 1207934   | R1A2451000-0400 | 1/4"  | 9/16-18    | 17,0 | 16,5 |



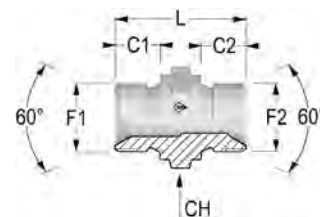
## // BSP ADAPTERS

|                             |     |
|-----------------------------|-----|
| // MALE UNION.....          | 206 |
| // MALE / FEMALE UNION..... | 208 |
| // FEMALE UNION.....        | 210 |
| // BULKHEAD.....            | 211 |

|                 |     |
|-----------------|-----|
| // BSPP.....    | 213 |
| // FLANGES..... | 217 |
| // PLUG.....    | 220 |

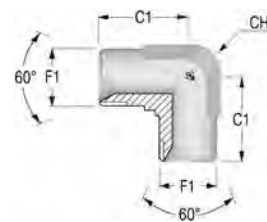
## // MALE UNION

## Straight union BSP 60° Male

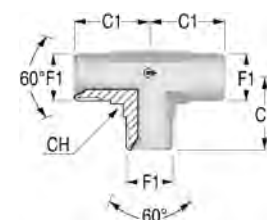


| Item Code | Part Number     | OD1   | F1       | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|-------|----------|----------|------|------|------|------|
|           |                 | in    |          |          | mm   | mm   | mm   | mm   |
| 1207676   | R1A05M105M-1620 | 1"    | 1-11     | 1 1/4-11 | 18,0 | 20,0 | 50,0 | 56,0 |
| 1207675   | R1A05M105M-1216 | 3/4"  | 3/4-14   | 1-11     | 16,0 | 18,0 | 41,0 | 50,0 |
| 1207677   | R1A05M105M-1624 | 1"    | 1-11     | 1 1/2-11 | 18,0 | 22,0 | 55,0 | 60,0 |
| 1207672   | R1A05M105M-0408 | 1/4"  | 1/4-19   | 1/2-14   | 11,0 | 14,0 | 27,0 | 36,0 |
| 1203751   | R1A05M105M-2424 | 1"1/2 | 1 1/2-11 | 1 1/2-11 | 22,0 | 22,0 | 55,0 | 64,0 |
| 1207671   | R1A05M105M-0406 | 1/4"  | 1/4-19   | 3/8-19   | 11,0 | 12,0 | 22,0 | 33,5 |
| 1207674   | R1A05M105M-0812 | 1/2"  | 1/2-14   | 3/4-14   | 14,0 | 16,0 | 32,0 | 43,5 |
| 1205572   | R1A05M105M-1016 | 5/8"  | 5/8-14   | 1-11     | 16,0 | 18,0 | 41,0 | 50,0 |
| 1207673   | R1A05M105M-0608 | 3/8"  | 3/8-19   | 1/2-14   | 12,0 | 14,0 | 27,0 | 37,5 |
| 1207670   | R1A05M105M-0204 | 1/8"  | 1/8-28   | 1/4-19   | 8,0  | 11,0 | 19,0 | 27,5 |
| 1212029   | R1A05M105M-0206 | 1/8"  | 1/8-28   | 3/8-19   | 8,0  | 12,0 | 22,0 | 30,0 |
| 1212030   | R1A05M105M-0208 | 1/8"  | 1/8-28   | 1/2-14   | 8,0  | 14,0 | 27,0 | 33,0 |
| 1212032   | R1A05M105M-0616 | 3/8"  | 3/8-19   | 1-11     | 12,0 | 18,0 | 41,0 | 46,0 |
| 1212031   | R1A05M105M-0610 | 3/8"  | 3/8-19   | 5/8-14   | 12,0 | 16,0 | 30,0 | 40,5 |
| 1212034   | R1A05M105M-0816 | 1/2"  | 1/2-14   | 1-11     | 14,0 | 18,0 | 41,0 | 48,0 |
| 1212033   | R1A05M105M-0810 | 1/2"  | 1/2-14   | 5/8-14   | 14,0 | 16,0 | 30,0 | 43,0 |
| 1203766   | R1A05M105M-0808 | 1/2"  | 1/2-14   | 1/2-14   | 14,0 | 14,0 | 27,0 | 40,0 |
| 1203803   | R1A05M105M-1010 | 5/8"  | 5/8-14   | 5/8-14   | 16,0 | 16,0 | 30,0 | 45,0 |
| 1207701   | R1A05M105M-0612 | 3/8"  | 3/8-19   | 3/4-14   | 12,0 | 16,0 | 32,0 | 41,0 |
| 1203747   | R1A05M105M-1616 | 1"    | 1-11     | 1-11     | 18,0 | 18,0 | 41,0 | 52,0 |
| 1203789   | R1A05M105M-1212 | 3/4"  | 3/4-14   | 3/4-14   | 16,0 | 16,0 | 32,0 | 45,5 |
| 1203780   | R1A05M105M-3232 | 2"    | 2-11     | 2-11     | 24,0 | 24,0 | 70,0 | 69,0 |
| 1208335   | R1A05M105M-0412 | 1/4"  | 1/4-19   | 3/4-14   | 11,0 | 16,0 | 32,0 | 39,5 |
| 1205940   | R1A05M105M-2432 | 1"1/2 | 1 1/2-11 | 2-11     | 22,0 | 24,0 | 70,0 | 66,5 |
| 1212036   | R1A05M105M-0824 | 1/2"  | 1/2-14   | 1 1/2-11 | 14,0 | 22,0 | 55,0 | 56,0 |
| 1212035   | R1A05M105M-0820 | 1/2"  | 1/2-14   | 1 1/4-11 | 14,0 | 20,0 | 50,0 | 52,0 |
| 1208195   | R1A05M105M-2024 | 1"1/4 | 1 1/4-11 | 1 1/2-11 | 20,0 | 22,0 | 55,0 | 62,0 |
| 1212038   | R1A05M105M-1224 | 3/4"  | 3/4-14   | 1 1/2-11 | 16,0 | 22,0 | 55,0 | 58,0 |
| 1208252   | R1A05M105M-1012 | 5/8"  | 5/8-14   | 3/4-14   | 16,0 | 16,0 | 32,0 | 45,5 |
| 1212037   | R1A05M105M-1020 | 5/8"  | 5/8-14   | 1 1/4-11 | 16,0 | 20,0 | 50,0 | 54,0 |
| 1208293   | R1A05M105M-1220 | 3/4"  | 3/4-14   | 1 1/4-11 | 16,0 | 20,0 | 50,0 | 54,0 |
| 1212040   | R1A05M105M-2032 | 1"1/4 | 1 1/4-11 | 2-11     | 20,0 | 24,0 | 70,0 | 64,5 |
| 1203798   | R1A05M105M-0606 | 3/8"  | 3/8-19   | 3/8-19   | 12,0 | 12,0 | 22,0 | 35,0 |
| 1203775   | R1A05M105M-0404 | 1/4"  | 1/4-19   | 1/4-19   | 11,0 | 11,0 | 19,0 | 31,0 |
| 1203757   | R1A05M105M-2020 | 1"1/4 | 1 1/4-11 | 1 1/4-11 | 20,0 | 20,0 | 50,0 | 58,0 |
| 1203778   | R1A05M105M-0202 | 1/8"  | 1/8-28   | 1/8-28   | 8,0  | 8,0  | 14,0 | 25,0 |

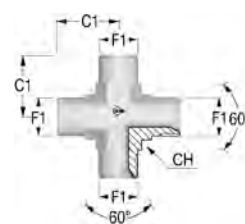
Dimensions shown may be changed without prior notice

**90° union BSP 60° Male**

| Item Code | Part Number     | OD1    | F1       | C1   | CH   |
|-----------|-----------------|--------|----------|------|------|
|           |                 | in     |          | mm   | mm   |
| 1203905   | R1A05M905M-1212 | 3/4"   | 3/4-14   | 42,0 | 27,0 |
| 1210968   | R/A05M905M-2424 | 1" 1/2 | 1 1/2-11 | 60,0 | 48,0 |
| 1208199   | R/A05M905M-2020 | 1" 1/4 | 1 1/4-11 | 52,0 | 41,0 |
| 1207542   | R1A05M905M-0808 | 1/2"   | 1/2-14   | 35,0 | 22,0 |
| 1212187   | R1A05M905M-1010 | 5/8"   | 5/8-14   | 38,0 | 22,0 |
| 1208198   | R1A05M905M-1616 | 1"     | 1-11     | 47,0 | 33,0 |
| 1207905   | R1A05M905M-0202 | 1/8"   | 1/8-28   | 20,0 | 12,0 |
| 1206438   | R1A05M905M-0606 | 3/8"   | 3/8-19   | 30,0 | 17,0 |
| 1207505   | R1A05M905M-0404 | 1/4"   | 1/4-19   | 26,0 | 14,0 |

**Branch Tee union BSP 60° Male**

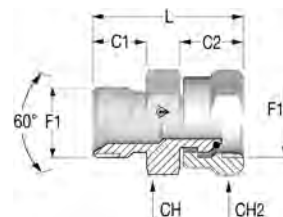
| Item Code | Part Number     | OD1    | F1       | C1   | CH   |
|-----------|-----------------|--------|----------|------|------|
|           |                 | in     |          | mm   | mm   |
| 1207236   | R1A05MT05M-1212 | 3/4"   | 3/4-14   | 42,0 | 27,0 |
| 1206940   | R1A05MT05M-0808 | 1/2"   | 1/2-14   | 35,0 | 22,0 |
| 1211959   | R1A05MT05M-0202 | 1/8"   | 1/8-28   | 20,0 | 12,0 |
| 1206450   | R1A05MT05M-1616 | 1"     | 1-11     | 47,0 | 33,0 |
| 1208145   | R1A05MT05M-2424 | 1" 1/2 | 1 1/2-11 | 60,0 | 48,0 |
| 1208144   | R/A05MT05M-2020 | 1" 1/4 | 1 1/4-11 | 52,0 | 41,0 |
| 1211960   | R1A05MT05M-1010 | 5/8"   | 5/8-14   | 38,0 | 22,0 |
| 1203956   | R1A05MT05M-0606 | 3/8"   | 3/8-19   | 30,0 | 17,0 |
| 1203955   | R1A05MT05M-0404 | 1/4"   | 1/4-19   | 26,0 | 14,0 |

**Cross union BSP 60° Male**

| Item Code | Part Number     | OD1    | F1       | C1   | CH   |
|-----------|-----------------|--------|----------|------|------|
|           |                 | in     |          | mm   | mm   |
| 1206941   | R1A05MX05M-0808 | 1/2"   | 1/2-14   | 35,0 | 22,0 |
| 1212021   | R1A05MX05M-0202 | 1/8"   | 1/8-28   | 20,0 | 12,0 |
| 1212023   | R1A05MX05M-0606 | 3/8"   | 3/8-19   | 30,0 | 17,0 |
| 1212022   | R1A05MX05M-0404 | 1/4"   | 1/4-19   | 26,0 | 14,0 |
| 1212025   | R1A05MX05M-1212 | 3/4"   | 3/4-14   | 42,0 | 27,0 |
| 1212024   | R1A05MX05M-1010 | 5/8"   | 5/8-14   | 38,0 | 22,0 |
| 1212027   | R1A05MX05M-2020 | 1" 1/4 | 1 1/4-11 | 52,0 | 41,0 |
| 1212026   | R1A05MX05M-1616 | 1"     | 1-11     | 47,0 | 33,0 |
| 1212028   | R1A05MX05M-2424 | 1" 1/2 | 1 1/2-11 | 60,0 | 48,0 |

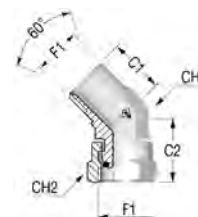
## // MALE / FEMALE UNION

## Straight union BSP 60° Male - Female



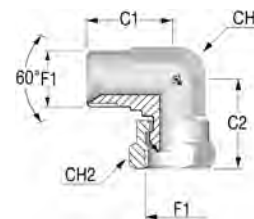
| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | CH2  | L    |
|-----------|-----------------|-------|----------|------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   | mm   |
| 1207698   | R1A05M1051-0606 | 3/8"  | 3/8-19   | 14,5 | 17,7 | 22,0 | 22,0 | 38,7 |
| 1207697   | R1A05M1051-0404 | 1/4"  | 1/4-19   | 13,0 | 15,5 | 19,0 | 19,0 | 33,5 |
| 1207686   | R1A05M1051-1616 | 1"    | 1-11     | 21,0 | 25,5 | 41,0 | 38,0 | 59,5 |
| 1207700   | R1A05M1051-1212 | 3/4"  | 3/4-14   | 19,0 | 22,0 | 32,0 | 32,0 | 50,0 |
| 1207699   | R1A05M1051-0808 | 1/2"  | 1/2-14   | 17,0 | 19,0 | 27,0 | 27,0 | 43,0 |
| 1207784   | R1A05M1052-2424 | 1"1/2 | 1 1/2-11 | 22,0 | 35,0 | 55,0 | 55,0 | 75,0 |
| 1207783   | R1A05M1052-2020 | 1"1/4 | 1 1/4-11 | 20,0 | 31,1 | 50,0 | 50,0 | 69,1 |
| 1216217   | R1A05M1051-0202 | 1/8"  | 1/8-28   | 9,5  | 13,0 | 14,0 | 14,0 | 29,0 |

## 45° union BSP 60° Male - Female

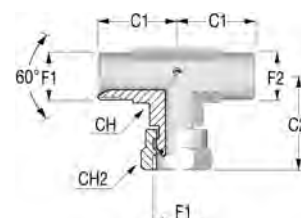


| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|----------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   |
| 1207786   | R1A05M4051-1212 | 3/4"  | 3/4-14   | 32,0 | 39,0 | 27,0 | 32,0 |
| 1207907   | R1A05M4051-0808 | 1/2"  | 1/2-14   | 27,0 | 35,5 | 22,0 | 27,0 |
| 1212146   | R1A05M4051-0606 | 3/8"  | 3/8-19   | 24,0 | 31,2 | 17,0 | 22,0 |
| 1212145   | R1A05M4051-0404 | 1/4"  | 1/4-19   | 21,0 | 25,5 | 14,0 | 19,0 |
| 1212126   | R1A05M4051-0202 | 1/8"  | 1/8-28   | 16,0 | 20,5 | 12,0 | 14,0 |
| 1212148   | R1A05M4052-2020 | 1"1/4 | 1 1/4-11 | 37,0 | 44,1 | 41,0 | 50,0 |
| 1212149   | R/A05M4082-2424 | 1"1/2 | 1 1/2-11 | 46,0 | 59,2 | 48,0 | 55,0 |
| 1210963   | R1A05M4051-1616 | 1"    | 1-11     | 35,0 | 42,5 | 33,0 | 38,0 |

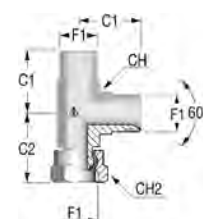
Dimensions shown may be changed without prior notice

**90° union BSP 60° Male - Female**

| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|----------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   |
| 1212219   | R1A05M9051-1010 | 5/8"  | 5/8-14   | 38,0 | 47,7 | 22,0 | 27,0 |
| 1208137   | R1A05M9052-2424 | 1"1/2 | 1 1/2-11 | 60,0 | 73,2 | 48,0 | 55,0 |
| 1218490   | R1A05M9051-0202 | 1/8"  | 1/8-28   | 22,0 | 26,5 | 12,0 | 14,0 |
| 1207948   | R1A05M9052-2020 | 1"1/4 | 1 1/4-11 | 52,0 | 59,1 | 41,0 | 50,0 |
| 1207947   | R1A05M9051-1616 | 1"    | 1-11     | 47,0 | 54,5 | 33,0 | 38,0 |
| 1207702   | R1A05M9051-0404 | 1/4"  | 1/4-19   | 26,0 | 30,5 | 14,0 | 19,0 |
| 1207704   | R1A05M9051-0808 | 1/2"  | 1/2-14   | 35,0 | 41,5 | 22,0 | 27,0 |
| 1207946   | R1A05M9051-1212 | 3/4"  | 3/4-14   | 42,0 | 51,0 | 27,0 | 32,0 |
| 1207703   | R1A05M9051-0606 | 3/8"  | 3/8-19   | 30,0 | 36,2 | 17,0 | 22,0 |

**Branch Tee union BSP 60° Male - Female**

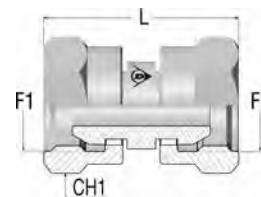
| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|----------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   |
| 1207709   | R1A05MT051-1616 | 1"    | 1-11     | 47,0 | 54,5 | 33,0 | 38,0 |
| 1207706   | R1A05MT051-0606 | 3/8"  | 3/8-19   | 30,0 | 36,2 | 17,0 | 22,0 |
| 1211970   | R1A05MT051-0202 | 1/8"  | 1/8-28   | 22,0 | 27,0 | 12,0 | 14,0 |
| 1207705   | R1A05MT051-0404 | 1/4"  | 1/4-19   | 26,0 | 30,5 | 14,0 | 19,0 |
| 1211982   | R1A05MT081-1010 | 5/8"  | 5/8-14   | 38,0 | 47,7 | 22,0 | 27,0 |
| 1207708   | R1A05MT051-1212 | 3/4"  | 3/4-14   | 42,0 | 51,0 | 27,0 | 32,0 |
| 1207707   | R1A05MT051-0808 | 1/2"  | 1/2-14   | 35,0 | 41,5 | 22,0 | 27,0 |
| 1211983   | R1A05MT052-2424 | 1"1/2 | 1 1/2-11 | 60,0 | 73,2 | 48,0 | 55,0 |
| 1210950   | R1A05MT082-2020 | 1"1/4 | 1 1/4-11 | 52,0 | 59,1 | 41,0 | 50,0 |

**Run Tee union BSP 60° Male - Female**

| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | CH2  |
|-----------|-----------------|-------|----------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   |
| 1207788   | R1A05ML051-0606 | 3/8"  | 3/8-19   | 30,0 | 36,2 | 17,0 | 22,0 |
| 1207787   | R1A05ML051-0404 | 1/4"  | 1/4-19   | 26,0 | 30,5 | 14,0 | 19,0 |
| 1210946   | R1A05ML052-2020 | 1"1/4 | 1 1/4-11 | 52,0 | 59,1 | 41,0 | 50,0 |
| 1211908   | R1A05ML051-0202 | 1/8"  | 1/8-28   | 22,0 | 26,5 | 12,0 | 14,0 |
| 1207791   | R1A05ML051-1616 | 1"    | 1-11     | 47,0 | 54,5 | 33,0 | 38,0 |
| 1207790   | R1A05ML051-1212 | 3/4"  | 3/4-14   | 42,0 | 51,0 | 27,0 | 32,0 |
| 1207789   | R1A05ML051-0808 | 1/2"  | 1/2-14   | 35,0 | 41,5 | 22,0 | 27,0 |
| 1211921   | R1A05ML052-2424 | 1"1/2 | 1 1/2-11 | 60,0 | 73,2 | 48,0 | 55,0 |

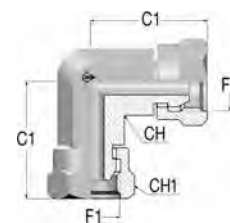
## // FEMALE UNION

## Straight union BSP 60° Female



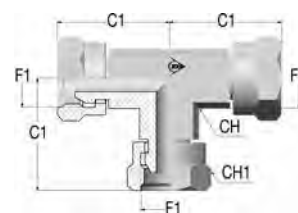
| Item Code | Part Number     | OD1  | F1     | CH1  | L    |
|-----------|-----------------|------|--------|------|------|
|           |                 | in   |        | mm   | mm   |
| 1203738   | R1A0511051-1616 | 1"   | 1-11   | 38,0 | 56,0 |
| 1205934   | R1A0511051-0606 | 3/8" | 3/8-19 | 22,0 | 38,9 |
| 1205935   | R1A0511051-0404 | 1/4" | 1/4-19 | 19,0 | 36,0 |
| 1205936   | R1A0511051-0808 | 1/2" | 1/2-14 | 27,0 | 44,5 |
| 1207901   | R1A0511051-1212 | 3/4" | 3/4-14 | 32,0 | 49,5 |

## 90° union BSP 60° Female



| Item Code | Part Number     | OD1  | F1     | C1   | CH   | CH1  |
|-----------|-----------------|------|--------|------|------|------|
|           |                 | in   |        | mm   | mm   | mm   |
| 1208320   | R1A0519051-0808 | 1/2" | 1/2-14 | 41,5 | 22,0 | 27,0 |
| 1224079   | R1A0519051-0404 | 1/4" | 1/4-19 | 30,5 | 14,0 | 19,0 |
| 1224080   | R1A0519051-0606 | 3/8" | 3/8-19 | 36,2 | 17,0 | 22,0 |
| 1224081   | R1A0519051-1212 | 3/4" | 3/4-14 | 51,0 | 27,0 | 32,0 |
| 1224082   | R1A0519051-1616 | 1"   | 1-11   | 54,5 | 33,0 | 38,0 |

## Branch Tee union BSP 60° Female



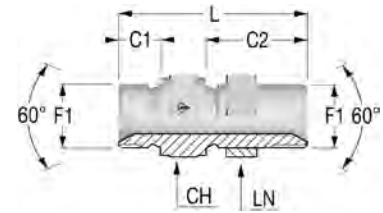
| Item Code | Part Number     | OD1  | F1     | C1   | CH   | CH1  |
|-----------|-----------------|------|--------|------|------|------|
|           |                 | in   |        | mm   | mm   | mm   |
| 1206665   | R1A051T051-1212 | 3/4" | 3/4-14 | 51,0 | 27,0 | 32,0 |
| 1218502   | R1A051T051-0606 | 3/8" | 3/8-19 | 36,2 | 17,0 | 22,0 |
| 1218501   | R1A051T051-0404 | 1/4" | 1/4-19 | 30,5 | 14,0 | 19,0 |
| 1218505   | R1A051T051-1616 | 1"   | 1-11   | 54,5 | 33,0 | 38,0 |
| 1218503   | R1A051T051-0808 | 1/2" | 1/2-14 | 41,5 | 22,0 | 27,0 |



Dimensions shown may be changed without prior notice

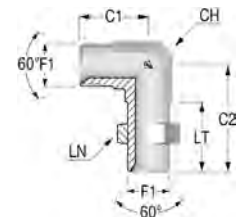
## // BULKHEAD

## Straight union BSP 60° Bulkhead

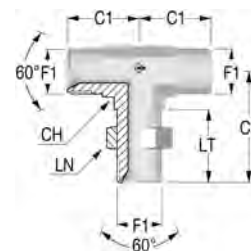


| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | LN   | L    |
|-----------|-----------------|-------|----------|------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   | mm   |
| 1210955   | R1A05M105T-2424 | 1"1/2 | 1 1/2-11 | 25,0 | 49,0 | 55,0 | 55,0 | 88,0 |
| 1207678   | R1A05M105T-0404 | 1/4"  | 1/4-19   | 13,0 | 29,0 | 19,0 | 19,0 | 47,0 |
| 1207683   | R1A05M105T-1616 | 1"    | 1-11     | 21,0 | 41,0 | 41,0 | 41,0 | 72,0 |
| 1212042   | R1A05M105T-0202 | 1/8"  | 1/8-28   | 9,5  | 25,0 | 14,0 | 14,0 | 40,5 |
| 1207682   | R1A05M105T-1212 | 3/4"  | 3/4-14   | 19,0 | 37,0 | 32,0 | 32,0 | 63,5 |
| 1207684   | R1A05M105T-2020 | 1"1/4 | 1 1/4-11 | 23,0 | 45,0 | 50,0 | 50,0 | 80,0 |
| 1207681   | R1A05M105T-1010 | 5/8"  | 5/8-14   | 19,0 | 37,0 | 30,0 | 32,0 | 63,0 |
| 1207680   | R1A05M105T-0808 | 1/2"  | 1/2-14   | 17,0 | 34,0 | 27,0 | 27,0 | 58,0 |
| 1207679   | R1A05M105T-0606 | 3/8"  | 3/8-19   | 14,5 | 31,0 | 22,0 | 22,0 | 51,5 |

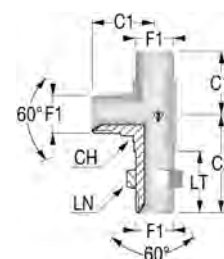
## 90° elbow connector BSP 60° Bulkhead



| Item Code | Part Number     | OD1   | F1       | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|-------|----------|------|------|------|------|------|
|           |                 | in    |          | mm   | mm   | mm   | mm   | mm   |
| 1210969   | R/A05M905T-0404 | 1/4"  | 1/4-19   | 26,0 | 47,0 | 14,0 | 19,0 | 29,0 |
| 1212188   | R1A05M905T-0202 | 1/8"  | 1/8-28   | 20,0 | 37,0 | 12,0 | 14,0 | 25,0 |
| 1212189   | R1A05M905T-1010 | 5/8"  | 5/8-14   | 38,0 | 59,0 | 22,0 | 32,0 | 37,0 |
| 1210970   | R/A05M905T-0606 | 3/8"  | 3/8-19   | 30,0 | 49,0 | 17,0 | 22,0 | 31,0 |
| 1210971   | R1A05M905T-0808 | 1/2"  | 1/2-14   | 35,0 | 55,0 | 22,0 | 27,0 | 34,0 |
| 1210972   | R/A05M905T-1212 | 3/4"  | 3/4-14   | 42,0 | 63,0 | 33,0 | 41,0 | 35,0 |
| 1210973   | R1A05M905T-1616 | 1"    | 1-11     | 47,0 | 69,0 | 33,0 | 41,0 | 41,0 |
| 1210974   | R1A05M905T-2020 | 1"1/4 | 1 1/4-11 | 52,0 | 77,0 | 41,0 | 50,0 | 45,0 |
| 1210975   | R/A05M905T-2424 | 1"1/2 | 1 1/2-11 | 60,0 | 87,0 | 48,0 | 55,0 | 49,0 |

**Branch Tee union BSP 60° Bulkhead**

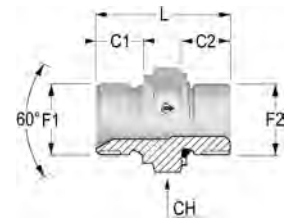
| Item Code | Part Number     | OD1    | F1       | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|--------|----------|------|------|------|------|------|
|           |                 | in     |          | mm   | mm   | mm   | mm   | mm   |
| 1211966   | R1A05MT05T-1212 | 3/4"   | 3/4-14   | 42,0 | 63,0 | 27,0 | 36,0 | 37,0 |
| 1211967   | R1A05MT05T-1616 | 1"     | 1-11     | 47,0 | 69,0 | 33,0 | 41,0 | 41,0 |
| 1211968   | R1A05MT05T-2020 | 1 1/4" | 1 1/4-11 | 52,0 | 77,0 | 41,0 | 50,0 | 45,0 |
| 1211969   | R1A05MT05T-2424 | 1 1/2" | 1 1/2-11 | 60,0 | 87,0 | 48,0 | 55,0 | 49,0 |
| 1211961   | R1A05MT05T-0202 | 1/8"   | 1/8-28   | 20,0 | 37,0 | 12,0 | 14,0 | 25,0 |
| 1211962   | R1A05MT05T-0404 | 1/4"   | 1/4-19   | 26,0 | 44,0 | 14,0 | 19,0 | 29,0 |
| 1211963   | R1A05MT05T-0606 | 3/8"   | 3/8-19   | 27,0 | 49,0 | 17,0 | 22,0 | 31,0 |
| 1211964   | R1A05MT05T-0808 | 1/2"   | 1/2-14   | 35,0 | 55,0 | 22,0 | 27,0 | 34,0 |
| 1211965   | R/A05MT05T-1010 | 5/8"   | 5/8-14   | 38,0 | 59,0 | 22,0 | 32,0 | 37,0 |

**Run Tee union BSP 60° Bulkhead**

| Item Code | Part Number     | OD1    | F1       | C1   | C2   | CH   | LN   | LT   |
|-----------|-----------------|--------|----------|------|------|------|------|------|
|           |                 | in     |          | mm   | mm   | mm   | mm   | mm   |
| 1211900   | R1A05ML05T-0404 | 1/4"   | 1/4-19   | 26,0 | 44,0 | 14,0 | 19,0 | 29,0 |
| 1211901   | R/A05ML05T-0606 | 3/8"   | 3/8-19   | 27,0 | 49,0 | 17,0 | 22,0 | 31,0 |
| 1211902   | R/A05ML05T-0808 | 1/2"   | 1/2-14   | 35,0 | 55,0 | 22,0 | 27,0 | 34,0 |
| 1211903   | R1A05ML05T-1010 | 5/8"   | 5/8-14   | 38,0 | 59,0 | 22,0 | 32,0 | 37,0 |
| 1211904   | R1A05ML05T-1212 | 3/4"   | 3/4-14   | 42,0 | 63,0 | 27,0 | 36,0 | 37,0 |
| 1211905   | R1A05ML05T-1616 | 1"     | 1-11     | 47,0 | 69,0 | 33,0 | 41,0 | 41,0 |
| 1211906   | R1A05ML05T-2020 | 1 1/4" | 1 1/4-11 | 52,0 | 77,0 | 41,0 | 50,0 | 45,0 |
| 1211907   | R1A05ML05T-2424 | 1 1/2" | 1 1/2-11 | 60,0 | 87,0 | 48,0 | 55,0 | 49,0 |
| 1211899   | R1A05ML05T-0202 | 1/8"   | 1/8-28   | 20,0 | 37,0 | 12,0 | 14,0 | 25,0 |

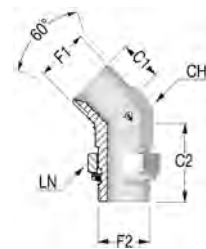
Dimensions shown may be changed without prior notice

## // BSPP

**Straight connector BSP 60° Male - BSPP cylindric Male with O-Ring and retaining ring**

| Item Code | Part Number     | OD1    | F1       | F2       | C1   | C2   | CH   | L    |
|-----------|-----------------|--------|----------|----------|------|------|------|------|
|           |                 | in     |          |          | mm   | mm   | mm   | mm   |
| 1236668   | R1A05M106N-1208 | 3/4"   | 3/4-14   | 1/2-14   | 17,0 | 14,5 | 32,0 | 44,0 |
| 1212047   | R/A05M106Q-0604 | 3/8"   | 3/8-19   | 1/4-19   | 13,0 | 13,0 | 22,0 | 33,0 |
| 1212058   | R1A05M106Q-1616 | 1"     | 1-11     | 1-11     | 19,0 | 18,5 | 41,0 | 55,0 |
| 1212046   | R1A05M106N-0406 | 1/4"   | 1/4-19   | 3/8-19   | 11,0 | 11,0 | 22,0 | 31,0 |
| 1212057   | R1A05M106Q-1612 | 1"     | 1-11     | 3/4-14   | 19,0 | 14,5 | 41,0 | 49,0 |
| 1212049   | R1A05M106Q-0608 | 3/8"   | 3/8-19   | 1/2-14   | 13,0 | 14,5 | 27,0 | 38,0 |
| 1212048   | R/A05M106Q-0606 | 3/8"   | 3/8-19   | 3/8-19   | 13,0 | 11,0 | 22,0 | 34,0 |
| 1212059   | R1A05M106Q-1620 | 1"     | 1-11     | 1 1/4-11 | 19,0 | 18,5 | 50,0 | 60,0 |
| 1212050   | R1A05M106Q-0806 | 1/2"   | 1/2-14   | 3/8-19   | 16,0 | 11,0 | 27,0 | 35,0 |
| 1212061   | R1A05M106Q-2424 | 1 1/2" | 1 1/2-11 | 1 1/2-11 | 22,0 | 18,5 | 55,0 | 63,0 |
| 1212060   | R1A05M106N-2020 | 1 1/4" | 1 1/4-11 | 1 1/4-11 | 20,0 | 18,5 | 50,0 | 62,5 |
| 1212052   | R1A05M106Q-0812 | 1/2"   | 1/2-14   | 3/4-14   | 16,0 | 14,5 | 32,0 | 40,0 |
| 1212051   | R1A05M106N-0808 | 1/2"   | 1/2-14   | 1/2-14   | 16,0 | 16,0 | 27,0 | 40,0 |
| 1212043   | R/A05M106Q-0202 | 1/8"   | 1/8-28   | 1/8-28   | 8,0  | 7,5  | 14,0 | 21,5 |
| 1212053   | R1A05M106N-1008 | 5/8"   | 5/8-14   | 1/2-14   | 16,0 | 14,5 | 27,0 | 38,5 |
| 1212045   | R/A05M106Q-0404 | 1/4"   | 1/4-19   | 1/4-19   | 11,0 | 11,0 | 19,0 | 28,0 |
| 1212056   | R1A05M106Q-1216 | 3/4"   | 3/4-14   | 1-11     | 17,0 | 18,5 | 41,0 | 52,0 |
| 1212044   | R1A05M106N-0204 | 1/8"   | 1/8-28   | 1/4-19   | 8,0  | 11,0 | 19,0 | 28,0 |
| 1212055   | R1A05M106N-1212 | 3/4"   | 3/4-14   | 3/4-14   | 17,0 | 14,5 | 32,0 | 46,0 |

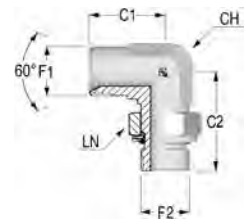
**45° adjustable elbow connector BSP 60° Male - BSPP cylindric  
Male with O-Ring and retaining ring**



| Item Code | Part Number     | OD1    | F1       | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|--------|----------|----------|------|------|------|------|
|           |                 | in     |          |          | mm   | mm   | mm   | mm   |
| 1212135   | R1A05M406Q-0810 | 1/2"   | 1/2-14   | 5/8-14   | 39,0 | 50,0 | 27,0 | 32,0 |
| 1212134   | R1A05M406N-0808 | 1/2"   | 1/2-14   | 1/2-14   | 28,0 | 38,0 | 22,0 | 27,0 |
| 1212137   | R1A05M406Q-1208 | 3/4"   | 3/4-14   | 1/2-14   | 32,0 | 40,0 | 27,0 | 27,0 |
| 1212136   | R1A05M406Q-1008 | 5/8"   | 5/8-14   | 1/2-14   | 28,0 | 38,0 | 22,0 | 27,0 |
| 1212128   | R1A05M406Q-0204 | 1/8"   | 1/8-28   | 1/4-19   | 21,0 | 28,0 | 14,0 | 19,0 |
| 1212139   | R/A05M406Q-1216 | 3/4"   | 3/4-14   | 1-11     | 35,0 | 47,0 | 33,0 | 41,0 |
| 1212127   | R1A05M406Q-0202 | 1/8"   | 1/8-28   | 1/8-28   | 20,0 | 26,0 | 12,0 | 14,0 |
| 1210962   | R1A05M406Q-0404 | 1/4"   | 1/4-19   | 1/4-19   | 21,0 | 28,0 | 14,0 | 19,0 |
| 1212138   | R1A05M406N-1212 | 3/4"   | 3/4-14   | 3/4-14   | 32,0 | 44,0 | 27,0 | 36,0 |
| 1212129   | R/A05M406Q-0406 | 1/4"   | 1/4-19   | 3/8-19   | 22,0 | 33,0 | 17,0 | 22,0 |
| 1212140   | R/A05M406Q-1612 | 1"     | 1-11     | 3/4-14   | 37,0 | 47,0 | 33,0 | 36,0 |
| 1212131   | R1A05M406N-0606 | 3/8"   | 3/8-19   | 3/8-19   | 25,0 | 33,0 | 17,0 | 22,0 |
| 1212142   | R1A05M406Q-1620 | 1"     | 1-11     | 1 1/4-11 | 39,0 | 49,0 | 41,0 | 50,0 |
| 1212130   | R/A05M406Q-0604 | 3/8"   | 3/8-19   | 1/4-19   | 25,0 | 30,0 | 17,0 | 19,0 |
| 1212141   | R/A05M406Q-1616 | 1"     | 1-11     | 1-11     | 37,0 | 47,0 | 33,0 | 41,0 |
| 1212133   | R/A05M406Q-0806 | 1/2"   | 1/2-14   | 3/8-19   | 26,0 | 35,0 | 19,0 | 22,0 |
| 1212144   | R/A05M406Q-2424 | 1 1/2" | 1 1/2-11 | 1 1/2-11 | 45,0 | 49,0 | 48,0 | 55,0 |
| 1212132   | R1A05M406N-0608 | 3/8"   | 3/8-19   | 1/2-14   | 25,5 | 38,0 | 19,0 | 27,0 |
| 1212143   | R/A05M406Q-2020 | 1 1/4" | 1 1/4-11 | 1 1/4-11 | 40,0 | 49,0 | 41,0 | 50,0 |

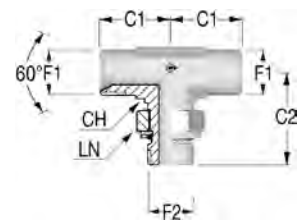
Dimensions shown may be changed without prior notice

### 90° adjustable elbow connector BSP 60° Male - BSPP cylindric Male with O-Ring and retaining ring



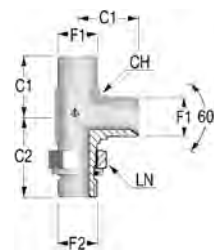
| Item Code | Part Number     | OD1   | F1       | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|----------|----------|------|------|------|------|
|           |                 | in    |          |          | mm   | mm   | mm   | mm   |
| 1210745   | R1A05M906N-1616 | 1"    | 1-11     | 1-11     | 46,0 | 53,0 | 33,0 | 41,0 |
| 1210976   | R/A05M906Q-2020 | 1"1/4 | 1 1/4-11 | 1 1/4-11 | 51,0 | 58,0 | 41,0 | 50,0 |
| 1207950   | R1A05M906N-0808 | 1/2"  | 1/2-14   | 1/2-14   | 34,0 | 43,0 | 22,0 | 27,0 |
| 1210977   | R1A05M906N-2424 | 1"1/2 | 1 1/2-11 | 1 1/2-11 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1208136   | R1A05M906N-1212 | 3/4"  | 3/4-14   | 3/4-14   | 41,0 | 50,0 | 27,0 | 36,0 |
| 1208135   | R1A05M906N-0404 | 1/4"  | 1/4-19   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1212201   | R1A05M906N-1612 | 1"    | 1-11     | 3/4-14   | 46,0 | 52,0 | 33,0 | 36,0 |
| 1212200   | R1A05M906N-1216 | 3/4"  | 3/4-14   | 1-11     | 43,0 | 53,0 | 33,0 | 41,0 |
| 1212202   | R1A05M906N-1620 | 1"    | 1-11     | 1 1/4-11 | 50,0 | 58,0 | 41,0 | 50,0 |
| 1212193   | R1A05M906N-0406 | 1/4"  | 1/4-19   | 3/8-19   | 28,0 | 37,0 | 17,0 | 22,0 |
| 1212192   | R/A05M906Q-0204 | 1/8"  | 1/8-28   | 1/4-19   | 24,0 | 31,5 | 14,0 | 19,0 |
| 1212195   | R1A05M906N-0608 | 3/8"  | 3/8-19   | 1/2-14   | 32,0 | 43,0 | 19,0 | 27,0 |
| 1212194   | R1A05M906N-0604 | 3/8"  | 3/8-19   | 1/4-19   | 29,0 | 35,0 | 17,0 | 19,0 |
| 1212196   | R1A05M906N-0806 | 1/2"  | 1/2-14   | 3/8-19   | 34,0 | 40,0 | 19,0 | 22,0 |
| 1212199   | R1A05M906N-1208 | 3/4"  | 3/4-14   | 1/2-14   | 41,0 | 46,0 | 27,0 | 27,0 |
| 1207949   | R1A05M906N-0606 | 3/8"  | 3/8-19   | 3/8-19   | 29,0 | 37,0 | 17,0 | 22,0 |
| 1212191   | R1A05M906N-0202 | 1/8"  | 1/8-28   | 1/8-28   | 22,0 | 27,0 | 12,0 | 14,0 |

### Branch Tee adjustable elbow connector BSP 60° Male - BSPP cylindric Male with O-Ring and retaining ring



| Item Code | Part Number     | OD1   | F1       | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|----------|----------|------|------|------|------|
|           |                 | in    |          |          | mm   | mm   | mm   | mm   |
| 1210713   | R1A05MT06N-0808 | 1/2"  | 1/2-14   | 1/2-14   | 34,0 | 43,0 | 22,0 | 27,0 |
| 1211978   | R1A05MT06N-1008 | 5/8"  | 5/8-14   | 1/2-14   | 37,0 | 43,0 | 22,0 | 27,0 |
| 1211979   | R/A05MT06Q-1208 | 3/4"  | 3/4-14   | 1/2-14   | 41,0 | 46,0 | 27,0 | 27,0 |
| 1207710   | R1A05MT06N-1620 | 1"    | 1-11     | 1 1/4-11 | 50,0 | 58,0 | 41,0 | 50,0 |
| 1210749   | R1A05MT06N-0606 | 3/8"  | 3/8-19   | 3/8-19   | 29,0 | 37,0 | 17,0 | 22,0 |
| 1210947   | R/A05MT06Q-1616 | 1"    | 1-11     | 1-11     | 46,0 | 53,0 | 33,0 | 41,0 |
| 1210948   | R/A05MT06Q-2020 | 1"1/4 | 1 1/4-11 | 1 1/4-11 | 51,0 | 58,0 | 41,0 | 50,0 |
| 1208147   | R1A05MT06N-0404 | 1/4"  | 1/4-19   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1210949   | R/A05MT06Q-2424 | 1"1/2 | 1 1/2-11 | 1 1/2-11 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1211980   | R1A05MT06N-1216 | 3/4"  | 3/4-14   | 1-11     | 43,0 | 53,0 | 33,0 | 41,0 |
| 1211981   | R1A05MT06N-1612 | 1"    | 1-11     | 3/4-14   | 46,0 | 52,0 | 33,0 | 36,0 |
| 1211971   | R1A05MT06N-0202 | 1/8"  | 1/8-28   | 1/8-28   | 22,0 | 27,0 | 12,0 | 14,0 |
| 1210750   | R1A05MT06N-1212 | 3/4"  | 3/4-14   | 3/4-14   | 41,0 | 50,0 | 27,0 | 36,0 |
| 1211972   | R1A05MT06Q-0204 | 1/8"  | 1/8-28   | 1/4-19   | 24,0 | 31,5 | 14,0 | 19,0 |
| 1211973   | R/A05MT06Q-0406 | 1/4"  | 1/4-19   | 3/8-19   | 28,0 | 37,0 | 17,0 | 22,0 |
| 1211974   | R/A05MT06Q-0604 | 3/8"  | 3/8-19   | 1/4-19   | 29,0 | 35,0 | 17,0 | 19,0 |
| 1211976   | R/A05MT06Q-0806 | 1/2"  | 1/2-14   | 3/8-19   | 34,0 | 40,0 | 19,0 | 22,0 |

# Run Tee adjustable elbow connector BSP 60° Male - BSPP cylindric Male with O-Ring and retaining ring

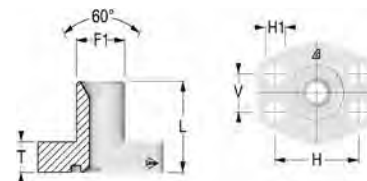


| Item Code | Part Number     | OD1   | F1       | F2       | C1   | C2   | CH   | LN   |
|-----------|-----------------|-------|----------|----------|------|------|------|------|
|           |                 | in    |          |          | mm   | mm   | mm   | mm   |
| 1211911   | R1A05ML06N-0406 | 1/4"  | 1/4-19   | 3/8-19   | 28,0 | 37,0 | 17,0 | 22,0 |
| 1210943   | R1A05ML06N-1620 | 1"    | 1-11     | 1 1/4-11 | 50,0 | 58,0 | 41,0 | 50,0 |
| 1210746   | R1A05ML06N-0404 | 1/4"  | 1/4-19   | 1/4-19   | 27,0 | 31,5 | 14,0 | 19,0 |
| 1211912   | R1A05ML06N-0604 | 3/8"  | 3/8-19   | 1/4-19   | 29,0 | 35,0 | 17,0 | 19,0 |
| 1210944   | R/A05ML06Q-2020 | 1"1/4 | 1 1/4-11 | 1 1/4-11 | 51,0 | 58,0 | 41,0 | 50,0 |
| 1211913   | R1A05ML06N-0608 | 3/8"  | 3/8-19   | 1/2-14   | 32,0 | 43,0 | 19,0 | 27,0 |
| 1210945   | R1A05ML06N-2424 | 1"1/2 | 1 1/2-11 | 1 1/2-11 | 59,0 | 67,0 | 48,0 | 55,0 |
| 1211914   | R1A05ML06N-0806 | 1/2"  | 1/2-14   | 3/8-19   | 34,0 | 40,0 | 19,0 | 22,0 |
| 1210715   | R1A05ML06N-1212 | 3/4"  | 3/4-14   | 3/4-14   | 41,0 | 50,0 | 27,0 | 36,0 |
| 1211915   | R1A05ML06N-0810 | 1/2"  | 1/2-14   | 5/8-14   | 39,0 | 50,0 | 27,0 | 32,0 |
| 1211916   | R1A05ML06N-1008 | 5/8"  | 5/8-14   | 1/2-14   | 37,0 | 43,0 | 22,0 | 27,0 |
| 1211917   | R1A05ML06N-1208 | 3/4"  | 3/4-14   | 1/2-14   | 41,0 | 46,0 | 27,0 | 27,0 |
| 1211918   | R1A05ML06N-1216 | 3/4"  | 3/4-14   | 1-11     | 43,0 | 53,0 | 33,0 | 41,0 |
| 1208141   | R1A05ML06N-0808 | 1/2"  | 1/2-14   | 1/2-14   | 34,0 | 43,0 | 22,0 | 27,0 |
| 1208140   | R1A05ML06N-0606 | 3/8"  | 3/8-19   | 3/8-19   | 29,0 | 37,0 | 17,0 | 22,0 |
| 1211910   | R1A05ML06N-0204 | 1/8"  | 1/8-28   | 1/4-19   | 24,0 | 31,5 | 14,0 | 19,0 |
| 1210942   | R/A05ML06Q-1616 | 1"    | 1-11     | 1-11     | 46,0 | 53,0 | 33,0 | 41,0 |
| 1211919   | R1A05ML06N-1612 | 1"    | 1-11     | 3/4-14   | 46,0 | 52,0 | 33,0 | 36,0 |
| 1211909   | R1A05ML06N-0202 | 1/8"  | 1/8-28   | 1/8-28   | 22,0 | 27,0 | 12,0 | 14,0 |

Dimensions shown may be changed without prior notice

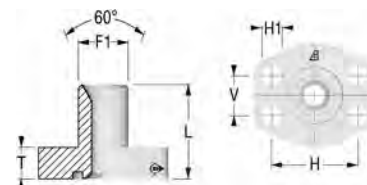
## // FLANGES

## Straight flange SAE J518 code 61 - BSP - Low pressure

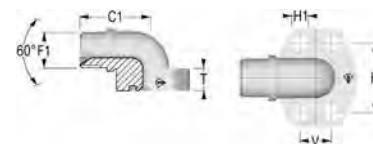


| Item Code | Part Number     | OD1    | F1       | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|--------|----------|-------------|------|------|------|------|------|
|           |                 | in     |          |             | mm   | mm   | mm   | mm   | mm   |
| 1212083   | R1A05M133W-0812 | 1/2"   | 1/2-14   | 3/4         | 42,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212082   | R1A05M133W-0808 | 1/2"   | 1/2-14   | 1/2         | 39,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212093   | R1A05M133W-2424 | 1" 1/2 | 1 1/2-11 | 1 1/2       | 61,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212085   | R1A05M133W-1212 | 3/4"   | 3/4-14   | 3/4         | 45,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212084   | R1A05M133W-1208 | 3/4"   | 3/4-14   | 1/2         | 42,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212087   | R1A05M133W-1612 | 1"     | 1-11     | 3/4         | 47,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212086   | R1A05M133W-1216 | 3/4"   | 3/4-14   | 1           | 47,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212089   | R1A05M133W-2016 | 1" 1/4 | 1 1/4-11 | 1           | 49,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212088   | R1A05M133W-1616 | 1"     | 1-11     | 1           | 53,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212090   | R1A05M133W-2020 | 1" 1/4 | 1 1/4-11 | 1 1/4       | 53,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212081   | R1A05M133W-0608 | 3/8"   | 3/8-19   | 1/2         | 37,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212092   | R1A05M133W-2420 | 1" 1/2 | 1 1/2-11 | 1 1/4       | 55,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212091   | R1A05M133W-2024 | 1" 1/4 | 1 1/4-11 | 1 1/2       | 59,0 | 24,0 | 69,9 | 35,7 | 13,5 |

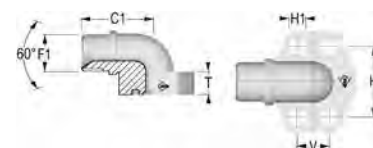
## Straight flange SAE J518 code 62 - BSP - High pressure



| Item Code | Part Number     | OD1    | F1       | Flange Size | L    | T    | H    | V    | H1   |
|-----------|-----------------|--------|----------|-------------|------|------|------|------|------|
|           |                 | in     |          |             | mm   | mm   | mm   | mm   | mm   |
| 1212102   | R1A05M136W-1620 | 1"     | 1-11     | 1 1/4       | 53,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212101   | R1A05M136W-1616 | 1"     | 1-11     | 1           | 49,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212104   | R1A05M136W-2020 | 1" 1/4 | 1 1/4-11 | 1 1/4       | 53,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212103   | R1A05M136W-2016 | 1" 1/4 | 1 1/4-11 | 1           | 49,0 | 17,0 | 52,4 | 26,2 | 11,0 |
| 1212106   | R1A05M136W-2420 | 1" 1/2 | 1 1/2-11 | 1 1/4       | 55,0 | 21,0 | 58,7 | 30,2 | 11,5 |
| 1212105   | R1A05M136W-2024 | 1" 1/4 | 1 1/4-11 | 1 1/2       | 59,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212107   | R1A05M136W-2424 | 1" 1/2 | 1 1/2-11 | 1 1/2       | 61,0 | 24,0 | 69,9 | 35,7 | 13,5 |
| 1212094   | R1A05M136W-0608 | 3/8"   | 3/8-19   | 1/2         | 37,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212096   | R1A05M136W-0812 | 1/2"   | 1/2-14   | 3/4         | 42,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212095   | R1A05M136W-0808 | 1/2"   | 1/2-14   | 1/2         | 39,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212098   | R1A05M136W-1212 | 3/4"   | 3/4-14   | 3/4         | 45,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212097   | R1A05M136W-1208 | 3/4"   | 3/4-14   | 1/2         | 42,0 | 14,0 | 38,1 | 17,5 | 9,0  |
| 1212100   | R1A05M136W-1612 | 1"     | 1-11     | 3/4         | 47,0 | 15,0 | 47,6 | 22,2 | 11,0 |
| 1212099   | R1A05M136W-1216 | 3/4"   | 3/4-14   | 1           | 47,0 | 17,0 | 52,4 | 26,2 | 11,0 |

**90° flange SAE J518 code 61 - BSP - Low pressure**

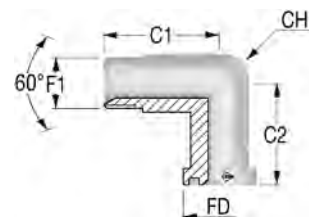
| Item Code | Part Number     | OD1    | F1       | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|--------|----------|-------------|------|------|------|------|------|
|           | Part Number     | in     |          |             | mm   | mm   | mm   | mm   | mm   |
| 1212256   | R1A05M933W-1212 | 3/4"   | 3/4-14   | 3/4         | 44,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1212255   | R1A05M933W-1208 | 3/4"   | 3/4-14   | 1/2         | 40,0 | 20,0 | 38,1 | 17,5 | 9,0  |
| 1212258   | R1A05M933W-1612 | 1"     | 1-11     | 3/4         | 45,0 | 25,0 | 47,6 | 22,2 | 11,0 |
| 1212257   | R1A05M933W-1216 | 3/4"   | 3/4-14   | 1           | 47,0 | 20,0 | 52,4 | 26,2 | 11,0 |
| 1212259   | R1A05M933W-1616 | 1"     | 1-11     | 1           | 48,0 | 25,0 | 52,4 | 26,2 | 11,0 |
| 1212261   | R1A05M933W-2016 | 1 1/4" | 1 1/4-11 | 1           | 49,0 | 31,0 | 52,4 | 26,2 | 11,0 |
| 1212260   | R1A05M933W-1620 | 1"     | 1-11     | 1 1/4       | 54,0 | 25,0 | 58,7 | 30,2 | 11,5 |
| 1212252   | R1A05M933W-0608 | 3/8"   | 3/8-19   | 1/2         | 37,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212263   | R1A05M933W-2024 | 1 1/4" | 1 1/4-11 | 1 1/2       | 59,0 | 31,0 | 69,9 | 35,7 | 13,5 |
| 1212262   | R1A05M933W-2020 | 1 1/4" | 1 1/4-11 | 1 1/4       | 55,0 | 31,0 | 58,7 | 30,2 | 11,5 |
| 1212254   | R1A05M933W-0812 | 1/2"   | 1/2-14   | 3/4         | 41,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1212265   | R1A05M933W-2424 | 1 1/2" | 1 1/2-11 | 1 1/2       | 61,0 | 37,0 | 69,9 | 35,7 | 13,5 |
| 1212253   | R1A05M933W-0808 | 1/2"   | 1/2-14   | 1/2         | 39,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212264   | R1A05M933W-2420 | 1 1/2" | 1 1/2-11 | 1 1/4       | 56,0 | 37,0 | 58,7 | 30,2 | 11,5 |

**90° flange SAE J518 code 62 - BSP - High pressure**

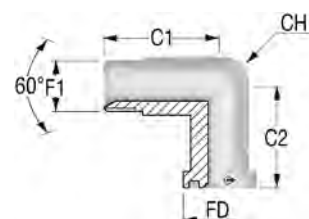
| Item Code | Part Number     | OD1    | F1       | Flange size | C1   | T    | H    | V    | H1   |
|-----------|-----------------|--------|----------|-------------|------|------|------|------|------|
|           | Part Number     | in     |          |             | mm   | mm   | mm   | mm   | mm   |
| 1212278   | R1A05M936W-0608 | 3/8"   | 3/8-19   | 1/2         | 37,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212289   | R1A05M936W-2024 | 1 1/4" | 1 1/4-11 | 1 1/2       | 59,0 | 31,0 | 69,9 | 35,7 | 13,5 |
| 1212288   | R1A05M936W-2020 | 1 1/4" | 1 1/4-11 | 1 1/4       | 55,0 | 31,0 | 58,7 | 30,2 | 11,5 |
| 1212279   | R1A05M936W-0808 | 1/2"   | 1/2-14   | 1/2         | 39,0 | 17,0 | 38,1 | 17,5 | 9,0  |
| 1212281   | R1A05M936W-1208 | 3/4"   | 3/4-14   | 1/2         | 40,0 | 20,0 | 38,1 | 17,5 | 9,0  |
| 1212280   | R1A05M936W-0812 | 1/2"   | 1/2-14   | 3/4         | 41,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1212291   | R1A05M936W-2424 | 1 1/2" | 1 1/2-11 | 1 1/2       | 61,0 | 37,0 | 69,9 | 35,7 | 13,5 |
| 1212283   | R1A05M936W-1216 | 3/4"   | 3/4-14   | 1           | 47,0 | 20,0 | 52,4 | 26,2 | 11,0 |
| 1212282   | R1A05M936W-1212 | 3/4"   | 3/4-14   | 3/4         | 44,0 | 20,0 | 47,6 | 22,2 | 11,0 |
| 1212285   | R1A05M936W-1616 | 1"     | 1-11     | 1           | 48,0 | 25,0 | 52,4 | 26,2 | 11,0 |
| 1212284   | R1A05M936W-1612 | 1"     | 1-11     | 3/4         | 45,0 | 25,0 | 47,6 | 22,2 | 11,0 |
| 1212287   | R1A05M936W-2016 | 1 1/4" | 1 1/4-11 | 1           | 49,0 | 31,0 | 52,4 | 26,2 | 11,0 |
| 1212286   | R1A05M936W-1620 | 1"     | 1-11     | 1 1/4       | 54,0 | 25,0 | 58,7 | 30,2 | 11,5 |
| 1212290   | R1A05M936W-2420 | 1 1/2" | 1 1/2-11 | 1 1/4       | 56,0 | 37,0 | 58,7 | 30,2 | 11,5 |



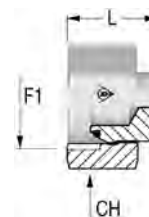
Dimensions shown may be changed without prior notice

**90° adjustable flange SAE J518 code 61 - BSP - Low pressure**

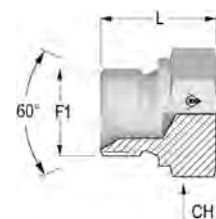
| Item Code | Part Number     | OD1   | F1       | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|-------|----------|-------------|------|------|------|------|
|           |                 | in    |          |             | mm   | mm   | mm   | mm   |
| 1212267   | R1A05M9334-0808 | 1/2"  | 1/2-14   | 1/2         | 48,0 | 42,0 | 30,2 | 22,0 |
| 1212266   | R1A05M9334-0608 | 3/8"  | 3/8-19   | 1/2         | 44,0 | 50,0 | 30,2 | 22,0 |
| 1212277   | R1A05M9334-2424 | 1"1/2 | 1 1/2-11 | 1 1/2       | 66,0 | 78,0 | 60,3 | 50,0 |
| 1212269   | R1A05M9334-1212 | 3/4"  | 3/4-14   | 3/4         | 53,0 | 64,0 | 38,1 | 27,0 |
| 1212268   | R1A05M9334-0812 | 1/2"  | 1/2-14   | 3/4         | 53,0 | 64,0 | 38,1 | 22,0 |
| 1212270   | R1A05M9334-1216 | 3/4"  | 3/4-14   | 1           | 60,0 | 65,0 | 44,5 | 27,0 |
| 1212272   | R1A05M9334-1616 | 1"    | 1-11     | 1           | 60,0 | 65,0 | 44,5 | 34,0 |
| 1212271   | R1A05M9334-1612 | 1"    | 1-11     | 3/4         | 53,0 | 64,0 | 38,1 | 34,0 |
| 1212274   | R1A05M9334-2016 | 1"1/4 | 1 1/4-11 | 1           | 60,0 | 65,0 | 44,5 | 42,0 |
| 1212273   | R1A05M9334-1620 | 1"    | 1-11     | 1 1/4       | 55,0 | 64,0 | 50,8 | 34,0 |
| 1212276   | R1A05M9334-2024 | 1"1/4 | 1 1/4-11 | 1 1/2       | 66,0 | 78,0 | 60,3 | 42,0 |
| 1212275   | R1A05M9334-2020 | 1"1/4 | 1 1/4-11 | 1 1/4       | 55,0 | 64,0 | 50,8 | 42,0 |

**90° adjustable flange SAE J518 code 62 - BSP - High pressure**

| Item Code | Part Number     | OD1   | F1       | Flange size | C1   | C2   | FD   | CH   |
|-----------|-----------------|-------|----------|-------------|------|------|------|------|
|           |                 | in    |          |             | mm   | mm   | mm   | mm   |
| 1212300   | R1A05M9364-2016 | 1"1/4 | 1 1/4-11 | 1           | 72,0 | 70,0 | 47,6 | 41,0 |
| 1212299   | R1A05M9364-1620 | 1"    | 1-11     | 1 1/4       | 70,0 | 72,0 | 54,0 | 34,0 |
| 1212302   | R1A05M9364-2024 | 1"1/4 | 1 1/4-11 | 1 1/2       | 80,0 | 84,0 | 63,5 | 42,0 |
| 1212301   | R1A05M9364-2020 | 1"1/4 | 1 1/4-11 | 1 1/4       | 70,0 | 72,0 | 54,0 | 42,0 |
| 1212303   | R1A05M9364-2424 | 1"1/2 | 1 1/2-11 | 1 1/2       | 80,0 | 84,0 | 63,5 | 50,0 |
| 1212292   | R1A05M9364-0608 | 3/8"  | 3/8-19   | 1/2         | 44,0 | 50,0 | 31,8 | 22,0 |
| 1212294   | R1A05M9364-0812 | 1/2"  | 1/2-14   | 3/4         | 53,0 | 64,0 | 41,3 | 22,0 |
| 1212293   | R1A05M9364-0808 | 1/2"  | 1/2-14   | 1/2         | 49,0 | 43,0 | 31,8 | 22,0 |
| 1212296   | R1A05M9364-1216 | 3/4"  | 3/4-14   | 1           | 60,0 | 62,0 | 47,6 | 27,0 |
| 1212295   | R1A05M9364-1212 | 3/4"  | 3/4-14   | 3/4         | 53,0 | 64,0 | 41,3 | 27,0 |
| 1212298   | R1A05M9364-1616 | 1"    | 1-11     | 1           | 60,0 | 62,0 | 47,6 | 34,0 |
| 1212297   | R1A05M9364-1612 | 1"    | 1-11     | 3/4         | 59,5 | 54,5 | 41,3 | 30,0 |

**// PLUG****Cap BSP 60° Female**

| Item Code | Part Number     | OD1   | F1       | CH   | L    |
|-----------|-----------------|-------|----------|------|------|
|           |                 | in    |          | mm   | mm   |
| 1210712   | R1A0531000-2400 | 1 1/2 | 1 1/2-11 | 55,0 | 38,0 |
| 1207694   | R1A0531000-1200 | 3/4"  | 3/4-14   | 32,0 | 21,5 |
| 1207693   | R1A0531000-1000 | 5/8"  | 5/8-14   | 27,0 | 26,0 |
| 1207696   | R1A0531000-2000 | 1 1/4 | 1 1/4-11 | 50,0 | 32,0 |
| 1207695   | R1A0531000-1600 | 1"    | 1-11     | 38,0 | 32,0 |
| 1207690   | R1A0531000-0400 | 1/4"  | 1/4-19   | 19,0 | 19,0 |
| 1207692   | R1A0531000-0800 | 1/2"  | 1/2-14   | 27,0 | 23,3 |
| 1207691   | R1A0531000-0600 | 3/8"  | 3/8-19   | 22,0 | 21,0 |

**Plug BSP 60° Male**

| Item Code | Part Number     | OD1   | F1       | CH   | L    |
|-----------|-----------------|-------|----------|------|------|
|           |                 | in    |          | mm   | mm   |
| 1207665   | R1A05M1000-0800 | 1/2"  | 1/2-14   | 27,0 | 24,0 |
| 1207664   | R1A05M1000-0600 | 3/8"  | 3/8-19   | 22,0 | 20,5 |
| 1207667   | R1A05M1000-1600 | 1"    | 1-11     | 41,0 | 30,0 |
| 1207666   | R1A05M1000-1200 | 3/4"  | 3/4-14   | 32,0 | 26,5 |
| 1207663   | R1A05M1000-0400 | 1/4"  | 1/4-19   | 19,0 | 19,0 |
| 1207662   | R1A05M1000-0200 | 1/8"  | 1/8-28   | 14,0 | 14,5 |
| 1207669   | R1A05M1000-2400 | 1 1/2 | 1 1/2-11 | 55,0 | 43,0 |
| 1207668   | R1A05M1000-2000 | 1 1/4 | 1 1/4-11 | 50,0 | 39,0 |
| 1210952   | R1A05M1000-1000 | 5/8"  | 5/8-14   | 30,0 | 24,0 |



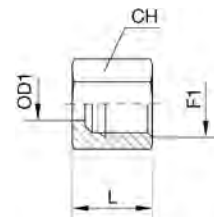
## // DIN 24° ADAPTERS

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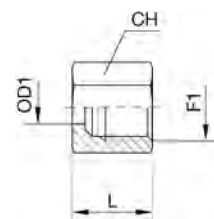
## // ACCESSORIES

## Nut DIN 24° - Light series



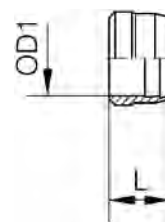
| Item Code | Item Code       | OD1<br>mm | F1      | CH<br>mm | L<br>mm |
|-----------|-----------------|-----------|---------|----------|---------|
| 1240839   | RXA11D0000-0600 | 6         | M12X1.5 | 14,0     | 14,50   |
| 1240840   | RXA11D0000-0800 | 8         | M14X1.5 | 17,0     | 14,50   |
| 1240843   | RXA11D0000-1500 | 15        | M22X1.5 | 27,0     | 17,00   |
| 1240844   | RXA11D0000-1800 | 18        | M26X1.5 | 32,0     | 18,00   |
| 1240841   | RXA11D0000-1000 | 10        | M16X1.5 | 19,0     | 15,50   |
| 1240842   | RXA11D0000-1200 | 12        | M18X1.5 | 22,0     | 15,50   |
| 1240847   | RXA11D0000-3500 | 35        | M45X2   | 50,0     | 24,00   |
| 1240848   | RXA11D0000-4200 | 42        | M52X2   | 60,0     | 24,00   |
| 1240845   | RXA11D0000-2200 | 22        | M30X2   | 36,0     | 20,00   |
| 1240846   | RXA11D0000-2800 | 28        | M36X2   | 41,0     | 21,00   |

## Nut DIN 24° - Heavy series



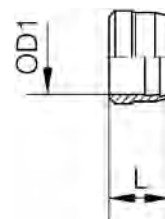
| Item Code | Item Code       | OD1<br>mm | F1      | CH<br>mm | L<br>mm |
|-----------|-----------------|-----------|---------|----------|---------|
| 1235329   | RXA12D0000-1600 | 16        | M24X1.5 | 30,0     | 20,50   |
| 1240849   | RXA12D0000-0600 | 6         | M14X1.5 | 17,0     | 16,50   |
| 1240850   | RXA12D0000-0800 | 8         | M16X1.5 | 19,0     | 16,50   |
| 1240851   | RXA12D0000-1000 | 10        | M18X1.5 | 22,0     | 17,50   |
| 1246446   | RXA12D0000-1400 | 14        | M22X1.5 | 27,0     | 20,50   |
| 1237301   | RXA12D0000-2000 | 20        | M30X2   | 36,0     | 24,00   |
| 1240854   | RXA12D0000-3000 | 30        | M42X2   | 50,0     | 29,00   |
| 1240855   | RXA12D0000-3800 | 38        | M52X2   | 60,0     | 32,50   |
| 1240852   | RXA12D0000-1200 | 12        | M20X1.5 | 24,0     | 17,50   |
| 1240853   | RXA12D0000-2500 | 25        | M36X2   | 46,0     | 27,00   |

Dimensions shown may be changed without prior notice

**Double cutting ring DIN 24° - Light series**

| Item Code | Part Number     | OD1 | L    |
|-----------|-----------------|-----|------|
|           |                 | mm  | mm   |
| 1204121   | R1A11R0000-1800 | 18  | 10,5 |
| 1204125   | R1A11R0000-2200 | 22  | 11,0 |
| 1204136   | R1A11R0000-4200 | 42  | 13,5 |
| 1204113   | R1A11R0000-1200 | 12  | 10,0 |
| 1204133   | R1A11R0000-3500 | 35  | 13,5 |
| 1204118   | R1A11R0000-1500 | 15  | 10,0 |
| 1204129   | R1A11R0000-2800 | 28  | 11,0 |
| 1204139   | R1A11R0000-0800 | 8   | 9,5  |
| 1204137   | R1A11R0000-0600 | 6   | 9,5  |
| 1204109   | R1A11R0000-1000 | 10  | 10,0 |

Codes from 6 to 12mm also Heavy Series

**Double cutting ring DIN 24° - Heavy series**

| Item Code | Part Number     | OD1 | L    |
|-----------|-----------------|-----|------|
|           |                 | mm  | mm   |
| 1204120   | R1A12R0000-1600 | 16  | 10,5 |
| 1204131   | R1A12R0000-3000 | 30  | 13,5 |
| 1204124   | R1A12R0000-2000 | 20  | 13,0 |
| 1204135   | R1A12R0000-3800 | 38  | 13,5 |
| 1204117   | R1A12R0000-1400 | 14  | 10,0 |
| 1204128   | R1A12R0000-2500 | 25  | 13,0 |

Codes from 6 to 12mm same as Light Series ones

### Double cutting ring with tight sealing DIN 24° - Light series DIN 2353



| Item Code | Head  | OD1 | L    |
|-----------|-------|-----|------|
|           | Dash  | in  | mm   |
| 1244467   | -0600 | 6   | 9,0  |
| 1239498   | -0800 | 8   | 8,0  |
| 1244468   | -1000 | 10  | 9,3  |
| 1237046   | -1200 | 12  | 9,5  |
| 1241104   | -1500 | 15  | 9,5  |
| 1241106   | -1800 | 18  | 9,5  |
| 1237047   | -2200 | 22  | 11,5 |
| 1237048   | -2800 | 28  | 11,5 |
| 1241110   | -3500 | 35  | 13,0 |
| 1244469   | -4200 | 42  | 13,0 |

Codes from 6 to 12mm also Heavy Series

### Double cutting ring with tight sealing DIN 24° - Heavy series DIN 2353

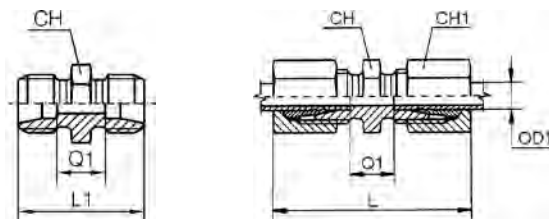


| Item Code | Head  | OD1 | L    |
|-----------|-------|-----|------|
|           | Dash  | in  | mm   |
| 1244470   | -1400 | 14  | 10,0 |
| 1239871   | -1600 | 16  | 10,0 |
| 1239870   | -2000 | 20  | 13,0 |
| 1237071   | -2500 | 25  | 13,3 |
| 1241138   | -3000 | 30  | 14,0 |
| 1244471   | -3800 | 38  | 14,0 |

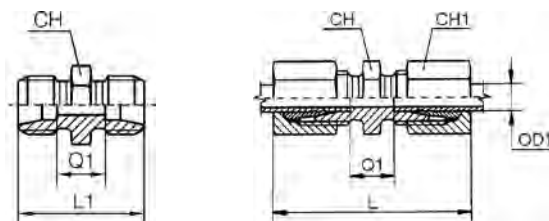
Codes from 6 to 12mm same as Light Series ones

Dimensions shown may be changed without prior notice

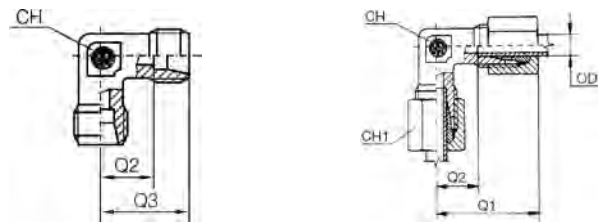
## // MALE UNION

**Straight union DIN 24° Male - Light series**

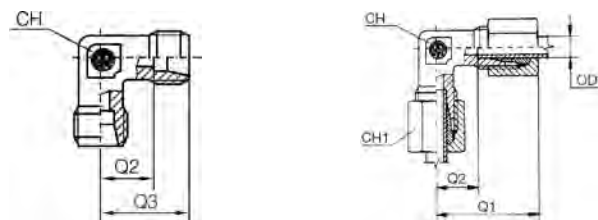
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|-----------|---------|----------|
| 1205541                | 1242417               | R1A11M111M-2222       | 22        | 20,0     | 32,0     | 36,0      | 52,0    | 35,0     |
| 1205544                | 1240805               | R1A11M111M-0606       | 6         | 10,0     | 12,0     | 14,0      | 39,0    | 24,0     |
| 1204234                | 1241077               | R1A11M111M-1515       | 15        | 16,0     | 24,0     | 27,0      | 46,0    | 30,0     |
| 1205708                | 1243785               | R1A11M111M-2828       | 28        | 21,0     | 41,0     | 41,0      | 54,0    | 36,0     |
| 1204233                | 1240808               | R1A11M111M-1212       | 12        | 14,0     | 19,0     | 22,0      | 43,0    | 28,0     |
| 1205709                | 1243786               | R1A11M111M-3535       | 35        | 20,0     | 46,0     | 50,0      | 63,0    | 41,0     |
| 1205538                | 1243784               | R1A11M111M-1818       | 18        | 16,0     | 27,0     | 32,0      | 48,0    | 31,0     |
| 1205710                | 1241080               | R1A11M111M-4242       | 42        | 21,0     | 55,0     | 60,0      | 66,0    | 43,0     |
| 1205546                | 1240806               | R1A11M111M-0808       | 8         | 11,0     | 14,0     | 17,0      | 40,0    | 25,0     |
| 1205537                | 1240807               | R1A11M111M-1010       | 10        | 13,0     | 17,0     | 19,0      | 42,0    | 27,0     |

**Straight union DIN 24° Male - Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|-----------|---------|----------|
| 1205542                | 1241125               | R1A12M112M-2525       | 25        | 26,0     | 41,0     | 46,0      | 74,0    | 50,0     |
| 1205543                | 1244133               | R1A12M112M-3030       | 30        | 27,0     | 46,0     | 50,0      | 80,0    | 54,0     |
| 1205687                | 1244128               | R1A12M112M-0808       | 8         | 18,0     | 17,0     | 19,0      | 47,0    | 32,0     |
| 1205691                | 1244132               | R1A12M112M-1616       | 16        | 21,0     | 27,0     | 30,0      | 57,0    | 38,0     |
| 1205539                | 1241122               | R1A12M112M-2020       | 20        | 23,0     | 32,0     | 36,0      | 66,0    | 44,0     |
| 1206097                | 1244127               | R1A12M112M-0606       | 6         | 16,0     | 14,0     | 17,0      | 45,0    | 30,0     |
| 1205690                | 1244131               | R1A12M112M-1414       | 14        | 22,0     | 24,0     | 27,0      | 57,0    | 38,0     |
| 1205688                | 1244129               | R1A12M112M-1010       | 10        | 17,0     | 19,0     | 22,0      | 49,0    | 32,0     |
| 1205689                | 1244130               | R1A12M112M-1212       | 12        | 19,0     | 22,0     | 24,0      | 51,0    | 34,0     |
| 1205711                | 1244134               | R1A12M112M-3838       | 38        | 29,0     | 55,0     | 60,0      | 90,0    | 61,0     |

**90° union DIN 24° Male - Light series**

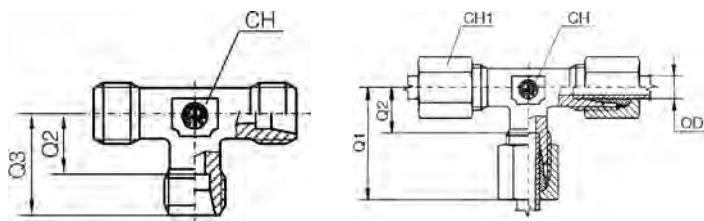
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|----------|-----------|
| 1205695                | 1243864               | R1A11M911M-1818       | 18        | 40,0     | 23,5     | 31,0     | 24,0     | 32,0      |
| 1205696                | 1243865               | R1A11M911M-2222       | 22        | 44,0     | 27,5     | 35,0     | 27,0     | 36,0      |
| 1204064                | 1243863               | R1A11M911M-1515       | 15        | 36,0     | 21,0     | 28,0     | 19,0     | 27,0      |
| 1205697                | 1243866               | R1A11M911M-2828       | 28        | 47,0     | 30,5     | 38,0     | 36,0     | 41,0      |
| 1205707                | 1243867               | R1A11M911M-3535       | 35        | 56,0     | 34,5     | 45,0     | 41,0     | 50,0      |
| 1206043                | 1243868               | R1A11M911M-4242       | 42        | 63,0     | 40,0     | 51,0     | 50,0     | 60,0      |
| 1205692                | 1243861               | R1A11M911M-0606       | 6         | 27,0     | 12,0     | 19,0     | 12,0     | 14,0      |
| 1205693                | 1241534               | R1A11M911M-0808       | 8         | 29,0     | 14,0     | 21,0     | 12,0     | 17,0      |
| 1205694                | 1240812               | R1A11M911M-1010       | 10        | 30,0     | 15,0     | 22,0     | 14,0     | 19,0      |
| 1204062                | 1243862               | R1A11M911M-1212       | 12        | 32,0     | 17,0     | 24,0     | 17,0     | 22,0      |

**90° union DIN 24° Male - Heavy series**

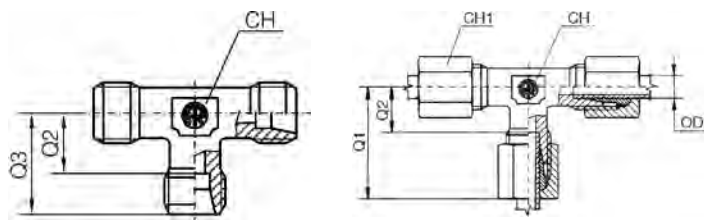
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|----------|-----------|
| 1205698                | 1244224               | R1A12M912M-0606       | 6         | 31,0     | 16,0     | 23,0     | 12,0     | 17,0      |
| 1242137                | 1205705               | R1A12M912M-2525       | 25        | 54,0     | 30,0     | 42,0     | 36,0     | 46,0      |
| 1205703                | 1244229               | R1A12M912M-1616       | 16        | 43,0     | 24,5     | 33,0     | 24,0     | 30,0      |
| 1205704                | 1244230               | R1A12M912M-2020       | 20        | 48,0     | 26,5     | 37,0     | 27,0     | 36,0      |
| 1205706                | 1244231               | R1A12M912M-3030       | 30        | 62,0     | 35,5     | 49,0     | 41,0     | 50,0      |
| 1207042                | 1244232               | R1A12M912M-3838       | 38        | 72,0     | 41,0     | 57,0     | 50,0     | 60,0      |
| 1205699                | 1244225               | R1A12M912M-0808       | 8         | 32,0     | 17,0     | 24,0     | 14,0     | 19,0      |
| 1205700                | 1244226               | R1A12M912M-1010       | 10        | 34,0     | 17,5     | 25,0     | 17,0     | 22,0      |
| 1205701                | 1244227               | R1A12M912M-1212       | 12        | 38,0     | 21,5     | 29,0     | 17,0     | 24,0      |
| 1205702                | 1244228               | R1A12M912M-1414       | 14        | 40,0     | 22,0     | 30,0     | 19,0     | 27,0      |



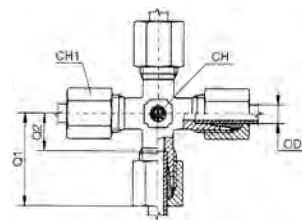
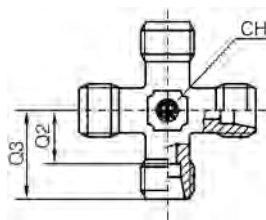
Dimensions shown may be changed without prior notice

**Branch Tee union DIN 24° Male -  
Light series**

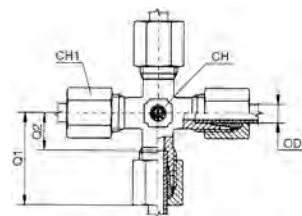
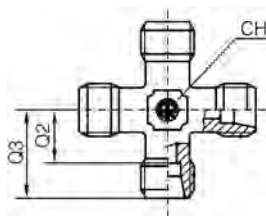
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|----------|-----------|
| 1204217                | 1242245               | R1A11MT11M-1515       | 15        | 36,0     | 21,0     | 28,0     | 19,0     | 27,0      |
| 1205714                | 1243983               | R1A11MT11M-2828       | 28        | 47,0     | 30,5     | 38,0     | 36,0     | 41,0      |
| 1204216                | 1241099               | R1A11MT11M-1212       | 12        | 32,0     | 17,0     | 24,0     | 17,0     | 22,0      |
| 1205715                | 1243984               | R1A11MT11M-3535       | 35        | 56,0     | 34,5     | 45,0     | 41,0     | 50,0      |
| 1204215                | 1240814               | R1A11MT11M-1010       | 10        | 30,0     | 15,0     | 22,0     | 14,0     | 19,0      |
| 1206042                | 1243985               | R1A11MT11M-4242       | 42        | 63,0     | 40,0     | 51,0     | 50,0     | 60,0      |
| 1204219                | 1240813               | R1A11MT11M-0808       | 8         | 29,0     | 14,0     | 21,0     | 12,0     | 17,0      |
| 1205712                | 1243981               | R1A11MT11M-1818       | 18        | 40,0     | 23,5     | 31,0     | 24,0     | 32,0      |
| 1204218                | 1241542               | R1A11MT11M-0606       | 6         | 27,0     | 12,0     | 19,0     | 12,0     | 14,0      |
| 1205713                | 1243982               | R1A11MT11M-2222       | 22        | 44,0     | 27,5     | 35,0     | 27,0     | 36,0      |

**Branch Tee union DIN 24° Male -  
Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|----------|-----------|
| 1205720                | 1244354               | R1A12MT12M-1414       | 14        | 40,0     | 22,0     | 30,0     | 19,0     | 27,0      |
| 1205718                | 1244352               | R1A12MT12M-1010       | 10        | 34,0     | 17,5     | 25,0     | 17,0     | 22,0      |
| 1205719                | 1244353               | R1A12MT12M-1212       | 12        | 38,0     | 21,5     | 29,0     | 17,0     | 24,0      |
| 1205616                | 1244355               | R1A12MT12M-1616       | 16        | 43,0     | 24,5     | 33,0     | 24,0     | 30,0      |
| 1205716                | 1244350               | R1A12MT12M-0606       | 6         | 31,0     | 16,0     | 23,0     | 12,0     | 17,0      |
| 1205717                | 1244351               | R1A12MT12M-0808       | 8         | 32,0     | 17,0     | 24,0     | 14,0     | 19,0      |
| 1205721                | 1244356               | R1A12MT12M-2020       | 20        | 48,0     | 26,5     | 37,0     | 27,0     | 36,0      |
| 1205722                | 1244357               | R1A12MT12M-2525       | 25        | 54,0     | 30,0     | 42,0     | 36,0     | 46,0      |
| 1205723                | 1244358               | R1A12MT12M-3030       | 30        | 62,0     | 35,5     | 49,0     | 41,0     | 50,0      |
| 1205724                | 1244359               | R1A12MT12M-3838       | 38        | 72,0     | 41,0     | 57,0     | 50,0     | 60,0      |

**Cross union DIN 24° Male - Light series**

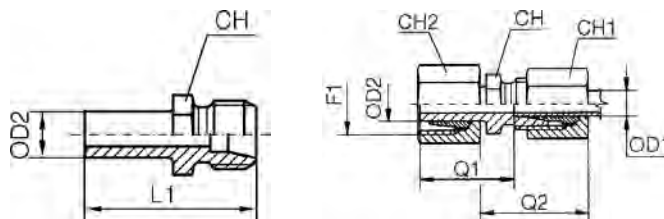
| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|-----------|
| 1205730                | 1244010               | R1A11MX11M-2222          | 22        | 44,0     | 27,5     | 35,0     | 27,0     | 36,0      |
| 1211083                | 1244011               | R1A11MX11M-2828          | 28        | 47,0     | 30,5     | 38,0     | 36,0     | 41,0      |
| 1211084                | 1244012               | R1A11MX11M-3535          | 35        | 56,0     | 34,5     | 45,0     | 41,0     | 50,0      |
| 1205729                | 1244009               | R1A11MX11M-1818          | 18        | 40,0     | 23,5     | 31,0     | 24,0     | 32,0      |
| 1211085                | 1244013               | R1A11MX11M-4242          | 42        | 63,0     | 40,0     | 51,0     | 50,0     | 60,0      |
| 1205725                | 1244005               | R1A11MX11M-0606          | 6         | 27,0     | 12,0     | 19,0     | 12,0     | 14,0      |
| 1205726                | 1244006               | R1A11MX11M-0808          | 8         | 29,0     | 14,0     | 21,0     | 12,0     | 17,0      |
| 1205727                | 1242918               | R1A11MX11M-1010          | 10        | 30,0     | 15,0     | 22,0     | 14,0     | 19,0      |
| 1205728                | 1244008               | R1A11MX11M-1515          | 15        | 36,0     | 21,0     | 28,0     | 19,0     | 27,0      |
| 1205755                | 1244007               | R1A11MX11M-1212          | 12        | 32,0     | 17,0     | 24,0     | 17,0     | 22,0      |

**Cross union DIN 24° Male - Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|-----------|
| 1208138                | 1244387               | R1A12MX12M-3030          | 30        | 62,0     | 35,5     | 49,0     | 41,0     | 50,0      |
| 1206356                | 1244380               | R1A12MX12M-0808          | 8         | 32,0     | 17,0     | 24,0     | 14,0     | 19,0      |
| 1206241                | 1244383               | R1A12MX12M-1414          | 14        | 40,0     | 22,0     | 30,0     | 19,0     | 27,0      |
| 1206571                | 1244386               | R1A12MX12M-2525          | 25        | 54,0     | 30,0     | 42,0     | 36,0     | 46,0      |
| 1206242                | 1244384               | R1A12MX12M-1616          | 16        | 43,0     | 24,5     | 33,0     | 24,0     | 30,0      |
| 1211263                | 1244388               | R1A12MX12M-3838          | 38        | 72,0     | 41,0     | 57,0     | 50,0     | 60,0      |
| 1206376                | 1244379               | R1A12MX12M-0606          | 6         | 31,0     | 16,0     | 23,0     | 12,0     | 17,0      |
| 1206308                | 1244381               | R1A12MX12M-1010          | 10        | 34,0     | 17,5     | 25,0     | 17,0     | 22,0      |
| 1206570                | 1244385               | R1A12MX12M-2020          | 20        | 48,0     | 26,5     | 37,0     | 27,0     | 36,0      |
| 1206128                | 1244382               | R1A12MX12M-1212          | 12        | 38,0     | 21,5     | 29,0     | 17,0     | 24,0      |

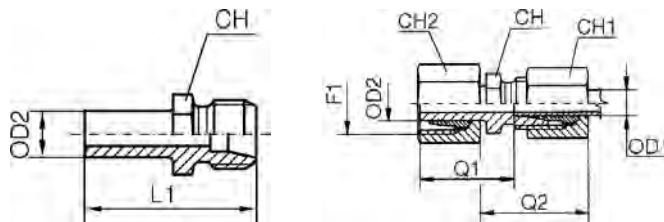
Dimensions shown may be changed without prior notice

## // MALE / FEMALE UNION

Reducers DIN 24° pre-assembled -  
Light series

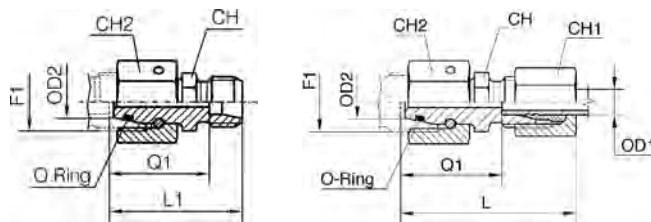
| Item Code | Part Number     | OD1 | OD2 | F1      | Q1   | Q2   | L1   | CH   | CH1  | CH2  |
|-----------|-----------------|-----|-----|---------|------|------|------|------|------|------|
|           |                 | mm  | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   |
| 1205630   | R1A11M1113-1218 | 12  | 18  | M18X1.5 | 32,0 | 30,0 | 39,0 | 19,0 | 22,0 | 32,0 |
| 1205631   | R1A11M1113-1518 | 15  | 18  | M22X1.5 | 32,5 | 32,0 | 39,5 | 24,0 | 27,0 | 32,0 |
| 1205632   | R1A11M1113-1222 | 12  | 22  | M18X1.5 | 35,0 | 33,0 | 42,0 | 24,0 | 22,0 | 36,0 |
| 1206562   | R1A11M1113-1022 | 10  | 22  | M16X1.5 | 35,0 | 33,0 | 42,0 | 24,0 | 19,0 | 36,0 |
| 1211000   | R1A11M1113-0835 | 8   | 35  | M14X1.5 | 40,5 | 34,0 | 47,5 | 36,0 | 17,0 | 50,0 |
| 1207827   | R1A11M1113-1028 | 10  | 28  | M16X1.5 | 36,0 | 34,0 | 43,0 | 32,0 | 19,0 | 41,0 |
| 1205626   | R1A11M1113-1215 | 12  | 15  | M18X1.5 | 31,0 | 30,0 | 38,0 | 19,0 | 22,0 | 27,0 |
| 1205627   | R1A11M1113-0618 | 6   | 18  | M12X1.5 | 30,5 | 29,0 | 37,5 | 19,0 | 14,0 | 32,0 |
| 1207826   | R1A11M1113-0828 | 8   | 28  | M14X1.5 | 34,5 | 33,0 | 41,5 | 32,0 | 17,0 | 41,0 |
| 1205628   | R1A11M1113-0818 | 8   | 18  | M14X1.5 | 30,5 | 29,0 | 37,5 | 19,0 | 17,0 | 32,0 |
| 1205629   | R1A11M1113-1018 | 10  | 18  | M16X1.5 | 32,0 | 30,0 | 39,0 | 19,0 | 19,0 | 32,0 |
| 1207828   | R1A11M1113-1842 | 18  | 42  | M26X1.5 | 44,0 | 38,0 | 51,5 | 46,0 | 32,0 | 60,0 |
| 1205622   | R1A11M1113-0608 | 6   | 8   | M12X1.5 | 29,5 | 30,0 | 36,5 | 14,0 | 14,0 | 17,0 |
| 1205623   | R1A11M1113-0610 | 6   | 10  | M12X1.5 | 29,5 | 30,0 | 36,5 | 14,0 | 14,0 | 19,0 |
| 1207825   | R1A11M1113-0628 | 6   | 28  | M12X1.5 | 34,5 | 33,0 | 41,5 | 32,0 | 14,0 | 41,0 |
| 1205624   | R1A11M1113-0810 | 8   | 10  | M14X1.5 | 29,5 | 30,0 | 36,5 | 17,0 | 17,0 | 19,0 |
| 1207824   | R1A11M1113-0622 | 6   | 22  | M12X1.5 | 33,5 | 32,0 | 40,5 | 24,0 | 14,0 | 36,0 |
| 1205625   | R1A11M1113-1015 | 10  | 15  | M16X1.5 | 31,0 | 30,0 | 38,0 | 17,0 | 19,0 | 27,0 |
| 1205640   | R1A11M1113-2835 | 28  | 35  | M36X2   | 44,0 | 39,0 | 51,5 | 41,0 | 41,0 | 50,0 |
| 1210999   | R1A11M1113-0635 | 6   | 35  | M12X1.5 | 40,5 | 34,0 | 47,5 | 36,0 | 14,0 | 50,0 |
| 1205641   | R1A11M1113-2242 | 22  | 42  | M30X2   | 46,0 | 40,0 | 53,5 | 46,0 | 36,0 | 60,0 |
| 1205620   | R1A11M1113-0815 | 8   | 15  | M14X1.5 | 29,5 | 29,0 | 36,5 | 17,0 | 17,0 | 27,0 |
| 1205621   | R1A11M1113-0615 | 6   | 15  | M12X1.5 | 29,5 | 29,0 | 36,5 | 17,0 | 14,0 | 27,0 |
| 1211001   | R1A11M1113-1035 | 10  | 35  | M16X1.5 | 42,0 | 35,0 | 49,0 | 36,0 | 19,0 | 50,0 |
| 1211002   | R1A11M1113-1235 | 12  | 35  | M18X1.5 | 42,0 | 35,0 | 49,0 | 36,0 | 22,0 | 50,0 |
| 1211003   | R1A11M1113-1535 | 15  | 35  | M22X1.5 | 42,5 | 36,0 | 49,5 | 36,0 | 27,0 | 50,0 |
| 1208154   | R1A11M1113-1835 | 18  | 35  | M26X1.5 | 42,0 | 37,0 | 49,5 | 36,0 | 32,0 | 50,0 |
| 1211004   | R1A11M1113-1042 | 10  | 42  | M16X1.5 | 44,0 | 36,0 | 51,0 | 46,0 | 19,0 | 60,0 |
| 1211005   | R1A11M1113-1242 | 12  | 42  | M18X1.5 | 43,0 | 36,0 | 50,0 | 46,0 | 22,0 | 60,0 |
| 1211006   | R1A11M1113-1542 | 15  | 42  | M22X1.5 | 44,5 | 37,0 | 51,5 | 46,0 | 27,0 | 60,0 |
| 1205619   | R1A11M1113-1012 | 10  | 12  | M16X1.5 | 31,0 | 31,0 | 38,0 | 17,0 | 19,0 | 22,0 |
| 1205637   | R1A11M1113-1828 | 18  | 28  | M26X1.5 | 36,0 | 36,0 | 43,5 | 32,0 | 32,0 | 41,0 |
| 1205638   | R1A11M1113-2228 | 22  | 28  | M30X2   | 36,0 | 38,0 | 43,5 | 32,0 | 36,0 | 41,0 |
| 1205617   | R1A11M1113-0612 | 6   | 12  | M12X1.5 | 29,5 | 30,0 | 36,5 | 14,0 | 14,0 | 22,0 |
| 1205639   | R1A11M1113-2235 | 22  | 35  | M30X2   | 44,0 | 39,0 | 51,5 | 36,0 | 36,0 | 50,0 |
| 1205618   | R1A11M1113-0812 | 8   | 12  | M14X1.5 | 29,5 | 30,0 | 36,5 | 17,0 | 17,0 | 22,0 |
| 1206843   | R1A11M1113-0822 | 8   | 22  | M14X1.5 | 33,5 | 32,0 | 40,5 | 24,0 | 17,0 | 36,0 |
| 1205633   | R1A11M1113-1522 | 15  | 22  | M22X1.5 | 35,5 | 35,0 | 42,5 | 24,0 | 27,0 | 36,0 |
| 1205634   | R1A11M1113-1822 | 18  | 22  | M26X1.5 | 35,0 | 35,0 | 42,5 | 27,0 | 32,0 | 36,0 |
| 1205635   | R1A11M1113-1228 | 12  | 28  | M18X1.5 | 36,0 | 34,0 | 43,0 | 32,0 | 22,0 | 41,0 |
| 1205636   | R1A11M1113-1528 | 15  | 28  | M22X1.5 | 36,5 | 35,0 | 43,5 | 32,0 | 27,0 | 41,0 |

## Reducers DIN 24° pre-assembled - Heavy series

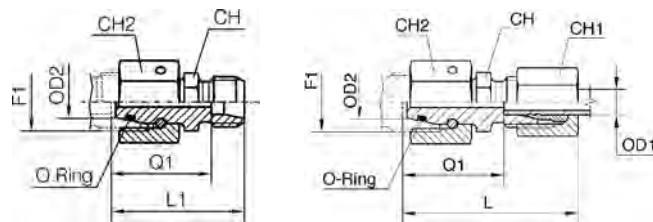


| Item Code | Part Number     | OD1 | OD2 | F1      | Q1   | Q2   | L1   | CH   | CH1  | CH2  |
|-----------|-----------------|-----|-----|---------|------|------|------|------|------|------|
|           |                 | mm  | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   |
| 1205651   | R1A12M1123-1014 | 10  | 14  | M18X1.5 | 36,5 | 35,0 | 44,0 | 19,0 | 22,0 | 27,0 |
| 1206884   | R1A12M1123-0825 | 8   | 25  | M16X1.5 | 47,0 | 38,0 | 54,0 | 27,0 | 19,0 | 46,0 |
| 1205652   | R1A12M1123-1214 | 12  | 14  | M20X1.5 | 36,5 | 35,0 | 44,0 | 22,0 | 24,0 | 27,0 |
| 1205653   | R1A12M1123-0816 | 8   | 16  | M16X1.5 | 37,0 | 34,0 | 44,0 | 17,0 | 19,0 | 30,0 |
| 1205654   | R1A12M1123-1016 | 10  | 16  | M18X1.5 | 36,5 | 35,0 | 44,0 | 19,0 | 22,0 | 30,0 |
| 1206340   | R1A12M1123-0616 | 6   | 16  | M14X1.5 | 37,0 | 34,0 | 44,0 | 17,0 | 17,0 | 30,0 |
| 1206362   | R1A12M1123-0820 | 8   | 20  | M16X1.5 | 43,0 | 36,0 | 50,0 | 22,0 | 19,0 | 36,0 |
| 1205650   | R1A12M1123-0814 | 8   | 14  | M16X1.5 | 37,0 | 34,0 | 44,0 | 17,0 | 19,0 | 27,0 |
| 1205653   | R1A12M1123-1230 | 12  | 30  | M20X1.5 | 48,5 | 38,0 | 56,0 | 32,0 | 24,0 | 50,0 |
| 1205648   | R1A12M1123-0812 | 8   | 12  | M16X1.5 | 33,0 | 32,0 | 40,0 | 17,0 | 19,0 | 24,0 |
| 1205649   | R1A12M1123-1012 | 10  | 12  | M18X1.5 | 32,5 | 33,0 | 40,0 | 19,0 | 22,0 | 24,0 |
| 1205644   | R1A12M1123-0608 | 6   | 8   | M14X1.5 | 31,0 | 31,0 | 39,0 | 17,0 | 17,0 | 19,0 |
| 1205666   | R1A12M1123-2030 | 20  | 30  | M30X2   | 49,5 | 45,0 | 60,0 | 32,0 | 36,0 | 50,0 |
| 1205645   | R1A12M1123-0610 | 6   | 10  | M14X1.5 | 32,0 | 31,0 | 39,0 | 17,0 | 17,0 | 22,0 |
| 1206338   | R1A12M1123-0614 | 6   | 14  | M14X1.5 | 37,0 | 34,0 | 44,0 | 17,0 | 17,0 | 27,0 |
| 1205667   | R1A12M1123-2530 | 25  | 30  | M36X2   | 50,0 | 48,0 | 62,0 | 41,0 | 46,0 | 50,0 |
| 1205646   | R1A12M1123-0810 | 8   | 10  | M16X1.5 | 32,0 | 31,0 | 39,0 | 17,0 | 19,0 | 22,0 |
| 1206339   | R1A12M1123-1425 | 14  | 25  | M22X1.5 | 48,0 | 42,0 | 56,0 | 27,0 | 27,0 | 46,0 |
| 1205668   | R1A12M1123-2038 | 20  | 38  | M30X2   | 56,5 | 46,0 | 67,0 | 41,0 | 36,0 | 60,0 |
| 1205647   | R1A12M1123-0612 | 6   | 12  | M14X1.5 | 33,0 | 32,0 | 40,0 | 17,0 | 17,0 | 24,0 |
| 1205669   | R1A12M1123-2538 | 25  | 38  | M36X2   | 57,0 | 49,0 | 69,0 | 41,0 | 46,0 | 60,0 |
| 1205662   | R1A12M1123-1225 | 12  | 25  | M20X1.5 | 46,5 | 39,0 | 54,0 | 27,0 | 24,0 | 46,0 |
| 1205663   | R1A12M1123-1625 | 16  | 25  | M24X1.5 | 47,5 | 42,0 | 56,0 | 27,0 | 30,0 | 46,0 |
| 1205664   | R1A12M1123-2025 | 20  | 25  | M30X2   | 47,5 | 45,0 | 58,0 | 32,0 | 36,0 | 46,0 |
| 1205665   | R1A12M1123-1630 | 16  | 30  | M24X1.5 | 49,5 | 41,0 | 58,0 | 32,0 | 30,0 | 50,0 |
| 1205660   | R1A12M1123-1620 | 16  | 20  | M24X1.5 | 43,5 | 40,0 | 52,0 | 27,0 | 30,0 | 36,0 |
| 1205661   | R1A12M1123-1025 | 10  | 25  | M18X1.5 | 46,5 | 39,0 | 54,0 | 27,0 | 22,0 | 46,0 |
| 1211188   | R1A12M1123-0625 | 6   | 25  | M14X1.5 | 47,0 | 38,0 | 54,0 | 27,0 | 17,0 | 46,0 |
| 1211189   | R1A12M1123-0630 | 6   | 30  | M14X1.5 | 49,0 | 37,0 | 56,0 | 32,0 | 17,0 | 50,0 |
| 1211191   | R1A12M1123-1030 | 10  | 30  | M18X1.5 | 48,5 | 38,0 | 56,0 | 32,0 | 22,0 | 50,0 |
| 1211195   | R1A12M1123-1438 | 14  | 38  | M22X1.5 | 57,0 | 42,0 | 65,0 | 41,0 | 27,0 | 60,0 |
| 1205659   | R1A12M1123-1420 | 14  | 20  | M22X1.5 | 44,0 | 40,0 | 52,0 | 24,0 | 27,0 | 36,0 |
| 1205656   | R1A12M1123-1416 | 14  | 16  | M22X1.5 | 38,0 | 38,0 | 46,0 | 24,0 | 27,0 | 30,0 |
| 1205657   | R1A12M1123-1020 | 10  | 20  | M18X1.5 | 42,5 | 37,0 | 50,0 | 22,0 | 22,0 | 36,0 |
| 1207858   | R1A12M1123-1638 | 16  | 38  | M24X1.5 | 56,5 | 42,0 | 65,0 | 41,0 | 30,0 | 60,0 |
| 1207857   | R1A12M1123-0620 | 6   | 20  | M14X1.5 | 43,0 | 36,0 | 50,0 | 22,0 | 17,0 | 36,0 |
| 1211190   | R1A12M1123-0830 | 8   | 30  | M16X1.5 | 49,0 | 37,0 | 56,0 | 32,0 | 19,0 | 50,0 |
| 1205658   | R1A12M1123-1220 | 12  | 20  | M20X1.5 | 42,5 | 37,0 | 50,0 | 22,0 | 24,0 | 36,0 |
| 1206846   | R1A12M1123-1430 | 14  | 30  | M22X1.5 | 50,0 | 41,0 | 58,0 | 32,0 | 27,0 | 50,0 |

Dimensions shown may be changed without prior notice

**Reducers DIN 24° with O-Ring - Light series**

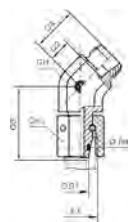
| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1<br>mm | OD2<br>mm | F1      | Q1<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|-----------|---------|----------|----------|-----------|-----------|---------|----------|
| 1211375                | 1243819               | R1A11M1152-1528          | 15        | 28        | M22X1.5 | 36,0     | 32,0     | 27,0      | 41,0      | 51,0    | 43,0     |
| 1211354                | 1243796               | R1A11M1152-0608          | 6         | 8         | M12X1.5 | 23,5     | 12,0     | 14,0      | 17,0      | 38,0    | 30,5     |
| 1211376                | 1243825               | R1A11M1152-2228          | 22        | 28        | M30X2   | 37,5     | 32,0     | 36,0      | 41,0      | 54,0    | 45,0     |
| 1211355                | 1243797               | R1A11M1152-0610          | 6         | 10        | M12X1.5 | 25,0     | 14,0     | 14,0      | 19,0      | 40,0    | 32,0     |
| 1211377                | 1243820               | R1A11M1152-1535          | 15        | 35        | M22X1.5 | 39,0     | 41,0     | 27,0      | 50,0      | 54,0    | 46,0     |
| 1211356                | 1243803               | R1A11M1152-0810          | 8         | 10        | M14X1.5 | 25,0     | 14,0     | 17,0      | 19,0      | 40,0    | 32,0     |
| 1211378                | 1243823               | R1A11M1152-1835          | 18        | 35        | M26X1.5 | 38,5     | 41,0     | 32,0      | 50,0      | 55,0    | 46,0     |
| 1211357                | 1243798               | R1A11M1152-0612          | 6         | 12        | M12X1.5 | 25,0     | 17,0     | 14,0      | 22,0      | 40,0    | 32,0     |
| 1208082                | 1243822               | R1A11M1152-1828          | 18        | 28        | M26X1.5 | 36,5     | 32,0     | 32,0      | 41,0      | 52,0    | 44,0     |
| 1211379                | 1243824               | R1A11M1152-1842          | 18        | 42        | M26X1.5 | 42,0     | 50,0     | 32,0      | 60,0      | 58,0    | 49,5     |
| 1211358                | 1243809               | R1A11M1152-1012          | 10        | 12        | M16X1.5 | 26,0     | 17,0     | 19,0      | 22,0      | 41,0    | 33,0     |
| 1211359                | 1243799               | R1A11M1152-0615          | 6         | 15        | M12X1.5 | 28,5     | 19,0     | 14,0      | 27,0      | 43,0    | 35,5     |
| 1208083                | 1243826               | R1A11M1152-2235          | 22        | 35        | M30X2   | 40,5     | 41,0     | 36,0      | 50,0      | 57,0    | 48,0     |
| 1211380                | 1243827               | R1A11M1152-2242          | 22        | 42        | M30X2   | 44,0     | 50,0     | 36,0      | 60,0      | 60,0    | 49,5     |
| 1211381                | 1243828               | R1A11M1152-2842          | 28        | 42        | M36X2   | 44,0     | 50,0     | 41,0      | 60,0      | 61,0    | 51,5     |
| 1211360                | 1243813               | R1A11M1152-1215          | 12        | 15        | M18X1.5 | 29,5     | 19,0     | 22,0      | 27,0      | 44,0    | 36,5     |
| 1211382                | 1243829               | R1A11M1152-3542          | 35        | 42        | M45X2   | 43,0     | 50,0     | 50,0      | 60,0      | 65,0    | 53,5     |
| 1211361                | 1243800               | R1A11M1152-0618          | 6         | 18        | M12X1.5 | 28,0     | 24,0     | 14,0      | 32,0      | 43,0    | 35,0     |
| 1211362                | 1243806               | R1A11M1152-0818          | 8         | 18        | M14X1.5 | 28,0     | 24,0     | 17,0      | 32,0      | 43,0    | 35,0     |
| 1211363                | 1243811               | R1A11M1152-1018          | 10        | 18        | M16X1.5 | 29,0     | 24,0     | 19,0      | 32,0      | 44,0    | 36,0     |
| 1211364                | 1243817               | R1A11M1152-1518          | 15        | 18        | M22X1.5 | 30,0     | 24,0     | 27,0      | 32,0      | 45,0    | 37,0     |
| 1211365                | 1243801               | R1A11M1152-0622          | 6         | 22        | M12X1.5 | 32,0     | 27,0     | 14,0      | 36,0      | 47,0    | 39,0     |
| 1211366                | 1243807               | R1A11M1152-0822          | 8         | 22        | M14X1.5 | 32,0     | 27,0     | 17,0      | 36,0      | 47,0    | 39,0     |
| 1211367                | 1243815               | R1A11M1152-1222          | 12        | 22        | M18X1.5 | 33,0     | 27,0     | 22,0      | 36,0      | 48,0    | 40,0     |
| 1208071                | 1243805               | R1A11M1152-0815          | 8         | 15        | M14X1.5 | 28,5     | 19,0     | 17,0      | 27,0      | 43,0    | 35,5     |
| 1211368                | 1243818               | R1A11M1152-1522          | 15        | 22        | M22X1.5 | 34,0     | 27,0     | 27,0      | 36,0      | 49,0    | 41,0     |
| 1208070                | 1243804               | R1A11M1152-0812          | 8         | 12        | M14X1.5 | 25,0     | 17,0     | 17,0      | 22,0      | 40,0    | 32,0     |
| 1211369                | 1243821               | R1A11M1152-1822          | 18        | 22        | M26X1.5 | 33,5     | 27,0     | 32,0      | 36,0      | 50,0    | 41,0     |
| 1208073                | 1243814               | R1A11M1152-1218          | 12        | 18        | M18X1.5 | 29,0     | 24,0     | 22,0      | 32,0      | 44,0    | 36,0     |
| 1208072                | 1243810               | R1A11M1152-1015          | 10        | 15        | M16X1.5 | 29,5     | 19,0     | 19,0      | 27,0      | 44,0    | 36,5     |
| 1211371                | 1243802               | R1A11M1152-0628          | 6         | 28        | M12X1.5 | 34,0     | 32,0     | 14,0      | 41,0      | 49,0    | 41,0     |
| 1211372                | 1243808               | R1A11M1152-0828          | 8         | 28        | M14X1.5 | 34,0     | 32,0     | 17,0      | 41,0      | 49,0    | 41,0     |
| 1211373                | 1243812               | R1A11M1152-1028          | 10        | 28        | M16X1.5 | 35,0     | 32,0     | 19,0      | 41,0      | 50,0    | 42,0     |
| 1211374                | 1243816               | R1A11M1152-1228          | 12        | 28        | M18X1.5 | 35,0     | 32,0     | 22,0      | 41,0      | 50,0    | 42,0     |

**Reducers DIN 24° with O-Ring - Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1<br>mm | OD2<br>mm | F1      | Q1<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|-----------|---------|----------|----------|-----------|-----------|---------|----------|
| 1211416                | 1244159               | R1A12M1162-1012          | 10        | 12        | M18X1.5 | 29,5     | 19,0     | 22,0      | 24,0      | 46,0    | 37,0     |
| 1211438                | 1244177               | R1A12M1162-1630          | 16        | 30        | M24X1.5 | 44,5     | 41,0     | 30,0      | 50,0      | 63,0    | 54,0     |
| 1211417                | 1244147               | R1A12M1162-0614          | 6         | 14        | M14X1.5 | 31,5     | 19,0     | 17,0      | 27,0      | 46,0    | 38,5     |
| 1211418                | 1244154               | R1A12M1162-0814          | 8         | 14        | M16X1.5 | 31,5     | 19,0     | 19,0      | 27,0      | 46,0    | 38,5     |
| 1211419                | 1244160               | R1A12M1162-1014          | 10        | 14        | M18X1.5 | 31,0     | 19,0     | 22,0      | 27,0      | 47,0    | 38,5     |
| 1208068                | 1244161               | R1A12M1162-1016          | 10        | 16        | M18X1.5 | 31,5     | 22,0     | 22,0      | 30,0      | 48,0    | 39,0     |
| 1208167                | 1244176               | R1A12M1162-1625          | 16        | 25        | M24X1.5 | 39,0     | 32,0     | 30,0      | 46,0      | 57,0    | 47,5     |
| 1208166                | 1244175               | R1A12M1162-1620          | 16        | 20        | M24X1.5 | 36,5     | 27,0     | 30,0      | 36,0      | 55,0    | 45,0     |
| 1211430                | 1244168               | R1A12M1162-1225          | 12        | 25        | M20X1.5 | 38,0     | 32,0     | 24,0      | 46,0      | 54,0    | 45,5     |
| 1211431                | 1244172               | R1A12M1162-1425          | 14        | 25        | M22X1.5 | 39,5     | 32,0     | 27,0      | 46,0      | 57,0    | 47,5     |
| 1208165                | 1244167               | R1A12M1162-1220          | 12        | 20        | M20X1.5 | 35,5     | 27,0     | 24,0      | 36,0      | 52,0    | 43,0     |
| 1211432                | 1244179               | R1A12M1162-2025          | 20        | 25        | M30X2   | 39,0     | 32,0     | 36,0      | 46,0      | 61,0    | 49,5     |
| 1211411                | 1244144               | R1A12M1162-0608          | 6         | 8         | M14X1.5 | 27,0     | 14,0     | 17,0      | 19,0      | 42,0    | 34,0     |
| 1211433                | 1244151               | R1A12M1162-0630          | 6         | 30        | M14X1.5 | 44,0     | 41,0     | 17,0      | 50,0      | 59,0    | 51,0     |
| 1211412                | 1244145               | R1A12M1162-0610          | 6         | 10        | M14X1.5 | 27,5     | 17,0     | 17,0      | 22,0      | 42,0    | 34,5     |
| 1211434                | 1244158               | R1A12M1162-0830          | 8         | 30        | M16X1.5 | 44,0     | 41,0     | 19,0      | 50,0      | 59,0    | 51,0     |
| 1211413                | 1244152               | R1A12M1162-0810          | 8         | 10        | M16X1.5 | 27,5     | 17,0     | 19,0      | 22,0      | 42,0    | 34,5     |
| 1211435                | 1244164               | R1A12M1162-1030          | 10        | 30        | M18X1.5 | 43,5     | 41,0     | 22,0      | 50,0      | 60,0    | 51,0     |
| 1211414                | 1244146               | R1A12M1162-0612          | 6         | 12        | M14X1.5 | 29,0     | 17,0     | 17,0      | 24,0      | 44,0    | 36,0     |
| 1211436                | 1244169               | R1A12M1162-1230          | 12        | 30        | M20X1.5 | 43,5     | 41,0     | 24,0      | 50,0      | 60,0    | 51,0     |
| 1211415                | 1244153               | R1A12M1162-0812          | 8         | 12        | M16X1.5 | 29,0     | 17,0     | 19,0      | 24,0      | 44,0    | 36,0     |
| 1211437                | 1244173               | R1A12M1162-1430          | 14        | 30        | M22X1.5 | 45,0     | 41,0     | 27,0      | 50,0      | 63,0    | 53,0     |
| 1242333                | 1244166               | R1A12M1162-1216          | 12        | 16        | M20X1.5 | 31,5     | 22,0     | 24,0      | 30,0      | 48,0    | 39,0     |
| 1207987                | 1244180               | R1A12M1162-2030          | 20        | 30        | M30X2   | 44,5     | 41,0     | 36,0      | 50,0      | 66,0    | 55,0     |
| 1207967                | 1244148               | R1A12M1162-0616          | 6         | 16        | M14X1.5 | 32,0     | 22,0     | 17,0      | 30,0      | 47,0    | 39,0     |
| 1211427                | 1244150               | R1A12M1162-0625          | 6         | 25        | M14X1.5 | 38,5     | 32,0     | 17,0      | 46,0      | 53,0    | 45,5     |
| 1211428                | 1244157               | R1A12M1162-0825          | 8         | 25        | M16X1.5 | 38,5     | 32,0     | 19,0      | 46,0      | 53,0    | 45,5     |
| 1211429                | 1244163               | R1A12M1162-1025          | 10        | 25        | M18X1.5 | 38,0     | 32,0     | 22,0      | 46,0      | 54,0    | 45,5     |
| 1207963                | 1244182               | R1A12M1162-2530          | 25        | 30        | M36X2   | 45,0     | 41,0     | 46,0      | 50,0      | 69,0    | 57,0     |
| 1211420                | 1244165               | R1A12M1162-1214          | 12        | 14        | M20X1.5 | 31,0     | 22,0     | 24,0      | 27,0      | 47,0    | 38,5     |
| 1211442                | 1244174               | R1A12M1162-1438          | 14        | 38        | M22X1.5 | 48,5     | 50,0     | 27,0      | 60,0      | 66,0    | 56,5     |
| 1211421                | 1244155               | R1A12M1162-0816          | 8         | 16        | M16X1.5 | 32,0     | 22,0     | 19,0      | 30,0      | 47,0    | 39,0     |
| 1211443                | 1244178               | R1A12M1162-1638          | 16        | 38        | M24X1.5 | 48,0     | 50,0     | 30,0      | 60,0      | 66,0    | 56,5     |
| 1211422                | 1244170               | R1A12M1162-1416          | 14        | 16        | M22X1.5 | 33,0     | 24,0     | 27,0      | 30,0      | 51,0    | 41,0     |
| 1211444                | 1244181               | R1A12M1162-2038          | 20        | 38        | M30X2   | 48,0     | 50,0     | 36,0      | 60,0      | 70,0    | 58,5     |
| 1211423                | 1244149               | R1A12M1162-0620          | 6         | 20        | M14X1.5 | 36,0     | 27,0     | 17,0      | 36,0      | 51,0    | 43,0     |
| 1211445                | 1244183               | R1A12M1162-2538          | 25        | 38        | M36X2   | 48,5     | 50,0     | 46,0      | 60,0      | 73,0    | 60,5     |
| 1211424                | 1244156               | R1A12M1162-0820          | 8         | 20        | M16X1.5 | 36,0     | 27,0     | 19,0      | 36,0      | 51,0    | 43,0     |
| 1211446                | 1244184               | R1A12M1162-3038          | 30        | 38        | M42X2   | 49,0     | 50,0     | 50,0      | 60,0      | 76,0    | 62,5     |
| 1211425                | 1244162               | R1A12M1162-1020          | 10        | 20        | M18X1.5 | 35,5     | 27,0     | 22,0      | 36,0      | 52,0    | 43,0     |
| 1211426                | 1244171               | R1A12M1162-1420          | 14        | 20        | M22X1.5 | 37,0     | 27,0     | 27,0      | 36,0      | 55,0    | 45,0     |

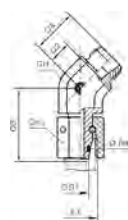
Dimensions shown may be changed without prior notice

### 45° adjustable elbow connector DIN 24° Male - Female with O-Ring - Light series



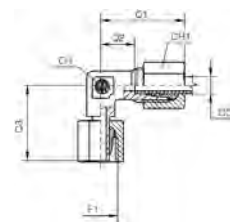
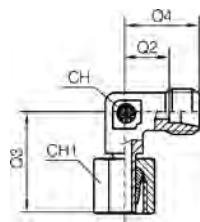
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1244874                | 1244946               | R1A11M4152-2828 | 28        | M36X2   | 39,0     | 23,0     | 41,5     | 30,5     | 41,0     | 41,0      |
| 1244875                | 1244947               | R1A11M4152-3535 | 35        | M45X2   | 48,0     | 27,0     | 51,0     | 37,5     | 48,0     | 50,0      |
| 1208305                | 1244942               | R1A11M4152-1212 | 12        | M18X1.5 | 29,0     | 14,0     | 29,5     | 21,0     | 19,0     | 22,0      |
| 1244876                | 1244948               | R1A11M4152-4242 | 42        | M52X2   | 49,0     | 26,0     | 56,0     | 37,0     | 48,0     | 60,0      |
| 1244870                | 1244940               | R1A11M4152-0808 | 8         | M14X1.5 | 27,0     | 12,0     | 27,5     | 19,0     | 14,0     | 17,0      |
| 1244871                | 1244943               | R1A11M4152-1515 | 15        | M22X1.5 | 32,0     | 17,0     | 32,5     | 24,0     | 22,0     | 27,0      |
| 1244872                | 1244944               | R1A11M4152-1818 | 18        | M26X1.5 | 33,0     | 17,0     | 35,5     | 24,5     | 27,0     | 32,0      |
| 1244873                | 1244945               | R1A11M4152-2222 | 22        | M30X2   | 35,5     | 19,5     | 38,5     | 27,0     | 33,0     | 36,0      |
| 1241985                | 1244941               | R1A11M4152-1010 | 10        | M16X1.5 | 27,0     | 12,0     | 29,0     | 19,0     | 19,0     | 19,0      |
| 1244869                | 1244939               | R1A11M4152-0606 | 6         | M12X1.5 | 24,5     | 9,5      | 26,0     | 16,5     | 14,0     | 14,0      |

### 45° adjustable elbow connector DIN 24° Male - Female with O-Ring - Heavy series



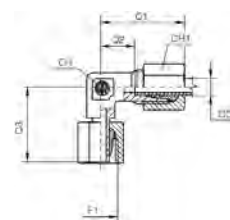
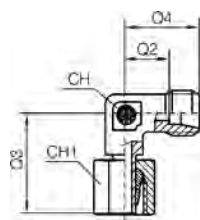
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1244896                | 1245010               | R1A12M4162-1010 | 10        | M18X1.5 | 29,0     | 13,0     | 30,0     | 20,5     | 19,0     | 22,0      |
| 1244897                | 1245011               | R1A12M4162-1212 | 12        | M20X1.5 | 33,0     | 17,0     | 31,0     | 24,5     | 22,0     | 24,0      |
| 1244898                | 1245012               | R1A12M4162-1616 | 16        | M24X1.5 | 34,0     | 16,0     | 36,5     | 24,5     | 27,0     | 30,0      |
| 1244899                | 1245013               | R1A12M4162-2020 | 20        | M30X2   | 40,0     | 19,0     | 44,5     | 29,5     | 33,0     | 36,0      |
| 1244894                | 1245008               | R1A12M4162-0606 | 6         | M14X1.5 | 26,0     | 11,0     | 27,0     | 18,0     | 14,0     | 17,0      |
| 1244895                | 1245009               | R1A12M4162-0808 | 8         | M16X1.5 | 28,0     | 13,0     | 27,5     | 20,0     | 19,0     | 19,0      |
| 1244900                | 1245014               | R1A12M4162-2525 | 25        | M36X2   | 46,0     | 22,0     | 50,0     | 34,0     | 41,0     | 46,0      |
| 1244901                | 1245015               | R1A12M4162-3030 | 30        | M42X2   | 50,0     | 24,0     | 55,0     | 37,5     | 48,0     | 50,0      |
| 1244902                | 1245016               | R1A12M4162-3838 | 38        | M52X2   | 55,0     | 24,0     | 63,0     | 40,0     | 48,0     | 60,0      |

**90° adjustable elbow connector DIN  
24° Male - Female pre-assembled -  
Light series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1205731                | 1243858               | R1A11M9113-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |
| 1206164                | 1241531               | R1A11M9113-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 19,0     | 12,0     | 14,0      |
| 1206044                | 1243860               | R1A11M9113-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |
| 1242246                | 1241532               | R1A11M9113-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1206045                | 1243859               | R1A11M9113-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1204072                | 1241533               | R1A11M9113-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1205535                | 1241092               | R1A11M9113-4242 | 42        | M52X2   | 63,0     | 40,0     | 60,0     | 51,0     | 50,0     | 60,0      |
| 1205536                | 1240810               | R1A11M9113-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1205756                | 1243857               | R1A11M9113-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1204070                | 1240811               | R1A11M9113-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,0     | 14,0     | 19,0      |

**90° adjustable elbow connector DIN  
24° Male - Female pre-assembled -  
Heavy series**

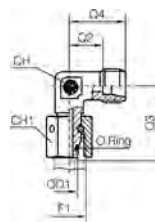


| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206278                | 1244214               | R1A12M9123-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |
| 1205563                | 1244216               | R1A12M9123-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1205532                | 1244219               | R1A12M9123-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1206412                | 1244223               | R1A12M9123-3838 | 38        | M52X2   | 72,0     | 41,0     | 64,5     | 57,0     | 50,0     | 60,0      |
| 1205533                | 1244220               | R1A12M9123-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |
| 1205732                | 1244215               | R1A12M9123-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |
| 1205534                | 1244221               | R1A12M9123-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1205733                | 1244218               | R1A12M9123-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |
| 1205734                | 1244222               | R1A12M9123-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1205757                | 1244217               | R1A12M9123-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |



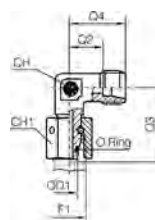
Dimensions shown may be changed without prior notice

### 90° adjustable elbow connector DIN 24° Male - Female with O-Ring - Light series



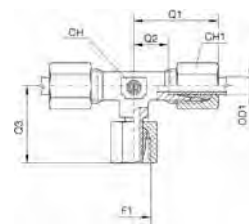
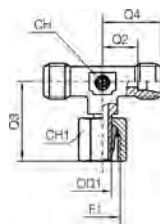
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206852                | 1243871               | R1A11M9152-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1206853                | 1243872               | R1A11M9152-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1211396                | 1243869               | R1A11M9152-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 20,0     | 12,0     | 14,0      |
| 1211397                | 1243875               | R1A11M9152-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1211398                | 1243877               | R1A11M9152-4242 | 42        | M52X2   | 63,0     | 40,0     | 56,0     | 51,0     | 50,0     | 60,0      |
| 1244462                | 1206816               | R1A11M9152-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,5     | 17,0     | 19,0      |
| 1208087                | 1243876               | R1A11M9152-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |
| 1207070                | 1243870               | R1A11M9152-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1206854                | 1243873               | R1A11M9152-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1206855                | 1243874               | R1A11M9152-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |

### 90° adjustable elbow connector DIN 24° Male - Female with O-Ring - Heavy series



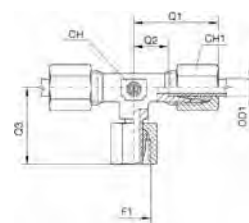
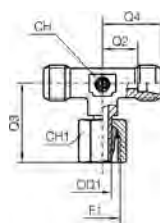
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1207074                | 1244239               | R1A12M9162-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |
| 1207073                | 1244238               | R1A12M9162-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1207076                | 1244240               | R1A12M9162-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1208186                | 1244237               | R1A12M9162-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |
| 1241699                | 1207075               | R1A12M9162-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1211456                | 1244235               | R1A12M9162-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1211457                | 1244241               | R1A12M9162-3838 | 38        | M52X2   | 72,0     | 41,0     | 63,0     | 57,0     | 50,0     | 60,0      |
| 1208183                | 1244233               | R1A12M9162-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |
| 1206823                | 1244236               | R1A12M9162-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |
| 1206824                | 1244234               | R1A12M9162-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |

### Branch Tee adjustable elbow connector DIN 24° Male - Female pre-assembled - Light series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206279                | 1243978               | R1A11MT113-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1205477                | 1241539               | R1A11MT113-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1205522                | 1241541               | R1A11MT113-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1205676                | 1243975               | R1A11MT113-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1204222                | 1243974               | R1A11MT113-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 19,0     | 12,0     | 14,0      |
| 1206584                | 1243979               | R1A11MT113-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |
| 1206585                | 1243980               | R1A11MT113-4242 | 42        | M52X2   | 63,0     | 40,0     | 60,0     | 51,0     | 50,0     | 60,0      |
| 1205758                | 1243976               | R1A11MT113-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1205736                | 1243977               | R1A11MT113-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |
| 1205735                | 1241540               | R1A11MT113-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,0     | 14,0     | 19,0      |

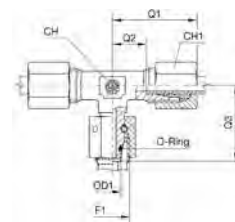
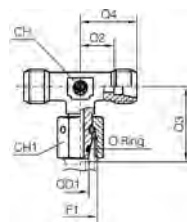
### Branch Tee adjustable elbow connector DIN 24° Male - BSPP Male with O-Ring - Heavy series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206355                | 1244340               | R1A12MT123-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |
| 1206587                | 1244349               | R1A12MT123-3838 | 38        | M52X2   | 72,0     | 41,0     | 64,5     | 57,0     | 50,0     | 60,0      |
| 1206373                | 1244341               | R1A12MT123-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |
| 1205581                | 1244342               | R1A12MT123-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1206297                | 1244348               | R1A12MT123-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1206281                | 1244347               | R1A12MT123-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1205737                | 1244343               | R1A12MT123-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |
| 1205738                | 1244345               | R1A12MT123-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1205739                | 1244346               | R1A12MT123-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |
| 1206280                | 1244344               | R1A12MT123-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |

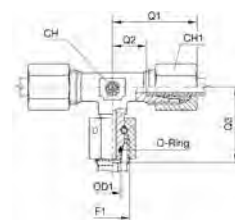
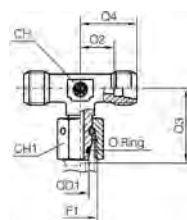
Dimensions shown may be changed without prior notice

### Branch Tee adjustable elbow connector DIN 24° Male - Female with O-Ring - Light series



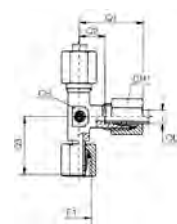
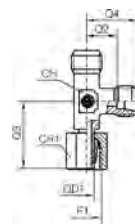
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1211350                | 1243986               | R1A11MT152-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 20,0     | 12,0     | 14,0      |
| 1208059                | 1243989               | R1A11MT152-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1211351                | 1243991               | R1A11MT152-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |
| 1208058                | 1243987               | R1A11MT152-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1211352                | 1243992               | R1A11MT152-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1211353                | 1243994               | R1A11MT152-4242 | 42        | M52X2   | 63,0     | 40,0     | 56,0     | 51,0     | 50,0     | 60,0      |
| 1208060                | 1243990               | R1A11MT152-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1206856                | 1243988               | R1A11MT152-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,5     | 14,0     | 19,0      |
| 1210689                | 1241143               | R1A11MT152-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1208061                | 1243993               | R1A11MT152-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |

### Branch Tee adjustable elbow connector DIN 24° Male - Female with O-Ring - Heavy series



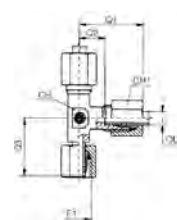
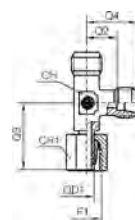
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1211405                | 1244361               | R1A12MT162-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |
| 1211406                | 1244364               | R1A12MT162-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |
| 1211407                | 1244366               | R1A12MT162-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |
| 1211408                | 1244367               | R1A12MT162-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1211409                | 1244368               | R1A12MT162-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1208196                | 1244362               | R1A12MT162-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1207470                | 1244365               | R1A12MT162-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1211410                | 1244369               | R1A12MT162-3838 | 38        | M52X2   | 72,0     | 41,0     | 63,0     | 57,0     | 50,0     | 60,0      |
| 1208197                | 1244363               | R1A12MT162-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |
| 1211404                | 1244360               | R1A12MT162-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |

### Run Tee adjustable elbow connector DIN 24° Male - Female pre- assembled - Light series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206586                | 1243943               | R1A11ML113-4242 | 42        | M52X2   | 63,0     | 40,0     | 60,0     | 51,0     | 50,0     | 60,0      |
| 1205478                | 1241964               | R1A11ML113-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 19,0     | 12,0     | 14,0      |
| 1242248                | 1241536               | R1A11ML113-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1204221                | 1241537               | R1A11ML113-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1206072                | 1243941               | R1A11ML113-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1205759                | 1243940               | R1A11ML113-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |
| 1205529                | 1243939               | R1A11ML113-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1205479                | 1241535               | R1A11ML113-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1205677                | 1241702               | R1A11ML113-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,0     | 14,0     | 19,0      |
| 1206129                | 1243942               | R1A11ML113-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |

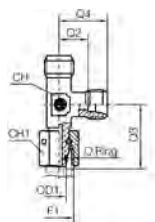
### Run Tee adjustable elbow connector DIN 24° Male - Female pre- assembled - Heavy series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206179                | 1244305               | R1A12ML123-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |
| 1205574                | 1244310               | R1A12ML123-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1206367                | 1244303               | R1A12ML123-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |
| 1206588                | 1244311               | R1A12ML123-3838 | 38        | M52X2   | 72,0     | 41,0     | 64,5     | 57,0     | 50,0     | 60,0      |
| 1206010                | 1244307               | R1A12ML123-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1206354                | 1244302               | R1A12ML123-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |
| 1206255                | 1244309               | R1A12ML123-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1205580                | 1244304               | R1A12ML123-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1206130                | 1244306               | R1A12ML123-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |
| 1205678                | 1244308               | R1A12ML123-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |

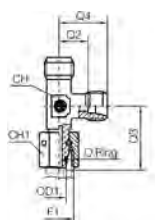
Dimensions shown may be changed without prior notice

### Run Tee adjustable elbow connector DIN 24° Male - Female with O-Ring - Light series



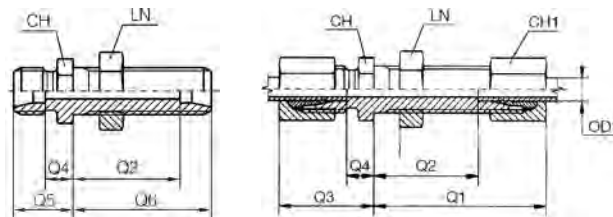
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1207522                | 1243948               | R1A11ML152-1515 | 15        | M22X1.5 | 36,0     | 21,0     | 32,5     | 28,0     | 19,0     | 27,0      |
| 1208090                | 1243951               | R1A11ML152-2828 | 28        | M36X2   | 47,0     | 30,5     | 41,5     | 38,0     | 36,0     | 41,0      |
| 1208089                | 1243949               | R1A11ML152-1818 | 18        | M26X1.5 | 40,0     | 23,5     | 35,5     | 31,0     | 24,0     | 32,0      |
| 1207518                | 1243950               | R1A11ML152-2222 | 22        | M30X2   | 44,0     | 27,5     | 38,5     | 35,0     | 27,0     | 36,0      |
| 1208088                | 1243945               | R1A11ML152-0808 | 8         | M14X1.5 | 29,0     | 14,0     | 27,5     | 21,0     | 12,0     | 17,0      |
| 1211347                | 1243944               | R1A11ML152-0606 | 6         | M12X1.5 | 27,0     | 12,0     | 26,0     | 20,0     | 12,0     | 14,0      |
| 1206889                | 1243947               | R1A11ML152-1212 | 12        | M18X1.5 | 32,0     | 17,0     | 29,5     | 24,0     | 17,0     | 22,0      |
| 1211348                | 1243952               | R1A11ML152-3535 | 35        | M45X2   | 56,0     | 34,5     | 51,0     | 45,0     | 41,0     | 50,0      |
| 1206813                | 1243946               | R1A11ML152-1010 | 10        | M16X1.5 | 30,0     | 15,0     | 29,0     | 22,5     | 14,0     | 19,0      |
| 1211349                | 1243953               | R1A11ML152-4242 | 42        | M52X2   | 63,0     | 40,0     | 56,0     | 51,0     | 50,0     | 60,0      |

### Run Tee adjustable elbow connector DIN 24° Male - Female with O-Ring - Heavy series

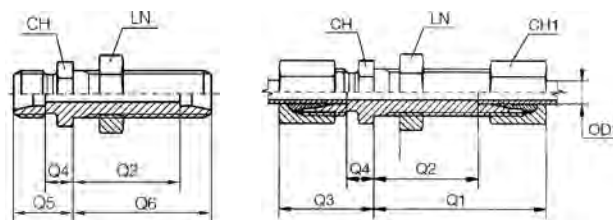


| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|
| 1206883                | 1244316               | R1A12ML162-1414 | 14        | M22X1.5 | 40,0     | 22,0     | 35,0     | 30,0     | 19,0     | 27,0      |
| 1208190                | 1244315               | R1A12ML162-1212 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      |
| 1207087                | 1244313               | R1A12ML162-0808 | 8         | M16X1.5 | 32,0     | 17,0     | 27,5     | 24,0     | 14,0     | 19,0      |
| 1211400                | 1244312               | R1A12ML162-0606 | 6         | M14X1.5 | 31,0     | 16,0     | 27,0     | 23,0     | 12,0     | 17,0      |
| 1207086                | 1244319               | R1A12ML162-2525 | 25        | M36X2   | 54,0     | 30,0     | 50,0     | 42,0     | 36,0     | 46,0      |
| 1211401                | 1244314               | R1A12ML162-1010 | 10        | M18X1.5 | 34,0     | 17,5     | 30,0     | 25,0     | 17,0     | 22,0      |
| 1211402                | 1244317               | R1A12ML162-1616 | 16        | M24X1.5 | 43,0     | 24,5     | 36,5     | 33,0     | 24,0     | 30,0      |
| 1211403                | 1244320               | R1A12ML162-3030 | 30        | M42X2   | 62,0     | 35,5     | 55,0     | 49,0     | 41,0     | 50,0      |
| 1208194                | 1244321               | R1A12ML162-3838 | 38        | M52X2   | 72,0     | 41,0     | 63,0     | 57,0     | 50,0     | 60,0      |
| 1208193                | 1244318               | R1A12ML162-2020 | 20        | M30X2   | 48,0     | 26,5     | 44,5     | 37,0     | 27,0     | 36,0      |

## // BULKHEAD

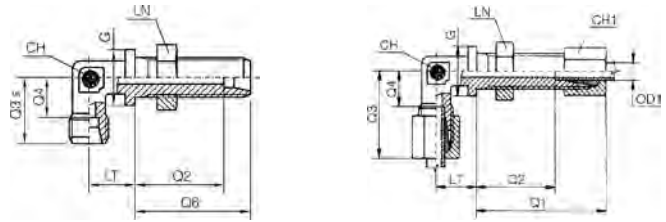
**Straight union DIN 24° Bulkhead -  
Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1 | F1      | Q1   | Q2   | Q3   | Q4   | Q5   | CH   | CH1  | LN   |
|------------------------|-----------------------|--------------------------|-----|---------|------|------|------|------|------|------|------|------|
|                        |                       |                          | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206125                | 1244014               | R1A11T111M-0606          | 6   | M12X1.5 | 42,0 | 27,0 | 22,0 | 7,0  | 14,0 | 17,0 | 14,0 | 17,0 |
| 1206126                | 1244015               | R1A11T111M-1818          | 18  | M26X1.5 | 49,0 | 32,5 | 30,0 | 13,5 | 19,0 | 32,0 | 32,0 | 36,0 |
| 1206243                | 1240818               | R1A11T111M-1010          | 10  | M16X1.5 | 43,0 | 28,0 | 25,0 | 10,0 | 17,0 | 22,0 | 19,0 | 22,0 |
| 1205892                | 1241544               | R1A11T111M-1212          | 12  | M18X1.5 | 44,0 | 29,0 | 25,0 | 10,0 | 17,0 | 24,0 | 22,0 | 24,0 |
| 1205540                | 1244016               | R1A11T111M-2222          | 22  | M30X2   | 51,0 | 34,5 | 33,0 | 16,5 | 24,0 | 36,0 | 36,0 | 41,0 |
| 1206244                | 1244018               | R1A11T111M-3535          | 35  | M45X2   | 58,0 | 36,5 | 40,0 | 18,5 | 29,0 | 50,0 | 50,0 | 55,0 |
| 1207043                | 1244019               | R1A11T111M-4242          | 42  | M52X2   | 59,0 | 36,0 | 42,0 | 19,0 | 30,0 | 60,0 | 60,0 | 65,0 |
| 1205545                | 1240816               | R1A11T111M-0808          | 8   | M14X1.5 | 42,0 | 27,0 | 23,0 | 8,0  | 15,0 | 19,0 | 17,0 | 19,0 |
| 1205679                | 1241546               | R1A11T111M-1515          | 15  | M22X1.5 | 46,0 | 31,0 | 27,0 | 12,0 | 19,0 | 27,0 | 27,0 | 30,0 |
| 1206071                | 1244017               | R1A11T111M-2828          | 28  | M36X2   | 52,0 | 35,5 | 35,0 | 18,5 | 26,0 | 41,0 | 41,0 | 46,0 |

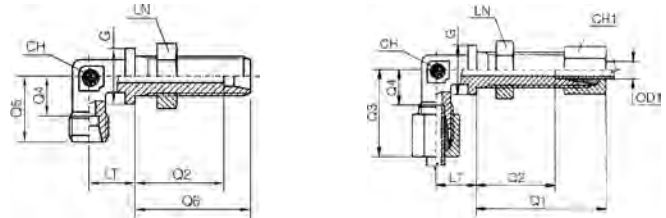
**Straight union DIN 24° Bulkhead -  
Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number<br>Body Only | OD1 | F1      | Q1   | Q2   | Q3   | Q4   | Q5   | CH   | CH1  | LN   |
|------------------------|-----------------------|--------------------------|-----|---------|------|------|------|------|------|------|------|------|
|                        |                       |                          | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206245                | 1244391               | R1A12T112M-1010          | 10  | M18X1.5 | 46,0 | 29,5 | 31,0 | 14,5 | 22,0 | 24,0 | 22,0 | 24,0 |
| 1205970                | 1243660               | R1A12T112M-1616          | 16  | M24X1.5 | 50,0 | 31,5 | 35,0 | 16,5 | 25,0 | 32,0 | 30,0 | 32,0 |
| 1206246                | 1244393               | R1A12T112M-1414          | 14  | M22X1.5 | 50,0 | 32,0 | 35,0 | 17,0 | 25,0 | 30,0 | 27,0 | 30,0 |
| 1205575                | 1244396               | R1A12T112M-3030          | 30  | M42X2   | 64,0 | 37,5 | 48,0 | 21,5 | 35,0 | 50,0 | 50,0 | 50,0 |
| 1206247                | 1244392               | R1A12T112M-1212          | 12  | M20X1.5 | 47,0 | 30,5 | 31,0 | 14,5 | 22,0 | 27,0 | 24,0 | 27,0 |
| 1206358                | 1244389               | R1A12T112M-0606          | 6   | M14X1.5 | 44,0 | 29,0 | 27,0 | 12,0 | 19,0 | 19,0 | 17,0 | 19,0 |
| 1206127                | 1244395               | R1A12T112M-2525          | 25  | M36X2   | 59,0 | 35,0 | 44,0 | 20,0 | 32,0 | 46,0 | 46,0 | 46,0 |
| 1205957                | 1244394               | R1A12T112M-2020          | 20  | M30X2   | 55,0 | 33,5 | 39,0 | 17,5 | 28,0 | 41,0 | 36,0 | 41,0 |
| 1205969                | 1244390               | R1A12T112M-0808          | 8   | M16X1.5 | 44,0 | 29,0 | 28,0 | 13,0 | 20,0 | 22,0 | 19,0 | 22,0 |
| 1206417                | 1244397               | R1A12T112M-3838          | 38  | M52X2   | 68,0 | 37,0 | 53,0 | 22,0 | 38,0 | 65,0 | 60,0 | 65,0 |

Dimensions shown may be changed without prior notice

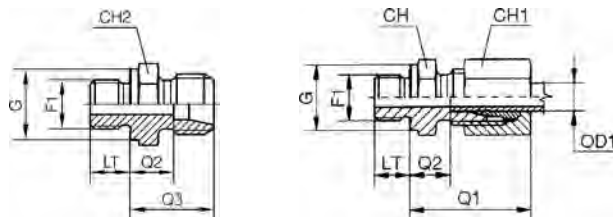
**90° union DIN 24° Bulkhead - Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1205686                | 1244021               | R1A11T911M-1515          | 15        | M22X1.5 | 46,0     | 31,0     | 36,0     | 21,0     | 28,0     | 23,0     | 19,0     | 27,0      | 30,0     |
| 1206357                | 1244024               | R1A11T911M-2828          | 28        | M36X2   | 52,0     | 35,5     | 47,0     | 30,5     | 38,0     | 34,0     | 36,0     | 41,0      | 46,0     |
| 1206248                | 1241547               | R1A11T911M-0606          | 6         | M12X1.5 | 42,0     | 27,0     | 27,0     | 12,0     | 19,0     | 14,0     | 12,0     | 14,0      | 17,0     |
| 1206820                | 1244026               | R1A11T911M-4242          | 42        | M52X2   | 59,0     | 36,0     | 63,0     | 40,0     | 51,0     | 43,0     | 50,0     | 60,0      | 65,0     |
| 1206252                | 1244022               | R1A11T911M-1818          | 18        | M26X1.5 | 49,0     | 32,5     | 40,0     | 23,5     | 31,0     | 24,0     | 24,0     | 32,0      | 36,0     |
| 1206253                | 1244023               | R1A11T911M-2222          | 22        | M30X2   | 51,0     | 34,5     | 44,0     | 27,5     | 35,0     | 30,0     | 27,0     | 36,0      | 41,0     |
| 1206254                | 1244025               | R1A11T911M-3535          | 35        | M45X2   | 58,0     | 36,5     | 56,0     | 34,5     | 45,0     | 39,0     | 41,0     | 50,0      | 55,0     |
| 1206250                | 1241549               | R1A11T911M-1010          | 10        | M16X1.5 | 43,0     | 28,0     | 30,0     | 15,0     | 22,0     | 18,0     | 14,0     | 19,0      | 22,0     |
| 1206251                | 1244020               | R1A11T911M-1212          | 12        | M18X1.5 | 44,0     | 29,0     | 32,0     | 17,0     | 24,0     | 20,0     | 17,0     | 22,0      | 24,0     |
| 1206249                | 1241548               | R1A11T911M-0808          | 8         | M14X1.5 | 42,0     | 27,0     | 29,0     | 14,0     | 21,0     | 17,0     | 12,0     | 17,0      | 19,0     |

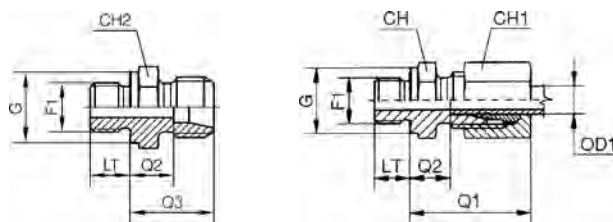
**90° union DIN 24° Bulkhead - Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1206256                | 1244400               | R1A12T912M-1010          | 10        | M18X1.5 | 46,0     | 29,5     | 34,0     | 17,5     | 25,0     | 20,0     | 17,0     | 22,0      | 24,0     |
| 1207148                | 1244405               | R1A12T912M-3030          | 30        | M42X2   | 64,0     | 37,5     | 62,0     | 35,5     | 49,0     | 39,0     | 41,0     | 50,0      | 50,0     |
| 1207147                | 1244398               | R1A12T912M-0606          | 6         | M14X1.5 | 44,0     | 29,0     | 31,0     | 16,0     | 23,0     | 17,0     | 12,0     | 17,0      | 19,0     |
| 1206257                | 1244402               | R1A12T912M-1414          | 14        | M22X1.5 | 50,0     | 32,0     | 40,0     | 22,0     | 30,0     | 23,0     | 19,0     | 27,0      | 30,0     |
| 1206258                | 1243661               | R1A12T912M-1616          | 16        | M24X1.5 | 50,0     | 31,5     | 43,0     | 24,5     | 33,0     | 24,0     | 24,0     | 30,0      | 32,0     |
| 1206259                | 1244403               | R1A12T912M-2020          | 20        | M30X2   | 55,0     | 33,5     | 48,0     | 26,5     | 37,0     | 30,0     | 27,0     | 36,0      | 41,0     |
| 1207149                | 1244406               | R1A12T912M-3838          | 38        | M52X2   | 68,0     | 37,0     | 72,0     | 41,0     | 57,0     | 43,0     | 50,0     | 60,0      | 65,0     |
| 1206374                | 1244399               | R1A12T912M-0808          | 8         | M16X1.5 | 44,0     | 29,0     | 32,0     | 17,0     | 24,0     | 18,0     | 14,0     | 19,0      | 22,0     |
| 1206260                | 1244401               | R1A12T912M-1212          | 12        | M20X1.5 | 47,0     | 30,5     | 38,0     | 21,5     | 29,0     | 21,0     | 17,0     | 24,0      | 27,0     |
| 1206261                | 1244404               | R1A12T912M-2525          | 25        | M36X2   | 59,0     | 35,0     | 54,0     | 30,0     | 42,0     | 34,0     | 36,0     | 46,0      | 46,0     |

## // METRIC

**Straight connector DIN 24° Male -  
Metric cylindric Male - Light series**

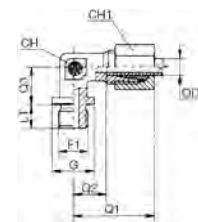
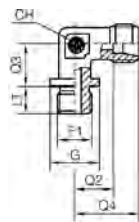
| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1      | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|---------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1205684             | 1243831            | R1A11M150M-0812       | 8   | M12X1.5 | 25,0 | 10,0 | 17,0 | 17,0 | 17,0 | 12,0 | 17,0 |
| 1206006             | 1243835            | R1A11M150M-1822       | 18  | M22X1.5 | 31,0 | 14,5 | 22,0 | 27,0 | 32,0 | 14,0 | 27,0 |
| 1206534             | 1243837            | R1A11M150M-2833       | 28  | M33X2.0 | 34,0 | 17,5 | 25,0 | 41,0 | 41,0 | 18,0 | 39,0 |
| 1203520             | 1243833            | R1A11M150M-1216       | 12  | M16X1.5 | 27,0 | 12,5 | 19,5 | 22,0 | 22,0 | 12,0 | 21,0 |
| 1205809             | 1243830            | R1A11M150M-0610       | 6   | M10X1.0 | 23,0 | 8,5  | 15,5 | 14,0 | 14,0 | 8,0  | 14,0 |
| 1208162             | 1243838            | R1A11M150M-3542       | 35  | M42X2   | 39,0 | 17,5 | 28,0 | 50,0 | 50,0 | 20,0 | 49,0 |
| 1205556             | 1243832            | R1A11M150M-1014       | 10  | M14X1.5 | 26,0 | 11,0 | 18,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1205557             | 1243834            | R1A11M150M-1518       | 15  | M18X1.5 | 29,0 | 14,0 | 20,5 | 24,0 | 27,0 | 14,0 | 23,0 |
| 1207814             | 1243839            | R1A11M150M-4248       | 42  | M48X2.0 | 42,0 | 19,0 | 30,0 | 55,0 | 60,0 | 22,0 | 55,0 |
| 1205812             | 1243836            | R1A11M150M-2226       | 22  | M26X1.5 | 33,0 | 16,5 | 24,0 | 32,0 | 36,0 | 16,0 | 31,0 |

**Straight connector DIN 24° Male -  
Metric cylindric Male - Heavy series**

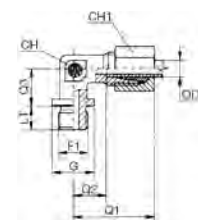
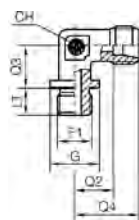
| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1      | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|---------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1205971             | 1244187            | R1A12M150M-1016       | 10  | M16X1.5 | 31,0 | 15,0 | 22,5 | 22,0 | 22,0 | 12,0 | 21,0 |
| 1206225             | 1244185            | R1A12M150M-0612       | 6   | M12X1.5 | 28,0 | 13,0 | 20,0 | 17,0 | 17,0 | 12,0 | 17,0 |
| 1206226             | 1244186            | R1A12M150M-0814       | 8   | M14X1.5 | 30,0 | 15,0 | 22,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1211293             | 1244193            | R1A12M150M-3042       | 30  | M42X2   | 50,0 | 23,5 | 37,0 | 50,0 | 50,0 | 20,0 | 49,0 |
| 1205817             | 1244192            | R1A12M150M-2533       | 25  | M33X2.0 | 47,0 | 23,0 | 35,0 | 41,0 | 46,0 | 18,0 | 39,0 |
| 1211294             | 1244194            | R1A12M150M-3848       | 38  | M48X2.0 | 57,0 | 26,0 | 42,0 | 55,0 | 60,0 | 22,0 | 55,0 |
| 1205813             | 1244188            | R1A12M150M-1218       | 12  | M18X1.5 | 33,0 | 17,0 | 24,5 | 24,0 | 24,0 | 12,0 | 23,0 |
| 1205814             | 1244189            | R1A12M150M-1420       | 14  | M20X1.5 | 37,0 | 19,0 | 27,0 | 27,0 | 27,0 | 14,0 | 25,0 |
| 1205815             | 1244190            | R1A12M150M-1622       | 16  | M22X1.5 | 37,0 | 18,5 | 27,0 | 27,0 | 30,0 | 14,0 | 27,0 |
| 1205816             | 1244191            | R1A12M150M-2027       | 20  | M27X2   | 42,0 | 20,5 | 31,0 | 32,0 | 36,0 | 16,0 | 32,0 |



Dimensions shown may be changed without prior notice

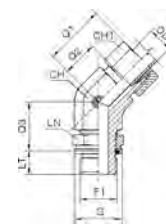
**90° elbow connector DIN 24° Male -  
Metric cylindric Male - Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|---------|
| 1211163                | 1243878               | R1A11M950M-2226          | 22        | M26X1.5 | 44,0     | 27,5     | 26,0     | 35,0     | 27,0     | 36,0      | 16,0     | 31,0    |
| 1211164                | 1243879               | R1A11M950M-2833          | 28        | M33X2.0 | 47,0     | 30,5     | 30,0     | 38,0     | 36,0     | 41,0      | 18,0     | 39,0    |
| 1211165                | 1243880               | R1A11M950M-3542          | 35        | M42X2   | 56,0     | 34,5     | 34,0     | 45,0     | 41,0     | 50,0      | 20,0     | 49,0    |
| 1211166                | 1243881               | R1A11M950M-4248          | 42        | M48X2.0 | 63,0     | 40,0     | 39,0     | 51,0     | 50,0     | 60,0      | 22,0     | 55,0    |

**90° elbow connector DIN 24° Male -  
Metric cylindric Male - Heavy series**

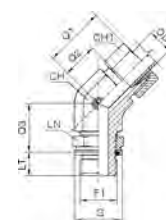
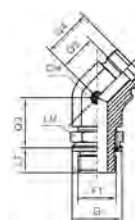
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|---------|
| 1211320                | 1244242               | R1A12M950M-2027          | 20        | M27X2   | 48,0     | 26,5     | 26,0     | 37,0     | 27,0     | 36,0      | 16,0     | 32,0    |
| 1211321                | 1244243               | R1A12M950M-2533          | 25        | M33X2.0 | 54,0     | 31,0     | 30,0     | 42,0     | 36,0     | 46,0      | 18,0     | 39,0    |
| 1211322                | 1244244               | R1A12M950M-3042          | 30        | M42X2   | 62,0     | 35,5     | 34,0     | 49,0     | 41,0     | 50,0      | 20,0     | 49,0    |
| 1211323                | 1244245               | R1A12M950M-3848          | 38        | M48X2.0 | 72,0     | 41,0     | 39,0     | 57,0     | 50,0     | 60,0      | 22,0     | 55,0    |

**45° adjustable elbow connector DIN  
24° Male - Metric Male with O-Ring  
and retaining ring - Light series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1244885                | 1244958               | R1A11M452Q-4248          | 42        | M48X2.0 | 61,0     | 38,0     | 50,0     | 49,0     | 48,0     | 60,0      | 55,0     | 15,0     | 56,0    |
| 1244877                | 1244949               | R1A11M452Q-0610          | 6         | M10X1.0 | 29,0     | 14,0     | 20,0     | 21,0     | 14,0     | 14,0      | 14,0     | 7,5      | 15,0    |
| 1244881                | 1244954               | R1A11M452Q-1822          | 18        | M22X1.5 | 40,0     | 24,0     | 34,0     | 31,5     | 27,0     | 32,0      | 27,0     | 11,0     | 28,0    |
| 1244882                | 1244955               | R1A11M452Q-2227          | 22        | M27X2   | 44,0     | 28,0     | 36,0     | 35,5     | 33,0     | 36,0      | 32,0     | 13,5     | 33,0    |
| 1244883                | 1244956               | R1A11M452Q-2833          | 28        | M33X2.0 | 47,0     | 31,0     | 40,5     | 38,5     | 41,0     | 41,0      | 41,0     | 13,5     | 41,0    |
| 1244884                | 1244957               | R1A11M452Q-3542          | 35        | M42X2   | 59,0     | 38,0     | 48,5     | 48,5     | 48,0     | 50,0      | 50,0     | 13,5     | 51,0    |
| 1239701                | 1244951               | R1A11M452Q-1014          | 10        | M14X1.5 | 32,0     | 17,0     | 25,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1244880                | 1244953               | R1A11M452Q-1518          | 15        | M18X1.5 | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 24,0     | 11,0     | 25,0    |
| 1244878                | 1244950               | R1A11M452Q-0812          | 8         | M12X1.5 | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1244879                | 1244952               | R1A11M452Q-1216          | 12        | M16X1.5 | 34,0     | 19,0     | 26,0     | 26,0     | 19,0     | 22,0      | 22,0     | 10,0     | 23,0    |

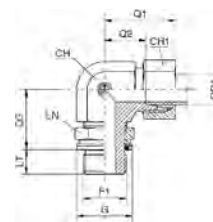
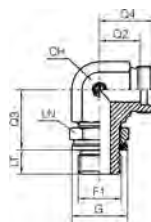
**45° adjustable elbow connector DIN  
24° Male - Metric Male with O-Ring  
and retaining ring - Heavy series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1244908                | 1245024               | R1A12M452Q-3042          | 30        | M42X2   | 62,0     | 36,0     | 52,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 51,0    |
| 1244909                | 1245025               | R1A12M452Q-3848          | 38        | M48X2.0 | 65,0     | 34,0     | 51,0     | 50,0     | 48,0     | 60,0      | 55,0     | 18,0     | 56,0    |
| 1244904                | 1245018               | R1A12M452Q-0814          | 8         | M14X1.5 | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1244905                | 1245020               | R1A12M452Q-1218          | 12        | M18X1.5 | 38,0     | 22,0     | 30,5     | 29,5     | 22,0     | 24,0      | 24,0     | 12,5     | 25,0    |
| 1244906                | 1245021               | R1A12M452Q-1622          | 16        | M22X1.5 | 43,0     | 25,0     | 37,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 28,0    |
| 1244907                | 1245023               | R1A12M452Q-2533          | 25        | M33X2.0 | 54,5     | 30,5     | 43,0     | 42,5     | 41,0     | 46,0      | 41,0     | 14,0     | 41,0    |
| 1237053                | 1245022               | R1A12M452Q-2027          | 20        | M27X2   | 49,0     | 28,0     | 39,5     | 38,5     | 33,0     | 36,0      | 32,0     | 14,0     | 33,0    |
| 1244903                | 1245017               | R1A12M452Q-0612          | 6         | M12X1.5 | 30,5     | 15,5     | 23,5     | 22,5     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1237052                | 1245019               | R1A12M452Q-1016          | 10        | M16X1.5 | 34,0     | 18,0     | 27,0     | 25,5     | 19,0     | 22,0      | 22,0     | 11,0     | 23,0    |

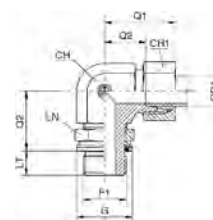
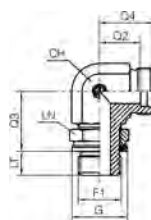
Dimensions shown may be changed without prior notice

**90° adjustable elbow connector DIN  
24° Male - Metric Male with O-Ring  
and retaining ring - Light series**



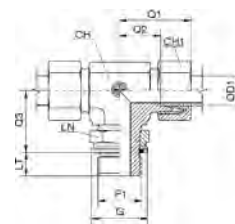
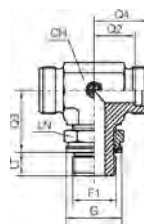
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242474                | 1243891               | R1A11M952Q-4248          | 42        | M48X2.0 | 61,0     | 38,0     | 50,0     | 49,0     | 48,0     | 60,0      | 55,0     | 15,0     | 56,0    |
| 1242473                | 1243887               | R1A11M952Q-1822          | 18        | M22X1.5 | 40,0     | 24,0     | 34,0     | 31,5     | 27,0     | 32,0      | 27,0     | 11,0     | 28,0    |
| 1242472                | 1243885               | R1A11M952Q-1216          | 12        | M16X1.5 | 34,0     | 19,0     | 26,0     | 26,0     | 19,0     | 22,0      | 22,0     | 10,0     | 23,0    |
| 1231362                | 1243884               | R1A11M952Q-1014          | 10        | M14X1.5 | 32,0     | 17,0     | 25,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1231363                | 1243886               | R1A11M952Q-1518          | 15        | M18X1.5 | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 24,0     | 11,0     | 25,0    |
| 1231364                | 1243889               | R1A11M952Q-2833          | 28        | M33X2.0 | 47,0     | 31,0     | 40,5     | 38,5     | 41,0     | 41,0      | 41,0     | 13,5     | 41,0    |
| 1231365                | 1243890               | R1A11M952Q-3542          | 35        | M42X2   | 59,0     | 38,0     | 48,5     | 48,5     | 48,0     | 50,0      | 50,0     | 13,5     | 51,0    |
| 1231361                | 1243883               | R1A11M952Q-0812          | 8         | M12X1.5 | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1242471                | 1243882               | R1A11M952Q-0610          | 6         | M10X1.0 | 29,0     | 14,0     | 20,0     | 21,0     | 14,0     | 14,0      | 14,0     | 7,5      | 15,0    |
| 1237041                | 1243888               | R1A11M952Q-2227          | 22        | M27X2   | 44,0     | 28,0     | 36,0     | 35,5     | 33,0     | 36,0      | 32,0     | 13,5     | 33,0    |

**90° adjustable elbow connector DIN  
24° Male - Metric Male with O-Ring  
and retaining ring - Heavy series**



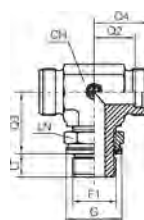
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242475                | 1244248               | R1A12M952Q-1016          | 10        | M16X1.5 | 34,0     | 18,0     | 27,0     | 25,5     | 19,0     | 22,0      | 22,0     | 11,0     | 23,0    |
| 1216243                | 1244247               | R1A12M952Q-0814          | 8         | M14X1.5 | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1211329                | 1244251               | R1A12M952Q-2027          | 20        | M27X2   | 49,0     | 28,0     | 39,5     | 38,5     | 33,0     | 36,0      | 32,0     | 14,0     | 33,0    |
| 1231379                | 1244246               | R1A12M952Q-0612          | 6         | M12X1.5 | 30,5     | 15,5     | 23,5     | 22,5     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1242479                | 1244253               | R1A12M952Q-3042          | 30        | M42X2   | 62,0     | 36,0     | 52,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 51,0    |
| 1242478                | 1244252               | R1A12M952Q-2533          | 25        | M33X2.0 | 54,5     | 30,5     | 43,0     | 42,5     | 41,0     | 46,0      | 41,0     | 14,0     | 41,0    |
| 1242477                | 1244250               | R1A12M952Q-1622          | 16        | M22X1.5 | 43,0     | 25,0     | 37,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 28,0    |
| 1242476                | 1244249               | R1A12M952Q-1218          | 12        | M18X1.5 | 38,0     | 22,0     | 30,5     | 29,5     | 22,0     | 24,0      | 24,0     | 12,5     | 25,0    |
| 1242480                | 1244254               | R1A12M952Q-3848          | 38        | M48X2.0 | 65,0     | 34,0     | 51,0     | 50,0     | 48,0     | 60,0      | 55,0     | 18,0     | 56,0    |

**Branch Tee adjustable elbow  
connector DIN 24° Male - Metric  
Male with O-Ring and retaining ring -  
Light series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242486                | 1244000               | R1A11MT52Q-1822          | 18        | M26X1.5 | 40,0     | 24,0     | 34,0     | 31,5     | 27,0     | 32,0      | 27,0     | 11,0     | 28,0    |
| 1242485                | 1243999               | R1A11MT52Q-1518          | 15        | M22X1.5 | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 24,0     | 11,0     | 25,0    |
| 1242484                | 1243998               | R1A11MT52Q-1216          | 12        | M18X1.5 | 34,0     | 19,0     | 26,0     | 26,0     | 19,0     | 22,0      | 22,0     | 10,0     | 23,0    |
| 1242483                | 1243997               | R1A11MT52Q-1014          | 10        | M16X1.5 | 32,0     | 17,0     | 25,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1242489                | 1244003               | R1A11MT52Q-3542          | 35        | M45X2   | 59,0     | 38,0     | 48,5     | 48,5     | 48,0     | 50,0      | 50,0     | 13,5     | 51,0    |
| 1242488                | 1244002               | R1A11MT52Q-2833          | 28        | M36X2   | 47,0     | 31,0     | 40,5     | 38,5     | 41,0     | 41,0      | 41,0     | 13,5     | 41,0    |
| 1242487                | 1244001               | R1A11MT52Q-2227          | 22        | M30X2   | 44,0     | 28,0     | 36,0     | 35,5     | 33,0     | 36,0      | 32,0     | 13,5     | 33,0    |
| 1242482                | 1243996               | R1A11MT52Q-0812          | 8         | M14X1.5 | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1242481                | 1243995               | R1A11MT52Q-0610          | 6         | M12X1.5 | 29,0     | 14,0     | 20,0     | 21,0     | 14,0     | 14,0      | 14,0     | 7,5      | 15,0    |
| 1237043                | 1244004               | R1A11MT52Q-4248          | 42        | M52X2   | 61,0     | 38,0     | 50,0     | 49,0     | 48,0     | 60,0      | 55,0     | 15,0     | 56,0    |

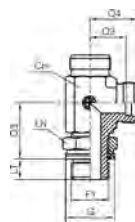
**Branch Tee adjustable elbow  
connector DIN 24° Male - Metric  
Male with O-Ring and retaining ring -  
Heavy series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242497                | 1244377               | R1A12MT52Q-3042          | 30        | M42X2   | 62,0     | 36,0     | 52,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 51,0    |
| 1242496                | 1244376               | R1A12MT52Q-2533          | 25        | M36X2   | 54,5     | 30,5     | 43,0     | 42,5     | 41,0     | 46,0      | 41,0     | 14,0     | 41,0    |
| 1242495                | 1244375               | R1A12MT52Q-2027          | 20        | M30X2   | 49,0     | 28,0     | 39,5     | 38,5     | 33,0     | 36,0      | 32,0     | 14,0     | 33,0    |
| 1242494                | 1244374               | R1A12MT52Q-1622          | 16        | M24X1.5 | 43,0     | 25,0     | 37,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 28,0    |
| 1242498                | 1244378               | R1A12MT52Q-3848          | 38        | M52X2   | 65,0     | 34,0     | 51,0     | 50,0     | 48,0     | 60,0      | 55,0     | 18,0     | 56,0    |
| 1242493                | 1244373               | R1A12MT52Q-1218          | 12        | M20X1.5 | 38,0     | 22,0     | 30,5     | 29,5     | 22,0     | 24,0      | 24,0     | 12,5     | 25,0    |
| 1242492                | 1244372               | R1A12MT52Q-1016          | 10        | M18X1.5 | 34,0     | 18,0     | 27,0     | 25,5     | 19,0     | 22,0      | 22,0     | 11,0     | 23,0    |
| 1242491                | 1244371               | R1A12MT52Q-0814          | 8         | M16X1.5 | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1242490                | 1244370               | R1A12MT52Q-0612          | 6         | M14X1.5 | 30,5     | 15,5     | 23,5     | 22,5     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |

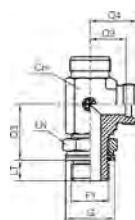
Dimensions shown may be changed without prior notice

**Run Tee adjustable elbow connector  
DIN 24° Male - Metric Male with  
O-Ring and retaining ring - Light  
series**



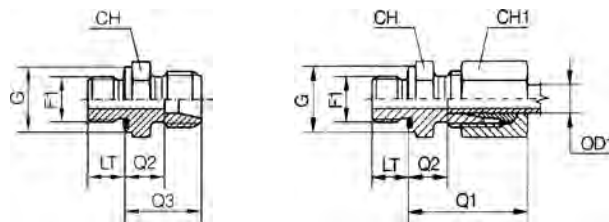
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242501                | 1243956               | R1A11ML52Q-1014          | 10        | M14X1.5 | 32,0     | 17,0     | 25,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1242500                | 1243955               | R1A11ML52Q-0812          | 8         | M12X1.5 | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1242499                | 1243954               | R1A11ML52Q-0610          | 6         | M10X1.0 | 29,0     | 14,0     | 20,0     | 21,0     | 14,0     | 14,0      | 14,0     | 7,5      | 15,0    |
| 1242505                | 1243960               | R1A11ML52Q-2227          | 22        | M27X2   | 44,0     | 28,0     | 36,0     | 35,5     | 33,0     | 36,0      | 32,0     | 13,5     | 33,0    |
| 1242504                | 1243959               | R1A11ML52Q-1822          | 18        | M22X1.5 | 40,0     | 24,0     | 34,0     | 31,5     | 27,0     | 32,0      | 27,0     | 11,0     | 28,0    |
| 1242503                | 1243958               | R1A11ML52Q-1518          | 15        | M18X1.5 | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 24,0     | 11,0     | 25,0    |
| 1242502                | 1243957               | R1A11ML52Q-1216          | 12        | M16X1.5 | 34,0     | 19,0     | 26,0     | 26,0     | 19,0     | 22,0      | 22,0     | 10,0     | 23,0    |
| 1242508                | 1243963               | R1A11ML52Q-4248          | 42        | M48X2.0 | 61,0     | 38,0     | 50,0     | 49,0     | 48,0     | 60,0      | 55,0     | 15,0     | 56,0    |
| 1242507                | 1243962               | R1A11ML52Q-3542          | 35        | M42X2   | 59,0     | 38,0     | 48,5     | 48,5     | 48,0     | 50,0      | 50,0     | 13,5     | 51,0    |
| 1242506                | 1243961               | R1A11ML52Q-2833          | 28        | M33X2.0 | 47,0     | 31,0     | 40,5     | 38,5     | 41,0     | 41,0      | 41,0     | 13,5     | 41,0    |

**Run Tee adjustable elbow connector  
DIN 24° Male - Metric Male with  
O-Ring and retaining ring - Heavy  
series**



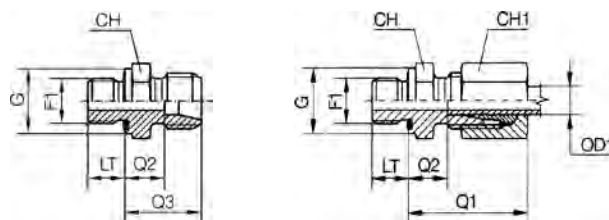
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1242512                | 1244325               | R1A12ML52Q-1218          | 12        | M18X1.5 | 38,0     | 22,0     | 30,5     | 29,5     | 22,0     | 24,0      | 24,0     | 12,5     | 25,0    |
| 1242511                | 1244324               | R1A12ML52Q-1016          | 10        | M16X1.5 | 34,0     | 18,0     | 27,0     | 25,5     | 19,0     | 22,0      | 22,0     | 11,0     | 23,0    |
| 1242510                | 1244323               | R1A12ML52Q-0814          | 8         | M14X1.5 | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,0    |
| 1242516                | 1244329               | R1A12ML52Q-3042          | 30        | M42X2   | 62,0     | 36,0     | 52,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 51,0    |
| 1242515                | 1244328               | R1A12ML52Q-2533          | 25        | M33X2.0 | 54,5     | 30,5     | 43,0     | 45,5     | 41,0     | 46,0      | 41,0     | 14,0     | 41,0    |
| 1242514                | 1244327               | R1A12ML52Q-2027          | 20        | M27X2   | 49,0     | 28,0     | 39,5     | 38,5     | 33,0     | 36,0      | 32,0     | 14,0     | 33,0    |
| 1242513                | 1244326               | R1A12ML52Q-1622          | 16        | M22X1.5 | 43,0     | 25,0     | 37,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 28,0    |
| 1242509                | 1244322               | R1A12ML52Q-0612          | 6         | M12X1.5 | 30,5     | 15,5     | 23,5     | 22,5     | 14,0     | 17,0      | 17,0     | 9,5      | 18,0    |
| 1242517                | 1244330               | R1A12ML52Q-3848          | 38        | M48X2.0 | 65,0     | 34,0     | 51,0     | 50,0     | 48,0     | 60,0      | 55,0     | 18,0     | 56,0    |

**Straight connector DIN 24° Male -  
Metric cylindric Male with elastomer  
- Light series**



| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1      | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|---------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206135             | 1241558            | R1A11M152I-0610       | 6   | M10X1.0 | 23,0 | 8,5  | 15,5 | 14,0 | 14,0 | 8,0  | 14,0 |
| 1207005             | 1243846            | R1A11M152I-3542       | 35  | M42X2   | 39,0 | 17,5 | 28,0 | 50,0 | 50,0 | 20,0 | 50,0 |
| 1206136             | 1241700            | R1A11M152I-0812       | 8   | M12X1.5 | 25,0 | 10,0 | 17,0 | 17,0 | 17,0 | 12,0 | 17,0 |
| 1207004             | 1243845            | R1A11M152I-2833       | 28  | M33X2.0 | 34,0 | 17,5 | 25,0 | 41,0 | 41,0 | 18,0 | 40,0 |
| 1206137             | 1243840            | R1A11M152I-1014       | 10  | M14X1.5 | 26,0 | 11,0 | 18,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1206138             | 1243842            | R1A11M152I-1518       | 15  | M18X1.5 | 29,0 | 14,0 | 20,5 | 24,0 | 27,0 | 14,0 | 24,0 |
| 1206085             | 1243843            | R1A11M152I-1822       | 18  | M22X1.5 | 31,0 | 14,5 | 22,0 | 27,0 | 32,0 | 14,0 | 27,0 |
| 1206163             | 1243841            | R1A11M152I-1216       | 12  | M16X1.5 | 27,0 | 12,5 | 19,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1206284             | 1243844            | R1A11M152I-2226       | 22  | M26X1.5 | 33,0 | 16,5 | 24,0 | 32,0 | 36,0 | 16,0 | 32,0 |

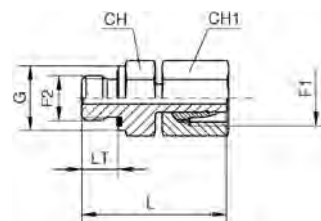
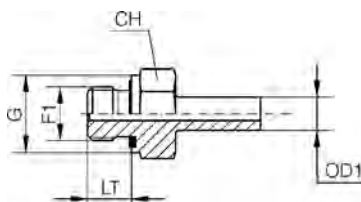
**Straight connector DIN 24° Male -  
Metric cylindric Male with elastomer  
- Heavy series**



| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1      | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|---------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206285             | 1244195            | R1A12M152I-0612       | 6   | M12X1.5 | 28,0 | 13,0 | 20,0 | 17,0 | 17,0 | 12,0 | 17,0 |
| 1206286             | 1244197            | R1A12M152I-1016       | 10  | M16X1.5 | 31,0 | 15,0 | 22,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1211295             | 1244199            | R1A12M152I-1420       | 14  | M20X1.5 | 37,0 | 19,0 | 27,0 | 27,0 | 27,0 | 14,0 | 26,0 |
| 1206287             | 1244200            | R1A12M152I-1622       | 16  | M22X1.5 | 37,0 | 18,5 | 27,0 | 27,0 | 30,0 | 14,0 | 27,0 |
| 1211296             | 1244203            | R1A12M152I-3042       | 30  | M42X2   | 50,0 | 23,5 | 37,0 | 50,0 | 50,0 | 20,0 | 50,0 |
| 1207024             | 1244196            | R1A12M152I-0814       | 8   | M14X1.5 | 30,0 | 15,0 | 22,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1206061             | 1244202            | R1A12M152I-2533       | 25  | M33X2.0 | 47,0 | 23,0 | 35,0 | 41,0 | 46,0 | 18,0 | 40,0 |
| 1206162             | 1244198            | R1A12M152I-1218       | 12  | M18X1.5 | 33,0 | 17,0 | 24,5 | 24,0 | 24,0 | 12,0 | 24,0 |
| 1241127             | 1244201            | R1A12M152I-2027       | 20  | M27X2   | 42,0 | 20,5 | 31,0 | 32,0 | 36,0 | 16,0 | 32,0 |
| 1208081             | 1244204            | R1A12M152I-3848       | 38  | M48X2.0 | 57,0 | 26,0 | 42,0 | 55,0 | 60,0 | 22,0 | 55,0 |

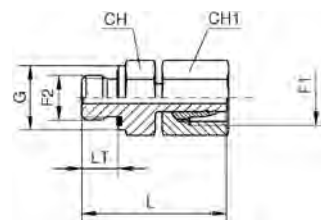
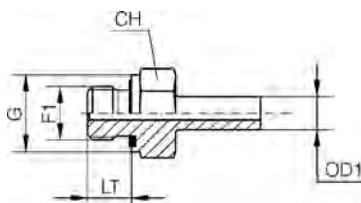
Dimensions shown may be changed without prior notice

**Straight connector DIN 24° Female  
pre-assembled - Metric cylindric  
Male with elastomer - Light series**



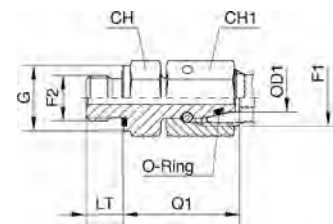
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | F1      | F2      | LT<br>mm | CH<br>mm | CH1<br>mm | G<br>mm | L<br>mm |
|------------------------|-----------------------|-----------------------|-----------|---------|---------|----------|----------|-----------|---------|---------|
| 1206982                | 1243703               | R1A113152I-1822       | 18        | M26X1.5 | M22X1.5 | 14,0     | 27,0     | 32,0      | 27,0    | 45,5    |
| 1206983                | 1243704               | R1A113152I-2226       | 22        | M30X2   | M26X1.5 | 16,0     | 32,0     | 36,0      | 32,0    | 48,5    |
| 1206984                | 1243705               | R1A113152I-2833       | 28        | M36X2   | M33X2.0 | 18,0     | 41,0     | 41,0      | 40,0    | 53,5    |
| 1206985                | 1243706               | R1A113152I-3542       | 35        | M45X2   | M42X2   | 20,0     | 50,0     | 50,0      | 50,0    | 62,5    |
| 1206980                | 1243699               | R1A113152I-0812       | 8         | M14X1.5 | M12X1.5 | 12,0     | 17,0     | 17,0      | 17,0    | 38,5    |
| 1206067                | 1243702               | R1A113152I-1518       | 15        | M22X1.5 | M18X1.5 | 12,0     | 24,0     | 27,0      | 24,0    | 43,5    |
| 1206981                | 1243700               | R1A113152I-1014       | 10        | M16X1.5 | M14X1.5 | 12,0     | 19,0     | 19,0      | 19,0    | 39,0    |
| 1206288                | 1243701               | R1A113152I-1216       | 12        | M18X1.5 | M16X1.5 | 12,0     | 22,0     | 22,0      | 22,0    | 42,5    |
| 1206979                | 1243698               | R1A113152I-0610       | 6         | M12X1.5 | M10X1.0 | 8,0      | 14,0     | 14,0      | 14,0    | 32,5    |
| 1206986                | 1243707               | R1A113152I-4248       | 42        | M52X2   | M48X2.0 | 22,0     | 55,0     | 60,0      | 55,0    | 68,5    |

**Straight connector DIN 24° Female  
pre-assembled - Metric cylindric  
Male with elastomer - Heavy series**



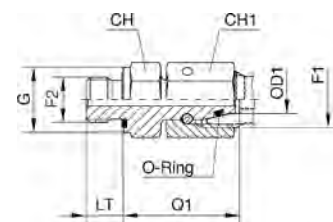
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | F1      | F2      | LT<br>mm | CH<br>mm | CH1<br>mm | G<br>mm | L<br>mm |
|------------------------|-----------------------|-----------------------|-----------|---------|---------|----------|----------|-----------|---------|---------|
| 1207016                | 1244042               | R1A123152I-1622       | 16        | M24X1.5 | M22X1.5 | 14,0     | 27,0     | 30,0      | 27,0    | 51,0    |
| 1207015                | 1244041               | R1A123152I-1420       | 14        | M22X1.5 | M20X1.5 | 14,0     | 27,0     | 27,0      | 26,0    | 50,5    |
| 1207018                | 1244044               | R1A123152I-2533       | 25        | M36X2   | M33X2.0 | 18,0     | 41,0     | 46,0      | 40,0    | 66,0    |
| 1207017                | 1244043               | R1A123152I-2027       | 20        | M30X2   | M27X2   | 16,0     | 32,0     | 36,0      | 32,0    | 59,0    |
| 1207012                | 1244038               | R1A123152I-0814       | 8         | M16X1.5 | M14X1.5 | 12,0     | 19,0     | 19,0      | 19,0    | 41,5    |
| 1207011                | 1244037               | R1A123152I-0612       | 6         | M14X1.5 | M12X1.5 | 12,0     | 17,0     | 17,0      | 17,0    | 39,0    |
| 1207014                | 1244040               | R1A123152I-1218       | 12        | M20X1.5 | M18X1.5 | 12,0     | 24,0     | 24,0      | 24,0    | 46,0    |
| 1207013                | 1244039               | R1A123152I-1016       | 10        | M18X1.5 | M16X1.5 | 12,0     | 22,0     | 22,0      | 22,0    | 44,0    |
| 1207020                | 1244046               | R1A123152I-3848       | 38        | M52X2   | M48X2.0 | 22,0     | 55,0     | 60,0      | 55,0    | 82,0    |
| 1207019                | 1244045               | R1A123152I-3042       | 30        | M42X2   | M42X2   | 20,0     | 50,0     | 50,0      | 50,0    | 71,0    |

### Straight connector DIN 24° Female with O-Ring - Metric cylindric Male with elastomer - Light series



| Item Code | Part Number     | OD1 | F1      | F2      | Q1   | LT   | CH   | CH1  | G    |
|-----------|-----------------|-----|---------|---------|------|------|------|------|------|
|           |                 | mm  |         |         |      |      |      |      |      |
| 1211390   | R1A152152I-1216 | 12  | M18X1.5 | M16X1.5 | 30,5 | 12,0 | 22,0 | 22,0 | 22,0 |
| 1211391   | R1A152152I-1518 | 15  | M22X1.5 | M18X1.5 | 31,5 | 12,0 | 24,0 | 27,0 | 24,0 |
| 1211392   | R1A152152I-2226 | 22  | M30X2   | M26X1.5 | 32,5 | 16,0 | 32,0 | 36,0 | 32,0 |
| 1211393   | R1A152152I-2833 | 28  | M36X2   | M33X2.0 | 35,0 | 18,0 | 41,0 | 41,0 | 40,0 |
| 1211394   | R1A152152I-3542 | 35  | M45X2   | M42X2   | 42,5 | 20,0 | 50,0 | 50,0 | 50,0 |
| 1211395   | R1A152152I-4248 | 42  | M52X2   | M48X2.0 | 46,5 | 22,0 | 55,0 | 60,0 | 55,0 |
| 1208086   | R1A152152I-1822 | 18  | M26X1.5 | M22X1.5 | 31,5 | 14,0 | 27,0 | 32,0 | 27,0 |
| 1211387   | R1A152152I-0610 | 6   | M12X1.5 | M10X1.0 | 24,5 | 8,0  | 14,0 | 14,0 | 14,0 |
| 1211388   | R1A152152I-0812 | 8   | M14X1.5 | M12X1.5 | 26,5 | 12,0 | 17,0 | 17,0 | 17,0 |
| 1211389   | R1A152152I-1014 | 10  | M16X1.5 | M14X1.5 | 27,5 | 12,0 | 19,0 | 19,0 | 19,0 |

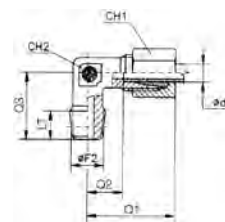
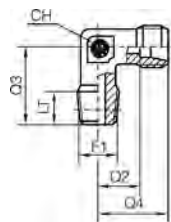
### Straight connector DIN 24° Female with O-Ring - Metric cylindric Male with elastomer - Heavy series



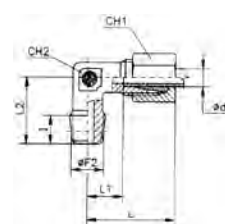
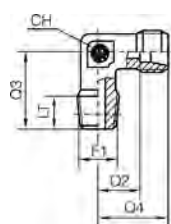
| Item Code | Part Number     | OD1 | F1      | F2      | Q1   | LT   | CH   | CH1  | G    |
|-----------|-----------------|-----|---------|---------|------|------|------|------|------|
|           |                 | mm  |         |         |      |      |      |      |      |
| 1208178   | R1A162152I-3042 | 30  | M42X2   | M42X2   | 51,0 | 20,0 | 50,0 | 50,0 | 50,0 |
| 1211450   | R1A162152I-0612 | 6   | M14X1.5 | M12X1.5 | 27,0 | 12,0 | 17,0 | 17,0 | 17,0 |
| 1211451   | R1A162152I-0814 | 8   | M16X1.5 | M14X1.5 | 29,5 | 12,0 | 19,0 | 19,0 | 19,0 |
| 1211452   | R1A162152I-1016 | 10  | M18X1.5 | M16X1.5 | 32,0 | 12,0 | 22,0 | 22,0 | 22,0 |
| 1211453   | R1A162152I-1622 | 16  | M24X1.5 | M22X1.5 | 37,0 | 14,0 | 27,0 | 30,0 | 27,0 |
| 1211454   | R1A162152I-2027 | 20  | M30X2   | M27X2   | 43,0 | 16,0 | 32,0 | 36,0 | 32,0 |
| 1211455   | R1A162152I-2533 | 25  | M36X2   | M33X2.0 | 48,0 | 18,0 | 41,0 | 46,0 | 40,0 |
| 1208181   | R1A162152I-3848 | 38  | M52X2   | M48X2.0 | 60,0 | 22,0 | 55,0 | 60,0 | 55,0 |
| 1208172   | R1A162152I-1420 | 14  | M22X1.5 | M20X1.5 | 36,5 | 14,0 | 27,0 | 27,0 | 26,0 |
| 1208171   | R1A162152I-1218 | 12  | M20X1.5 | M18X1.5 | 34,0 | 12,0 | 24,0 | 24,0 | 24,0 |



Dimensions shown may be changed without prior notice

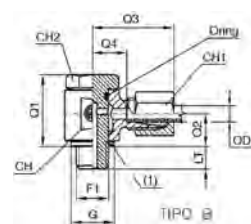
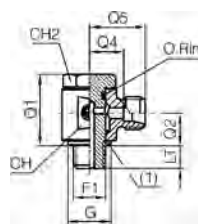
**90° elbow connector DIN 24° Male -  
Metric conic Male - Light series**

| Item Code | Part Number     | OD1 | F2      | Q1   | Q2   | Q3   | Q4   | CH   | CH1  | LT   |
|-----------|-----------------|-----|---------|------|------|------|------|------|------|------|
|           |                 | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1208106   | R1A11M962M-1822 | 18  | M22X1.5 | 40,0 | 23,5 | 36,0 | 31,0 | 24,0 | 32,0 | 14,0 |
| 1205818   | R1A11M962M-1014 | 10  | M14X1.5 | 30,0 | 15,0 | 27,0 | 22,0 | 14,0 | 19,0 | 12,0 |
| 1206353   | R1A11M962M-0812 | 8   | M12X1.5 | 29,0 | 14,0 | 26,0 | 21,0 | 12,0 | 17,0 | 12,0 |
| 1205819   | R1A11M962M-1216 | 12  | M16X1.5 | 32,0 | 17,0 | 28,0 | 24,0 | 17,0 | 22,0 | 12,0 |
| 1206141   | R1A11M962M-0610 | 6   | M10X1.0 | 27,0 | 12,0 | 20,0 | 19,0 | 12,0 | 14,0 | 8,0  |
| 1206229   | R1A11M962M-1518 | 15  | M18X1.5 | 36,0 | 21,0 | 34,0 | 28,0 | 19,0 | 27,0 | 14,0 |

**90° elbow connector DIN 24° Male -  
Metric conic Male - Heavy series**

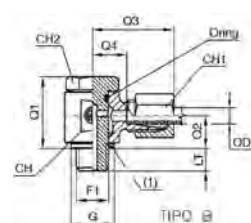
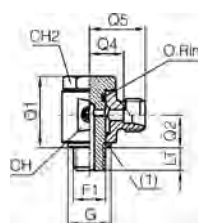
| Item Code | Part Number     | OD1 | F2      | Q1   | Q2   | Q3   | Q4   | CH   | CH1  | LT   |
|-----------|-----------------|-----|---------|------|------|------|------|------|------|------|
|           |                 | mm  |         | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206720   | R1A12M962M-1622 | 16  | M22X1.5 | 43,0 | 24,5 | 32,0 | 33,0 | 24,0 | 30,0 | 14,0 |
| 1206142   | R1A12M962M-1016 | 10  | M16X1.5 | 34,0 | 17,5 | 28,0 | 25,0 | 17,0 | 22,0 | 12,0 |
| 1206143   | R1A12M962M-1218 | 12  | M18X1.5 | 38,0 | 21,5 | 31,0 | 29,0 | 17,0 | 24,0 | 12,0 |
| 1211333   | R1A12M962M-0612 | 6   | M12X1.5 | 31,0 | 16,0 | 26,0 | 23,0 | 12,0 | 17,0 | 12,0 |
| 1211334   | R1A12M962M-0814 | 8   | M14X1.5 | 32,0 | 17,0 | 27,0 | 24,0 | 14,0 | 19,0 | 12,0 |
| 1211335   | R1A12M962M-1420 | 14  | M20X1.5 | 40,0 | 22,0 | 32,0 | 30,0 | 19,0 | 27,0 | 14,0 |

### Banjo adjustable - Type A - Metric cylindric DIN 24° - Light series



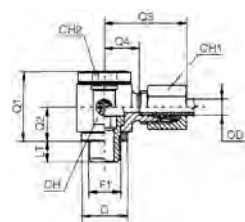
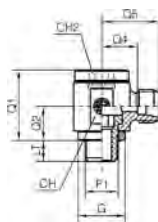
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1205882                | 1243914               | R1A11ME505-0610          | 6         | M10X1.0 | 27,0     | 12,5     | 29,0     | 13,0     | 20,0     | 8,0      | 19,0     | 14,0      | 17,0      | 15,0    |
| 1206577                | 1243917               | R1A11ME505-1518          | 15        | M18X1.5 | 44,5     | 21,5     | 39,0     | 22,5     | 29,0     | 14,0     | 36,0     | 27,0      | 24,0      | 22,0    |
| 1206274                | 1243915               | R1A11ME505-0812          | 8         | M12X1.5 | 30,5     | 15,0     | 30,5     | 14,5     | 21,5     | 12,0     | 22,0     | 17,0      | 19,0      | 17,0    |
| 1244461                | 1231370               | R1A11ME505-1014          | 10        | M14X1.5 | 30,5     | 15,0     | 32,0     | 15,5     | 22,5     | 12,0     | 22,0     | 19,0      | 19,0      | 18,0    |
| 1206580                | 1243918               | R1A11ME505-1822          | 18        | M22X1.5 | 48,0     | 23,0     | 40,0     | 22,0     | 29,5     | 14,0     | 36,0     | 32,0      | 27,0      | 26,0    |
| 1206581                | 1243916               | R1A11ME505-1216          | 12        | M16X1.5 | 38,5     | 19,0     | 36,0     | 19,5     | 26,5     | 12,0     | 30,0     | 22,0      | 24,0      | 22,0    |
| 1206579                | 1243919               | R1A11ME505-2226          | 22        | M26X1.5 | 56,0     | 26,0     | 47,0     | 28,0     | 35,5     | 16,0     | 41,0     | 36,0      | 32,0      | 32,0    |

### Banjo adjustable - Type A - Metric cylindric DIN 24° - Heavy series

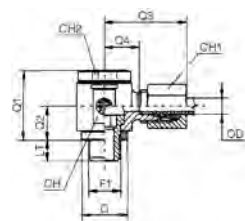
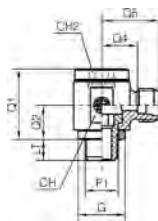


| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206456                | 1244279               | R1A12ME505-1218          | 12        | M18X1.5 | 37,5     | 18,0     | 38,0     | 20,0     | 27,5     | 12,0     | 30,0     | 24,0      | 24,0      | 22,0    |
| 1206578                | 1244281               | R1A12ME505-1622          | 16        | M22X1.5 | 48,0     | 23,0     | 43,0     | 23,0     | 31,5     | 14,0     | 36,0     | 30,0      | 27,0      | 26,0    |
| 1207056                | 1244276               | R1A12ME505-0612          | 6         | M12X1.5 | 30,5     | 15,0     | 33,0     | 16,5     | 23,5     | 12,0     | 22,0     | 17,0      | 19,0      | 17,0    |
| 1207057                | 1244277               | R1A12ME505-0814          | 8         | M14X1.5 | 30,5     | 15,0     | 32,5     | 16,5     | 23,5     | 12,0     | 22,0     | 19,0      | 19,0      | 18,0    |
| 1208099                | 1244280               | R1A12ME505-1420          | 14        | M20X1.5 | 48,0     | 23,0     | 42,5     | 23,5     | 31,5     | 14,0     | 36,0     | 27,0      | 27,0      | 26,0    |
| 1208098                | 1244278               | R1A12ME505-1016          | 10        | M16X1.5 | 38,5     | 19,0     | 38,0     | 20,0     | 27,5     | 12,0     | 30,0     | 22,0      | 24,0      | 22,0    |
| 1211301                | 1244282               | R1A12ME505-2027          | 20        | M27X2   | 56,0     | 26,0     | 51,5     | 27,0     | 37,5     | 16,0     | 41,0     | 36,0      | 32,0      | 32,0    |

Dimensions shown may be changed without prior notice

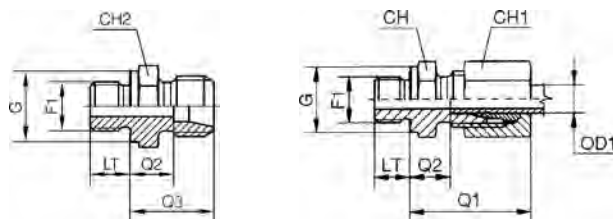
**Banjo adjustable - Type B - Metric  
cylindric DIN 24° - Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206153                | 1243921               | R1A11ME50M-0812          | 8         | M12X1.5 | 30,0     | 15,0     | 29,0     | 14,5     | 21,5     | 12,0     | 22,0     | 17,0      | 6,0       | 17,0    |
| 1206275                | 1243922               | R1A11ME50M-1014          | 10        | M14X1.5 | 30,0     | 16,0     | 30,0     | 15,5     | 23,0     | 12,0     | 22,0     | 19,0      | 8,0       | 19,0    |
| 1206154                | 1243924               | R1A11ME50M-1518          | 15        | M18X1.5 | 40,0     | 20,0     | 36,0     | 21,0     | 28,0     | 12,0     | 30,0     | 27,0      | 12,0      | 23,0    |
| 1207055                | 1243925               | R1A11ME50M-1822          | 18        | M22X1.5 | 46,0     | 23,0     | 38,0     | 21,5     | 29,0     | 14,0     | 36,0     | 32,0      | 14,0      | 27,0    |
| 1211010                | 1243920               | R1A11ME50M-0610          | 6         | M10X1.0 | 24,0     | 12,0     | 27,0     | 12,5     | 19,5     | 8,0      | 19,0     | 14,0      | 6,0       | 14,0    |
| 1206276                | 1243923               | R1A11ME50M-1216          | 12        | M16X1.5 | 37,0     | 18,0     | 33,0     | 18,0     | 25,5     | 12,0     | 27,0     | 22,0      | 10,0      | 21,0    |
| 1211011                | 1243926               | R1A11ME50M-2226          | 22        | M26X1.5 | 51,0     | 25,0     | 42,0     | 26,0     | 35,0     | 16,0     | 41,0     | 36,0      | 17,0      | 31,0    |
| 1211012                | 1243927               | R1A11ME50M-2833          | 28        | M33X2.0 | 64,0     | 32,0     | 48,0     | 31,5     | 39,0     | 18,0     | 50,0     | 41,0      | 22,0      | 39,0    |
| 1211013                | 1243928               | R1A11ME50M-3542          | 35        | M42X2   | 76,0     | 37,0     | 57,0     | 35,5     | 46,0     | 20,0     | 60,0     | 50,0      | 27,0      | 49,0    |

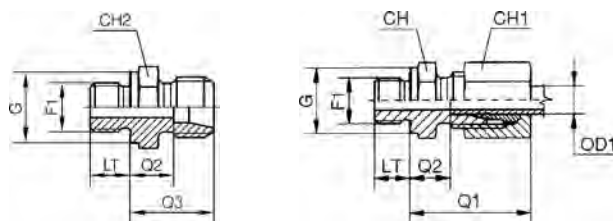
**Banjo adjustable - Type B - Metric  
cylindric DIN 24° - Heavy series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206157                | 1244292               | R1A12ME50M-3848          | 38        | M48X2.0 | 85,0     | 42,0     | 72,0     | 41,0     | 58,5     | 22,0     | 70,0     | 60,0      | 32,0      | 55,0    |
| 1206895                | 1244283               | R1A12ME50M-0612          | 6         | M12X1.5 | 30,0     | 15,0     | 31,0     | 16,5     | 23,5     | 12,0     | 22,0     | 17,0      | 6,0       | 17,0    |
| 1208222                | 1244291               | R1A12ME50M-3042          | 30        | M42X2   | 76,0     | 37,0     | 63,0     | 36,5     | 50,0     | 20,0     | 60,0     | 50,0      | 27,0      | 49,0    |
| 1208221                | 1244288               | R1A12ME50M-1622          | 16        | M22X1.5 | 46,0     | 23,0     | 41,0     | 22,5     | 31,0     | 14,0     | 36,0     | 30,0      | 14,0      | 27,0    |
| 1207058                | 1244284               | R1A12ME50M-0814          | 8         | M14X1.5 | 30,0     | 16,0     | 31,0     | 16,5     | 23,5     | 12,0     | 22,0     | 19,0      | 8,0       | 19,0    |
| 1206155                | 1244285               | R1A12ME50M-1016          | 10        | M16X1.5 | 37,0     | 18,0     | 35,0     | 18,5     | 26,0     | 12,0     | 27,0     | 22,0      | 10,0      | 21,0    |
| 1207465                | 1244289               | R1A12ME50M-2027          | 20        | M27X2   | 58,0     | 28,0     | 49,0     | 27,5     | 38,0     | 16,0     | 46,0     | 36,0      | 17,0      | 32,0    |
| 1206156                | 1244286               | R1A12ME50M-1218          | 12        | M18X1.5 | 41,0     | 20,0     | 37,0     | 20,5     | 28,0     | 12,0     | 30,0     | 24,0      | 12,0      | 23,0    |
| 1211200                | 1244290               | R1A12ME50M-2533          | 25        | M33X2.0 | 64,0     | 32,0     | 55,0     | 31,0     | 43,0     | 18,0     | 50,0     | 46,0      | 22,0      | 39,0    |
| 1206844                | 1244287               | R1A12ME50M-1420          | 14        | M20X1.5 | 42,0     | 21,0     | 41,0     | 23,0     | 31,0     | 14,0     | 32,0     | 27,0      | 12,0      | 25,0    |

## // BSPP

**Straight connector DIN 24° Male  
- BSPP cylindric flat Male - Light  
series**

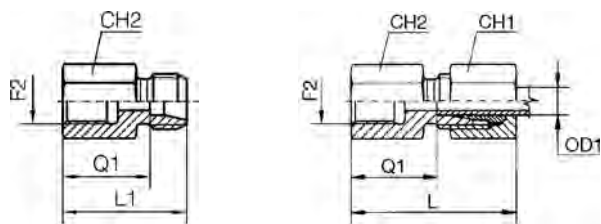
| Item<br>Code<br>Body<br>Only | Item<br>Code<br>Complete | Part Number Body<br>Only | OD1 | F1       | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|------------------------------|--------------------------|--------------------------|-----|----------|------|------|------|------|------|------|------|
|                              |                          |                          | mm  |          | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206597                      | 1243735                  | R1A11M106M-0808          | 8   | 1/2-14   | 27,0 | 12,0 | 19,0 | 27,0 | 17,0 | 14,0 | 26,0 |
| 1204264                      | 1243737                  | R1A11M106M-1006          | 10  | 3/8-19   | 27,0 | 12,5 | 19,0 | 22,0 | 19,0 | 12,0 | 22,0 |
| 1205740                      | 1243731                  | R1A11M106M-0602          | 6   | 1/8-28   | 23,0 | 8,5  | 15,5 | 14,0 | 14,0 | 8,0  | 14,0 |
| 1204274                      | 1243734                  | R1A11M106M-0806          | 8   | 3/8-19   | 26,0 | 11,5 | 18,5 | 22,0 | 17,0 | 12,0 | 22,0 |
| 1204273                      | 1243732                  | R1A11M106M-0604          | 6   | 1/4-19   | 25,0 | 10,0 | 17,0 | 19,0 | 14,0 | 12,0 | 18,0 |
| 1204262                      | 1243736                  | R1A11M106M-1004          | 10  | 1/4-19   | 26,0 | 11,0 | 18,0 | 19,0 | 19,0 | 12,0 | 18,0 |
| 1205741                      | 1243742                  | R1A11M106M-1808          | 18  | 1/2-14   | 31,0 | 14,5 | 22,0 | 27,0 | 32,0 | 14,0 | 26,0 |
| 1206930                      | 1243733                  | R1A11M106M-0606          | 6   | 3/8-19   | 26,0 | 11,5 | 18,5 | 22,0 | 14,0 | 12,0 | 22,0 |
| 1205742                      | 1243743                  | R1A11M106M-1812          | 18  | 3/4-14   | 30,0 | 14,5 | 22,0 | 32,0 | 32,0 | 16,0 | 32,0 |
| 1204268                      | 1243740                  | R1A11M106M-1206          | 12  | 3/8-19   | 27,0 | 12,5 | 19,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1204267                      | 1241073                  | R1A11M106M-1208          | 12  | 1/2-14   | 28,0 | 13,0 | 20,0 | 27,0 | 22,0 | 14,0 | 26,0 |
| 1205481                      | 1243746                  | R1A11M106M-3520          | 35  | 1 1/4-11 | 39,0 | 17,5 | 28,0 | 50,0 | 50,0 | 20,0 | 49,0 |
| 1204260                      | 1243738                  | R1A11M106M-1008          | 10  | 1/2-14   | 28,0 | 13,0 | 20,0 | 27,0 | 19,0 | 14,0 | 26,0 |
| 1204271                      | 1243741                  | R1A11M106M-1506          | 15  | 3/8-19   | 29,0 | 13,5 | 20,5 | 24,0 | 27,0 | 12,0 | 22,0 |
| 1204270                      | 1242250                  | R1A11M106M-1508          | 15  | 1/2-14   | 29,0 | 14,0 | 21,0 | 27,0 | 27,0 | 14,0 | 26,0 |
| 1205549                      | 1243739                  | R1A11M106M-1204          | 12  | 1/4-19   | 27,0 | 12,0 | 19,0 | 19,0 | 22,0 | 12,0 | 18,0 |
| 1205528                      | 1242345                  | R1A11M106M-0804          | 8   | 1/4-19   | 25,0 | 10,0 | 17,0 | 19,0 | 17,0 | 12,0 | 18,0 |
| 1205743                      | 1243744                  | R1A11M106M-2212          | 22  | 3/4-14   | 33,0 | 16,5 | 24,0 | 32,0 | 36,0 | 16,0 | 32,0 |
| 1205744                      | 1243745                  | R1A11M106M-2816          | 28  | 1-11     | 34,0 | 17,5 | 25,0 | 41,0 | 41,0 | 18,0 | 39,0 |
| 1206911                      | 1243747                  | R1A11M106M-4224          | 42  | 1 1/2-11 | 42,0 | 19,0 | 30,0 | 55,0 | 60,0 | 22,0 | 55,0 |

**Straight connector DIN 24° Male  
- BSPP cylindric flat Male - Heavy  
series**

| Item<br>Code<br>Body<br>Only | Item<br>Code<br>Complete | Part Number Body<br>Only | OD1 | F1       | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|------------------------------|--------------------------|--------------------------|-----|----------|------|------|------|------|------|------|------|
|                              |                          |                          | mm  |          | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206014                      | 1244080                  | R1A12M106M-1208          | 12  | 1/2-14   | 34,0 | 17,5 | 25,0 | 27,0 | 24,0 | 14,0 | 26,0 |
| 1205750                      | 1244082                  | R1A12M106M-1608          | 16  | 1/2-14   | 37,0 | 18,5 | 27,0 | 27,0 | 30,0 | 14,0 | 26,0 |
| 1205751                      | 1244084                  | R1A12M106M-2012          | 20  | 3/4-14   | 42,0 | 20,5 | 31,0 | 32,0 | 36,0 | 16,0 | 32,0 |
| 1205884                      | 1244083                  | R1A12M106M-1612          | 16  | 3/4-14   | 39,0 | 20,5 | 29,0 | 32,0 | 30,0 | 16,0 | 32,0 |
| 1205752                      | 1244085                  | R1A12M106M-2516          | 25  | 1-11     | 47,0 | 23,0 | 35,0 | 41,0 | 46,0 | 18,0 | 39,0 |
| 1205753                      | 1244086                  | R1A12M106M-3020          | 30  | 1 1/4-11 | 50,0 | 23,5 | 37,0 | 50,0 | 50,0 | 20,0 | 49,0 |
| 1205582                      | 1244078                  | R1A12M106M-1006          | 10  | 3/8-19   | 31,0 | 15,0 | 22,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1206096                      | 1244076                  | R1A12M106M-0604          | 6   | 1/4-19   | 28,0 | 13,0 | 20,0 | 19,0 | 17,0 | 12,0 | 18,0 |
| 1205748                      | 1244081                  | R1A12M106M-1408          | 14  | 1/2-14   | 37,0 | 19,0 | 27,0 | 27,0 | 27,0 | 14,0 | 26,0 |
| 1205754                      | 1244087                  | R1A12M106M-3824          | 38  | 1 1/2-11 | 57,0 | 26,0 | 42,0 | 55,0 | 60,0 | 22,0 | 55,0 |
| 1205745                      | 1244077                  | R1A12M106M-0804          | 8   | 1/4-19   | 30,0 | 15,0 | 22,0 | 19,0 | 19,0 | 12,0 | 18,0 |
| 1205746                      | 1244079                  | R1A12M106M-1206          | 12  | 3/8-19   | 33,0 | 17,0 | 24,5 | 22,0 | 24,0 | 12,0 | 22,0 |

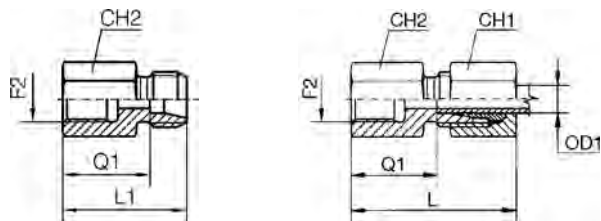
Dimensions shown may be changed without prior notice

### Straight connector DIN 24° Male - BSPP cylindric Female - Light series



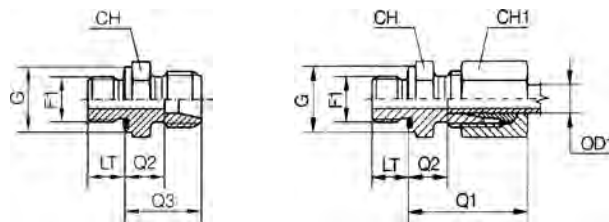
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F2       | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|-----------|---------|----------|
| 1206267                | 1240579               | R1A11M106F-0602          | 6         | 1/8-28   | 19,0     | 14,0     | 14,0      | 34,0    | 26,0     |
| 1206996                | 1243718               | R1A11M106F-0806          | 8         | 3/8-19   | 25,0     | 17,0     | 24,0      | 40,0    | 32,5     |
| 1208155                | 1243724               | R1A11M106F-4224          | 42        | 1 1/2-11 | 42,5     | 60,0     | 60,0      | 65,0    | 53,5     |
| 1205802                | 1242104               | R1A11M106F-1508          | 15        | 1/2-14   | 31,0     | 27,0     | 27,0      | 46,0    | 38,0     |
| 1205803                | 1243720               | R1A11M106F-1808          | 18        | 1/2-14   | 30,5     | 32,0     | 27,0      | 47,0    | 38,0     |
| 1205804                | 1243722               | R1A11M106F-2816          | 28        | 1-11     | 38,0     | 41,0     | 41,0      | 55,0    | 45,5     |
| 1205799                | 1241529               | R1A11M106F-0804          | 8         | 1/4-19   | 24,0     | 17,0     | 19,0      | 39,0    | 31,0     |
| 1206998                | 1243723               | R1A11M106F-3520          | 35        | 1 1/4-11 | 41,0     | 50,0     | 55,0      | 63,0    | 51,5     |
| 1205800                | 1240804               | R1A11M106F-1004          | 10        | 1/4-19   | 25,0     | 19,0     | 19,0      | 40,0    | 32,0     |
| 1205547                | 1243721               | R1A11M106F-2212          | 22        | 3/4-14   | 35,5     | 36,0     | 36,0      | 52,0    | 43,0     |
| 1205801                | 1243719               | R1A11M106F-1206          | 12        | 3/8-19   | 26,0     | 22,0     | 24,0      | 41,0    | 33,0     |

### Straight connector DIN 24° Male - BSPP cylindric Female - Heavy series



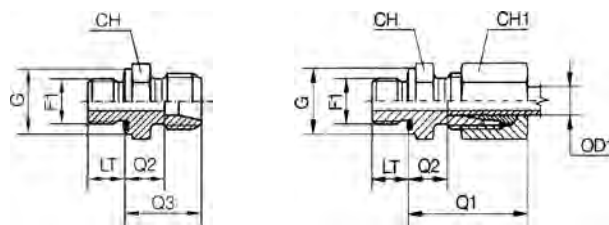
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F2       | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|-----------|---------|----------|
| 1206268                | 1244062               | R1A12M106F-2012          | 20        | 3/4-14   | 34,5     | 36,0     | 36,0      | 56,0    | 45,0     |
| 1205806                | 1244060               | R1A12M106F-1408          | 14        | 1/2-14   | 32,0     | 27,0     | 30,0      | 50,0    | 40,0     |
| 1205807                | 1244061               | R1A12M106F-1608          | 16        | 1/2-14   | 31,5     | 30,0     | 30,0      | 50,0    | 40,0     |
| 1207143                | 1244065               | R1A12M106F-3824          | 38        | 1 1/2-11 | 43,5     | 60,0     | 60,0      | 74,0    | 59,5     |
| 1206364                | 1244057               | R1A12M106F-0604          | 6         | 1/4-19   | 26,0     | 17,0     | 19,0      | 41,0    | 33,0     |
| 1205808                | 1244063               | R1A12M106F-2516          | 25        | 1-11     | 37,5     | 46,0     | 41,0      | 62,0    | 49,5     |
| 1206365                | 1244059               | R1A12M106F-1206          | 12        | 3/8-19   | 26,5     | 24,0     | 24,0      | 43,0    | 34,0     |
| 1207021                | 1244064               | R1A12M106F-3020          | 30        | 1 1/4-11 | 42,0     | 50,0     | 55,0      | 69,0    | 55,5     |
| 1205805                | 1244058               | R1A12M106F-0804          | 8         | 1/4-19   | 26,0     | 19,0     | 19,0      | 41,0    | 33,0     |

**Straight connector DIN 24° Male -  
BSPP cylindric Male with elastomer  
- Light series**



| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1       | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|----------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |          | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1205761             | 1243727            | R1A11M106I-2212       | 22  | 3/4-14   | 33,0 | 16,5 | 24,0 | 32,0 | 36,0 | 16,0 | 32,0 |
| 1205488             | 1241083            | R1A11M106I-1206       | 12  | 3/8-19   | 27,0 | 12,5 | 19,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1205489             | 1241085            | R1A11M106I-1508       | 15  | 1/2-14   | 29,0 | 14,0 | 21,0 | 27,0 | 27,0 | 14,0 | 27,0 |
| 1206039             | 1243730            | R1A11M106I-4224       | 42  | 1 1/2-11 | 42,0 | 19,0 | 30,0 | 55,0 | 60,0 | 22,0 | 55,0 |
| 1206131             | 1242311            | R1A11M106I-0602       | 6   | 1/8-28   | 23,0 | 8,5  | 15,5 | 14,0 | 14,0 | 8,0  | 14,0 |
| 1206056             | 1243728            | R1A11M106I-2816       | 28  | 1-11     | 34,0 | 17,5 | 25,0 | 41,0 | 41,0 | 18,0 | 40,0 |
| 1205760             | 1243725            | R1A11M106I-1004       | 10  | 1/4-19   | 26,0 | 11,0 | 18,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1205490             | 1241082            | R1A11M106I-0804       | 8   | 1/4-19   | 25,0 | 10,0 | 17,0 | 19,0 | 17,0 | 12,0 | 19,0 |
| 1206040             | 1243726            | R1A11M106I-1808       | 18  | 1/2-14   | 31,0 | 14,5 | 22,0 | 27,0 | 32,0 | 14,0 | 27,0 |
| 1206283             | 1243729            | R1A11M106I-3520       | 35  | 1 1/4-11 | 39,0 | 17,5 | 28,0 | 50,0 | 50,0 | 20,0 | 50,0 |

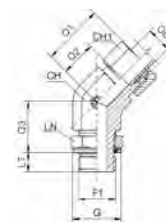
**Straight connector DIN 24° Male -  
BSPP cylindric Male with elastomer  
- Heavy series**



| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1 | F1       | Q1   | Q2   | Q3   | CH   | CH1  | LT   | G    |
|---------------------|--------------------|-----------------------|-----|----------|------|------|------|------|------|------|------|
|                     |                    |                       | mm  |          | mm   | mm   | mm   | mm   | mm   | mm   | mm   |
| 1206047             | 1244073            | R1A12M106I-2516       | 25  | 1-11     | 47,0 | 23,0 | 35,0 | 41,0 | 46,0 | 18,0 | 40,0 |
| 1205762             | 1244070            | R1A12M106I-1408       | 14  | 1/2-14   | 37,0 | 19,0 | 27,0 | 27,0 | 27,0 | 14,0 | 27,0 |
| 1206049             | 1244067            | R1A12M106I-0804       | 8   | 1/4-19   | 30,0 | 15,0 | 22,0 | 19,0 | 19,0 | 12,0 | 19,0 |
| 1205763             | 1244071            | R1A12M106I-1608       | 16  | 1/2-14   | 37,0 | 18,5 | 27,0 | 27,0 | 30,0 | 14,0 | 27,0 |
| 1205764             | 1244072            | R1A12M106I-2012       | 20  | 3/4-14   | 42,0 | 20,5 | 31,0 | 32,0 | 36,0 | 16,0 | 32,0 |
| 1207842             | 1244075            | R1A12M106I-3820       | 38  | 1 1/4-11 | 57,0 | 26,0 | 42,0 | 55,0 | 60,0 | 20,0 | 50,0 |
| 1206133             | 1244066            | R1A12M106I-0604       | 6   | 1/4-19   | 28,0 | 13,0 | 20,0 | 19,0 | 17,0 | 12,0 | 19,0 |
| 1206134             | 1244068            | R1A12M106I-1006       | 10  | 3/8-19   | 31,0 | 15,0 | 22,5 | 22,0 | 22,0 | 12,0 | 22,0 |
| 1205901             | 1244069            | R1A12M106I-1206       | 12  | 3/8-19   | 33,0 | 17,0 | 24,5 | 22,0 | 24,0 | 12,0 | 22,0 |
| 1206416             | 1244074            | R1A12M106I-3020       | 30  | 1 1/4-11 | 50,0 | 23,5 | 37,0 | 50,0 | 50,0 | 20,0 | 50,0 |

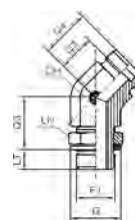
Dimensions shown may be changed without prior notice

**45° adjustable elbow connector DIN  
24° Male - BSPP cylindric Male with  
O-Ring and retaining ring - Light  
series**



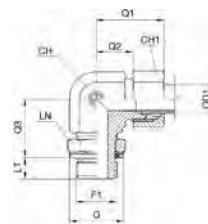
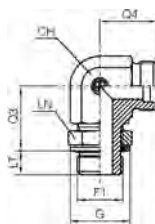
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1237039                | 1244938               | R1A11M406N-4224 | 42        | 1 1/2-11 | 49,0     | 26,0     | 38,0     | 37,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1237038                | 1244937               | R1A11M406N-3520 | 35        | 1 1/4-11 | 48,0     | 27,0     | 38,0     | 37,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1237036                | 1244935               | R1A11M406N-2212 | 22        | 3/4-14   | 35,5     | 19,5     | 37,5     | 27,0     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1237035                | 1244934               | R1A11M406N-1808 | 18        | 1/2-14   | 33,0     | 17,0     | 32,0     | 24,5     | 27,0     | 32,0      | 27,0     | 13,0     | 29,0    |
| 1231360                | 1244936               | R1A11M406N-2816 | 28        | 1-11     | 39,0     | 23,0     | 36,0     | 30,5     | 41,0     | 41,0      | 41,0     | 16,0     | 44,5    |
| 1237034                | 1244933               | R1A11M406N-1508 | 15        | 1/2-14   | 32,0     | 17,0     | 26,0     | 24,0     | 22,0     | 27,0      | 27,0     | 13,0     | 29,0    |
| 1237033                | 1244932               | R1A11M406N-1206 | 12        | 3/8-19   | 29,0     | 14,0     | 27,5     | 21,0     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1237032                | 1244931               | R1A11M406N-1004 | 10        | 1/4-19   | 27,0     | 12,0     | 24,5     | 19,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1237031                | 1244930               | R1A11M406N-0804 | 8         | 1/4-19   | 27,0     | 12,0     | 19,5     | 19,0     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1237030                | 1244929               | R1A11M406N-0602 | 6         | 1/8-28   | 24,5     | 9,5      | 21,7     | 16,5     | 14,0     | 14,0      | 14,0     | 6,3      | 16,0    |

**45° adjustable elbow connector DIN  
24° Male - BSPP cylindric Male with  
O-Ring and retaining ring - Heavy  
series**



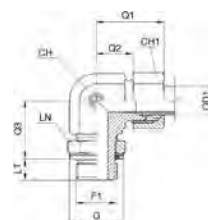
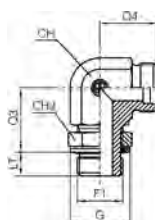
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1237062                | 1245007               | R1A12M406N-3824 | 38        | 1 1/2-11 | 55,0     | 24,0     | 37,0     | 40,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1237061                | 1245006               | R1A12M406N-3020 | 30        | 1 1/4-11 | 50,0     | 24,0     | 37,0     | 37,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1237060                | 1245005               | R1A12M408M-2516 | 25        | 1-11     | 46,0     | 22,0     | 35,0     | 34,0     | 41,0     | 46,0      | 41,0     | 16,0     | 44,5    |
| 1237059                | 1245004               | R1A12M406N-2012 | 20        | 3/4-14   | 40,0     | 19,0     | 33,0     | 29,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1237058                | 1245003               | R1A12M406N-1608 | 16        | 1/2-14   | 34,0     | 16,0     | 31,0     | 24,5     | 27,0     | 30,0      | 27,0     | 13,0     | 29,0    |
| 1237057                | 1245002               | R1A12M406N-1206 | 12        | 3/8-19   | 33,0     | 17,0     | 24,5     | 24,5     | 22,0     | 24,0      | 22,0     | 9,5      | 24,0    |
| 1237056                | 1245001               | R1A12M406N-1006 | 10        | 3/8-19   | 29,0     | 13,0     | 24,5     | 20,5     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1237055                | 1245000               | R1A12M406N-0804 | 8         | 1/4-19   | 28,0     | 13,0     | 22,5     | 20,5     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1237054                | 1244999               | R1A12M406N-0604 | 6         | 1/4-19   | 26,0     | 11,0     | 18,5     | 18,5     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |

**90° adjustable elbow connector DIN  
24° Male - BSPP cylindric Male with  
O-Ring and retaining ring - Light  
series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1208116                | 1243856               | R1A11M906N-4224 | 42        | 1 1/2-11 | 61,0     | 38,0     | 51,0     | 49,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1210735                | 1243852               | R1A11M906N-1808 | 18        | 1/2-14   | 40,0     | 24,0     | 36,5     | 31,5     | 27,0     | 32,0      | 27,0     | 13,0     | 29,0    |
| 1206896                | 1243853               | R1A11M906N-2212 | 22        | 3/4-14   | 44,0     | 28,0     | 37,5     | 35,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1208111                | 1243849               | R1A11M906N-1004 | 10        | 1/4-19   | 32,0     | 17,0     | 24,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1208114                | 1243854               | R1A11M906N-2816 | 28        | 1-11     | 47,0     | 31,0     | 41,0     | 38,5     | 41,0     | 41,0      | 41,0     | 16,0     | 44,5    |
| 1208113                | 1243851               | R1A11M906N-1508 | 15        | 1/2-14   | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 27,0     | 13,0     | 29,0    |
| 1211135                | 1243847               | R1A11M906N-0602 | 6         | 1/8-28   | 29,0     | 14,0     | 20,2     | 21,0     | 14,0     | 14,0      | 14,0     | 6,3      | 16,0    |
| 1208110                | 1243848               | R1A11M906N-0804 | 8         | 1/4-19   | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1211136                | 1243855               | R1A11M906N-3520 | 35        | 1 1/4-11 | 59,0     | 38,0     | 49,0     | 48,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1239726                | 1243850               | R1A11M906N-1206 | 12        | 3/8-19   | 34,0     | 19,0     | 27,5     | 26,0     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |

**90° adjustable elbow connector DIN  
24° Male - BSPP cylindric Male with  
O-Ring and retaining ring - Heavy  
series**

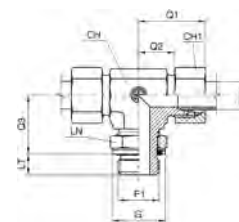
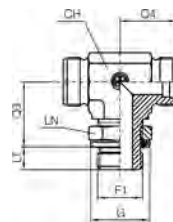


| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1211298                | 1244205               | R1A12M906N-0604 | 6         | 1/4-19   | 30,5     | 15,5     | 22,5     | 22,5     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1208097                | 1244211               | R1A12M906N-2516 | 25        | 1-11     | 54,5     | 30,5     | 41,0     | 42,5     | 41,0     | 46,0      | 41,0     | 16,0     | 44,5    |
| 1208096                | 1244210               | R1A12M906N-2012 | 20        | 3/4-14   | 49,0     | 28,0     | 38,0     | 38,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1211299                | 1244212               | R1A12M906N-3020 | 30        | 1 1/4-11 | 62,0     | 36,0     | 48,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1211300                | 1244213               | R1A12M906N-3824 | 38        | 1 1/2-11 | 65,0     | 34,0     | 53,0     | 50,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1208093                | 1244207               | R1A12M906N-1006 | 10        | 3/8-19   | 34,0     | 18,0     | 28,5     | 25,5     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1208092                | 1244206               | R1A12M906N-0804 | 8         | 1/4-19   | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1208095                | 1244209               | R1A12M906N-1608 | 16        | 1/2-14   | 43,0     | 25,0     | 36,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 29,0    |
| 1208094                | 1244208               | R1A12M906N-1206 | 12        | 3/8-19   | 38,0     | 22,0     | 28,5     | 29,5     | 22,0     | 24,0      | 22,0     | 9,5      | 24,0    |



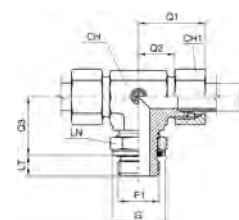
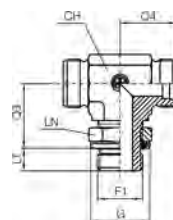
Dimensions shown may be changed without prior notice

**Branch Tee adjustable elbow  
connector DIN 24° Male - BSPP Male  
with O-Ring and retaining ring - Light  
series**



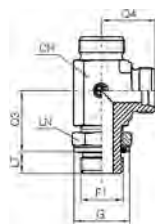
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1211050                | 1243964               | R1A11MT06N-0602 | 6         | M12X1.5 | 29,0     | 14,0     | 20,2     | 21,0     | 14,0     | 14,0      | 14,0     | 6,3      | 16,0    |
| 1211051                | 1243965               | R1A11MT06N-0804 | 8         | M14X1.5 | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1231369                | 1243971               | R1A11MT06N-2816 | 28        | M36X2   | 47,0     | 31,0     | 41,0     | 38,5     | 41,0     | 41,0      | 41,0     | 16,0     | 44,5    |
| 1211052                | 1243966               | R1A11MT06N-1004 | 10        | M16X1.5 | 32,0     | 17,0     | 24,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1211053                | 1243967               | R1A11MT06N-1206 | 12        | M18X1.5 | 34,0     | 19,0     | 27,5     | 26,0     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1211055                | 1243969               | R1A11MT06N-1808 | 18        | M26X1.5 | 40,0     | 24,0     | 36,5     | 31,5     | 27,0     | 32,0      | 27,0     | 13,0     | 29,0    |
| 1211056                | 1243970               | R1A11MT06N-2212 | 22        | M30X2   | 44,0     | 28,0     | 37,5     | 35,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1211058                | 1243973               | R1A11MT06N-4224 | 42        | M52X2   | 61,0     | 38,0     | 51,0     | 49,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1237042                | 1243968               | R1A11MT06N-1508 | 15        | M22X1.5 | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 27,0     | 13,0     | 29,0    |
| 1208182                | 1243972               | R1A11MT06N-3520 | 35        | M45X2   | 59,0     | 38,0     | 49,0     | 48,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |

**Branch Tee adjustable elbow  
connector DIN 24° Male - BSPP Male  
with O-Ring and retaining ring -  
Heavy series**



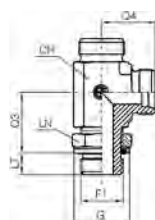
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1211240                | 1244335               | R1A12MT06N-1608 | 16        | M24X1.5 | 43,0     | 25,0     | 36,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 29,0    |
| 1211241                | 1244336               | R1A12MT06N-2012 | 20        | M30X2   | 49,0     | 28,0     | 38,0     | 38,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1211242                | 1244337               | R1A12MT06N-2516 | 25        | M36X2   | 54,5     | 30,5     | 41,0     | 42,5     | 41,0     | 46,0      | 41,0     | 16,0     | 44,5    |
| 1211243                | 1244338               | R1A12MT06N-3020 | 30        | M42X2   | 62,0     | 36,0     | 48,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1231381                | 1244332               | R1A12MT06N-0804 | 8         | M16X1.5 | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1211244                | 1244339               | R1A12MT06N-3824 | 38        | M52X2   | 65,0     | 34,0     | 53,0     | 50,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1211236                | 1244331               | R1A12MT06N-0604 | 6         | M14X1.5 | 30,5     | 15,5     | 22,5     | 22,5     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1211238                | 1244333               | R1A12MT06N-1006 | 10        | M18X1.5 | 34,0     | 18,0     | 28,5     | 25,5     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1211239                | 1244334               | R1A12MT06N-1206 | 12        | M20X1.5 | 38,0     | 22,0     | 28,5     | 29,5     | 22,0     | 24,0      | 22,0     | 9,5      | 24,0    |

**Run Tee adjustable elbow connector  
DIN 24° Male - BSPP Male with  
O-Ring and retaining ring - Light  
series**



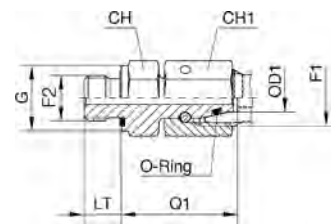
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1210734                | 1243930               | R1A11ML06N-0804 | 8         | 1/4-19   | 31,0     | 16,0     | 22,5     | 23,0     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1231368                | 1243935               | R1A11ML06N-2212 | 22        | 3/4-14   | 44,0     | 28,0     | 37,5     | 35,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1211020                | 1243931               | R1A11ML06N-1004 | 10        | 1/4-19   | 32,0     | 17,0     | 24,5     | 24,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1211021                | 1243932               | R1A11ML06N-1206 | 12        | 3/8-19   | 34,0     | 19,0     | 27,5     | 26,0     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1211022                | 1243933               | R1A11ML06N-1508 | 15        | 1/2-14   | 36,0     | 21,0     | 30,0     | 28,0     | 22,0     | 27,0      | 27,0     | 13,0     | 29,0    |
| 1211023                | 1243934               | R1A11ML06N-1808 | 18        | 1/2-14   | 40,0     | 24,0     | 36,5     | 31,5     | 27,0     | 32,0      | 27,0     | 13,0     | 29,0    |
| 1211025                | 1243936               | R1A11ML06N-2816 | 28        | 1-11     | 47,0     | 31,0     | 41,0     | 38,5     | 41,0     | 41,0      | 41,0     | 16,0     | 44,5    |
| 1211026                | 1243937               | R1A11ML06N-3520 | 35        | 1 1/4-11 | 59,0     | 38,0     | 49,0     | 48,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1211027                | 1243938               | R1A11ML06N-4224 | 42        | 1 1/2-11 | 61,0     | 38,0     | 51,0     | 49,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |
| 1211019                | 1243929               | R1A11ML06N-0602 | 6         | 1/8-28   | 29,0     | 14,0     | 20,2     | 21,0     | 14,0     | 14,0      | 14,0     | 6,3      | 16,0    |

**Run Tee adjustable elbow connector  
DIN 24° Male - BSPP Male with  
O-Ring and retaining ring - Heavy  
series**

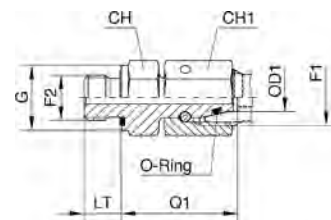


| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LN<br>mm | LT<br>mm | G<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|---------|
| 1211207                | 1244293               | R1A12ML06N-0604 | 6         | 1/4-19   | 30,5     | 15,5     | 22,5     | 22,5     | 14,0     | 17,0      | 19,0     | 9,5      | 20,5    |
| 1211209                | 1244295               | R1A12ML06N-1006 | 10        | 3/8-19   | 34,0     | 18,0     | 28,5     | 25,5     | 19,0     | 22,0      | 22,0     | 9,5      | 24,0    |
| 1231380                | 1244294               | R1A12ML06N-0804 | 8         | 1-11     | 33,0     | 18,0     | 26,5     | 25,0     | 19,0     | 19,0      | 19,0     | 9,5      | 20,5    |
| 1211210                | 1244296               | R1A12ML06N-1206 | 12        | 3/8-19   | 38,0     | 22,0     | 28,5     | 29,5     | 22,0     | 24,0      | 22,0     | 9,5      | 24,0    |
| 1211211                | 1244297               | R1A12ML06N-1608 | 16        | 1/2-14   | 43,0     | 25,0     | 36,0     | 33,5     | 27,0     | 30,0      | 27,0     | 13,0     | 29,0    |
| 1211212                | 1244298               | R1A12ML06N-2012 | 20        | 3/4-14   | 49,0     | 28,0     | 38,0     | 38,5     | 33,0     | 36,0      | 36,0     | 13,0     | 35,0    |
| 1211213                | 1244299               | R1A12ML06N-2516 | 25        | 1-11     | 54,5     | 30,5     | 41,0     | 42,5     | 41,0     | 46,0      | 41,0     | 16,0     | 44,5    |
| 1211214                | 1244300               | R1A12ML06N-3020 | 30        | 1 1/4-11 | 62,0     | 36,0     | 48,0     | 49,5     | 48,0     | 50,0      | 50,0     | 16,0     | 53,0    |
| 1211215                | 1244301               | R1A12ML06N-3824 | 38        | 1 1/2-11 | 65,0     | 34,0     | 53,0     | 50,0     | 48,0     | 60,0      | 55,0     | 16,0     | 58,5    |

Dimensions shown may be changed without prior notice

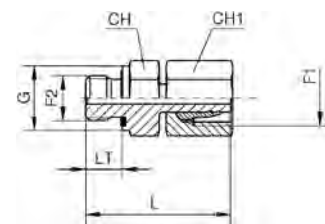
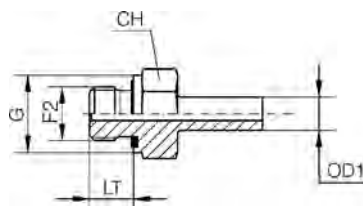
**Straight connector DIN 24° Female with O-Ring - BSPP cylindric  
Male with elastomer - Light series**


| Item Code | Part Number     | OD1 | F1      | F2       | Q1   | LT   | CH   | CH1  | G    |
|-----------|-----------------|-----|---------|----------|------|------|------|------|------|
|           |                 | mm  |         |          |      |      |      |      |      |
| 1211383   | R1A152106I-0602 | 6   | M12X1.5 | 1/8-28   | 24,5 | 8,0  | 14,0 | 14,0 | 14,0 |
| 1211384   | R1A152106I-2816 | 28  | M36X2   | 1-11     | 35,0 | 18,0 | 41,0 | 41,0 | 40,0 |
| 1211385   | R1A152106I-3520 | 35  | M45X2   | 1 1/4-11 | 42,5 | 20,0 | 50,0 | 50,0 | 50,0 |
| 1206814   | R1A152106I-1004 | 10  | M16X1.5 | 1/4-19   | 27,5 | 12,0 | 19,0 | 19,0 | 19,0 |
| 1211386   | R1A152106I-4224 | 42  | M52X2   | 1 1/2-11 | 46,5 | 22,0 | 55,0 | 60,0 | 55,0 |
| 1208085   | R1A152106I-2212 | 22  | M30X2   | 3/4-14   | 32,5 | 16,0 | 32,0 | 36,0 | 32,0 |
| 1208044   | R1A152106I-1808 | 18  | M26X1.5 | 1/2-14   | 31,5 | 14,0 | 27,0 | 32,0 | 27,0 |
| 1206931   | R1A152106I-0804 | 8   | M14X1.5 | 1/4-19   | 29,5 | 12,0 | 19,0 | 17,0 | 19,0 |
| 1206558   | R1A152106I-1206 | 12  | M18X1.5 | 3/8-19   | 34,0 | 12,0 | 22,0 | 22,0 | 22,0 |
| 1208084   | R1A152106I-1508 | 15  | M22X1.5 | 1/2-14   | 32,0 | 14,0 | 27,0 | 27,0 | 27,0 |

**Straight connector DIN 24° Female with O-Ring - BSPP cylindric  
Male with elastomer - Heavy series**


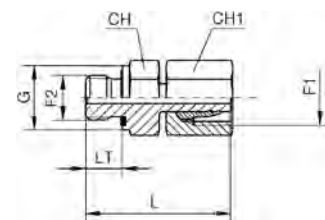
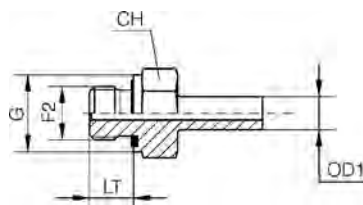
| Item Code | Part Number     | OD1 | F1      | F2       | Q1   | LT   | CH   | CH1  | G    |
|-----------|-----------------|-----|---------|----------|------|------|------|------|------|
|           |                 | mm  |         |          |      |      |      |      |      |
| 1207555   | R1A162106I-2012 | 20  | M30X2   | 3/4-14   | 43,0 | 16,0 | 32,0 | 36,0 | 32,0 |
| 1207544   | R1A162106I-3020 | 30  | M42X2   | 1 1/4-11 | 51,0 | 20,0 | 50,0 | 50,0 | 50,0 |
| 1211449   | R1A162106I-3824 | 38  | M52X2   | 1 1/2-11 | 60,0 | 22,0 | 55,0 | 60,0 | 55,0 |
| 1206561   | R1A162106I-1608 | 16  | M24X1.5 | 1/2-14   | 37,0 | 14,0 | 27,0 | 30,0 | 27,0 |
| 1208169   | R1A162106I-1206 | 12  | M20X1.5 | 3/8-19   | 34,0 | 12,0 | 22,0 | 24,0 | 22,0 |
| 1208168   | R1A162106I-1006 | 10  | M18X1.5 | 3/8-19   | 32,0 | 12,0 | 22,0 | 22,0 | 22,0 |
| 1207131   | R1A162106I-2516 | 25  | M36X2   | 1-11     | 48,0 | 18,0 | 41,0 | 46,0 | 40,0 |
| 1208170   | R1A162106I-1408 | 14  | M22X1.5 | 1/2-14   | 36,5 | 14,0 | 27,0 | 27,0 | 27,0 |
| 1206834   | R1A162106I-0804 | 8   | M16X1.5 | 1/4-19   | 29,5 | 12,0 | 19,0 | 19,0 | 19,0 |
| 1211448   | R1A162106I-0604 | 6   | M14X1.5 | 1/4-19   | 27,0 | 12,0 | 19,0 | 17,0 | 19,0 |

### Straight connector DIN 24° Female pre-assembled - BSPP cylindric Male with elastomer - Light series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | F1      | F2       | LT<br>mm | CH<br>mm | CH1<br>mm | G<br>mm | L<br>mm |
|------------------------|-----------------------|-----------------------|-----------|---------|----------|----------|----------|-----------|---------|---------|
| 1205553                | 1243691               | R1A113106I-1206       | 12        | M18X1.5 | 3/8-19   | 12,0     | 22,0     | 22,0      | 22,0    | 46,0    |
| 1205554                | 1243692               | R1A113106I-1508       | 15        | M22X1.5 | 1/2-14   | 14,0     | 27,0     | 27,0      | 27,0    | 46,0    |
| 1206303                | 1243688               | R1A113106I-0602       | 6         | M12X1.5 | 1/8-28   | 8,0      | 14,0     | 14,0      | 14,0    | 32,5    |
| 1205555                | 1243694               | R1A113106I-2212       | 22        | M30X2   | 3/4-14   | 16,0     | 32,0     | 36,0      | 32,0    | 48,5    |
| 1206000                | 1243696               | R1A113106I-3520       | 35        | M45X2   | 1 1/4-11 | 20,0     | 50,0     | 50,0      | 50,0    | 62,5    |
| 1205583                | -                     | R1A113106I-0804 _ A   | 8         | M14X1.5 | 1/4-19   | 12,0     | 19,0     | 17,0      | 19,0    | 41,5    |
| 1205573                | 1243690               | R1A113106I-1004       | 10        | M16X1.5 | 1/4-19   | 12,0     | 19,0     | 19,0      | 19,0    | 39,5    |
| 1206073                | 1243695               | R1A113106I-2816       | 28        | M36X2   | 1-11     | 18,0     | 41,0     | 41,0      | 40,0    | 53,0    |
| 1206492                | 1243697               | R1A113106I-4224       | 42        | M52X2   | 1 1/2-11 | 22,0     | 55,0     | 60,0      | 55,0    | 68,5    |
| 1205766                | 1243693               | R1A113106I-1808       | 18        | M26X1.5 | 1/2-14   | 14,0     | 27,0     | 32,0      | 27,0    | 45,5    |

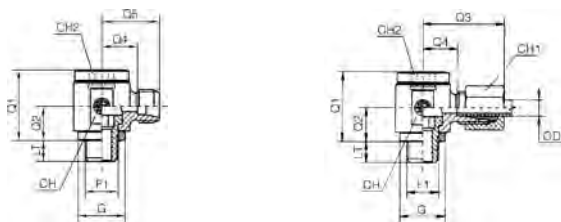
### Straight connector DIN 24° Female pre-assembled - BSPP cylindric Male with elastomer - Heavy series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | F1      | F2       | LT<br>mm | CH<br>mm | CH1<br>mm | G<br>mm | L<br>mm |
|------------------------|-----------------------|-----------------------|-----------|---------|----------|----------|----------|-----------|---------|---------|
| 1206487                | 1244029               | R1A123106I-1006       | 10        | M18X1.5 | 3/8-19   | 12,0     | 22,0     | 22,0      | 22,0    | 44,5    |
| 1206032                | 1244032               | R1A123106I-1608       | 16        | M24X1.5 | 1/2-14   | 14,0     | 27,0     | 30,0      | 27,0    | 50,5    |
| 1206033                | 1244031               | R1A123106I-1408       | 14        | M22X1.5 | 1/2-14   | 14,0     | 27,0     | 27,0      | 27,0    | 51,0    |
| 1206485                | 1244027               | R1A123106I-0604       | 6         | M14X1.5 | 1/4-19   | 12,0     | 19,0     | 17,0      | 19,0    | 39,0    |
| 1206034                | 1244030               | R1A123106I-1206       | 12        | M20X1.5 | 3/8-19   | 12,0     | 22,0     | 24,0      | 22,0    | 46,0    |
| 1206035                | 1244028               | R1A123106I-0804       | 8         | M16X1.5 | 1/4-19   | 12,0     | 19,0     | 19,0      | 19,0    | 41,5    |
| 1206490                | 1244035               | R1A123106I-3020       | 30        | M42X2   | 1 1/4-11 | 20,0     | 50,0     | 50,0      | 50,0    | 71,0    |
| 1206491                | 1244036               | R1A123106I-3824       | 38        | M52X2   | 1 1/2-11 | 22,0     | 55,0     | 60,0      | 55,0    | 82,0    |
| 1206030                | 1244034               | R1A123106I-2516       | 25        | M36X2   | 1-11     | 18,0     | 41,0     | 46,0      | 40,0    | 66,0    |
| 1206031                | 1244033               | R1A123106I-2012       | 20        | M30X2   | 3/4-14   | 16,0     | 32,0     | 36,0      | 32,0    | 59,0    |

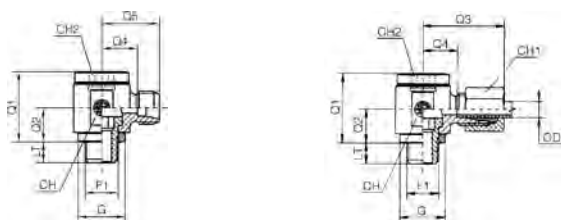
Dimensions shown may be changed without prior notice

### Banjo elbow - Type B - BSPP Male DIN 24° - Light series



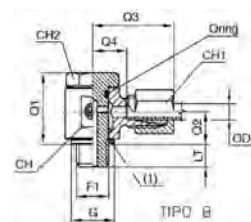
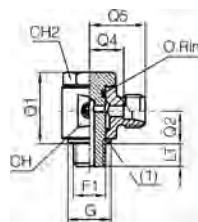
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1211009                | 1243913               | R1A11ME06M-4224          | 42        | 1 1/2-11 | 85,0     | 42,0     | 63,0     | 40,0     | 52,5     | 22,0     | 70,0     | 60,0      | 32,0      | 55,0    |
| 1206158                | 1243905               | R1A11ME06M-0804          | 8         | 1/4-19   | 30,0     | 16,0     | 29,0     | 14,5     | 21,5     | 12,0     | 22,0     | 17,0      | 8,0       | 18,0    |
| 1208107                | 1243911               | R1A11ME06M-2816          | 28        | 1-11     | 64,0     | 32,0     | 48,0     | 31,5     | 39,0     | 18,0     | 50,0     | 41,0      | 22,0      | 39,0    |
| 1243686                | 1243906               | R1A11ME06M-1004          | 8         | 1/4-19   | 30,0     | 16,0     | 30,0     | 15,5     | 23,0     | 12,0     | 22,0     | 19,0      | 8,0       | 18,0    |
| 1206277                | 1243908               | R1A11ME06M-1508          | 15        | 1/2-14   | 42,0     | 21,0     | 37,0     | 22,0     | 29,0     | 14,0     | 32,0     | 27,0      | 12,0      | 26,0    |
| 1206160                | 1243907               | R1A11ME06M-1206          | 12        | 3/8-19   | 37,0     | 18,0     | 33,0     | 18,0     | 25,5     | 12,0     | 27,0     | 22,0      | 10,0      | 22,0    |
| 1206161                | 1243912               | R1A11ME06M-3520          | 35        | 1 1/4-11 | 76,0     | 37,0     | 57,0     | 35,5     | 46,0     | 20,0     | 60,0     | 50,0      | 27,0      | 49,0    |
| 1207054                | 1243904               | R1A11ME06M-0602          | 6         | 1/8-28   | 24,0     | 12,0     | 27,0     | 12,5     | 19,5     | 8,0      | 19,0     | 14,0      | 6,0       | 14,0    |
| 1211007                | 1243909               | R1A11ME06M-1808          | 18        | 1/2-14   | 46,0     | 23,0     | 38,0     | 21,5     | 29,0     | 14,0     | 36,0     | 32,0      | 12,0      | 26,0    |
| 1211008                | 1243910               | R1A11ME06M-2212          | 22        | 3/4-14   | 58,0     | 28,0     | 45,0     | 28,5     | 36,0     | 16,0     | 46,0     | 36,0      | 17,0      | 32,0    |

### Banjo elbow - Type B - BSPP Male DIN 24° - Heavy series



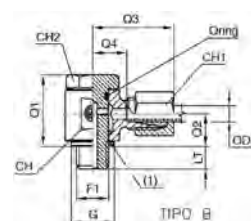
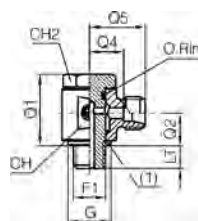
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206114                | 1244268               | R1A12ME06M-0604          | 6         | 1/4-19   | 30,0     | 16,0     | 31,0     | 16,5     | 23,5     | 12,0     | 22,0     | 17,0      | 8,0       | 18,0    |
| 1207059                | 1244267               | R1A12ME06M-1408          | 14        | 1/2-14   | 42,0     | 21,0     | 41,0     | 23,0     | 31,0     | 14,0     | 32,0     | 27,0      | 12,0      | 26,0    |
| 1206115                | 1244269               | R1A12ME06M-0804          | 8         | 1/4-19   | 30,0     | 16,0     | 31,0     | 16,5     | 23,5     | 12,0     | 22,0     | 19,0      | 8,0       | 18,0    |
| 1206116                | 1244270               | R1A12ME06M-1006          | 10        | 3/8-19   | 37,0     | 18,0     | 35,0     | 18,5     | 26,0     | 12,0     | 27,0     | 22,0      | 10,0      | 22,0    |
| 1244267                | -                     | R1A12ME06M-1408_A        | 14        | 1/2-14   | 42,0     | 21,0     | 41,0     | 23,0     | -        | 14,0     | 32,0     | 27,0      | 12,0      | 26,0    |
| 1211197                | 1244272               | R1A12ME06M-2012          | 20        | 3/4-14   | 58,0     | 28,0     | 49,0     | 27,5     | 38,0     | 16,0     | 46,0     | 36,0      | 17,0      | 32,0    |
| 1211198                | 1244273               | R1A12ME06M-2516          | 25        | 1-11     | 64,0     | 32,0     | 55,0     | 31,0     | 43,0     | 18,0     | 50,0     | 46,0      | 22,0      | 39,0    |
| 1211199                | 1244274               | R1A12ME06M-3020          | 30        | 1 1/4-11 | 76,0     | 37,0     | 63,0     | 36,5     | 50,0     | 20,0     | 60,0     | 50,0      | 27,0      | 49,0    |
| 1208220                | 1244275               | R1A12ME06M-3824          | 38        | 1 1/2-11 | 85,0     | 42,0     | 72,0     | 41,0     | 58,5     | 22,0     | 70,0     | 60,0      | 32,0      | 55,0    |
| 1206117                | 1244271               | R1A12ME06M-1206          | 12        | 3/8-19   | 37,0     | 18,0     | 35,0     | 18,5     | 26,0     | 12,0     | 27,0     | 24,0      | 10,0      | 22,0    |

### Banjo elbow - Type A - BSPP Male DIN 24° - Light series



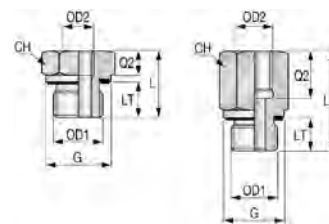
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1     | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|--------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206531                | 1243902               | R1A11ME035-1808          | 18        | 1/2-14 | 48,0     | 23,0     | 40,0     | 22,0     | 29,5     | 14,0     | 36,0     | 32,0      | 27,0      | 26,0    |
| 1206576                | 1243897               | R1A11ME035-0602          | 6         | 1/8-28 | 27,0     | 12,5     | 29,0     | 13,0     | 20,0     | 8,0      | 19,0     | 14,0      | 17,0      | 15,0    |
| 1206148                | 1243898               | R1A11ME035-0804          | 8         | 1/4-19 | 30,5     | 15,0     | 30,5     | 14,5     | 21,5     | 12,0     | 22,0     | 17,0      | 19,0      | 18,0    |
| 1206149                | 1243899               | R1A11ME035-1004          | 10        | 1/4-19 | 30,5     | 15,0     | 32,0     | 15,5     | 22,5     | 12,0     | 22,0     | 19,0      | 19,0      | 18,0    |
| 1207006                | 1243903               | R1A11ME035-2212          | 22        | 1/8-28 | 56,0     | 26,0     | 47,0     | 28,0     | 35,5     | 16,0     | 41,0     | 36,0      | 32,0      | 32,0    |
| 1206530                | 1243901               | R1A11ME035-1508          | 15        | 1/2-14 | 48,0     | 23,0     | 39,0     | 22,5     | 29,5     | 14,0     | 36,0     | 27,0      | 27,0      | 26,0    |
| 1206150                | 1243900               | R1A11ME035-1206          | 12        | 3/8-19 | 38,5     | 19,0     | 36,0     | 19,5     | 26,5     | 12,0     | 30,0     | 22,0      | 24,0      | 22,0    |

### Banjo elbow - Type A - BSPP Male DIN 24° - Heavy series



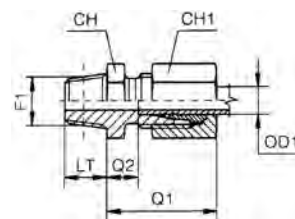
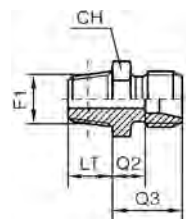
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1     | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | Q5<br>mm | LT<br>mm | CH<br>mm | CH1<br>mm | CH2<br>mm | G<br>mm |
|------------------------|-----------------------|--------------------------|-----------|--------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|---------|
| 1206532                | 1241550               | R1A12ME035-1006          | 10        | 3/8-19 | 38,5     | 19,0     | 38,0     | 20,0     | 27,5     | 12,0     | 30,0     | 22,0      | 24,0      | 22,0    |
| 1206533                | 1244265               | R1A12ME035-1608          | 16        | 1/2-14 | 48,0     | 23,0     | 43,0     | 23,0     | 31,5     | 14,0     | 36,0     | 30,0      | 27,0      | 26,0    |
| 1206098                | 1244261               | R1A12ME035-0604          | 6         | 1/4-19 | 30,5     | 15,0     | 33,0     | 16,5     | 23,5     | 12,0     | 22,0     | 17,0      | 19,0      | 18,0    |
| 1206582                | 1244264               | R1A12ME035-1408          | 14        | 1/2-14 | 48,0     | 23,0     | 42,5     | 23,5     | 31,5     | 14,0     | 36,0     | 27,0      | 27,0      | 26,0    |
| 1206583                | 1244266               | R1A12ME035-2012          | 20        | 3/4-14 | 56,0     | 26,0     | 51,5     | 27,0     | 37,5     | 16,0     | 41,0     | 36,0      | 32,0      | 32,0    |
| 1207025                | 1244262               | R1A12ME035-0804          | 8         | 1/4-19 | 30,5     | 15,0     | 32,5     | 16,5     | 23,5     | 12,0     | 22,0     | 19,0      | 19,0      | 18,0    |
| 1206151                | 1244263               | R1A12ME035-1206          | 12        | 3/8-19 | 38,5     | 19,0     | 38,0     | 20,0     | 27,5     | 12,0     | 30,0     | 24,0      | 24,0      | 22,0    |

Dimensions shown may be changed without prior notice

**Straight connector BSPP Female - BSPP Male with elastomer**

| Item Code | Part Number     | F2       | CH   | L    | LT   | G    | Type |
|-----------|-----------------|----------|------|------|------|------|------|
|           |                 |          | mm   | mm   | mm   | mm   |      |
| 1206421   | R1A06F106I-1224 | 1 1/2-11 | 60,0 | 57,0 | 16,0 | 32,0 | B    |
| 1206465   | R1A06F106I-2016 | 1-11     | 50,0 | 53,0 | 20,0 | 50,0 | B    |
| 1206422   | R1A06F106I-1220 | 1 1/4-11 | 55,0 | 55,0 | 16,0 | 32,0 | B    |
| 1206500   | R1A06F106I-1612 | 3/4-14   | 41,0 | 49,0 | 18,0 | 40,0 | B    |
| 1206501   | R1A06F106I-1608 | 1/2-14   | 41,0 | 29,0 | 18,0 | 40,0 | A    |
| 1206420   | R1A06F106I-0816 | 1-11     | 41,0 | 49,0 | 14,0 | 27,0 | B    |
| 1206418   | R1A06F106I-1216 | 1-11     | 41,0 | 51,0 | 16,0 | 32,0 | B    |
| 1206517   | R1A06F106I-1620 | 1 1/4-11 | 55,0 | 57,0 | 18,0 | 40,0 | B    |
| 1206419   | R1A06F106I-1208 | 1/2-14   | 32,0 | 43,0 | 16,0 | 32,0 | B    |
| 1206518   | R1A06F106I-1624 | 1 1/2-11 | 60,0 | 59,0 | 18,0 | 40,0 | B    |
| 1206519   | R1A06F106I-2024 | 1 1/2-11 | 60,0 | 60,0 | 20,0 | 50,0 | B    |
| 1206513   | R1A06F106I-0608 | 1/2-14   | 30,0 | 41,0 | 12,0 | 22,0 | B    |
| 1206514   | R1A06F106I-0612 | 3/4-14   | 36,0 | 44,0 | 12,0 | 22,0 | B    |
| 1206515   | R1A06F106I-0812 | 3/4-14   | 36,0 | 46,0 | 14,0 | 27,0 | B    |
| 1206516   | R1A06F106I-0820 | 1 1/4-11 | 55,0 | 53,0 | 14,0 | 27,0 | B    |
| 1207863   | R1A06F106I-0802 | 1/8-28   | 27,0 | 24,0 | 14,0 | 27,0 | A    |
| 1206432   | R1A06F106I-0406 | 3/8-19   | 24,0 | 36,0 | 12,0 | 19,0 | B    |
| 1206510   | R1A06F106I-0402 | 1/8-28   | 19,0 | 29,0 | 12,0 | 19,0 | B    |
| 1206499   | R1A06F106I-2008 | 1/2-14   | 50,0 | 32,0 | 20,0 | 50,0 | A    |
| 1206511   | R1A06F106I-0206 | 3/8-19   | 24,0 | 32,0 | 8,0  | 14,0 | B    |
| 1206016   | R1A06F106I-0408 | 1/2-14   | 30,0 | 40,0 | 12,0 | 19,0 | B    |
| 1206512   | R1A06F106I-0412 | 3/4-14   | 36,0 | 43,0 | 12,0 | 19,0 | B    |
| 1206494   | R1A06F106I-2416 | 1-11     | 55,0 | 36,0 | 22,0 | 55,0 | A    |
| 1206495   | R1A06F106I-2412 | 3/4-14   | 55,0 | 36,0 | 22,0 | 55,0 | A    |
| 1206496   | R1A06F106I-2408 | 1/2-14   | 55,0 | 36,0 | 22,0 | 55,0 | A    |
| 1206431   | R1A06F106I-0204 | 1/4-19   | 19,0 | 31,0 | 8,0  | 14,0 | B    |
| 1206497   | R1A06F106I-2012 | 3/4-14   | 50,0 | 32,0 | 20,0 | 50,0 | A    |
| 1206493   | R1A06F106I-2420 | 1 1/4-11 | 55,0 | 58,0 | 22,0 | 55,0 | B    |
| 1206506   | R1A06F106I-0806 | 3/8-19   | 27,0 | 37,0 | 14,0 | 27,0 | B    |
| 1206507   | R1A06F106I-0804 | 1/4-19   | 27,0 | 24,0 | 14,0 | 27,0 | A    |
| 1206508   | R1A06F106I-0604 | 1/4-19   | 22,0 | 36,0 | 12,0 | 22,0 | B    |
| 1206509   | R1A06F106I-0602 | 1/8-28   | 22,0 | 22,5 | 12,0 | 22,0 | A    |
| 1206502   | R1A06F106I-1606 | 3/8-19   | 41,0 | 29,0 | 18,0 | 40,0 | A    |
| 1206503   | R1A06F106I-1604 | 1/4-19   | 41,0 | 29,0 | 18,0 | 40,0 | A    |
| 1206504   | R1A06F106I-1206 | 3/8-19   | 32,0 | 26,0 | 16,0 | 32,0 | A    |
| 1206505   | R1A06F106I-1204 | 1/4-19   | 32,0 | 26,0 | 16,0 | 32,0 | A    |

## // BSPT

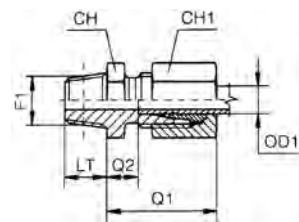
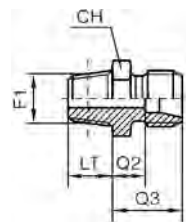
**Straight connector DIN 24° Male  
- BSPT cylindric flat Male - Light  
series**


| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|----------|-----------|----------|
| 1206454                | 1244915               | R1A11M107M-1002          | 10        | 1/8-28   | 26,0     | 9,0      | 16,0     | 17,0     | 19,0      | 10,0     |
| 1204296                | 1244921               | R1A11M107M-1508          | 15        | 1/2-14   | 29,0     | 11,0     | 18,0     | 24,0     | 27,0      | 16,0     |
| 1205587                | 1241960               | R1A11M107M-0806          | 8         | 3/8-19   | 26,0     | 9,0      | 16,0     | 19,0     | 17,0      | 13,0     |
| 1205482                | 1241566               | R1A11M107M-1204          | 12        | 1/4-19   | 27,0     | 10,0     | 17,0     | 19,0     | 22,0      | 13,0     |
| 1208156                | 1244924               | R1A11M107M-1812          | 18        | 3/4-14   | 32,0     | 11,5     | 19,0     | 32,0     | 32,0      | 18,0     |
| 1204289                | 1241526               | R1A11M107M-1004          | 10        | 1/4-19   | 26,0     | 9,0      | 16,0     | 17,0     | 19,0      | 13,0     |
| 1206221                | 1244914               | R1A11M107M-0808          | 8         | 1/2-14   | 26,0     | 9,0      | 16,0     | 22,0     | 17,0      | 16,0     |
| 1204288                | 1244917               | R1A11M107M-1008          | 10        | 1/2-14   | 27,0     | 10,0     | 17,0     | 22,0     | 19,0      | 16,0     |
| 1205770                | 1244925               | R1A11M107M-2212          | 22        | 3/4-14   | 33,0     | 13,5     | 21,0     | 32,0     | 36,0      | 18,0     |
| 1205584                | 1244913               | R1A11M107M-0804          | 8         | 1/4-19   | 25,0     | 8,0      | 15,0     | 17,0     | 17,0      | 13,0     |
| 1205771                | 1244926               | R1A11M107M-2816          | 28        | 1-11     | 34,0     | 14,5     | 22,0     | 41,0     | 41,0      | 20,0     |
| 1206046                | 1244928               | R1A11M107M-3520          | 35        | 1 1/4-11 | 39,0     | 14,5     | 25,0     | 46,0     | 50,0      | 21,0     |
| 1204293                | 1244918               | R1A11M107M-1206          | 12        | 3/8-19   | 27,0     | 10,0     | 17,0     | 19,0     | 22,0      | 13,0     |
| 1204292                | 1244919               | R1A11M107M-1208          | 12        | 1/2-14   | 27,0     | 10,0     | 17,0     | 22,0     | 22,0      | 16,0     |
| 1204290                | 1244916               | R1A11M107M-1006          | 10        | 3/8-19   | 27,0     | 10,0     | 17,0     | 19,0     | 19,0      | 13,0     |
| 1205769                | 1244923               | R1A11M107M-1808          | 18        | 1/2-14   | 31,0     | 11,5     | 19,0     | 27,0     | 32,0      | 16,0     |
| 1206606                | 1241564               | R1A11M107M-0802          | 8         | 1/8-28   | 25,0     | 8,0      | 15,0     | 14,0     | 17,0      | 10,0     |
| 1244867                | 1244922               | R1A11M107M-1806          | 18        | 3/8-19   | 31,0     | 11,5     | 19,0     | 27,0     | 32,0      | 13,0     |
| 1244868                | 1244927               | R1A11M107M-3516          | 35        | 1-11     | 39,0     | 14,5     | 25,0     | 46,0     | 50,0      | 20,0     |
| 1205767                | 1241561               | R1A11M107M-0602          | 6         | 1/8-28   | 23,0     | 7,0      | 14,0     | 12,0     | 14,0      | 10,0     |
| 1206219                | 1242147               | R1A11M107M-0604          | 6         | 1/4-19   | 24,0     | 8,0      | 15,0     | 17,0     | 14,0      | 13,0     |
| 1205768                | 1244920               | R1A11M107M-1506          | 15        | 3/8-19   | 29,0     | 11,0     | 18,0     | 24,0     | 27,0      | 13,0     |



Dimensions shown may be changed without prior notice

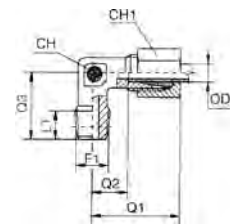
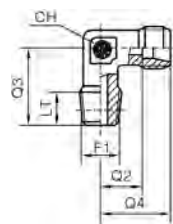
**Straight connector DIN 24° Male  
- BSPT cylindric flat Male - Heavy  
series**



| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body<br>Only | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|--------------------------|-----------|----------|----------|----------|----------|----------|-----------|----------|
| 1205772                | 1244989               | R1A12M107M-0604          | 6         | 1/4-19   | 28,0     | 12,0     | 19,0     | 17,0     | 17,0      | 13,0     |
| 1207841                | 1244998               | R1A12M107M-3824          | 38        | 1 1/2-11 | 57,0     | 22,0     | 38,0     | 55,0     | 60,0      | 22,0     |
| 1205773                | 1244990               | R1A12M107M-0804          | 8         | 1/4-19   | 30,0     | 13,0     | 20,0     | 17,0     | 19,0      | 13,0     |
| 1205894                | 1244993               | R1A12M107M-1408          | 14        | 1/2-14   | 37,0     | 16,0     | 24,0     | 24,0     | 27,0      | 16,0     |
| 1245383                | 1245391               | R1A12M107M-3820          | 38        | 1 1/4-11 | 57,0     | 22,0     | 38,0     | 55,0     | 60,0      | 21,0     |
| 1244891                | 1244991               | R1A12M107M-1006          | 10        | 3/8-19   | 31,0     | 12,5     | 20,0     | 19,0     | 22,0      | 13,0     |
| 1245380                | 1245385               | R1A12M107M-1204          | 12        | 1/4-19   | 33,0     | 14,5     | 22,0     | 22,0     | 24,0      | 13,0     |
| 1245381                | 1245386               | R1A12M107M-1208          | 12        | 1/2-14   | 33,0     | 14,5     | 22,0     | 22,0     | 24,0      | 16,0     |
| 1206082                | 1245389               | R1A12M107M-1606          | 16        | 3/8-19   | 37,0     | 17,5     | 26,0     | 27,0     | 30,0      | 13,0     |
| 1245382                | 1245390               | R1A12M107M-3016          | 30        | 1-11     | 50,0     | 19,5     | 33,0     | 46,0     | 50,0      | 20,0     |
| 1244892                | 1244992               | R1A12M107M-1206          | 12        | 3/8-19   | 33,0     | 14,5     | 22,0     | 22,0     | 24,0      | 13,0     |
| 1244893                | 1244996               | R1A12M107M-2516          | 25        | 1-11     | 47,0     | 18,0     | 30,0     | 41,0     | 46,0      | 20,0     |
| 1245379                | 1245384               | R1A12M107M-1004          | 10        | 1/4-19   | 31,0     | 12,5     | 20,0     | 19,0     | 22,0      | 13,0     |
| 1206916                | 1244997               | R1A12M107M-3020          | 30        | 1 1/4-11 | 50,0     | 19,5     | 33,0     | 46,0     | 50,0      | 21,0     |
| 1205776                | 1245388               | R1A12M107M-1406          | 14        | 3/8-19   | 37,0     | 16,0     | 24,0     | 24,0     | 27,0      | 13,0     |
| 1205777                | 1244994               | R1A12M107M-1608          | 16        | 1/2-14   | 37,0     | 17,5     | 26,0     | 27,0     | 30,0      | 16,0     |
| 1205778                | 1244995               | R1A12M107M-2012          | 20        | 3/4-14   | 42,0     | 17,5     | 28,0     | 32,0     | 36,0      | 18,0     |

## 90° connector DIN 24° Male - BSPT

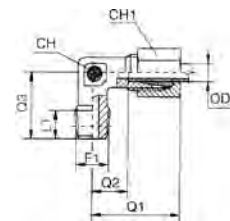
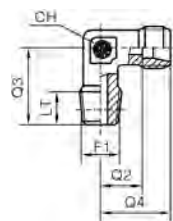
### Male - Light series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1204088                | 1244963               | R1A11M907M-1208 | 12        | 1/2-14   | 36,0     | 21,0     | 34,0     | 28,0     | 19,0     | 22,0      | 14,0     |
| 1205783                | 1244964               | R1A11M907M-1506 | 15        | 3/8-19   | 36,0     | 21,0     | 34,0     | 28,0     | 19,0     | 27,0      | 12,0     |
| 1204098                | 1241091               | R1A11M907M-0806 | 8         | 3/8-19   | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 17,0      | 12,0     |
| 1205784                | 1241843               | R1A11M907M-1808 | 18        | 1/2-14   | 40,0     | 23,5     | 36,0     | 31,0     | 24,0     | 32,0      | 14,0     |
| 1205521                | 1241567               | R1A11M907M-1204 | 12        | 1/4-19   | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 22,0      | 12,0     |
| 1205785                | 1244966               | R1A11M907M-2212 | 22        | 3/4-14   | 44,0     | 27,5     | 42,0     | 25,0     | 27,0     | 36,0      | 16,0     |
| 1204096                | 1241962               | R1A11M907M-0604 | 6         | 1/4-19   | 29,0     | 14,0     | 26,0     | 21,0     | 12,0     | 14,0      | 12,0     |
| 1204085                | 1244961               | R1A11M907M-1006 | 10        | 3/8-19   | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 19,0      | 12,0     |
| 1205780                | 1244959               | R1A11M907M-0602 | 6         | 1/8-28   | 27,0     | 12,0     | 20,0     | 19,0     | 12,0     | 14,0      | 8,0      |
| 1206232                | 1244960               | R1A11M907M-0802 | 8         | 1/8-28   | 29,0     | 14,0     | 26,0     | 21,0     | 12,0     | 17,0      | 8,0      |
| 1205781                | 1243352               | R1A11M907M-0804 | 8         | 1/4-19   | 29,0     | 14,0     | 26,0     | 21,0     | 12,0     | 17,0      | 12,0     |
| 1205782                | 1242418               | R1A11M907M-1004 | 10        | 1/4-19   | 30,0     | 15,0     | 27,0     | 22,0     | 14,0     | 19,0      | 12,0     |
| 1204089                | 1241475               | R1A11M907M-1206 | 12        | 3/8-19   | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 22,0      | 12,0     |
| 1206181                | 1244962               | R1A11M907M-1008 | 10        | 1/2-14   | 36,0     | 21,0     | 34,0     | 28,0     | 19,0     | 19,0      | 14,0     |
| 1204092                | 1244965               | R1A11M907M-1508 | 15        | 1/2-14   | 36,0     | 21,0     | 34,0     | 28,0     | 19,0     | 27,0      | 14,0     |
| 1244886                | 1244968               | R1A11M907M-3520 | 35        | 1 1/4-11 | 56,0     | 34,5     | 54,0     | 45,0     | 41,0     | 50,0      | 20,0     |
| 1244887                | 1244969               | R1A11M907M-4224 | 42        | 1 1/2-11 | 63,0     | 40,0     | 61,0     | 51,0     | 50,0     | 60,0      | 22,0     |
| 1206569                | 1244967               | R1A11M907M-2816 | 28        | 1-11     | 47,0     | 30,5     | 48,0     | 38,0     | 36,0     | 41,0      | 18,0     |

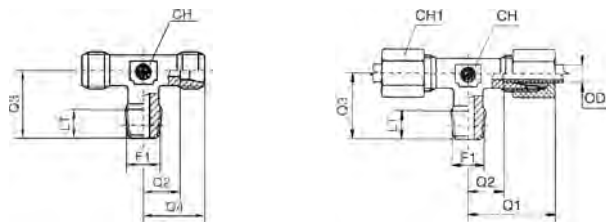
## 90° connector DIN 24° Male - BSPT

### Male - Heavy series

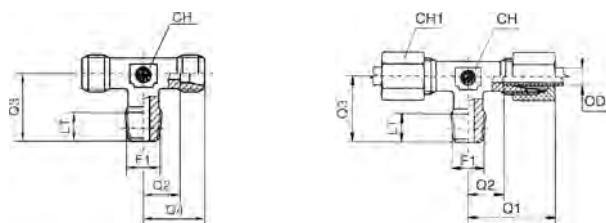


| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1205786                | 1245026               | R1A12M907M-0604 | 6         | 1/4-19   | 31,0     | 16,0     | 26,0     | 23,0     | 12,0     | 17,0      | 12,0     |
| 1206792                | 1245030               | R1A12M907M-1208 | 12        | 1/2-14   | 39,0     | 22,5     | 32,0     | 30,0     | 19,0     | 24,0      | 14,0     |
| 1205791                | 1245031               | R1A12M907M-1408 | 14        | 1/2-14   | 40,0     | 22,0     | 32,0     | 30,0     | 19,0     | 27,0      | 14,0     |
| 1205792                | 1245033               | R1A12M907M-1608 | 16        | 1/2-14   | 43,0     | 24,5     | 32,0     | 33,0     | 24,0     | 30,0      | 14,0     |
| 1205793                | 1245034               | R1A12M907M-2012 | 20        | 3/4-14   | 48,0     | 26,5     | 42,0     | 37,0     | 27,0     | 36,0      | 16,0     |
| 1241128                | 1245037               | R1A12M907M-3824 | 38        | 1 1/2-11 | 72,0     | 41,0     | 61,0     | 57,0     | 50,0     | 60,0      | 22,0     |
| 1205787                | 1245027               | R1A12M907M-0804 | 8         | 1/4-19   | 32,0     | 17,0     | 27,0     | 24,0     | 14,0     | 19,0      | 12,0     |
| 1206722                | 1245032               | R1A12M907M-1606 | 16        | 3/8-19   | 43,0     | 24,5     | 32,0     | 33,0     | 24,0     | 30,0      | 12,0     |
| 1207845                | 1245035               | R1A12M907M-2516 | 25        | 1-11     | 54,0     | 30,0     | 48,0     | 42,0     | 36,0     | 46,0      | 18,0     |
| 1205788                | 1245028               | R1A12M907M-1006 | 10        | 3/8-19   | 34,0     | 17,5     | 28,0     | 25,0     | 17,0     | 22,0      | 12,0     |
| 1205789                | 1245029               | R1A12M907M-1206 | 12        | 3/8-19   | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      | 12,0     |
| 1207846                | 1245036               | R1A12M907M-3020 | 30        | 1 1/4-11 | 62,0     | 35,5     | 54,0     | 49,0     | 41,0     | 50,0      | 20,0     |

Dimensions shown may be changed without prior notice

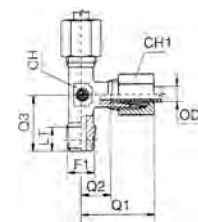
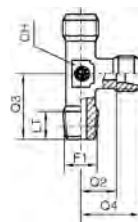
**Branch Tee connector DIN 24° Male -  
BSPT Male - Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|
| 1205794                | 1242713               | R1A11MT07M-0804 | 8         | M14X1.5 | 29,0     | 14,0     | 26,0     | 21,0     | 12,0     | 17,0      | 12,0     |
| 1206124                | 1244985               | R1A11MT07M-2212 | 22        | M30X2   | 44,0     | 27,5     | 42,0     | 35,0     | 27,0     | 36,0      | 16,0     |
| 1205795                | 1244981               | R1A11MT07M-1004 | 10        | M16X1.5 | 30,0     | 15,0     | 27,0     | 22,0     | 14,0     | 19,0      | 12,0     |
| 1205796                | 1244982               | R1A11MT07M-1206 | 12        | M18X1.5 | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 22,0      | 12,0     |
| 1207821                | 1244988               | R1A11MT07M-4224 | 42        | M52X2   | 63,0     | 40,0     | 61,0     | 51,0     | 50,0     | 60,0      | 22,0     |
| 1206237                | 1244980               | R1A11MT07M-0602 | 6         | M12X1.5 | 27,0     | 12,0     | 20,0     | 19,0     | 12,0     | 14,0      | 8,0      |
| 1207820                | 1244987               | R1A11MT07M-3520 | 35        | M45X2   | 56,0     | 34,5     | 54,0     | 45,0     | 41,0     | 50,0      | 20,0     |
| 1207819                | 1244986               | R1A11MT07M-2816 | 28        | M36X2   | 47,0     | 30,5     | 48,0     | 38,0     | 36,0     | 41,0      | 18,0     |
| 1206123                | 1244983               | R1A11MT07M-1508 | 15        | M22X1.5 | 36,0     | 21,0     | 34,0     | 28,0     | 19,0     | 27,0      | 14,0     |

**Branch Tee connector DIN 24° Male -  
BSPT Male - Heavy series**

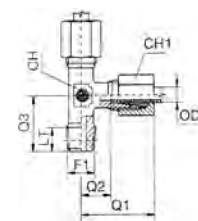
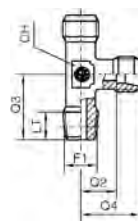
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1      | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|---------|----------|----------|----------|----------|----------|-----------|----------|
| 1207852                | 1245054               | R1A12MT07M-2516 | 25        | M36X2   | 54,0     | 30,0     | 48,0     | 42,0     | 36,0     | 46,0      | 18,0     |
| 1207851                | 1245052               | R1A12MT07M-1408 | 14        | M22X1.5 | 40,0     | 22,0     | 32,0     | 30,0     | 19,0     | 27,0      | 14,0     |
| 1207029                | 1245049               | R1A12MT07M-0804 | 8         | M16X1.5 | 32,0     | 17,0     | 27,0     | 24,0     | 14,0     | 19,0      | 12,0     |
| 1207028                | 1245048               | R1A12MT07M-0604 | 6         | M14X1.5 | 31,0     | 16,0     | 26,0     | 23,0     | 12,0     | 17,0      | 12,0     |
| 1207030                | 1245050               | R1A12MT07M-1006 | 10        | M18X1.5 | 34,0     | 17,5     | 28,0     | 25,0     | 17,0     | 22,0      | 12,0     |
| 1245394                | 1245397               | R1A12MT07M-2012 | 20        | M30X2   | 48,0     | 26,5     | 42,0     | 37,0     | 27,0     | 36,0      | 16,0     |
| 1245395                | 1245398               | R1A12MT07M-3020 | 30        | M42X2   | 62,0     | 35,5     | 54,0     | 49,0     | 41,0     | 50,0      | 20,0     |
| -                      | 1245399               | -               | 38        | M52X2   | 72,0     | 41,0     | 61,0     | 49,0     | 50,0     | 60,0      | 22,0     |
| 1207031                | 1245051               | R1A12MT07M-1206 | 12        | M20X1.5 | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      | 12,0     |
| 1206239                | 1245053               | R1A12MT07M-1608 | 16        | M24X1.5 | 43,0     | 24,5     | 32,0     | 33,0     | 24,0     | 30,0      | 14,0     |

### Run Tee connector DIN 24° Male - BSPT Male - Light series



| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1206236                | 1244973               | R1A11ML07M-1206 | 12        | 3/8-19   | 32,0     | 17,0     | 28,0     | 24,0     | 17,0     | 22,0      | 12,0     |
| 1244888                | 1244976               | R1A11ML07M-2212 | 22        | 3/4-14   | 44,0     | 27,5     | 42,0     | 35,0     | 27,0     | 36,0      | 16,0     |
| 1206409                | 1244974               | R1A11ML07M-1508 | 15        | 1/2-14   | 36,0     | 21,0     | 34,0     | 38,0     | 19,0     | 27,0      | 14,0     |
| 1207818                | 1244978               | R1A11ML07M-3520 | 35        | 1 1/4-11 | 56,0     | 34,5     | 54,0     | 45,0     | 41,0     | 50,0      | 20,0     |
| 1244890                | 1244979               | R1A11ML07M-4224 | 42        | 1 1/2-11 | 63,0     | 40,0     | 61,0     | 51,0     | 50,0     | 60,0      | 22,0     |
| 1244889                | 1244977               | R1A11ML07M-2816 | 28        | 1-11     | 47,0     | 30,5     | 48,0     | 38,0     | 36,0     | 41,0      | 18,0     |
| 1211017                | 1244971               | R1A11ML07M-0804 | 8         | 1/4-19   | 29,0     | 14,0     | 26,0     | 21,0     | 12,0     | 17,0      | 12,0     |
| 1206723                | 1244972               | R1A11ML07M-1004 | 10        | 1/4-19   | 30,0     | 15,0     | 27,0     | 22,0     | 14,0     | 19,0      | 12,0     |

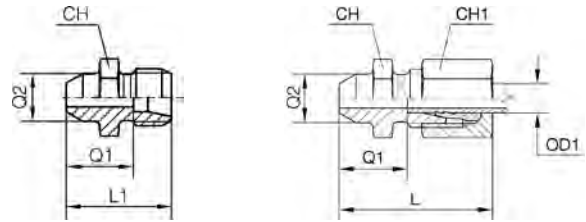
### Run Tee connector DIN 24° Male - BSPT Male - Heavy series



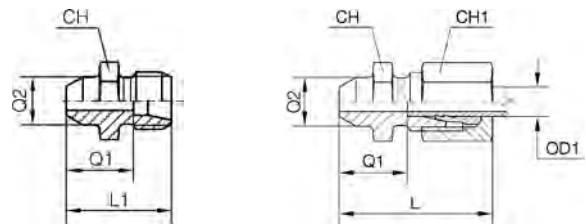
| Item Code<br>Body Only | Item Code<br>Complete | Part Number     | OD1<br>mm | F1       | Q1<br>mm | Q2<br>mm | Q3<br>mm | Q4<br>mm | CH<br>mm | CH1<br>mm | LT<br>mm |
|------------------------|-----------------------|-----------------|-----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| 1244910                | 1245045               | R1A12ML07M-2516 | 25        | 1-11     | 54,0     | 30,0     | 48,0     | 42,0     | 36,0     | 46,0      | 18,0     |
| 1207850                | 1245044               | R1A12ML07M-2012 | 20        | 3/4-14   | 48,0     | 26,5     | 42,0     | 37,0     | 27,0     | 36,0      | 16,0     |
| 1207849                | 1245043               | R1A12ML07M-1608 | 16        | 1/2-14   | 43,0     | 24,5     | 32,0     | 33,0     | 24,0     | 30,0      | 14,0     |
| 1207848                | 1245041               | R1A12ML07M-1206 | 12        | 3/8-19   | 38,0     | 21,5     | 31,0     | 29,0     | 17,0     | 24,0      | 12,0     |
| 1244911                | 1245046               | R1A12ML07M-3020 | 30        | 1 1/4-11 | 62,0     | 35,5     | 54,0     | 49,0     | 41,0     | 50,0      | 20,0     |
| 1211204                | 1245038               | R1A12ML07M-0604 | 6         | 1/4-19   | 31,0     | 16,0     | 26,0     | 23,0     | 12,0     | 17,0      | 12,0     |
| 1244912                | 1245047               | R1A12ML07M-3824 | 38        | 1 1/2-11 | 72,0     | 41,0     | 61,0     | 57,0     | 50,0     | 60,0      | 22,0     |
| 1211205                | 1245039               | R1A12ML07M-0804 | 8         | 1/4-19   | 32,0     | 17,0     | 27,0     | 24,0     | 14,0     | 19,0      | 12,0     |
| 1207847                | 1245040               | R1A12ML07M-1006 | 10        | 3/8-19   | 34,0     | 17,5     | 28,0     | 25,0     | 17,0     | 22,0      | 12,0     |
| 1211206                | 1245042               | R1A12ML07M-1408 | 14        | 1/2-14   | 40,0     | 22,0     | 32,0     | 30,0     | 19,0     | 27,0      | 14,0     |

Dimensions shown may be changed without prior notice

## // BUTT WELD

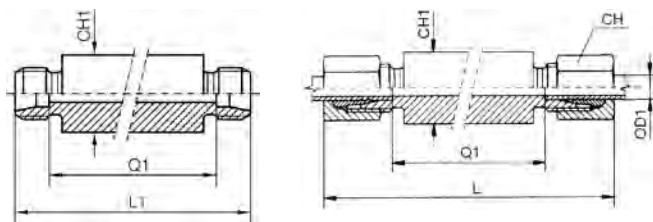
**Butt Weld straight coupling DIN 24° -  
Light series**

| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|-----------|---------|----------|
| 1211092                | 1243712               | R1A11M100S-1500       | 15        | 22,0     | 19,0     | 22,0     | 27,0      | 37,0    | 29,0     |
| 1211093                | 1243713               | R1A11M100S-1800       | 18        | 23,5     | 22,0     | 27,0     | 32,0      | 40,0    | 31,0     |
| 1211094                | 1243714               | R1A11M100S-2200       | 22        | 28,5     | 27,0     | 32,0     | 36,0      | 45,0    | 36,0     |
| 1211095                | 1243715               | R1A11M100S-2800       | 28        | 30,5     | 32,0     | 41,0     | 41,0      | 47,0    | 38,0     |
| 1211096                | 1243716               | R1A11M100S-3500       | 35        | 32,5     | 40,0     | 46,0     | 50,0      | 54,0    | 43,0     |
| 1211088                | 1243708               | R1A11M100S-0600       | 6         | 14,0     | 10,0     | 12,0     | 14,0      | 29,0    | 21,0     |
| 1211089                | 1243709               | R1A11M100S-0800       | 8         | 16,0     | 12,0     | 14,0     | 17,0      | 31,0    | 23,0     |
| 1210752                | 1243717               | R1A11M100S-4200       | 42        | 35,0     | 46,0     | 55,0     | 60,0      | 58,0    | 46,0     |
| 1211090                | 1243710               | R1A11M100S-1000       | 10        | 18,0     | 14,0     | 17,0     | 19,0      | 33,0    | 25,0     |
| 1211091                | 1243711               | R1A11M100S-1200       | 12        | 18,0     | 16,0     | 19,0     | 22,0      | 33,0    | 25,0     |

**Butt Weld straight coupling DIN 24° -  
Heavy series**

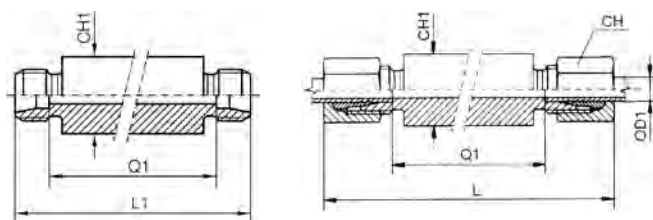
| Item Code<br>Body Only | Item Code<br>Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | Q2<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|------------------------|-----------------------|-----------------------|-----------|----------|----------|----------|-----------|---------|----------|
| 1207100                | 1244053               | R1A12M100S-2000       | 20        | 29,5     | 26,0     | 32,0     | 36,0      | 51,0    | 40,0     |
| 1207132                | 1244056               | R1A12M100S-3800       | 38        | 38,0     | 44,0     | 55,0     | 60,0      | 69,0    | 54,0     |
| 1206144                | 1244050               | R1A12M100S-1200       | 12        | 24,5     | 17,0     | 22,0     | 24,0      | 41,0    | 32,0     |
| 1211265                | 1244047               | R1A12M100S-0600       | 6         | 19,0     | 11,0     | 14,0     | 17,0      | 34,0    | 26,0     |
| 1208075                | 1244054               | R1A12M100S-2500       | 25        | 32,0     | 31,0     | 41,0     | 46,0      | 56,0    | 44,0     |
| 1211266                | 1244048               | R1A12M100S-0800       | 8         | 21,0     | 13,0     | 17,0     | 19,0      | 36,0    | 28,0     |
| 1208074                | 1244049               | R1A12M100S-1000       | 10        | 22,5     | 15,0     | 19,0     | 22,0      | 39,0    | 30,0     |
| 1211267                | 1244051               | R1A12M100S-1400       | 14        | 27,0     | 19,0     | 24,0     | 27,0      | 45,0    | 35,0     |
| 1211268                | 1244052               | R1A12M100S-1600       | 16        | 26,5     | 21,0     | 27,0     | 30,0      | 45,0    | 35,0     |
| 1211269                | 1244055               | R1A12M100S-3000       | 30        | 35,5     | 36,0     | 46,0     | 50,0      | 62,0    | 49,0     |

### Butt Weld long straight coupling DIN 24° - Light series



| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|---------------------|--------------------|-----------------------|-----------|----------|----------|-----------|---------|----------|
| 1211098             | 1243787            | R1A11M111S-0606       | 6         | 56,0     | 14,0     | 18,0      | 85,0    | 70,0     |
| 1211099             | 1243788            | R1A11M111S-0808       | 8         | 56,0     | 17,0     | 20,0      | 85,0    | 70,0     |
| 1211100             | 1243789            | R1A11M111S-1010       | 10        | 58,0     | 19,0     | 22,0      | 87,0    | 72,0     |
| 1211101             | 1243790            | R1A11M111S-1212       | 12        | 58,0     | 22,0     | 25,0      | 87,0    | 72,0     |
| 1211102             | 1243791            | R1A11M111S-1818       | 18        | 69,0     | 32,0     | 32,0      | 101,0   | 84,0     |
| 1207460             | 1244547            | R1A11M111S-1515       | 15        | 70,0     | 27,0     | 28,0      | 100,0   | 84,0     |
| 1211103             | 1243792            | R1A11M111S-2222       | 22        | 73,0     | 36,0     | 36,0      | 105,0   | 88,0     |
| 1211104             | 1243793            | R1A11M111S-2828       | 28        | 73,0     | 41,0     | 40,0      | 106,0   | 88,0     |
| 1211105             | 1243794            | R1A11M111S-3535       | 35        | 71,0     | 50,0     | 50,0      | 114,0   | 92,0     |
| 1211106             | 1243795            | R1A11M111S-4242       | 42        | 70,0     | 60,0     | 60,0      | 115,0   | 92,0     |

### Butt Weld long straight coupling DIN 24° - Heavy series

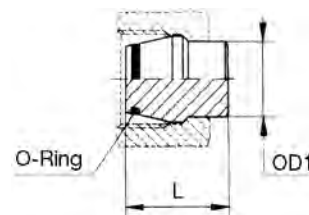


| Item Code Body Only | Item Code Complete | Part Number Body Only | OD1<br>mm | Q1<br>mm | CH<br>mm | CH1<br>mm | L<br>mm | L1<br>mm |
|---------------------|--------------------|-----------------------|-----------|----------|----------|-----------|---------|----------|
| 1207467             | 1242452            | R1A12M112S-2020       | 20        | 71,0     | 36,0     | 38,0      | 114,0   | 92,0     |
| 1211271             | 1244135            | R1A12M112S-0606       | 6         | 60,0     | 17,0     | 20,0      | 89,0    | 74,0     |
| 1211272             | 1244136            | R1A12M112S-0808       | 8         | 60,0     | 19,0     | 22,0      | 89,0    | 74,0     |
| 1211273             | 1244138            | R1A12M112S-1212       | 12        | 59,0     | 24,0     | 28,0      | 91,0    | 74,0     |
| 1211274             | 1244139            | R1A12M112S-1414       | 14        | 72,0     | 27,0     | 30,0      | 107,0   | 88,0     |
| 1211275             | 1244140            | R1A12M112S-1616       | 16        | 71,0     | 30,0     | 35,0      | 107,0   | 88,0     |
| 1211276             | 1244141            | R1A12M112S-2525       | 25        | 72,0     | 46,0     | 45,0      | 120,0   | 96,0     |
| 1211277             | 1244142            | R1A12M112S-3030       | 30        | 73,0     | 50,0     | 50,0      | 126,0   | 100,0    |
| 1211278             | 1244143            | R1A12M112S-3838       | 38        | 72,0     | 60,0     | 60,0      | 133,0   | 104,0    |
| 1208076             | 1244137            | R1A12M112S-1010       | 10        | 59,0     | 22,0     | 25,0      | 91,0    | 74,0     |

Dimensions shown may be changed without prior notice

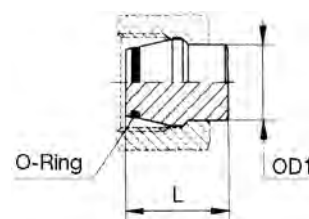
## // PLUG

## Plug with O-Ring 24° DIN 2353 - Light series

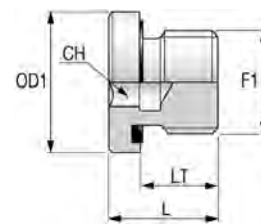


| Item Code | Part Number     | OD1 | L    |
|-----------|-----------------|-----|------|
|           |                 | mm  | mm   |
| 1208149   | R1A15F0000-3500 | 35  | 30,0 |
| 1208148   | R1A15F0000-2800 | 28  | 25,5 |
| 1208146   | R1A15F0000-2200 | 22  | 25,0 |
| 1208262   | R1A15F0000-1000 | 10  | 20,0 |
| 1208240   | R1A15F0000-1200 | 12  | 20,5 |
| 1208264   | R1A15F0000-0600 | 6   | 18,5 |
| 1208143   | R1A15F0000-1800 | 18  | 22,5 |
| 1208263   | R1A15F0000-0800 | 8   | 18,5 |
| 1208142   | R1A15F0000-1500 | 15  | 20,5 |
| 1208150   | R1A15F0000-4200 | 42  | 30,0 |

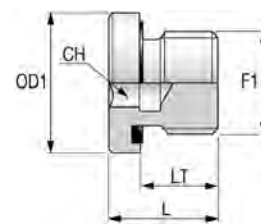
## Plug with O-Ring 24° DIN 2353 - Heavy series



| Item Code | Part Number     | OD1 | L    |
|-----------|-----------------|-----|------|
|           |                 | mm  | mm   |
| 1208237   | R1A16F0000-1000 | 10  | 20,0 |
| 1208236   | R1A16F0000-1200 | 12  | 20,5 |
| 1208239   | R1A16F0000-0600 | 6   | 18,5 |
| 1208238   | R1A16F0000-0800 | 8   | 18,5 |
| 1208067   | R1A16F0000-3800 | 38  | 33,0 |
| 1208064   | R1A16F0000-2000 | 20  | 28,5 |
| 1208063   | R1A16F0000-1600 | 16  | 23,5 |
| 1208066   | R1A16F0000-3000 | 30  | 30,5 |
| 1208065   | R1A16F0000-2500 | 25  | 29,0 |
| 1208062   | R1A16F0000-1400 | 14  | 22,5 |

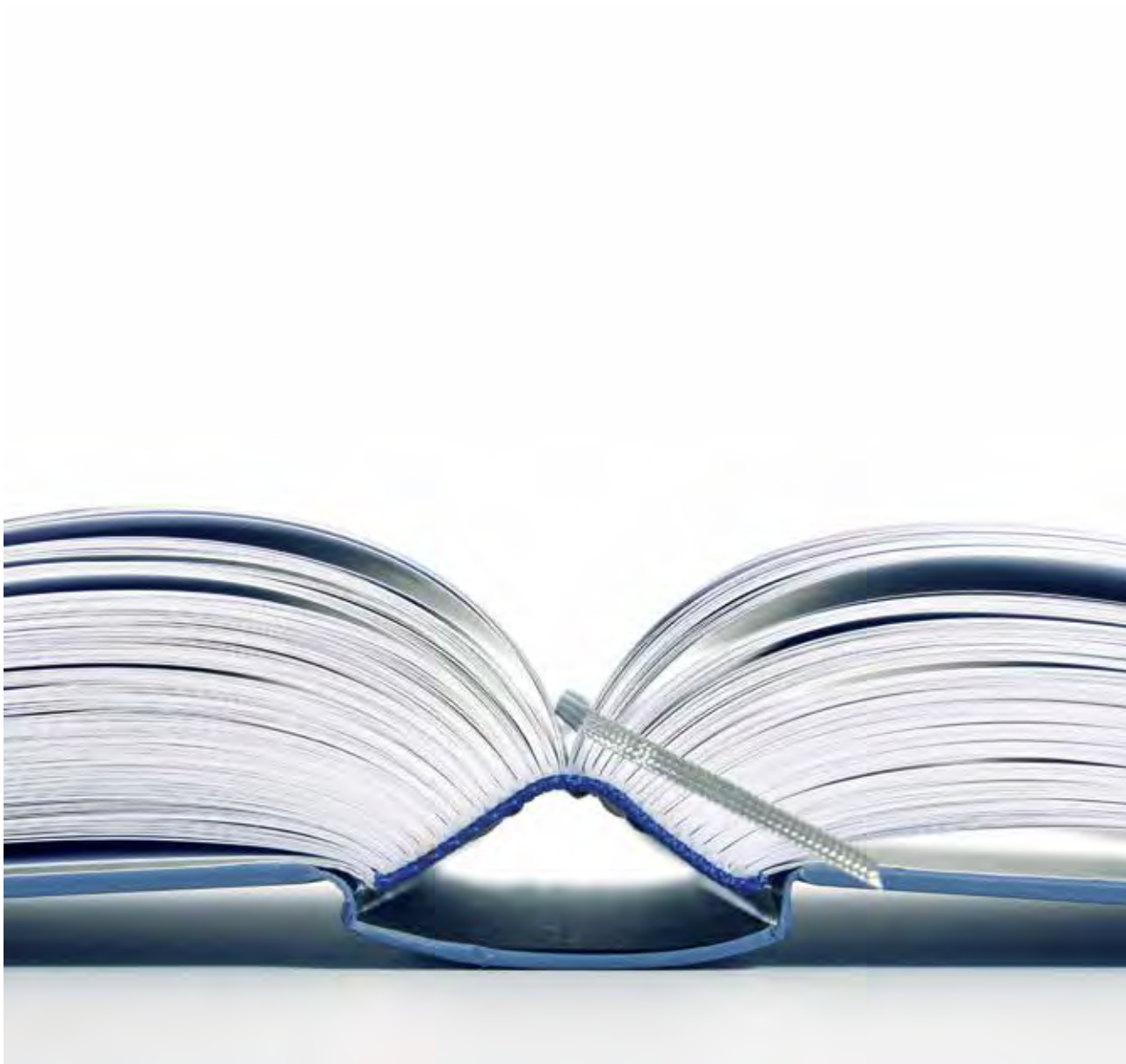
**Socket head plug Metric cylindric with elastomer**

| Item Code | Part Number     | F1      | OD   | CH   | L    | LT   |
|-----------|-----------------|---------|------|------|------|------|
|           |                 |         | mm   | mm   | mm   | mm   |
| 1204055   | R1A-0189262100  | M22X1.5 | 26,9 | 10,0 | 19,0 | 14,0 |
| 1204054   | R1A50I0000-2000 | M20X1.5 | 25,9 | 10,0 | 19,0 | 14,0 |
| 1204053   | R1A50I0000-1800 | M18X1.5 | 23,9 | 8,0  | 17,0 | 12,0 |
| 1207864   | R1A50I0000-4800 | M48X2.0 | 54,9 | 24,0 | 22,5 | 16,0 |
| 1204052   | R1A-0189232100  | M16X1.5 | 21,9 | 8,0  | 17,0 | 12,0 |
| 1206352   | R1A-0189212100  | M12X1.5 | 16,9 | 6,0  | 17,0 | 12,0 |
| 1204057   | R1A50I0000-2700 | M27X2   | 31,9 | 12,0 | 21,0 | 16,0 |
| 1246594   | R1A50I0000-2600 | M26X1.5 | 31,9 | 12,0 | 21,0 | 16,0 |
| 1204051   | R1A-0189222100  | M14X1.5 | 18,9 | 6,0  | 17,0 | 12,0 |
| 1211886   | R1A50I0000-4200 | M42X2   | 49,9 | 22,0 | 22,5 | 16,0 |
| 1246636   | R1A50I0000-1000 | M10X1.0 | 13,9 | 5,0  | 12,0 | 8,0  |
| 1206706   | R1A50I0000-3300 | M33X2.0 | 39,9 | 17,0 | 22,5 | 16,0 |

**Socket head plug BSPP cylindric with elastomer**

| Item Code | Part Number     | F1       | OD   | CH   | L    | LT   |
|-----------|-----------------|----------|------|------|------|------|
|           |                 |          | mm   | mm   | mm   | mm   |
| 1204044   | R1A06I0000-0200 | 1/8-28   | 13,9 | 5,0  | 12,0 | 8,0  |
| 1204043   | R1A06I0000-0400 | 1/4-19   | 18,9 | 6,0  | 17,0 | 12,0 |
| 1204042   | R1A06I0000-0800 | 1/2-14   | 26,9 | 10,0 | 19,0 | 14,0 |
| 1204048   | R1A06I0000-1200 | 3/4-14   | 31,9 | 12,0 | 21,0 | 16,0 |
| 1204047   | R1A06I0000-2000 | 1 1/4-11 | 49,9 | 22,0 | 22,5 | 16,0 |
| 1204046   | R1A06I0000-2400 | 1 1/2-11 | 54,9 | 24,0 | 22,5 | 16,0 |
| 1204045   | R1A06I0000-1600 | 1-11     | 39,9 | 17,0 | 22,5 | 16,0 |
| 1204049   | R1A06I0000-0600 | 3/8-19   | 21,9 | 8,0  | 17,0 | 12,0 |





## // APPENDIX

|                             |     |
|-----------------------------|-----|
| // HOSE GUIDELINES.....     | 276 |
| // FITTINGS GUIDELINES..... | 288 |

|                             |     |
|-----------------------------|-----|
| // ADAPTERS GUIDELINES..... | 302 |
|-----------------------------|-----|

## // HOSE GUIDELINES

### SETTING NEW STANDARD

DUNLOP HIFLEX cares for the environment and for your equipment among DUNLOP HIFLEX's newest products are POWERFLEXBIO 3000, 4000, 5000, 5000 PLUS, 6000 spiral hose, low temperature, Temp Tech, MineTuff, SuperTuff hose and a complete coupling line.

They join the extensive range of DUNLOP HIFLEX hose, the high pressure hydraulic components that have set the standard for reliability and durability.

### DESIGN

Throughout the world DUNLOP HIFLEX has build up a name synonymous with quality, a reputation based on first class product, a commitment to research and development and ongoing capital investment.

The development and product engineering staff in DUNLOP HIFLEX, continue to provide fluid conveying product innovations that assure better performance and cost saving to our customers.

DUNLOP HIFLEX hose and couplings are designed to work together as a system for problem free performance, no matter what machine you operate. The performance of all our product exceeds SAE, DIN, JIS requirements and some hoses meet the MSHA and LOBA flame resistance requirements, as well.

### LEADERSHIP IN HYDRAULIC HOSE AND COUPLING COMPONENTS

DUNLOP HIFLEX has developed into a world leading manufacturer, of fluid power and fluid system components. A positive attitude towards the demands from new equipment which is using the latest technology has seen DUNLOP HIFLEX introduce many outstanding new hydraulic hose types. These hoses have found acceptance in a wide range of industry, some examples are:

|              |                        |          |
|--------------|------------------------|----------|
| Mining       | Earthmoving            | Moulding |
| Logging      | Agriculture            | Drilling |
| Petroleum    | Waste/Refuse           | Crane    |
| Railroad     | Manufacturing          |          |
| Construction | Pulp and Plywood Mills |          |

### GLOBAL COMPANY

Due to our world-wide organisation of subsidiaries and distributors you will always be near a source for DUNLOP HIFLEX products. Your DUNLOP HIFLEX dealer has trained personnel to consult with you on your hose and coupling requirements guaranteeing consistent quality and performance.

### OUR COMMITMENT

By remaining alert to customer's needs, DUNLOP HIFLEX is constantly engineering new products for tomorrow's markets as well as modifying them for even higher performances.

DUNLOP HIFLEX commitment to innovation and service makes our products known throughout the world for quality, reliability and leadership, when you need quality hose and couplings, use the best available.

Now you can count on DUNLOP HIFLEX for all your needs.

### TESTING

DUNLOP HIFLEX laboratories are fully equipped to carry out tests according to standards like SAE, ISO, DIN and JIS. New products are also subjected to laboratory simulation of actual service prior to being released on the market.

### WORLD CLASS QUALITY

DUNLOP HIFLEX is working to internationally recognised quality programs requiring stringent standards. Many of our customers are demanding ISO qualification or equivalent as a prerequisite for purchasing. This standard is an assurance of consistent quality.

For DUNLOP HIFLEX this is just the start "do it right from the beginning".

### IMPORTANT NOTE FOR USERS

Hose assemblies require caution in use not only to provide long service life but also to guard against potentially dangerous failure.

Serious injury, death and destruction of property can result from the rupture or blowing-apart of a hydraulic hose assembly that is damaged, worn out, badly assembled or installed incorrectly.

Users should follow good maintenance practices. Avoid expensive downtime by establishing a program of inspection, testing and replacement of hose assemblies before failure occurs; taking into account factors including: severity of application, frequency of equipment use, past performance of hose assemblies. Document your maintenance, inspections and testing.

Only properly trained persons should inspect, test or service hose assemblies and this training should be updated regularly.

Users should carefully observe the precautions listed below under **"be aware that"** as well as following closely our recommendations for the selection of hose and couplings. In addition, care should be taken not to exceed the minimum bend radius listed for each hose size and type. Maximum operating pressure should not exceed the pressures listed. Instruction for assembling fittings to different hoses should be followed carefully to ensure the safe performance of the complete assembly.

By following the recommendations on hose assembly routing and installation, improved safety and longer service life of any hose installation will result.

Hydraulic fluid under pressure can be potentially dangerous!! An explosive burst or stream of escaping fluid can cause damage to equipment as well as serious injury to persons nearby.

**BE AWARE THAT...**

1. Highly pressurised fluid escaping from a small pinhole can be almost invisible and, yet, exert extreme force capable of penetrating the skin and other body tissues, causing possible severe injury.
2. Hot fluids or chemicals can cause severe burns.
3. Pressurised fluids, if released uncontrolled, can exert a tremendous explosive force.
4. All hydraulic hoses listed in this catalogue are electrically conductive.
5. Some hydraulic fluids are highly flammable.

**AND...**

6. Always position a shield between you and any pressurised hydraulic lines when working next to them... or shut the pressure off.
7. Wear safety glasses.
8. Do not use your hands to check for leaks. Do not touch a pressurised hydraulic hose assembly with any part of your body, if fluid punctures the skin, even if no pain is felt, a serious emergency exists. Obtain medical assistance immediately. Failure to do so can result in loss of the injured body part or death.
9. Stay out of hazardous areas while testing hose assemblies under pressure. Use proper safety protection.
10. If an injury or reaction occurs, get medical attention right away.
11. Use only non conductive thermoplastic hoses where electrical conductivity is not desired: for instance, equipment working on electric power lines.

DUNLOP HIFLEX hose and fitting are designed, engineered and tested to be used together in an assembly.

The use of DUNLOP HIFLEX fittings on other manufactures hose or the use of DUNLOP HIFLEX hose with other manufactures fittings may result in the production of unreliable or unsafe assemblies. It is neither recommended nor authorised by DUNLOP HIFLEX.

DUNLOP HIFLEX recommends only those hose and coupling combinations specified in the DUNLOP HIFLEX Hydraulic Products Catalogues.

DUNLOP HIFLEX disclaims any liability for any hose assemblies which have not been produced in conformance with DUNLOP HIFLEX assembly recommendations and current crimp data charts.

Extensive impulse testing has been performed by DUNLOP HIFLEX to verify the recommendations contained in this catalogue. A simple burst or pressure test cannot determine a hose and coupling combination.

Any claim for defects must be made in writing on the appropriate ISO 9001 complaint form within 8 days from receipt of the product. DUNLOP HIFLEX will have a reasonable opportunity thereafter to examine and investigate the alleged defect.

The customer's exclusive remedy with respect to any claim of any kind whatsoever shall be refund of the purchase price or replacement of the product at the option of DUNLOP HIFLEX and in no event shall DUNLOP HIFLEX be liable for any incidental or consequential damages whatsoever.

## REFERENCE SPECIFICATIONS

|           |                                                             |        |                                                |
|-----------|-------------------------------------------------------------|--------|------------------------------------------------|
| SAE -     | Society of Automotive Engineers                             | LOBA - | Landesobergamt Nordrhein - Westfalen           |
| DNV - GL  | Det Norske Veritas - Germanischer Lloyd                     | AS -   | Australian Standard                            |
| EN -      | European Norm                                               | BV -   | Bureau Veritas                                 |
| DIN -     | Deutsche Institute Normen                                   | ISO -  | International organization for Standardization |
| CERCHAR - | Centre d'Etudes et Recherches<br>Des Charbonnages de France | KR -   | Korean Register                                |
| MSHA -    | U.S. Mine Safety and Health Administration                  | MA -   | Chinese Mining                                 |

The listing below are intended only as guides in identifying which DUNLOP HIFLEX hoses comply with requirements of various agencies.

| Hose                 | SAE J517   | EN      | ISO   | Dunlop Hiflex<br>Proprietary<br>Hose | DNV<br>GL | ABS | BV | NKK | RINA | Lloyd's<br>Register | MSHA <sup>2</sup> | USDOT <sup>3</sup> | KR | MA |
|----------------------|------------|---------|-------|--------------------------------------|-----------|-----|----|-----|------|---------------------|-------------------|--------------------|----|----|
| Flexor R4            | 100 R4     |         |       |                                      |           |     | X  |     |      |                     |                   |                    |    |    |
| 122T Plus - 1SN/R1AT | 100 R1AT   | 853 1SN | 1436  |                                      | X         | X   |    |     |      |                     |                   |                    | X  |    |
| 222T Plus - 2SN/R2AT | 100 R2AT   | 853 2SN | 1436  |                                      | X         | X   |    |     |      |                     |                   |                    | X  |    |
| 121 Slimline         |            | 857 1SC | 11237 |                                      | X         |     | X  |     |      |                     |                   |                    |    |    |
| 241 Superslimline    | 100 R16    | 857 2SC | 11237 |                                      | X         |     |    |     | X    |                     | X                 |                    | X  |    |
| 221T Plus 2SC        | 100 R16    | 857 2SC | 11237 |                                      | X         | X   | X  |     |      |                     |                   |                    |    | X  |
| Powerflexbio 3000    | EX SAE R12 |         | 18752 | X                                    | X*        |     |    |     |      | X*                  | X                 |                    |    |    |
| Powerflexbio 4000    |            |         | 18752 | X                                    | X         | X   |    |     |      | X*                  | X                 |                    |    |    |
| Powerflexbio 5000    |            |         | 18752 | X                                    | X         | X   |    |     |      | X*                  | X                 |                    |    |    |
| Powerflexbio 5000P   |            |         | 18752 | X                                    | X         | X   |    |     |      | X*                  | X                 |                    |    |    |
| Powerflexbio 6000    | EX SAE R15 |         | 18752 | X                                    | X         | X   | X  |     |      | X*                  | X                 |                    |    |    |
| Firesafe 5000        |            |         |       | X                                    |           |     |    |     |      |                     | X*                |                    |    |    |
| 490 Powertrak - AT7K |            |         |       | X                                    |           |     |    |     |      |                     | X                 |                    |    |    |
| 560 Powertrak - AT8K |            |         |       | X                                    |           |     |    |     |      |                     | X                 |                    |    |    |
| Commander 1SN        | 100 R1AT   | 853 1SN | 1436  | X                                    | X         | X*  |    |     |      |                     |                   |                    |    |    |

1. DNV approvals are with permanent (crimp) type fittings only
  2. Hoses with MSHA approved cover are always branded "MSHA"
  3. DOT Type All TYPE All FMVSS 106 approval up to size -12
- Listing may vary by style and size, for current and complete information, contact DUNLOP HIFLEX for details.

\* Running

## SAFETY GUIDE BASIC FACTORS FOR THE SELECTION, INSTALLATION AND MAINTENANCE OF HOSE AND HOSE ASSEMBLIES

Hydraulic hose (and hose assemblies) has a limited life dependent on service conditions to which is applied.

Subjecting hose (and hose assemblies) to conditions more severe than the recommended limits significantly reduce service life. Exposure to combinations of recommended limits (i.e., continuous use at maximum rated working pressure, maximum recommended operating temperature and minimum bend radius) will also reduce service life.

**WARNING: FAILURE TO FOLLOW PROPER SELECTION, INSTALLATION AND MAINTENANCE PROCEDURES BODILY INJURY, AND DAMAGE TO PROPERTY.**

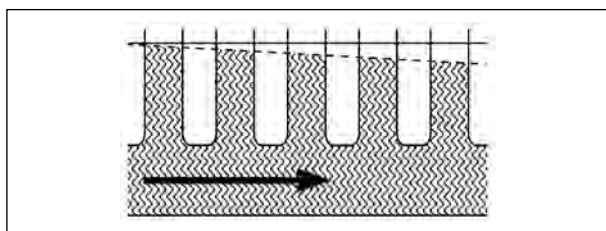
### 1. SELECTION

The following is a list of factors which must be considered before the selection of a hose can be made:

#### 1.1 Line size

In order to achieve maximum efficiency in a hydraulic system, it is necessary to keep pressure losses (resistance to the volumetric flow) to a minimum when a fluid is conveyed by the different types of flow lines.

When a fluid flows through a flow line, heat is generated by friction. Thus part of the energy is lost as heat energy, which results in a pressure loss.



These pressure losses depend upon:

- flow velocity (for a given volumetric flow, the fluid flow velocity increases with a decrease in the cross sectional area of a flow line and vice versa)
- length of the flow line
- the viscosity of the fluid flowing
- the density of the fluid flowing
- the type of flow (laminar or turbulent)

**Types of flow** - The type of flow changes from laminar to turbulent at a certain flow velocity. This velocity is given by the Reynold's Number  $Re$ .

For cylindrical flow lines the following formula applies:

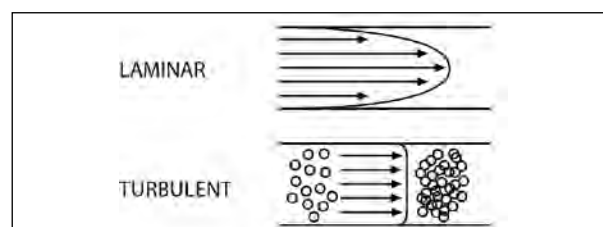
$$Re = \frac{v \times d}{\nu}$$

where:  $v$  = velocity (m/s)  
 $d$  = flow line internal dia (m)  
 $\nu$  = kinematic viscosity ( $m^2/s$ )

As soon as the value for  $Re$  exceeds 2300, the laminar flow changes to turbulent flow.

**Laminar flow** - In laminar flow, the individual fluid particles move up to certain speeds in uniform layers alongside each other. They scarcely disturb or influence each other.

**Turbulent flow** - If the value for  $Re$  exceeds 2300, flow becomes whirling and turbulent. The individual particles no longer move in one direction in an orderly fashion, but influence and hinder each other.



Certain fluid flow velocities have proved to be most suitable for hydraulic flow lines.

Recommended flow velocities:

|                 |                 |                   |
|-----------------|-----------------|-------------------|
| Suction lines:  | 0.5 ... 1.2 m/s | 1.6 ... 4 feet/s  |
| Return lines:   | 2 ... 3 m/s     | 6.5 ... 10 feet/s |
| Pressure lines: | 4 ... 7.5 m/s   | 13 ... 25 feet/s  |

### FLOW CAPACITY NORMOGRAM

#### Flow Capacities of Hose at Recommended Flow Velocities

The chart below is provided as an aid in the determination of the correct hose size.

**Example** at 45 l/min, what is the proper hose size within the recommended velocity range for pressure lines?

Locate 45 l/min in the left-hand column and 7,5 m/s in the right-hand column (the maximum recommended velocity range for pressure lines).

Lay a straight line across these two points. The inside diameters shown in the centre column is above 9,5 mm so we have to use 12,7 mm (1/2"). For suction hose, follow the same procedure except use recommended velocity range for intake lines in the righthand column.

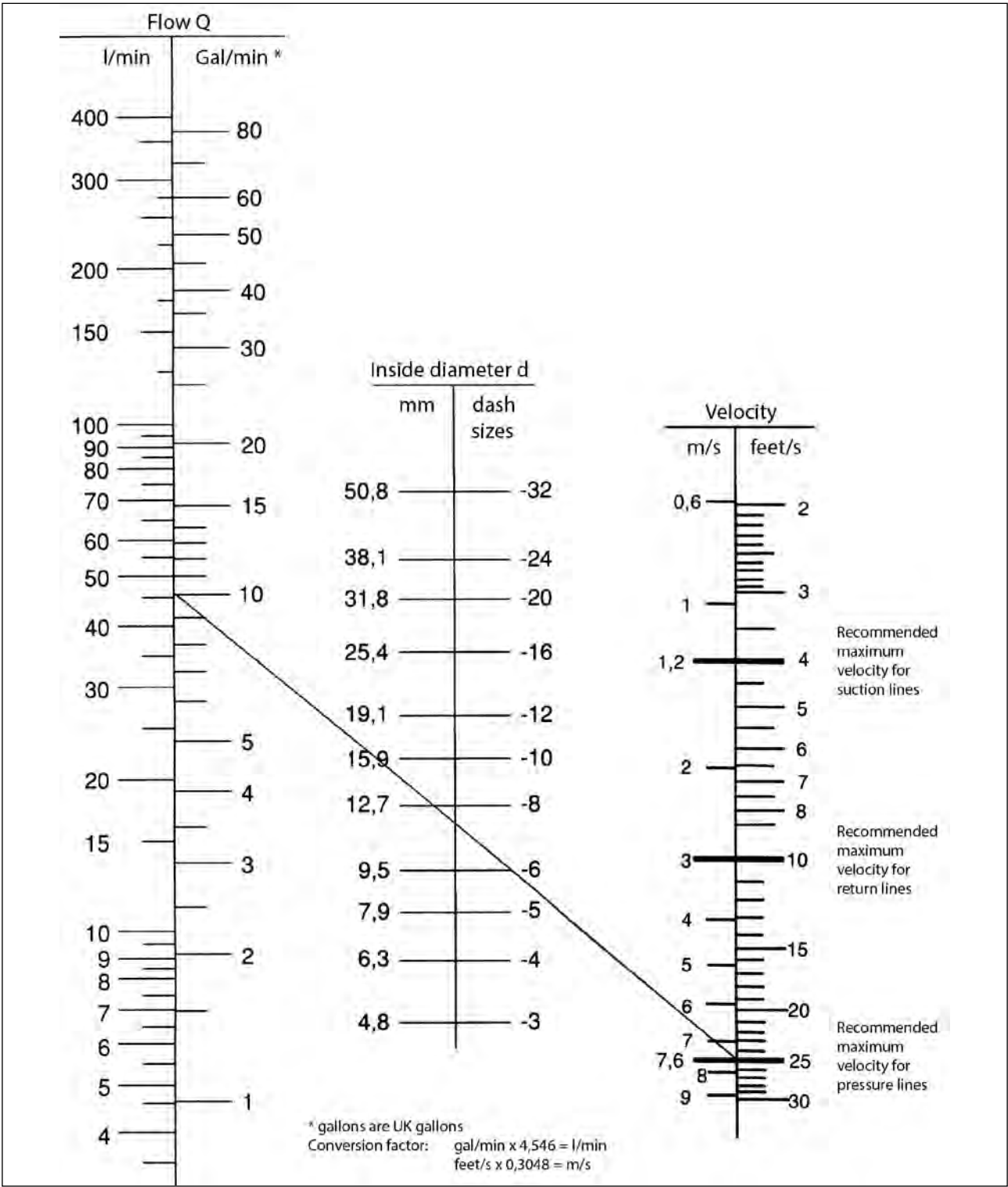
where:  $Q$  = flow in liters per seconds (l/sec)

$V$  = velocity in meters per seconds (m/s)

$d$  = hose inside diameter (mm & dash size)

TECHNICAL INFORMATION – NORMOGRAM OF THE FLOW

The normogram herewith is pivotal to help you find the hose diameter by knowing the liquid flow and speed. In order to find the correct diameter you should trace a line between the flow value (l/min) and the suggested speed (m/sec) according to the kind of delivery (pressure or return). The value touched by the line in the central column will indicate the hose ID (mm/inches) that must be used.





It is therefore important to calculate correctly the required flow line sizes. Undersized pressure lines results in high fluid velocity causing an excessive pressure drop, and heat built up, which impair overall system performance.

Undersized suction lines can cause cavitation at the hydraulic pump inlet, affecting performance, shortening pump life, and creating excessive noise levels.

The flow capacity normogram is an aid to determine the correct hose internal diameter size, desired flow rate and recommended velocity. By the use of any two known factors, the third can be determined.

## 1.2 Pressure

After determining the system pressure for a hydraulic system, hose selection must be made so that the recommended maximum operating pressure specified by a given hose, is equal or greater than the system pressure. Dynamic pressure is common for all hydraulic systems. Pressure surges which exceed the maximum working pressure (pressure relief valve setting) affect the service life of system components, including a hose assembly and therefore need to be taken into consideration. Hoses used for suction lines must be selected to ensure the hose will withstand the negative pressure of the system.

## 1.3 Temperature

Care must be taken to ensure that the operating temperature of the fluid being conveyed and ambient temperatures, do not exceed the limitations of the hose. Special care must be taken when routing near hot manifolds or molten metal.

## 1.4 Fluid Compatibility

Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid used.

Additional caution must be observed in hose selection for gaseous applications. Some fire resistant fluids require the same hose as petroleum oil. Some use a special hose, while a few fluids will not work with any hose at all.

For gas application, where compatible with DUNLOP HIFLEX hoses, and at pressure above 10 bar, the hose cover shall be pin-pricked.

## 1.5 Permeation

Permeation (that is, seepage through the hose) will occur from inside the hose to outside when hose is used with gases, liquid and gas fuels, and refrigerants (including but not limited to such materials such as helium, fuel oil, natural gas or freon). This permeation may result in high concentrations of vapours which are potentially flammable, explosive, or toxic and in loss of fluid. Even though the fluid compatibility is acceptable, you must take into account the fact that permeation will occur and could be hazardous. Permeation of moisture from outside the hose to inside the hose will also occur. If this moisture permeation would have detrimental effects (particularly but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

## 1.6 Routing

Attention must be given to optimum routing to minimise inherent problems. Restrain, protect or guide hose with the use of clamps if necessary to minimise risk or damage due to excessive flexing, whipping or contact with other moving parts or corrosives. Determine hose lengths and configurations that will result in proper routing and protection from abrasion, snagging or kinking and provide leak resistant connections.

## 1.7 Environment

Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment to which they are exposed. Environmental conditions including but not limited to ultraviolet light, heat, ozone, moisture, water, salt water, chemicals, and air pollutants can cause degradation and premature failure and, therefore, must be considered.

## 1.8 Mechanical Loads

External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration. Use of swivel type fittings or adaptors may be required to ensure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.

## 1.9 Abrasion

While a hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from excessive abrasion which can result in erosion, snagging, and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.

## 1.10 Proper End Fitting

Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations substantiated by testing to industry standards such as SAE J517, DIN 20024, JIS B 8360.

## 1.11 Length

When establishing proper hose length, motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.

## 1.12 Specifications and Standards

When selecting hose and fittings, government, industry, and manufacturer's specifications and recommendations must be reviewed as applicable.

## 1.13 Hose Cleanliness

Hose components may vary in cleanliness levels. Care must be taken to ensure that the assemblies selected have an adequate level of cleanliness for the application.

## 1.14 Welding and Brazing

Heating of plated parts, including hose fittings and adaptors, above 232° C (450° F) such as during welding, brazing, or soldering may emit deadly gases.

### 1.15 Electrical Conductivity

Certain applications require that a hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity. Extreme care must be exercised when selecting hose and fittings for these or any other applications in which electrical conductivity or non-conductivity is a factor. For applications that require hose to be electrically non-conductive, including but not limited to applications near high voltage electric lines, only special non-conductive hose is to be used. The manufacturer of the equipment in which the non-conductive hose is to be used must be consulted to be certain that the hose and fittings that are selected are proper for the application.

Do not use any DUNLOP HIFLEX hose or fitting for any application requiring non-conductive hose, including but not limited to applications near high voltage electric lines, unless the application is expressly approved in the DUNLOP HIFLEX technical publication for the product, the SAFETY GUIDE hose is both orange in colour and marked "non-conductive", and the manufacturer of the equipment on which the hose is to be used specifically approves the particular DUNLOP HIFLEX hose and fitting for such use.

DUNLOP HIFLEX does not supply any hose or fittings for conveying paint in airless paint spraying or similar applications and therefore should not be used. A special hose and fitting assembly is required for this application, to avoid static electricity buildup which could cause a spark that may result in an explosion and/or fire.

The electrical conductivity or non-conductivity of hose and fittings is dependant upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the hose and the fittings, manufacturing methods (including moisture control), how the fittings contact the hose, age and amount of deterioration or damage or other changes, moisture content of the hose at and particular time, and others factors.

## 2. INSTALLATION

After the selection of the correct hose, the following factors must be considered prior to hose and fitting assembly and installation.

### 2.1 Pre-Installation Inspection

Prior to installation, a careful examination of the hose must be performed. All components must be checked for correct style, size, and length. The hose must be examined for cleanliness, obstructions, blisters, cover looseness, or any other visible defects.

### 2.2 Hose and Fitting Assembly

Do not assemble a DUNLOP HIFLEX fitting on a DUNLOP HIFLEX hose that is not specified by DUNLOP HIFLEX for that hose. Do not assemble DUNLOP HIFLEX fittings on another manufacturer's hose or a DUNLOP HIFLEX hose on another manufacturer's fitting unless DUNLOP HIFLEX approves the assembly in writing, and the user verifies the assembly and the application through analysis and testing.

The DUNLOP HIFLEX published hose assembly instructions must be followed for assembling the fittings on the hose.

### 2.3 Related Accessories

Crimp or swage DUNLOP HIFLEX hose or fittings only with DUNLOP HIFLEX approved swage or crimp machines and in accordance with the DUNLOP HIFLEX published hose assembly instructions.

### 2.4 Parts:

Do not use any DUNLOP HIFLEX hose fitting part (including but not limited to sockets, or inserts) except with the correct DUNLOP HIFLEX mating parts, in accordance with DUNLOP HIFLEX published hose assembly.

### 2.5 Reusable/Permanent

Do not reuse any reusable hose coupling that has blown or pulled off a hose. Do not reuse a DUNLOP HIFLEX permanent (that is, crimped or swaged) hose fitting or any part thereof.

### 2.6 Minimum Bend Radius

Installation of a hose at less than the minimum listed bend radius may significantly reduce the hose life. Particular attention must be given to avoid sharp bending at the hose/fitting juncture.

### 2.7 Twist Angle and Orientation

Hose installations must be such that relative motion of machine components does not produce twisting.

### 2.8 Securement

In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, and contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.

### 2.9 Proper Connection of Ports

Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.

### 2.10 External Damage

Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.

### 2.11 System Checkout

After completing the installation all air entrapment must be eliminated and the system pressurised to the maximum system pressure and checked for proper function without any leaks. Personnel must stay out of potential hazardous areas while testing.



### 3. HOSE AND FITTING MAINTENANC INSTRUCTIONS

Even with proper selection and installation, hose life may be significantly reduced without a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must be established and followed to include the following as a minimum:

#### 3.1 Visual Inspection Hose/Fitting

Any of the following conditions require immediate shut down and replacement of the hose assembly:

- Fitting slippage on hose.
- Damaged, cut or abraded cover (any reinforcement exposed).
- Hard, stiff, heat cracked, or charred hose.
- Cracked, damaged, or badly corroded fittings.
- Leaks at fitting or in hose.
- Kinked, crushed, flattened or twisted hose.
- Blistered, soft, degraded, or loose cover.

#### 3.2 Visual Inspection All Other

The following items must be tightened, repaired or replaced as required:

- Leaking port conditions
- Remove excess dirt build-up
- Clamp, guards, shields
- System fluid level, fluid type and any air entrapment

#### 3.3 Functional Test

Operate the system at maximum operating pressure and check for possible malfunctions and freedom from leaks. Personnel must stay out of potential hazardous areas while testing.

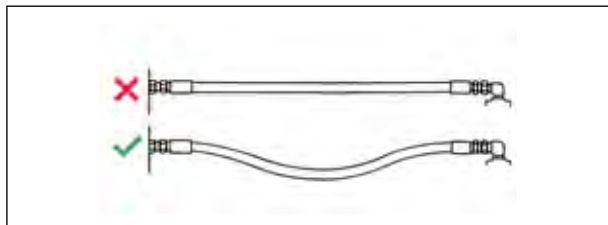
#### 3.4 Replacement Intervals

Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk.

## CORRECT ASSEMBLY INSTALLATION

Satisfactory performance and appearance depend upon proper hose installation. Excessive length destroys the trim appearance of an installation and adds unnecessarily to the cost of the equipment. Hose assemblies of insufficient length to permit adequate flexing, expansion or contraction will cause poor power transmission and shorten the life of the hose.

The diagrams below offer suggestions for proper hose installations to obtain the maximum in performance and economy.



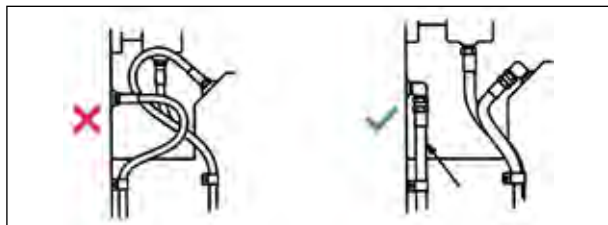
Since hose may change in length from +2% to -4% under the surge of high pressure, provide sufficient slack for expansion and contraction.



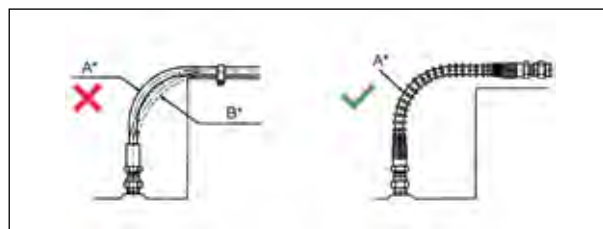
Avoid sharp twist or bend in hose by using proper angle adapters.



Where the radius falls below the required minimum, an angle adapter should be used as shown above to avoid sharp bends in hose.

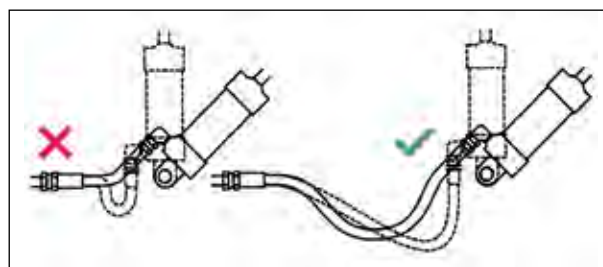


Obtain direct routing of hose through use of 45° and 90° adapters and fittings. Improve appearance by avoiding excessive hose length.

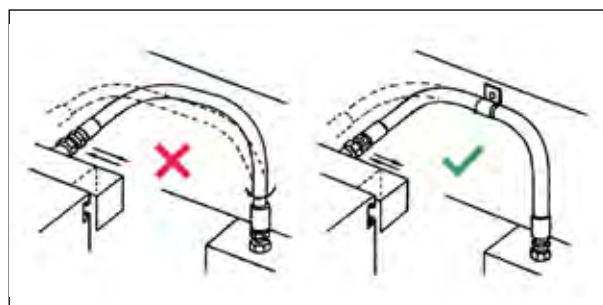


A: High Pressure - B: No Pressure

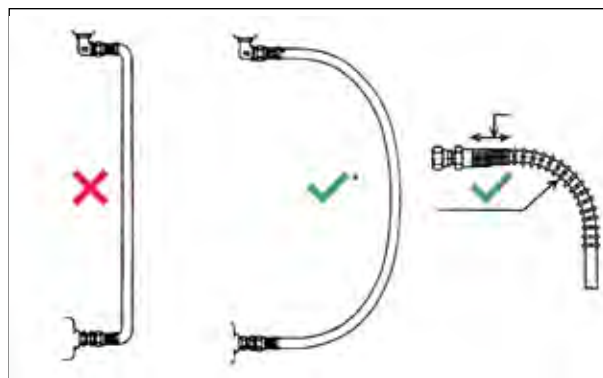
Due to changes in length when hose is pressurised, do not clamp at bends so curves absorb changes and protect the hose with a spring guard. Do not clamp high and low pressure lines together and protect the hose with a spring guard.



Adequate hose length is most important to distribute movement on flexing applications and to avoid abrasion.

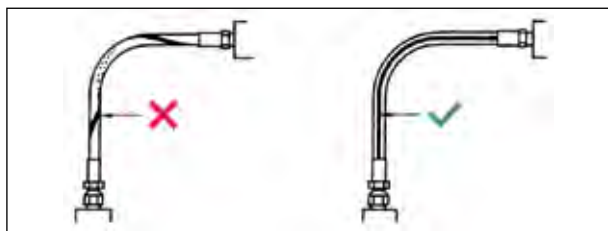


To avoid twisting in hose lines bent in two planes, clamp hose at change of plane, as shown.

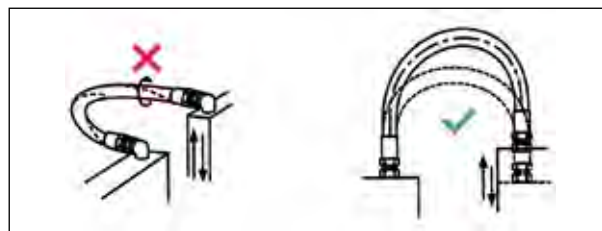


\* Never use a bending radius less than the minimum amount shown in the table.

To prevent twisting and distortion, hose should be bent in the same plane as the motion of the boss to which the hose is connected.

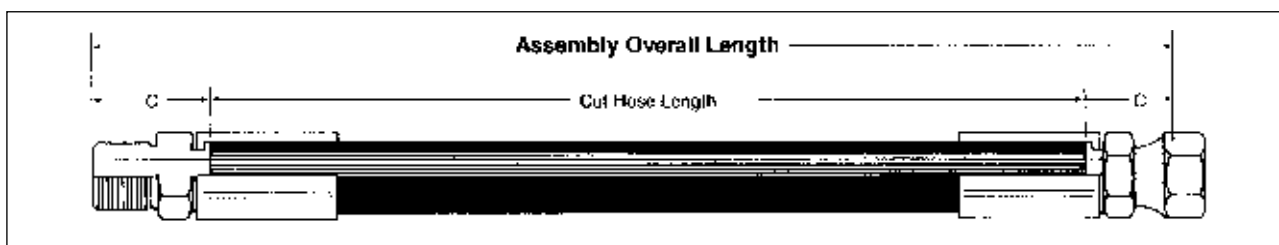


Hose should not be twisted. Hose is weakened when installed in twisted position. Also pressure in twisted hose tends to loosen fitting connections. Design so that machine motion produces bending rather than twisting.



Never use a bending radius less than the minimum shown in the hose specification tables. Avoid sharp bend in hose to reduce collapsing of line and restriction of flow by using proper spring guard. Exceeding minimum bend radius will greatly reduce hose assembly life.

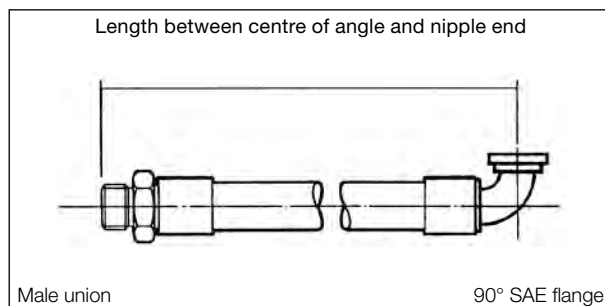
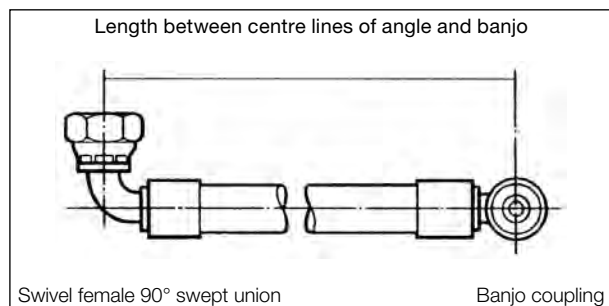
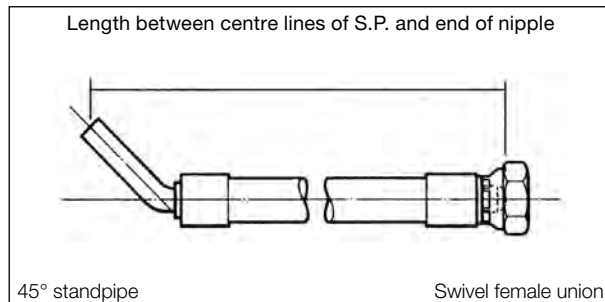
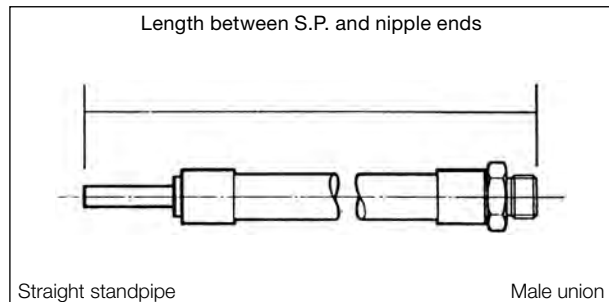
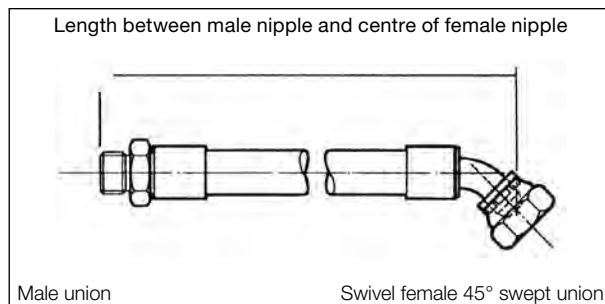
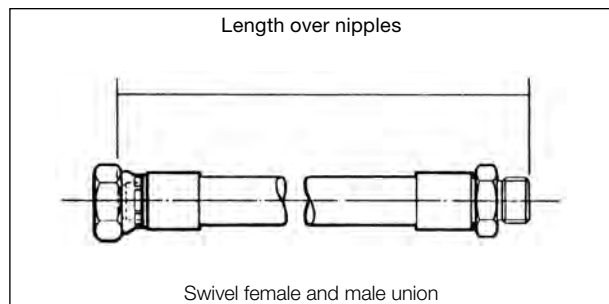
## HOW TO DETERMINE CORRECT ASSEMBLY LENGTH



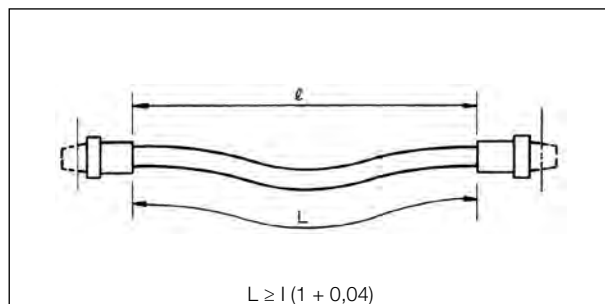
For most assemblies, the correct assembly length may be determined by direct measurement of the equipment or a drawing. Minimum bend radii as shown in the hose specification tables should be observed. Assemblies are measured to the end of the seal.

To determine the length of hose needed in making assemblies with permanent or reusable couplings, subtract Dimension "C" (Cut off factor) for each coupling from the required overall assembly length. Dimension "C" may be found in the coupling specification tables.

## HOW TO MEASURE ASSEMBLIES



Remember that hydraulic hose under pressure will elongate up to 2% of its length or contract up to 4% depending on pressure, type and size. Sufficient allowance should be made to permit such changes in length.



Occasionally an assembly will be required similar to the sketches to the right. The following equations are helpful in determining the correct length:

FOR 180° TURN APPLICATIONS

#1  $L = 2A + \pi R$

#2  $L = 2A + \pi R + T$

where:

L=overall length of the hydraulic hose assembly, in mm or inches.

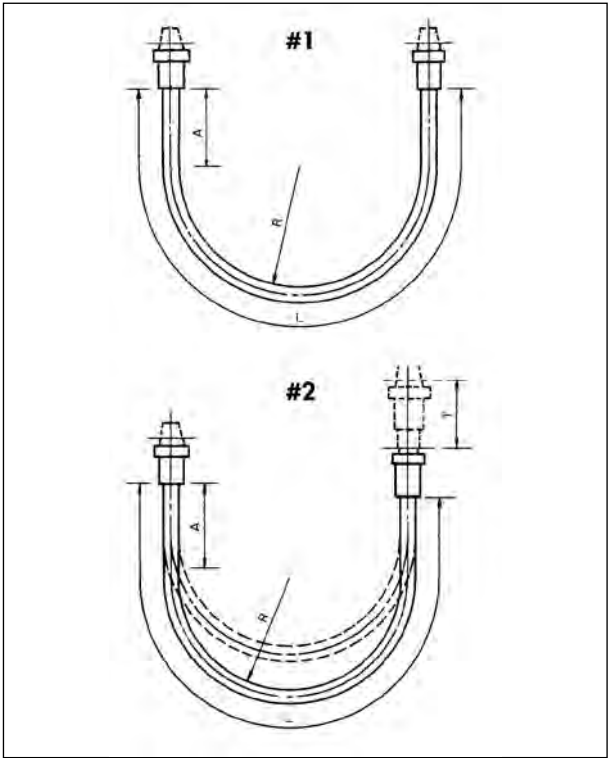
A=allowance for a minimum straight section of hydraulic hose at each end of the assembly, measured from the outer end of each coupling, in mm or inches. These two straight sections are necessary to prevent excessive stress concentrations directly back of the couplings. See table below.

R=bending radius of the hose, in mm or inches. See hose specifications tables.

T=amount of travel, in mm or inches.

Often right angle adapters provide a convenient means of avoiding too small a bend radius.

| Hose ID | in | 1/4 | 5/16 | 3/8 | 1/2  | 5/8  | 3/4 | 1   | 1.1/4 | 1.1/2 | 2    |
|---------|----|-----|------|-----|------|------|-----|-----|-------|-------|------|
|         | mm | 6,4 | 7,9  | 9,5 | 12,7 | 15,9 | 19  | 25  | 31,8  | 38,1  | 50,8 |
| Min "A" | in | 5   | 5    | 5   | 6    | 6    | 7   | 8   | 9     | 10    | 11   |
|         | mm | 127 | 127  | 127 | 152  | 152  | 178 | 203 | 229   | 254   | 279  |



Length Tolerance for Hydraulic Hose Assemblies and Specified Hose Lengths

Length

For lengths from 0 up to and including 12" (305 mm)

For lengths ≥ 12" (305 mm) < 18" (457 mm)

For lengths ≥ 18" (457 mm) < 36" (914 mm)

For lengths ≥ 36" (914 mm) < 48" (1219 mm)

For lengths ≥ 48" (1219 mm) < 72" (1830 mm)

For lengths ≥ 72" (1830 mm)

Tolerance

± 1/8" ± 3 mm

± 3/16" ± 5 mm

± 1/4" ± 6 mm

± 3/8" ± 10 mm

± 1/2" ± 13 mm

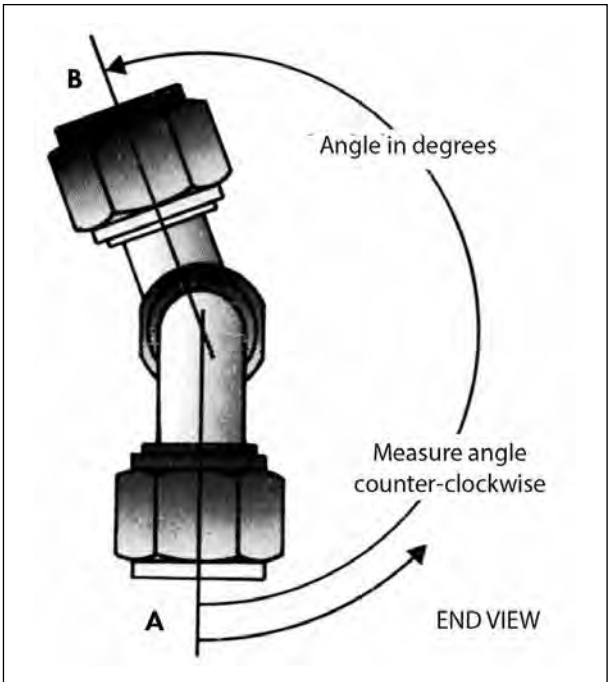
± 1%

Elbow angle and angle of orientation

Tolerance ±3

Angle Couplings

A - To measure angle of offset of a hose assembly, point one end of coupling "A" (the nearest) to a vertical position downward. The angle can then be measured from the centreline of this vertical coupling in an anticlockwise direction to the centreline of coupling "B" (the far coupling) (see illustration). Relationships can then be expressed from 0° to 360°. If angle not given elbows are positioned at 0°.



# // FITTINGS GUIDELINES

## FITTING IDENTIFICATION

### Dash numbers

Most fluid piping system sizes are measured by dash numbers. These are universally used abbreviations for the size of component expressed as the numerator of the fraction with the denominator always being 16. For example, a -04 port is 4/16 or 1/4 inch. Dash numbers are usually nominal (in name only) and are abbreviations that make ordering of components easier.

There are many coupling systems used for hydraulic connections. They are identified as:  
**American, British, French, German, Japanese.**  
This section lists the origin and coupling style. Descriptions and dimensional data follows each coupling style.

## AMERICANT THREAD TYPES

### NPTF (National Pipe Tapered Fuel)

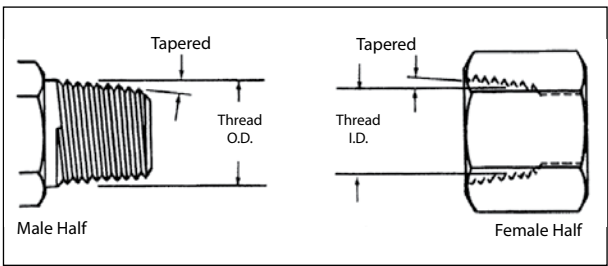
This is a dryseal thread, the National pipe tapered thread for fuels. This is used for both male and female ends. This connection is still widely used in fluid power systems, even through it is not recommended by the National Fluid Power Association (N.F.P.A.) for use in hydraulic applications. The NPTF male will mate with the NPTF, NPSF or NPSM female. The NPTF male has tapered threads and a 30° inverted seat. The NPTF female has tapered threads and no seat. The seal takes place by deformation of the threads. The NPSM female has straight threads and a 30° inverted seat. The seal takes place on the 30° seat. The NPTF connector is similar to, but not interchangeable with, the BSPT connector. The thread pitch is different in most sizes. Also, the thread angle is 60° instead of the 55° angle found on BSPT threads.

### NPSF (National Pipe Straight Thread for Fuels)

The National pipe straight thread for fuels. This is sometimes used for female ends and properly mates with the NPTF male end. However, the SAE recommends the NPTF thread in preference to the NPSF for female ends.

### NPSM (National Pipe Straight Mechanical)

National pipe straight thread for mechanical joint. This is used on the female swivel nut of iron pipe swivel adapters. The leak-resistant joint is not made by the sealing fit of threads, but by a tapered seat in the coupling end. This connection is sometimes used in fluid power systems.

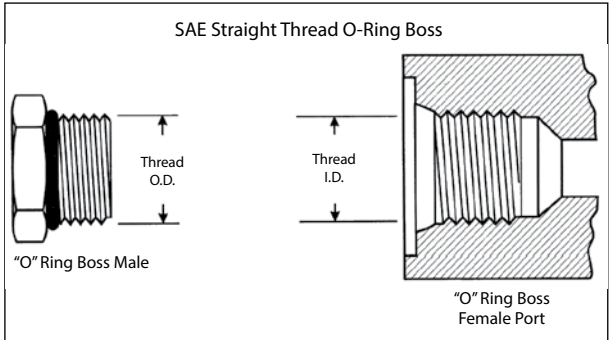


**Thread Identification Table**  
**National Pipe Straight Mechanical (NPSM)**  
**National Pipe Tapered for Fuels (NPTF)**

| Tube Size | Tube Size | Thread Size  | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|--------------|--------------------|------|------------------|------|
| Dash      | (in)      | (in-TPI)     | (mm)               | (in) | (mm)             | (in) |
| -2        | 1/8       | 1/8-27       | 8.7                | 0.34 | 10.3             | 0.41 |
| -4        | 1/4       | 1/4-18       | 11.9               | 0.47 | 14.3             | 0.56 |
| -6        | 3/8       | 3/8-18       | 15.1               | 0.59 | 17.5             | 0.69 |
| -8        | 1/2       | 1/2-14       | 18.3               | 0.72 | 21.4             | 0.84 |
| -12       | 3/4       | 3/4-14       | 23.8               | 0.94 | 27.0             | 1.06 |
| -16       | 1         | 1-11.1/2     | 30.2               | 1.19 | 33.3             | 1.31 |
| -20       | 1.1/4     | 1 1/4-11.1/2 | 38.9               | 1.53 | 42.9             | 1.69 |
| -24       | 1.1/2     | 1 1/2-11.1/2 | 44.5               | 1.75 | 48.4             | 1.91 |
| -32       | 2         | 2 - 11.1/2   | 57.2               | 2.25 | 60.3             | 2.38 |

SAE J514 Straight Thread O-Ring Boss (ORB)

This port connection is recommended by the N.F.P.A. for optional leakage control in medium and high pressure hydraulic systems. The O’ring boss male will mate with an O’ring boss female only.



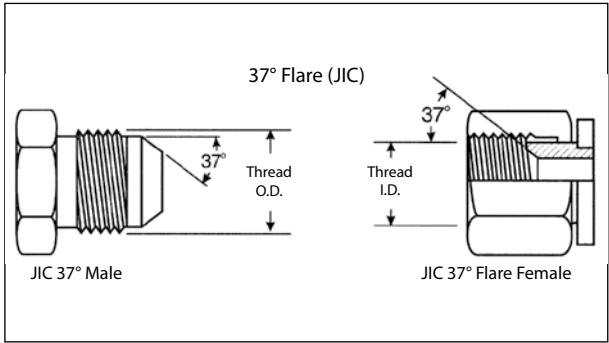
Thread Identification Table  
SAE J514 Straight Thread O-Ring Boss

| Tube Size<br>Dash | Tube Size<br>(in) | Thread Size<br>(in-TPI) | Female Thread I.D. |      | Male Thread O.D. |      |
|-------------------|-------------------|-------------------------|--------------------|------|------------------|------|
|                   |                   |                         | (mm)               | (in) | (mm)             | (in) |
| -2                | 1/8               | 5/16-24                 | 6.9                | 0.27 | 7.8              | 0.31 |
| -3                | 3/16              | 3/8-24                  | 8.5                | 0.34 | 9.4              | 0.37 |
| -4                | 1/4               | 7/16-20                 | 9.9                | 0.39 | 11.2             | 0.44 |
| -5                | 5/16              | 1/2-20                  | 11.5               | 0.45 | 12.6             | 0.49 |
| -6                | 3/8               | 9/16-18                 | 12.9               | 0.51 | 14.1             | 0.56 |
| -8                | 1/2               | 3/4-16                  | 17.5               | 0.69 | 18.9             | 0.74 |
| -10               | 5/8               | 7/8-14                  | 20.5               | 0.81 | 22.1             | 0.87 |
| -12               | 3/4               | 1.1/16-12               | 24.9               | 0.98 | 26.9             | 1.06 |
| -14               | 7/8               | 1.3/16-12               | 28.1               | 1.11 | 30.3             | 1.18 |
| -16               | 1                 | 1.5/16-12               | 31.3               | 1.23 | 33.1             | 1.31 |
| -20               | 1.1/4             | 1.5/8-12                | 39.2               | 1.54 | 41.1             | 1.62 |
| -24               | 1.1/2             | 1.7/8-12                | 45.6               | 1.79 | 47.4             | 1.87 |
| -32               | 2                 | 2.1/2-12                | 61.4               | 2.42 | 63.3             | 2.49 |

The male has straight threads and an O’ring. The female has straight threads and a sealing face. The seal is made at the O’ring on the male and the sealing face on the female. The threads hold the connection mechanically.

SAE J514 37° (JIC)

The Society of Automotive Engineers (SAE) specifies a 37° angle flare or seat be used with high pressure hydraulic tubing. These are commonly called JIC couplings. The JIC 37° flare male will mate with a JIC female only. The JIC male has straight threads and a 37° flare seat. The JIC female has straight threads and a 37° flare seat. The seal is made on the 37° flare seat by establishing a line contact between the male flare and the female cone seat. The threads hold the connection mechanically.



Thread Identification Table  
SAE J514 37° Flare (JIC)

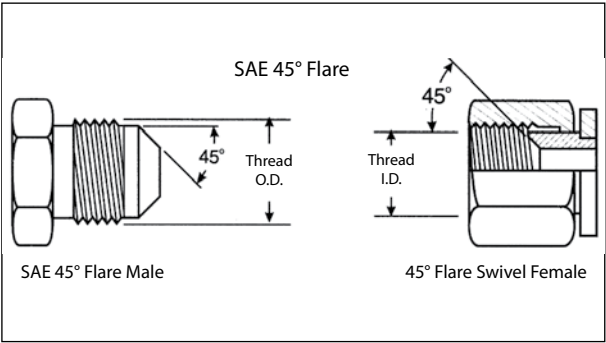
| Tube Size<br>Dash | Tube Size<br>(in) | Thread Size<br>(in-TPI) | Female Thread I.D. |      | Male Thread O.D. |      |
|-------------------|-------------------|-------------------------|--------------------|------|------------------|------|
|                   |                   |                         | (mm)               | (in) | (mm)             | (in) |
| -2                | 1/8               | 5/16-24                 | 6.9                | 0.27 | 7.8              | 0.31 |
| -3                | 3/16              | 3/8-24                  | 8.5                | 0.34 | 9.4              | 0.37 |
| -4                | 1/4               | 7/16-20                 | 9.9                | 0.39 | 11.2             | 0.44 |
| -5                | 5/16              | 1/2-20                  | 11.5               | 0.45 | 12.6             | 0.49 |
| -6                | 3/8               | 9/16-18                 | 12.9               | 0.51 | 14.1             | 0.56 |
| -8                | 1/2               | 3/4-16                  | 17.5               | 0.69 | 18.9             | 0.74 |
| -10               | 5/8               | 7/8-14                  | 20.5               | 0.81 | 22.1             | 0.87 |
| -12               | 3/4               | 1.1/16-12               | 24.9               | 0.98 | 26.9             | 1.06 |
| -14               | 7/8               | 1.3/16-12               | 28.1               | 1.11 | 30.3             | 1.18 |
| -16               | 1                 | 1.5/16-12               | 31.3               | 1.23 | 33.1             | 1.31 |
| -20               | 1.1/4             | 1.5/8-12                | 39.2               | 1.54 | 41.1             | 1.62 |
| -24               | 1.1/2             | 1.7/8-12                | 45.6               | 1.79 | 47.4             | 1.87 |
| -32               | 2                 | 2.1/2-12                | 61.4               | 2.42 | 63.3             | 2.49 |

CAUTION: In the -02, -03, -04, -05, -08 and -10 sizes, the threads of the SAE 45° flare and the SAE 37° flare are the same. However, the sealing surface angles are not the same. Carefully measure the seat angle to differentiate.



SAE J512 45°

A term usually applied to fittings having a 45° angle flare or seat. Soft copper tubing is generally used in such applications as it is easily flared to the 45° angle. These are for low pressure applications - commonly used in refrigeration, automotive and truck piping systems. The SAE 45° flare male will mate with an SAE 45° flare female only. The SAE male has straight threads and a 45° flare seat. The SAE female has straight threads and a 45° flare seat. The seal is made on the 45° flare seat.



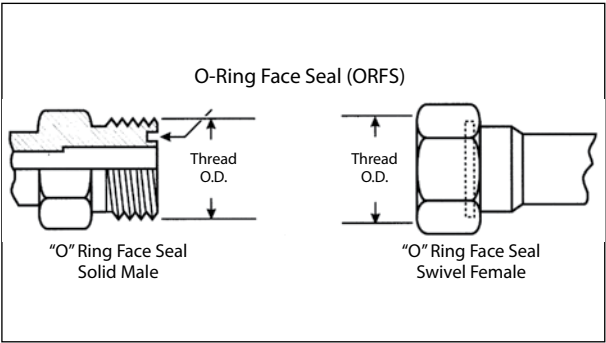
Thread Identification Table  
SAE J512 45°

| Tube Size | Tube Size | Thread Size | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|-------------|--------------------|------|------------------|------|
| Dash      | (in)      | (in-TPI)    | (mm)               | (in) | (mm)             | (in) |
| -2        | 1/8       | 5/16-24     | 6.9                | 0.27 | 7.9              | 0.31 |
| -3        | 3/16      | 3/8-24      | 8.6                | 0.34 | 9.6              | 0.38 |
| -4        | 1/4       | 7/16-20     | 9.9                | 0.39 | 11.2             | 0.44 |
| -5        | 5/16      | 1/2-20      | 11.4               | 0.45 | 12.7             | 0.50 |
| -6        | 3/8       | 5/8-18      | 14.2               | 0.56 | 15.7             | 0.62 |
| -7        | 7/16      | 11/16-16    | 15.7               | 0.62 | 17.3             | 0.68 |
| -8        | 1/2       | 3/4-16      | 17.0               | 0.68 | 19.0             | 0.75 |
| -10       | 5/8       | 7/8-14      | 20.3               | 0.80 | 22.3             | 0.88 |
| -12       | 3/4       | 1.1/16-14   | 25.1               | 0.99 | 26.9             | 1.06 |
| -14       | 7/8       | 1.1/4-12    | 29.5               | 1.16 | 31.7             | 1.25 |
| -16       | 1         | 1.3/8-12    | 32.5               | 1.28 | 35.0             | 1.38 |

The threads hold the connection mechanically.  
CAUTION: In the -02, -03, -04, -05, -08 and -10 sizes, the threads of the SAE 45° flare and the SAE 37° flare are the same. However, the sealing surface angles are not the same. Carefully measure the seat angle to differentiate.

SAE J1453 O-Ring Face Seal (ORFS)

A seal is made when the O'ring in the male contacts the flat face on the female. Couplings are intended for hydraulic systems where elastomeric seals are acceptable to overcome leakage and leak resistance is crucial. This connection offers the very best leakage control available today.



Thread Identification Table  
SAE J1453 O-Ring Face Seal (ORFS)

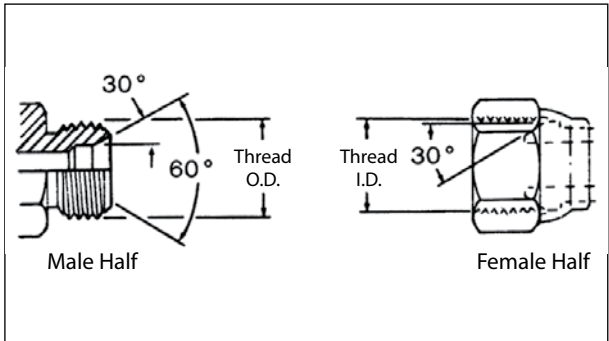
| Tube Size | Tube Size | Thread Size | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|-------------|--------------------|------|------------------|------|
| Dash      | (in)      | (in-TPI)    | (mm)               | (in) | (mm)             | (in) |
| -4        | 1/4       | 9/16-18     | 12.9               | 0.51 | 14.1             | 0.56 |
| -6        | 3/8       | 11/16-16    | 15.9               | 0.63 | 17.3             | 0.68 |
| -8        | 1/2       | 13/16-16    | 19.1               | 0.75 | 20.5             | 0.81 |
| -10       | 5/8       | 1-14        | 23.6               | 0.93 | 25.2             | 0.99 |
| -12       | 3/4       | 1.3/16-12   | 28.1               | 1.11 | 30.0             | 1.18 |
| -16       | 1         | 1.7/16-12   | 34.4               | 1.36 | 36.3             | 1.43 |
| -20       | 1.1/4     | 1.11/16-12  | 40.8               | 1.61 | 42.7             | 1.68 |
| -24       | 1.1/2     | 2-12        | 48.7               | 1.92 | 50.6             | 1.99 |

The male connector has a straight thread and a machined flat face. The female has a straight thread and a machined flat face. The seal takes place by compressing the O-Ring onto the flat face of the female, similar to the split flange type fitting. The threads hold the connection mechanically.



SAE J512 Inverted Flare

This connection is frequently used in automotive systems. The male connector can either be a 45° flare in the tube fitting form or a 42° seat in the machined adapter form. The female has a straight thread with a 42° inverted flare. The seal takes place on the flared surface. The threads hold the connection mechanically

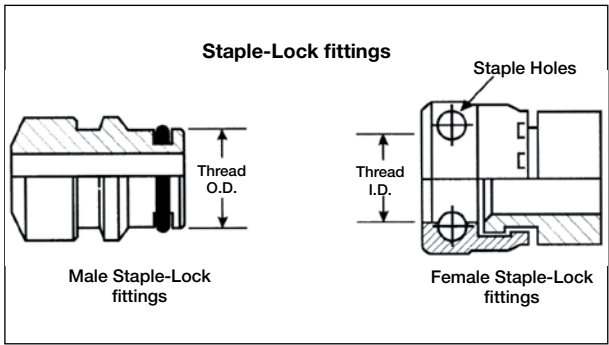


Thread Identification Table  
SAE J512 Inverted Flare

| Tube Size | Tube Size | Thread Size | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|-------------|--------------------|------|------------------|------|
| Dash      | (in)      | (in-TPI)    | (mm)               | (in) | (mm)             | (in) |
| -2        | 1/8       | 5/16-28     | 6.9                | 0.27 | 7.9              | 0.31 |
| -3        | 3/16      | 3/8-24      | 8.6                | 0.34 | 9.6              | 0.38 |
| -4        | 1/4       | 7/16-24     | 9.9                | 0.39 | 11.2             | 0.44 |
| -5        | 5/16      | 1/2-20      | 11.4               | 0.45 | 12.7             | 0.50 |
| -6        | 3/8       | 5/8-18      | 14.2               | 0.56 | 15.7             | 0.62 |
| -7        | 7/16      | 11/16-18    | 15.7               | 0.62 | 17.3             | 0.68 |
| -8        | 1/2       | 3/4-18      | 17.0               | 0.68 | 19.0             | 0.75 |
| -10       | 5/8       | 7/8-18      | 20.3               | 0.80 | 22.3             | 0.88 |
| -12       | 3/4       | 1.1/16-16   | 25.1               | 0.99 | 26.9             | 1.06 |

SAE J1467 Clip Fastener

This is a radial O-Ring seal connection commonly used for hydraulic applications in underground mines. The male contains an exterior O-Ring and backup ring, plus a groove to accept the "staple". The female has a smooth bore with two holes for the staple.



Thread Identification Table  
SAE J1467 Clip Fastener

| Dash Size | Inch Size | Female Staple-Lock I.D. |         | Male Staple-Lock O.D. |         |
|-----------|-----------|-------------------------|---------|-----------------------|---------|
|           | (in)      | (mm)                    | (in)    | (mm)                  | (in)    |
| -4        | 1/4       | 14.9                    | 19/32   | 15.1                  | 19/32   |
| -6        | 3/8       | 19.9                    | 51/64   | 20.1                  | 51/64   |
| -8        | 1/2       | 23.9                    | 61/64   | 24.1                  | 61/64   |
| -12       | 3/4       | 28.9                    | 1.9/64  | 29.1                  | 1.9/64  |
| -16       | 1         | 38.9                    | 1.35/64 | 39.1                  | 1.35/64 |
| -20       | 1.1/4     | 45.9                    | 1.13/16 | 46.1                  | 1.13/16 |
| -24       | 1.1/2     | 54.9                    | 1.11/64 | 55.2                  | 2.11/64 |
| -32       | 2         | 63.9                    | 1.17/32 | 64.2                  | 2.17/32 |

A "U" shaped retaining clip or staple is inserted through the two holes, passing through the groove in the male to lock the connection together. The seal takes place by contact between the O-Ring in the male and the smooth bore of the female.

SAE J518/ISO - DIS 6162/JIS B8363 O-Ring Flange

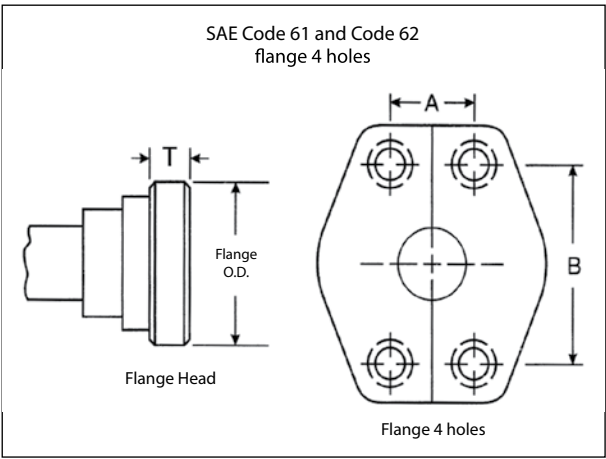
This connection is commonly used in fluid power system. There are two pressure ratings. Code 61 Form R, PN 35/350 bar, Type I, is referred to as the “standard” series and Code 62 Form S, PN 415 bar, Type II, is the “heavy duty” “6000 psi” series. The design concept for both series is the same, but the bolt hole spacing and flanged head diameters are larger for the higher pressure, Code 62 connection.

The female (port) is an unthreaded hole with four bolt holes in a rectangular pattern around the port.

The male consists of a flanged head, grooved for an O-Ring, and either a captive flange or split flange halves with bolt holes to match the port. The seal take place on the O-Ring, which is compressed between the flange head and the flat surface surrounding the port. The threaded bolts hold the connection together.

SAE J518, DIN 20066, ISO/DIS 6162 and JIS B 8363 are interchangeable, except for bolt sizes.

\*All Code 61 flange head hose couplings meet or exceed SAE J518 Code 61 requirements for hydraulic split flange connections. The Code 61 flange head design can withstand a maximum operating pressure of 3000 to 5000 psi depending on size.



| Flange Dash | SAE Cod 61 FORM R - PN 35/350 - TYPE I |           |               |           |           |           |           |           | SAE Cod 62 FORM S - PN 415 - TYPE II |           |               |           |           |           |           |           | CATERPILLAR      |           |               |           |           |           |           |           |
|-------------|----------------------------------------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|--------------------------------------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|
|             | Flange Head Size                       |           | Flange Head T |           | A         |           | B         |           | Flange Head Size                     |           | Flange Head T |           | A         |           | B         |           | Flange Head Size |           | Flange Head T |           | A         |           | B         |           |
|             | Size                                   | (in) (mm) | (in) (mm)     | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm)                            | (in) (mm) | (in) (mm)     | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm)        | (in) (mm) | (in) (mm)     | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) | (in) (mm) |
| -8          | 1.19                                   | 30.2      | .265          | 6.7       | .69       | 17.5      | 1.50      | 38.1      | 1.25                                 | 31.8      | .305          |           | .71       | 18.2      | 1.59      | 40.5      |                  |           |               |           |           |           |           |           |
| -10*        | 1.34                                   | 34.0      | .265          | 6.7       | .78       | 19.8      | 1.69      | 42.9      |                                      |           |               |           |           |           |           |           |                  |           |               |           |           |           |           |           |
| -12         | 1.50                                   | 38.1      | .265          | 6.7       | .87       | 22.2      | 1.89      | 47.6      | 1.63                                 | 41.3      | .345          | 8.7       | .94       | 23.8      | 2.00      | 50.8      | 1.63             | 41.3      | .56           | 14.2      | .94       | 23.8      | 2.00      | 50.8      |
| -16         | 1.75                                   | 44.5      | .315          | 8.0       | 1.03      | 26.2      | 2.05      | 52.4      | 1.88                                 | 47.6      | .375          | 9.5       | 1.10      | 27.8      | 2.25      | 57.2      | 1.88             | 47.6      | .56           | 14.2      | 1.10      | 27.8      | 2.25      | 57.2      |
| -20         | 2.00                                   | 50.8      | .315          | 8.0       | 1.19      | 30.2      | 2.31      | 58.7      | 2.13                                 | 54.0      | .405          | 10.3      | 1.26      | 31.8      | 2.63      | 66.7      | 2.13             | 54.0      | .56           | 14.2      | 1.26      | 31.8      | 2.63      | 66.7      |
| -24         | 2.38                                   | 60.3      | .315          | 8.0       | 1.41      | 35.7      | 2.75      | 69.9      | 2.50                                 | 63.5      | .495          | 12.6      | 1.44      | 36.6      | 3.13      | 79.4      | 2.50             | 63.5      | .56           | 14.2      | 1.44      | 36.6      | 3.13      | 79.4      |
| -32         | 2.81                                   | 71.4      | .375          | 9.5       | 1.69      | 42.9      | 3.06      | 77.8      | 3.13                                 | 79.4      | .495          | 12.6      | 1.73      | 44.4      | 3.81      | 96.8      | 3.13             | 79.4      | .56           | 14.2      | 1.73      | 44.4      | 3.81      | 96.8      |
| -40         | 3.31                                   | 84.1      | .375          | 9.5       | 2.00      | 50.8      | 3.50      | 88.9      |                                      |           |               |           |           |           |           |           |                  |           |               |           |           |           |           |           |

T = Thickness  
-10 is a non SAE size flange

How to measure

- Four Bolt Flange - First measure the port hole diameter using the caliper. Next, measure the longest bolt hole spacing from centre-to-centre (Dimension “A”) or measure the flanged head diameter. O.D.
1. The size -10, which is common outside of North America is not an SAE Standard size.
  2. Caterpillar flanges, which are the same flange O.D. as SAE Code 62, have a thicker flange head.
  3. Poclain flanges, which are completely different from SAE flanges.

BRITISH CONNECTIONS

British Standard Pipe Parallel (BSPP)

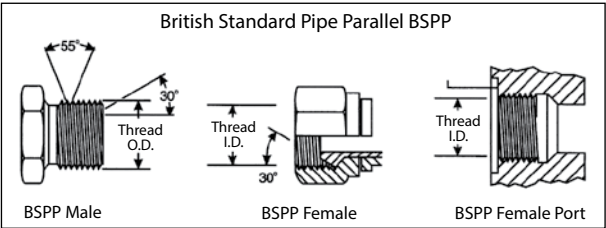
Popular couplings British Standard Pipe (BSP) threads, also known as Whitworth threads.

The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port.

The BSPP male has straight threads and a 30° seat.

The BSPP female has straight threads and a 30° seat.

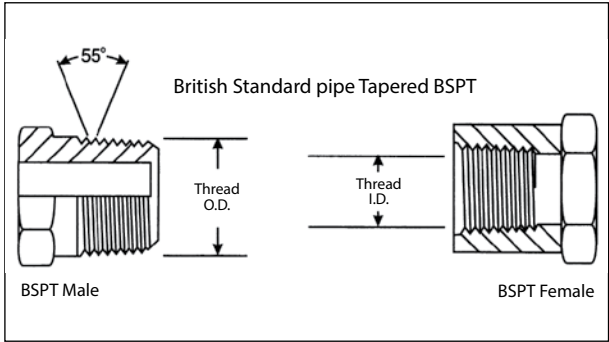
The female port has straight threads and a spotface. The seal on the port is made with an O-Ring or soft metal washer on the male. The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector. The thread pitch is different in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads. The female swivel BSPP has a tapered nose which seals on the cone seat of the male.



British Standard Pipe Tapered (BSPT)

The BSPT (tapered) male will mate with a BSPT (tapered)female, or a BSPP (parallel) female. The BSPT male has tapered threads. When mating with either the BSPT (tapered) female or the BSPP (parallel) female port, the seal is made on the threads accomplished by thread distortion. A thread sealant is recommended.

The BSPT connector is similar to, but not interchangeable with, the NPTF connector. The thread pitch is different in most cases, and the thread angle is 55° instead of the 60° angle found on NPTF threads.



Thread Identification Table  
BSPP - (British Standard Pipe Parallel)  
BSPT - (British Standard Pipe Tapered)

| Dash Size | Inch Size | Thread Size | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|-------------|--------------------|------|------------------|------|
|           | (in)      | (in-TPI)    | (mm)               | (in) | (mm)             | (in) |
| -2        | 1/8       | 1/8-27      | 8.7                | 0.34 | 9.5              | 0.38 |
| -4        | 1/4       | 1/4-18      | 11.1               | 0.44 | 13.5             | 0.56 |
| -6        | 3/8       | 3/8-18      | 15.1               | 0.59 | 16.7             | 0.66 |
| -8        | 1/2       | 1/2-14      | 18.3               | 0.72 | 20.6             | 0.81 |
| -10       | 5/8       | 5/8-14      | 20.6               | 0.81 | 23.0             | 0.91 |
| -12       | 3/4       | 3/4-14      | 23.8               | 0.94 | 26.2             | 1.03 |
| -16       | 1         | 1-11        | 30.2               | 1.19 | 33.3             | 1.31 |
| -20       | 1-1/4     | 1.1/4-11    | 38.9               | 1.53 | 41.1             | 1.66 |
| -24       | 1-1/2     | 1.1/2-11    | 45.2               | 1.78 | 47.6             | 1.88 |
| -32       | 2         | 2-11        | 56.4               | 2.22 | 59.5             | 2.34 |

FRENCH CONNECTIONS

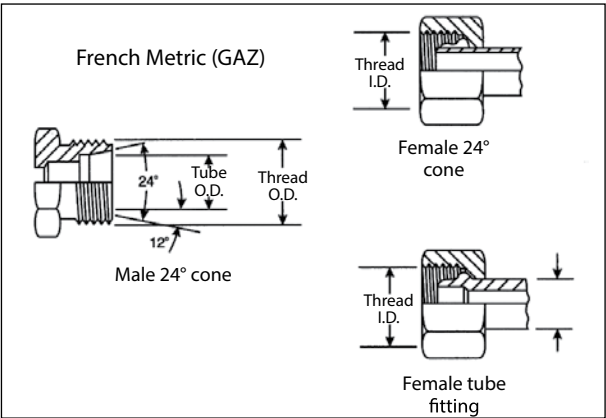
French GAZ have a 24° seat and metric threads. These are similar to German DIN couplings, but the threads are different in some sizes, the French use fine threads in all sizes. French flanges are different than SAE, they have a lip that protrudes from the flange face. These are Poclain style flanges.

Millimetrique and GAZ 24°

This connection consists of a common male and two different females. The French Metric (GAZ) male will mate with the female 24° cone or the female tube fitting. The male has a 24° seat and straight metric threads. The female has a 24° seat or a tubing sleeve and straight metric threads. The Millimetrique Series is used with whole number metric O.D. tubing and the GAZ Series is used with fractional number metric O.D. pipe size tubing.

Thread Identification Table  
French Metric Millimetrique

| Metric Thread | Female Thread I.D. |      | Male Thread O.D. |      | Tube O.D. |      |
|---------------|--------------------|------|------------------|------|-----------|------|
|               |                    |      |                  |      |           |      |
| M12 X 1.0     | 11.0               | 0.43 | 12.0             | 0.47 | 6         | 0.24 |
| M14 X 1.5     | 12.5               | 0.49 | 14.0             | 0.55 | 8         | 0.31 |
| M16 X 1.5     | 14.5               | 0.57 | 16.0             | 0.63 | 10        | 0.39 |
| M18 X 1.5     | 16.5               | 0.65 | 18.0             | 0.71 | 12        | 0.47 |
| M20 X 1.5     | 18.5               | 0.73 | 20.0             | 0.79 | 14        | 0.55 |
| M22 X 1.5     | 20.5               | 0.81 | 22.0             | 0.87 | 15        | 0.59 |
| M24 X 1.5     | 22.5               | 0.89 | 24.0             | 0.94 | 16        | 0.63 |
| M27 X 1.5     | 25.5               | 1.00 | 27.0             | 1.06 | 18        | 0.71 |
| M30 X 1.5     | 28.5               | 1.12 | 30.0             | 1.18 | 22        | 0.87 |
| M33 X 1.5     | 31.5               | 1.24 | 33.0             | 1.30 | 25        | 0.98 |
| M36 X 1.5     | 34.5               | 1.36 | 36.0             | 1.42 | 28        | 1.10 |
| M39 X 1.5     | 37.5               | 1.48 | 39.0             | 1.54 | 30        | 1.18 |
| M42 X 1.5     | 40.5               | 1.59 | 42.0             | 1.65 | 32        | 1.26 |
| M45 X 1.5     | 43.5               | 1.71 | 45.0             | 1.77 | 35        | 1.38 |
| M48 X 1.5     | 46.5               | 1.83 | 48.0             | 1.89 | 38        | 1.50 |
| M52 X 1.5     | 50.5               | 1.99 | 52.0             | 2.05 | 40        | 1.57 |
| M54 X 2.0     | 51.9               | 2.04 | 54.0             | 2.13 | 45        | 1.77 |



Thread Identification Table  
French Metric GAZ 24° Cone

| Dash Size | Metric Thread | Female Thread I.D. |      | Male Thread O.D. |      | Tube O.D. |      |
|-----------|---------------|--------------------|------|------------------|------|-----------|------|
|           |               | (mm)               | (in) | (mm)             | (in) | (mm)      | (in) |
| -6        | M20 X 1.5     | 18.5               | 0.73 | 20.0             | 0.78 | 13.25     | 0.52 |
| -8        | M24 X 1.5     | 22.5               | 0.89 | 24.0             | 0.94 | 16.75     | 0.66 |
| -10       | M30 X 1.5     | 28.5               | 1.12 | 30.0             | 1.18 | 21.25     | 0.83 |
| -12       | M36 X 1.5     | 34.5               | 1.36 | 36.0             | 1.41 | 26.75     | 1.05 |
| -16       | M45 X 1.5     | 43.5               | 1.71 | 45.0             | 1.77 | 33.50     | 1.32 |
| -20       | M52 X 1.5     | 50.5               | 1.99 | 52.0             | 2.04 | 42.25     | 1.66 |

GAZ Poclain 24° Flange

The Poclain (French GAZ) 24° high pressure flange is usually found on Poclain equipment. The male flange will mate with a female flange or a port. The seal is made on the 24° seat.

| Nominal Size (in) | A    |      | B    |      | E    |      |
|-------------------|------|------|------|------|------|------|
|                   | (mm) | (in) | (mm) | (in) | (mm) | (in) |
| 1/2               | 39.9 | 1.57 | 18.3 | .72  | 14   | .55  |
| 5/8               | 39.9 | 1.57 | 18.3 | .72  | 14   | .55  |
| 3/4               | 50.8 | 2    | 23.9 | .94  | 18   | .71  |

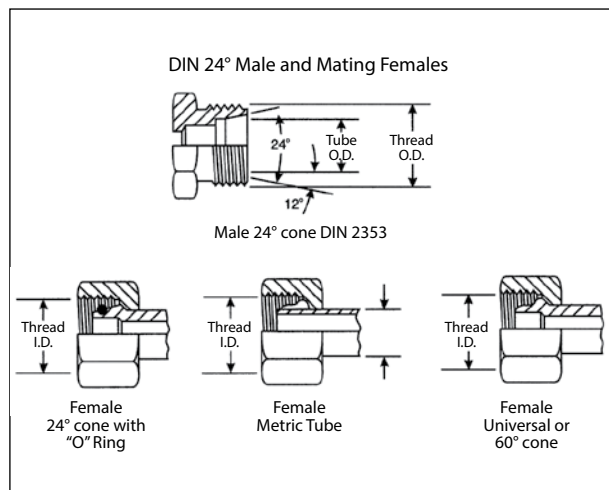
## GERMAN DIN CONNECTIONS

A coupling referred to as metric, usually means a DIN coupling. Flanges are standard Code 61 or Code 62.

### DIN 2353 24° Cone

The DIN 24° cone male will mate with any of the three females shown below.

The male has a 24° seat, straight metric threads, and a recessed counterbore which matches the tube O.D. used with it. The mating female may be a 24° cone with O'ring, (DKO type) a metric tube fitting or a universal 24° or 60° cone.



### Thread Identification Table

#### DIN 24° Cone

| Metric<br>Thread | Female Thread I.D. |      | Male Thread |      | Tube O.D.    |      |              |      |
|------------------|--------------------|------|-------------|------|--------------|------|--------------|------|
|                  | I.D.               |      | O.D.        |      | Light Series |      | Heavy Series |      |
| (dia x pitch)    | (mm)               | (in) | (mm)        | (in) | (mm)         | (in) | (mm)         | (in) |
| M12 X 1.5        | 10.5               | 0.41 | 12          | 0.47 | 6            | 0.24 |              |      |
| M14 X 1.5        | 12.5               | 0.49 | 14          | 0.55 | 8            | 0.31 | 6            | 0.24 |
| M16 X 1.5        | 14.5               | 0.57 | 16          | 0.63 | 10           | 0.39 | 8            | 0.31 |
| M18 X 1.5        | 16.5               | 0.65 | 18          | 0.71 | 12           | 0.47 | 10           | 0.39 |
| M20 X 1.5        | 18.5               | 0.73 | 20          | 0.79 |              |      | 12           | 0.47 |
| M22 X 1.5        | 20.5               | 0.81 | 22          | 0.87 | 15           | 0.59 | 14           | 0.55 |
| M24 X 1.5        | 22.5               | 0.89 | 24          | 0.94 |              |      | 16           | 0.63 |
| M26 X 1.5        | 24.5               | 0.96 | 26          | 1.02 | 18           | 0.71 |              |      |
| M30 X 2.0        | 27.9               | 1.10 | 30          | 1.18 | 22           | 0.87 | 20           | 0.79 |
| M36 X 2.0        | 33.9               | 1.33 | 36          | 1.42 | 28           | 1.10 | 25           | 0.98 |
| M42 X 2.0        | 39.9               | 1.57 | 42          | 1.65 |              |      | 30           | 1.18 |
| M45 X 2.0        | 42.9               | 1.69 | 45          | 1.77 | 35           | 1.38 |              |      |
| M52 X 2.0        | 49.9               | 1.96 | 52          | 2.05 | 42           | 1.65 | 38           | 1.50 |

There is a light and heavy series DIN coupling.

Proper identification is made by measuring both the thread size and the tube O.D. (The heavy series has a smaller tube O.D. than the light, but has a thicker wall section).

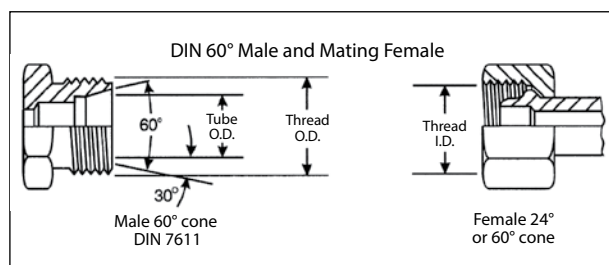
### DIN 3863 60° Cone

This connection is frequently used in hydraulic systems.

The DIN 60° cone male will mate with the female universal 24° or 60° cone only.

The male has a 60° seat and straight metric threads. The female has a 24° and 60° universal seat and straight metric threads. The seal takes place by contact between the cone of the male and the nose of the flareless swivel.

The threads hold the connection mechanically.



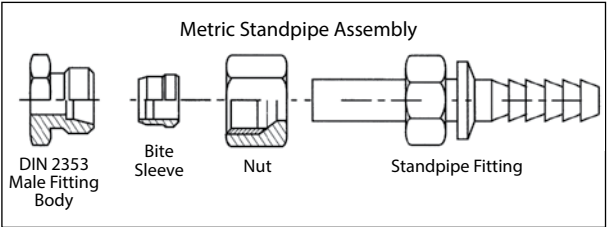
### Thread Identification Table

#### DIN 60°

| Metric Thread | Female Thread I.D. |      | Male Thread O.D. |      | Tube O.D. |      |
|---------------|--------------------|------|------------------|------|-----------|------|
|               | (mm)               | (in) | (mm)             | (in) | (mm)      | (in) |
| (dia x pitch) |                    |      |                  |      |           |      |
| M12 X 1.5     | 10.5               | 0.41 | 12               | 0.47 | 6         | 0.24 |
| M14 X 1.5     | 12.5               | 0.49 | 14               | 0.55 | 8         | 0.31 |
| M16 X 1.5     | 14.5               | 0.57 | 16               | 0.63 | 10        | 0.39 |
| M18 X 1.5     | 16.5               | 0.65 | 18               | 0.71 | 12        | 0.47 |
| M22 X 1.5     | 20.5               | 0.81 | 22               | 0.87 | 15        | 0.59 |
| M26 X 1.5     | 24.5               | 0.96 | 26               | 1.02 | 18        | 0.71 |
| M30 X 1.5     | 28.5               | 1.12 | 30               | 1.18 | 22        | 0.87 |
| M38 X 1.5     | 36.5               | 1.44 | 38               | 1.50 | 28        | 1.10 |
| M45 X 1.5     | 43.5               | 1.71 | 45               | 1.77 | 35        | 1.38 |
| M52 X 1.5     | 50.5               | 1.99 | 52               | 2.05 | 42        | 1.65 |

Metric Standpipe

A metric standpipe is comprised of three components attached to a male fitting. The components are a Standpipe, Bite Sleeve and Metric Nut. The nut is placed over the Standpipe, followed by the Bite Sleeve (see illustration below). For DIN light assemblies, a DIN light metric nut is used. For DIN heavy assemblies, a DIN heavy metric nut is used. Bite Sleeve and Standpipe are selected on the basis of tube O.D.



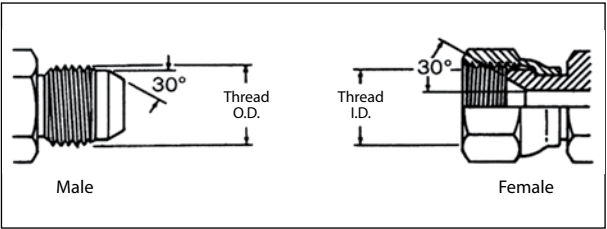
| Tube O.D.<br>(mm) | Metric Nut Thread |           |
|-------------------|-------------------|-----------|
|                   | Light             | Heavy     |
| 6                 | M12 x 1.5         |           |
| 8                 | M14 x 1.5         | M16 x 1.5 |
| 10                | M16 x 1.5         | M18 x 1.5 |
| 12                | M18 x 1.5         | M20 x 1.5 |
| 15                | M22 x 1.5         |           |
| 16                |                   | M24 x 1.5 |
| 18                | M26 x 1.5         |           |
| 20                |                   | M30 x 2.0 |
| 22                | M30 x 1.5         |           |
| 25                |                   | M36 x 2.0 |
| 28                | M36 x 2.0         |           |
| 30                |                   | M42 x 2.0 |
| 35                | M45 x 2.0         |           |
| 38                |                   | M52 x 2.0 |
| 42                | M52 x 2.0         |           |

JAPANESE CONNECTIONS

Japanese equipment uses JIS (Japanese Industrial Standard) couplings with a 30° seat and British Standard Pipe Parallel threads. All flanges are Code 61 or Code 62 (except -10).

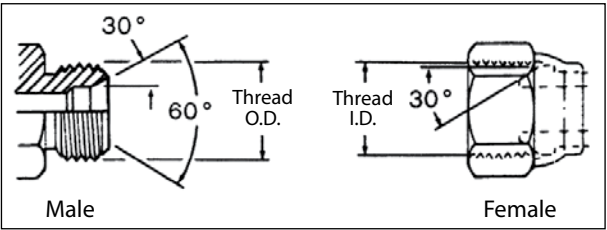
JIS 30° Flare Parallel Pipe Threads - JIS B 0202

These Japanese 30° flare male coupling will mate with a Japanese 30° flare female only. The male and female have straight threads and a 30° seat. The seal is made on the 30° seat. The threads on the Japanese 30° flare connector conform to JIS B 0202, the same as the BSPP threads. Both the British and Japanese connectors have a 30° seat, but they are not interchangeable, because the British seat is inverted.



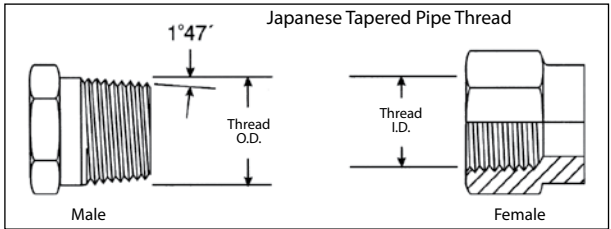
JIS 30° Inverted Seat, Parallel Pipe Threads - JIS B 0202

The JIS parallel is similar to the BSPP connection. The JIS parallel thread and the BSPP connection are interchangeable.



JIS Tapered Pipe Thread (PT) - JIS B 0203

The JIS tapered pipe thread connection is similar to the BSPT connection and fully interchangeable. The Japanese connection does not have a 30° Flare, and will not mate with the BSPP female. The thread conforms to JIS B 0203, same as BSPT threads. The seal on the JIS tapered pipe thread connection is made on the threads.

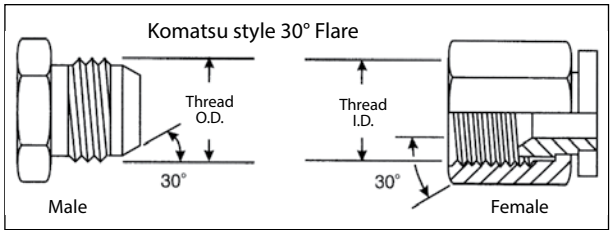


Thread Identification Table

| Dash Size | Inch Size | Thread Size | Female Thread I.D. |      | Male Thread O.D. |      |
|-----------|-----------|-------------|--------------------|------|------------------|------|
|           |           | (in-TPI)    | (mm)               | (in) | (mm)             | (in) |
| -2        | 1/8       | 1/8-27      | 8.7                | 0.34 | 9.5              | 0.38 |
| -4        | 1/4       | 1/4-18      | 11.1               | 0.44 | 13.5             | 0.56 |
| -6        | 3/8       | 3/8-18      | 15.1               | 0.59 | 16.7             | 0.66 |
| -8        | 1/2       | 1/2-14      | 18.3               | 0.72 | 20.6             | 0.81 |
| -10       | 5/8       | 5/8-14      | 20.6               | 0.81 | 23.0             | 0.91 |
| -12       | 3/4       | 3/4-14      | 23.8               | 0.94 | 26.2             | 1.03 |
| -16       | 1         | 1-11        | 30.2               | 1.19 | 33.3             | 1.31 |
| -20       | 1-1/4     | 1-1/4-11    | 38.9               | 1.53 | 41.1             | 1.66 |
| -24       | 1-1/2     | 1-1/2-11    | 45.2               | 1.78 | 47.6             | 1.88 |
| -32       | 2         | 2-11        | 56.4               | 2.22 | 59.5             | 2.34 |

Komatsu Style 30° Flare Parallel Threads

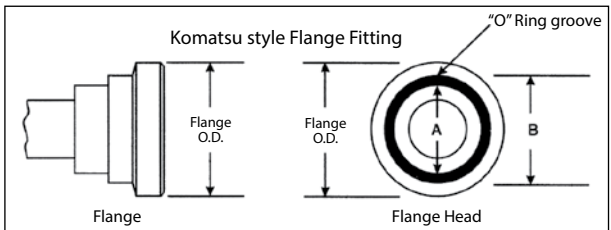
The Komatsu style 30° Flare Parallel thread coupling is identical to the Japanese 30° Flare parallel except for the threads. The Komatsu uses Metric fine threads which conform to JIS B 0207. The Komatsu connector seals on the 30° Flare.



| Dash Size | Inch Size | Metrich Thread | Male Thread O.D. | B Thread I.D. |
|-----------|-----------|----------------|------------------|---------------|
|           |           | Size           | (mm)             | (mm)          |
| -6        | 3/8       | M18x1.5        | 18               | 16.4          |
| -8        | 1/2       | M22x1.5        | 22               | 20.4          |
| -10       | 5/8       | M24x1.5        | 24               | 22.4          |
| -12       | 3/4       | M30x1.5        | 30               | 28.4          |
| -16       | 1         | M33x1.5        | 33               | 31.4          |
| -20       | 1-1/4     | M36x1.5        | 36               | 34.4          |
| -24       | 1-1/2     | M42x1.5        | 42               | 40.4          |

Komatsu Flange Fitting

The Komatsu Flange fitting is nearly identical to and fully interchangeable with the SAE Code 61 flange fitting. In all sizes the O-ring dimensions are different. When replacing a Komatsu flange with an SAE style flange, an SAE style O-ring must be used.



| Flange Dash | Flange Size | A    | B    |
|-------------|-------------|------|------|
| Size        | (In)        |      |      |
| -8          | 1.19        | .73  | .98  |
| -10*        | 1.34        | .73  | 1.10 |
| -12         | 1.50        | .85  | 1.22 |
| -16         | 1.75        | 1.12 | 1.50 |
| -20         | 2.00        | 1.36 | 1.73 |
| -24         | 2.38        | 1.75 | 2.12 |
| -32         | 2.81        | 2.22 | 2.56 |

\*is a non SAE size flange

## RACOMMENDED FITTING AND ADAPTER INSTALLATION TORQUE

### SAE J514 37° CONE (JIC)

| Dash | Thread    | Lb.ft |     | N.m |     |
|------|-----------|-------|-----|-----|-----|
|      |           | Min   | Max | Min | Max |
| -4   | 7/16-20   | 11    | 12  | 15  | 16  |
| -5   | 1/2-20    | 14    | 15  | 19  | 21  |
| -6   | 9/16-18   | 18    | 20  | 24  | 28  |
| -8   | 3/4-16    | 36    | 39  | 49  | 53  |
| -10  | 7/8-14    | 57    | 63  | 77  | 85  |
| -12  | 1 1/16-12 | 79    | 88  | 107 | 119 |
| -14  | 1 3/16-12 | 94    | 103 | 127 | 140 |
| -16  | 1 5/16-12 | 108   | 113 | 147 | 154 |
| -20  | 1 5/8-12  | 127   | 133 | 172 | 181 |
| -24  | 1 7/8-12  | 158   | 167 | 215 | 226 |
| -32  | 2 1/2-12  | 245   | 258 | 332 | 350 |

### BSPP without O-Ring

| Dash | Thread   | Lb.ft | N.m |
|------|----------|-------|-----|
| -2   | 1/8-28   | 7     | 10  |
| -4   | 1/4-19   | 15    | 20  |
| -6   | 3/8-19   | 26    | 35  |
| -8   | 1/2-14   | 44    | 60  |
| -10  | 5/8-14   | 52    | 70  |
| -12  | 3/4-14   | 85    | 115 |
| -16  | 1-11     | 103   | 140 |
| -20  | 1 1/4-11 | 155   | 210 |
| -24  | 1 1/2-11 | 214   | 290 |
| -32  | 2-11     | 295   | 400 |

### SAE J1453 O-Ring Face Seal (ORFS)

| Dash | Thread     | Lb.ft |     | N.m |     |
|------|------------|-------|-----|-----|-----|
|      |            | Min   | Max | Min | Max |
| -4   | 9/16-18    | 18    | 21  | 25  | 28  |
| -6   | 11/16-16   | 30    | 32  | 40  | 44  |
| -8   | 13/16-16   | 41    | 44  | 55  | 60  |
| -10  | 1-14       | 46    | 50  | 60  | 68  |
| -12  | 1 3/16-12  | 65    | 70  | 90  | 95  |
| -16  | 1 7/16-12  | 92    | 100 | 125 | 135 |
| -20  | 1 11/16-12 | 125   | 140 | 170 | 190 |
| -24  | 2-12       | 150   | 165 | 200 | 225 |

### BSPP with O-Ring

| Dash | Thread   | Lb.ft | N.m |
|------|----------|-------|-----|
| -2   | 1/8-28   | N/A   | N/A |
| -4   | 1/4-19   | 15    | 20  |
| -6   | 3/8-19   | 26    | 35  |
| -8   | 1/2-14   | 37    | 50  |
| -10  | 5/8-14   | 44    | 60  |
| -12  | 3/4-14   | 63    | 85  |
| -16  | 1-11     | 85    | 115 |
| -20  | 1 1/4-11 | 140   | 190 |
| -24  | 1 1/2-11 | 177   | 240 |
| -32  | 2-11     | 221   | 300 |

### SAE Flange J518 Code 61

| Dash | Thread | Lb.ft |     | N.m |     |
|------|--------|-------|-----|-----|-----|
|      |        | Min   | Max | Min | Max |
| -8   | 1/2    | 15    | 19  | 20  | 25  |
| -12  | 3/4    | 21    | 29  | 28  | 40  |
| -16  | 1      | 27    | 35  | 37  | 48  |
| -20  | 1 1/4  | 35    | 46  | 48  | 62  |
| -24  | 1 1/2  | 46    | 58  | 62  | 79  |
| -32  | 2      | 54    | 66  | 73  | 90  |
| -40  | 2 1/2  | 79    | 91  | 107 | 124 |
| -48  | 3      | 137   | 149 | 186 | 203 |

### JIS (B8363)

| Dash | Thread   | Lb.ft | N.m |
|------|----------|-------|-----|
| -4   | 1/4-19   | 19    | 25  |
| -6   | 3/8-19   | 25    | 34  |
| -8   | 1/2-14   | 49    | 64  |
| -10  | 5/8-14   | 100   | 132 |
| -12  | 3/4-14   | 100   | 132 |
| -16  | 1-11     | 149   | 196 |
| -20  | 1 1/4-11 | 171   | 225 |
| -24  | 1 1/2-11 | 194   | 255 |
| -32  | 2-11     | 240   | 316 |

### SAE J518 Code 62

| Dash  | Thread | Lb.ft |     | N.m |     |
|-------|--------|-------|-----|-----|-----|
|       |        | Min   | Max | Min | Max |
| -8    | 1/2    | 15    | 19  | 20  | 25  |
| -12   | 3/4    | 25    | 33  | 34  | 45  |
| -16   | 1      | 42    | 50  | 56  | 68  |
| -20   | 1 1/4  | 63    | 75  | 85  | 102 |
| -24   | 1 1/2  | 117   | 133 | 158 | 181 |
| -32** | 2      | 200   | 217 | 271 | 294 |

### Metric

| Thread  | Lb.ft |     | N.m |     |
|---------|-------|-----|-----|-----|
|         | Min   | Max | Min | Max |
| M12x1,5 | 8     | 11  | 15  | 20  |
| M14x1,5 | 13    | 18  | 25  | 30  |
| M16x1,5 | 19    | 26  | 35  | 40  |
| M18x1,5 | 22    | 30  | 40  | 45  |
| M20x1,5 | 24    | 33  | 45  | 50  |
| M22x1,5 | 32    | 44  | 60  | 70  |
| M24x1,5 | 41    | 55  | 75  | 85  |
| M26x1,5 | 46    | 63  | 85  | 95  |
| M30x2   | 57    | 77  | 105 | 120 |
| M36x2   | 74    | 100 | 135 | 150 |
| M42x2   | 111   | 151 | 205 | 230 |
| M45x2   | 136   | 184 | 250 | 280 |
| M52x2   | 147   | 199 | 270 | 300 |



## JIC FFFT TORQUE METHOD

The FFFT (Flats From Finger Tight) method allows to assemble fittings and adapters at the correct torque value without a dynamometric wrench. The rotation applied according the value shown in tab.1 ensures a good sealing, avoid unscrewing and over torque that can cause nut or cone crack.

Assembling instruction:

- hand tighten the joint
- make a longitudinal mark on one of the flats of hex and continue it on the body hex as shown in Fig.1
- tighten the joint further by the number of flat as shown in Tab.1

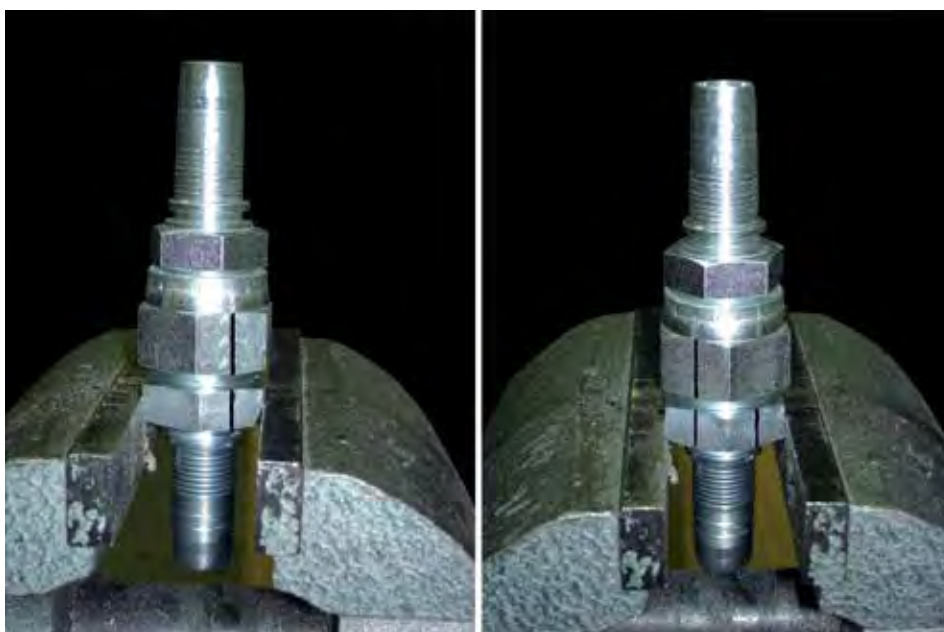


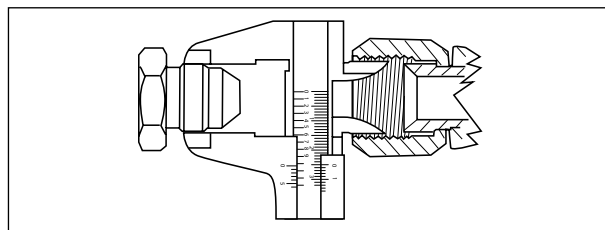
Fig. 1

| Assembling value - carbon steel material - SAE J514 JIC 37° flare |           |       |     |     |     |      |
|-------------------------------------------------------------------|-----------|-------|-----|-----|-----|------|
| Dash size                                                         | Thread    | Lb*ft |     | N*m |     | FFFT |
|                                                                   |           | min   | max | min | max |      |
| -4                                                                | 7/16-20   | 11    | 12  | 15  | 16  | 2    |
| -5                                                                | 1/2-20    | 14    | 15  | 19  | 21  | 2    |
| -6                                                                | 9/16-18   | 18    | 20  | 24  | 28  | 2    |
| -8                                                                | 3/4-16    | 36    | 39  | 49  | 53  | 1.5  |
| -10                                                               | 7/8-14    | 57    | 63  | 77  | 85  | 1.5  |
| -12                                                               | 1 1/16-12 | 79    | 88  | 107 | 119 | 1    |
| -14                                                               | 1 3/16-12 | 94    | 103 | 127 | 140 | 1    |
| -16                                                               | 1 5/16-12 | 108   | 113 | 147 | 154 | 1    |
| -20                                                               | 1 5/8-12  | 127   | 133 | 172 | 181 | 1    |
| -24                                                               | 1 7/8-12  | 158   | 167 | 215 | 226 | 1    |
| -32                                                               | 2 1/2-12  | 245   | 258 | 332 | 350 | 1    |

Tab. 1

## HOW TO DETERMINE THE THREAD TYPE USING CALLIPERS

By measuring with a caliper the outside diameter of the thread of a male or the inside diameter of the thread of a female you will get a measure in mm. By finding this value in mm on the below table, you'll be able to find the relevant thread type.



| Male OD          | mm   | Female ID        |
|------------------|------|------------------|
|                  | 8,7  | G1/8" BSP        |
| 1/8" – 27 NPTF   | 9,5  |                  |
| G1/8" BSP        | 9,6  |                  |
| M 10 x 1         | 9,8  |                  |
|                  | 9,9  | 7/16" – 20 JIC   |
|                  | 10,5 | M 12 x 1,5       |
| 7/16" – 20 JIC   | 11,0 |                  |
|                  | 11,4 | 1/2" – 20 SAE    |
|                  | 11,6 | G1/4" BSP        |
| M 12 x 1,5       | 11,9 |                  |
| 1/4" – 18 NPTF   | 12,5 |                  |
|                  | 12,5 | M 14 x 1,5       |
| 1/2" – 20 SAE    | 12,6 |                  |
|                  | 12,9 | 9/16" – 18 JIC   |
| G1/4" BSP        | 13,0 |                  |
| M 14 x 1,5       | 13,9 |                  |
| 9/16" – 18 JIC   | 14,2 |                  |
|                  | 14,5 | M16 x 1,5        |
|                  | 15,1 | G3/8" BSP        |
| M 16 x 1,5       | 15,8 |                  |
| 3/8" – 18 NPTF   | 15,9 |                  |
|                  | 16,5 | M18 x 1,5        |
| G3/8" BSP        | 16,6 |                  |
|                  | 17,5 | 3/4" – 16 JIC    |
| M 18 x 1,5       | 17,9 |                  |
|                  | 18,4 | 20 x 1,5 DKF     |
| 3/4" – 16 JIC    | 18,8 |                  |
|                  | 18,8 | G1/2" BSP        |
| 1/2" – 14 NPT    | 19,8 |                  |
| 20 x 1,5 CEF     | 19,9 |                  |
|                  | 20,4 | 7/8" – 14 SAE    |
|                  | 20,5 | M 22 x 1,5       |
| G1/2" BSP        | 20,8 |                  |
|                  | 20,9 | G5/8" BSP        |
| M 22 x 1,5       | 21,9 |                  |
| 7/8" – 14 SAE    | 22,1 |                  |
|                  | 22,5 | 24 x 1,5 DKF     |
| G5/8" BSP        | 22,8 |                  |
| 24 x 1,5 CEF     | 23,9 |                  |
|                  | 24,5 | G3/4" BSP        |
|                  | 24,8 | 1 1/16" – 12 JIC |
| 3/4" – 14 NPTF   | 25,1 |                  |
|                  | 25,5 | M26 x 1,5        |
| M 26 x 1,5       | 25,9 |                  |
| G3/4" BSP        | 26,3 |                  |
| 1 1/16" – 12 JIC | 26,8 |                  |

| Male OD              | mm   | Female ID        |
|----------------------|------|------------------|
|                      | 27,9 | 1 3/16" – 12 JIC |
|                      | 28,0 | M 30 x 2         |
|                      | 28,5 | 30 x 1,5 DKF     |
| M 30 x2              | 29,8 |                  |
| 30 x 1,5 CEF         | 29,9 |                  |
| 1 3/16" – 12 JIC     | 30,1 |                  |
|                      | 30,7 | G1" BSP          |
|                      | 31,2 | 1 5/16" – 12 JIC |
| 1" – 11 1/2 NPTF     | 31,4 |                  |
|                      | 31,5 | M 33 x 1,5       |
| G1" BSP              | 33,1 |                  |
| 1 5/16" – 12 JIC     | 33,2 |                  |
|                      | 34,0 | M 36 x 2         |
|                      | 34,5 | 36 x 1,5 DKF     |
| M 36 x 2             | 35,8 |                  |
| 36 x 1,5 CEF         | 35,9 |                  |
|                      | 36,5 | M 36 x 1,5       |
| M 38 x 1,5           | 37,9 |                  |
|                      | 38,8 | 1 5/8" – 12 JIC  |
|                      | 39,4 | G1 1/4" BSP      |
|                      | 39,8 | M 42 x 1,5       |
| 1 1/4" – 11 1/2 NPTF | 40,2 |                  |
|                      | 40,5 | M 42 x 1,5       |
| 1 5/8" – 12 JIC      | 41,1 |                  |
| 1 1/4" – 11 BSP      | 41,7 |                  |
| M 42 x2              | 41,8 |                  |
|                      | 42,4 | M 45 x 2         |
|                      | 43,3 | 45 x 1,5 DKF     |
| M 45 x2              | 44,8 |                  |
| 45 x 1,5 CEF         | 44,9 |                  |
|                      | 45,1 | 1 7/8" – 12 JIC  |
|                      | 45,2 | G1 1/2" BSP      |
| 1 1/2" – 11 1/2 NPTF | 46,3 |                  |
| 1 7/8" – 12 JIC      | 47,5 |                  |
| G1 1/2" BSP          | 47,7 |                  |
|                      | 49,6 | M 52 x 2         |
|                      | 50,3 | 52 x 1,5 DKF     |
| M 52 x2              | 51,8 |                  |
| 52 x 1,5 CEF         | 51,9 |                  |
|                      | 57,4 | G2" BSP          |
| 2" – 11 1/2 NPTF     | 58,3 |                  |
| G2" BSP              | 59,4 |                  |
|                      | 61,1 | 2 1/2" – 12 JIC  |
|                      | 62,5 | M 65 x 2         |
| 2 1/2" – 12 JIC      | 63,3 |                  |

## PRESSURE CONVERSION TABLES

### Metric to psi (1 KPa = .145 psi)

| Kilo Pascal (KPa) | Mega Pascal (KPa) | Bar (Bar) | Pounds per Square Inch (psi) |
|-------------------|-------------------|-----------|------------------------------|
| 100               | 0,1               | 1         | 14,5                         |
| 200               | 0,2               | 2         | 29,0                         |
| 300               | 0,3               | 3         | 43,5                         |
| 400               | 0,4               | 4         | 58,0                         |
| 500               | 0,5               | 5         | 72,5                         |
| 600               | 0,6               | 6         | 87,0                         |
| 700               | 0,7               | 7         | 101,5                        |
| 800               | 0,8               | 8         | 116,0                        |
| 900               | 0,9               | 9         | 130,5                        |
| 1000              | 1                 | 10        | 145,0                        |
| 2000              | 2                 | 20        | 290,1                        |
| 3000              | 3                 | 30        | 435,1                        |
| 4000              | 4                 | 40        | 580,2                        |
| 5000              | 5                 | 50        | 725,5                        |
| 6000              | 6                 | 60        | 870,2                        |
| 7000              | 7                 | 70        | 1015                         |
| 8000              | 8                 | 80        | 1160                         |
| 9000              | 9                 | 90        | 1305                         |
| 10000             | 10                | 100       | 1450                         |
| 20000             | 20                | 200       | 2901                         |
| 30000             | 30                | 300       | 4351                         |
| 40000             | 40                | 400       | 5802                         |
| 50000             | 50                | 500       | 7252                         |
| 60000             | 60                | 600       | 8702                         |
| 70000             | 70                | 700       | 10153                        |
| 80000             | 80                | 800       | 11603                        |
| 90000             | 90                | 900       | 13053                        |
| 100000            | 100               | 1000      | 14504                        |
| 200000            | 200               | 2000      | 29008                        |
| 300000            | 300               | 3000      | 43511                        |

### psi to metric (1 psi = 6,89 KPa)

| Pounds per Square Inch (psi) | Kilo Pascal (KPa) | Mega Pascal (MPa) | Bar (Bar) |
|------------------------------|-------------------|-------------------|-----------|
| 10                           | 68,9              | 0,07              | 0,7       |
| 20                           | 137,9             | 0,14              | 1,4       |
| 30                           | 206,8             | 0,21              | 2,1       |
| 40                           | 275,8             | 0,28              | 2,8       |
| 50                           | 344,7             | 0,34              | 3,4       |
| 60                           | 413,7             | 0,41              | 4,1       |
| 70                           | 482,6             | 0,48              | 4,8       |
| 80                           | 551,6             | 0,55              | 5,5       |
| 90                           | 620,5             | 0,62              | 6,2       |
| 100                          | 689               | 0,70              | 6,9       |
| 200                          | 1379              | 1,4               | 13,8      |
| 300                          | 2068              | 2,1               | 20,7      |
| 400                          | 2758              | 2,8               | 27,6      |
| 500                          | 3447              | 3,4               | 34,5      |
| 600                          | 4137              | 4,1               | 41,4      |
| 700                          | 4826              | 4,8               | 48,3      |
| 800                          | 5516              | 5,5               | 55,2      |
| 900                          | 6205              | 6,2               | 62,1      |
| 1000                         | 6895              | 6,9               | 68,9      |
| 2000                         | 13790             | 13,8              | 147,9     |
| 3000                         | 20684             | 20,7              | 206,8     |
| 4000                         | 27579             | 27,6              | 275,8     |
| 5000                         | 34474             | 34,5              | 344,7     |
| 6000                         | 41369             | 41,4              | 413,7     |
| 7000                         | 48263             | 48,3              | 482,6     |
| 8000                         | 55158             | 55,2              | 551,6     |
| 9000                         | 62053             | 62,1              | 620,5     |
| 10000                        | 68948             | 68,9              | 689       |
| 20000                        | 137895            | 147,9             | 1379      |
| 30000                        | 206843            | 206,8             | 2068      |
| 40000                        | 275790            | 275,8             | 2758      |

## CONVERSION TABLES FROM IMPERIAL SYSTEM TO METRIC SYSTEM

| Inches | mm    |
|--------|-------|
| 1/64   | .0156 |
| 1/32   | .0312 |
| 3/64   | .0468 |
| 1/16   | .0625 |
| 5/64   | .0781 |
| 3/32   | .0937 |
| 7/64   | .1093 |
| 1/8    | .1250 |
| 9/64   | .1406 |
| 5/32   | .1562 |
| 11/64  | .1718 |
| 3/16   | .1875 |
| 13/64  | .2087 |
| 7/32   | .2187 |
| 15/64  | .2343 |
| 1/4    | .2500 |

| Inches | mm    |
|--------|-------|
| 17/64  | .2656 |
| 9/32   | .2812 |
| 19/64  | .2968 |
| 15/16  | .3125 |
| 21/64  | .3281 |
| 11/32  | .3437 |
| 23/64  | .3593 |
| 3/8    | .3750 |
| 25/64  | .3906 |
| 13/32  | .4062 |
| 27/64  | .4218 |
| 7/16   | .4375 |
| 29/64  | .4531 |
| 15/32  | .4687 |
| 31/64  | .4843 |
| 1/2    | .5000 |

| Inches | mm    |
|--------|-------|
| 33/64  | .5156 |
| 17/32  | .5312 |
| 35/64  | .5468 |
| 9/16   | .5625 |
| 37/64  | .5781 |
| 19/32  | .5937 |
| 39/64  | .6093 |
| 5/8    | .6250 |
| 41/64  | .6406 |
| 21/32  | .6562 |
| 43/64  | .6718 |
| 11/16  | .6875 |
| 45/64  | .7031 |
| 23/32  | .7187 |
| 47/64  | .7343 |
| 3/4    | .7500 |

| Inches | mm    |
|--------|-------|
| 49/64  | .7656 |
| 25/32  | .7812 |
| 51/64  | .7968 |
| 13/16  | .8125 |
| 53/64  | .8281 |
| 27/32  | .8437 |
| 55/64  | .8593 |
| 7/8    | .8750 |
| 57/64  | .8906 |
| 29/32  | .9062 |
| 59/64  | .9218 |
| 15/16  | .9375 |
| 61/64  | .9531 |
| 31/32  | .9687 |
| 63/64  | .9843 |
| 1      | 1000  |

## // ADAPTERS GUIDELINES

### ADAPTER SELECTION

Selection of an appropriate DUNLOP HIFLEX adapter for a given application depends on the fluid system operating parameters listed below and the tube material and wall thickness they require:

1. Type of fluid
2. Operating temperature range
3. Type of line - pressure, return or suction
4. Maximum flow rate through the line
5. Maximum operating / service pressure
6. Severity of service
7. Environment

Then, based on the tube selected and appropriate fluid system operating parameters, determine adapter type(s) and material(s) using the features comparison table below.

| FEATURES COMPARISON OF TUBE FITTINGS              |                                       |                                                                                                       |                                                                                                |                                                                                                |
|---------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Feature                                           |                                       | ORFS                                                                                                  | JIC 37°                                                                                        | BSP                                                                                            |
| Performance                                       | Pressure capability*                  | Very High                                                                                             | Medium to High                                                                                 | Medium to High                                                                                 |
|                                                   | Seal Reliability                      | Excellent                                                                                             | Good                                                                                           | Very Good                                                                                      |
|                                                   |                                       | Elastomeric Seal                                                                                      | Metal to Metal Seal                                                                            | Elastomeric Seal                                                                               |
|                                                   |                                       | High tolerance to minor surface imperfections and damage. High tolerance to assembly variations.      | Low tolerance to minor surface imperfections and damage. Low tolerance to assembly variations. | Low tolerance to minor surface imperfections and damage. Low tolerance to assembly variations. |
| Tube Compatibility                                | Vibration Resistance in Rigid Systems | Excellent                                                                                             | Good                                                                                           | Very Good                                                                                      |
|                                                   | Wall Thickness                        | All                                                                                                   | Medium                                                                                         | Medium                                                                                         |
|                                                   | Critical Features                     | OD tolerance and hardness for flat tube, OD tolerance only for brazed tube                            | ID finish, wall thickness uniformity (concentricity) and hardness                              | OD tolerance and hardness                                                                      |
| Assembly                                          | Tube Preparation                      | Easy and quick (slower for sleeve brazing)                                                            | Easy and quick                                                                                 | Easy and quick (slower for welded nipple)                                                      |
|                                                   | Inspection                            | Easy and quick                                                                                        | Easy and quick                                                                                 | Critical, need experience                                                                      |
|                                                   | Ease of Installation                  | Excellent, Minimum skill and training are necessary because of high tolerances to assembly variations | Good. Low tolerance to assembly variations. Requires skilled and trained personnel             |                                                                                                |
|                                                   | Ease of Maintenance                   | Excellent, no tube entry                                                                              | Very Good, Small tube entry                                                                    | Good, Large tube entry                                                                         |
| Temperature Capability<br>Adapters without O-Ring | Steel                                 | To be used only with O-ring                                                                           | -65° F to 500° F                                                                               | -65° F to 500° F                                                                               |
|                                                   | Stainless Steel                       |                                                                                                       | -425° F to 1200° F                                                                             | ==                                                                                             |
|                                                   | Brass                                 |                                                                                                       | -40° F to 400° F                                                                               | ==                                                                                             |
| Temperature Capability<br>Adapters with O-Ring**  | All Style of Adapter                  | -30 F to 250° F                                                                                       | -30 F to 250° F                                                                                | -30 F to 250° F                                                                                |

\* For details see Working Pressure Charts in the individual adapters section

\*\* For details concerning O-ring see section "O-ring selection" and "Fluid Resistance Table"

## JIC 37° ADAPTER (ISO 8434-2, SAE J514)

### Main Features

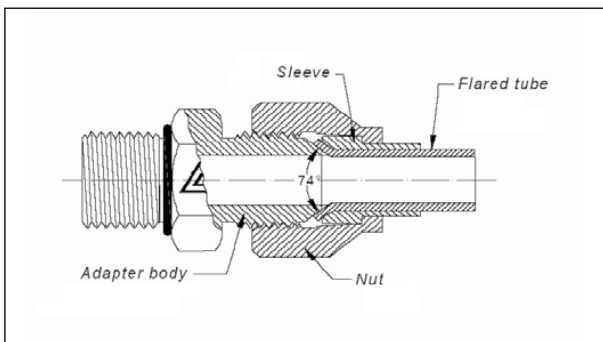
SAE J514 and ISO 8434-2, and commonly called 37° JIC adapters.

37° JIC adapter performs extremely well in all high pressure applications.

The seal is made by connecting a 37° flared tube surface to a 37° flare male and tightening by means of a nut and a sleeve. The flared tube avoids welded connection, so high performances are guaranteed even in case of severe vibrations, mechanic/hydraulic shocks and multiple assembly/disassembly operations.

When tightened, sleeve provides tube and adapter self alignment and helps to reduce the vibrations on the tube during application.

An appropriate choice of sleeve gives the possibility of assembling adapters with both metric and inch-tubes

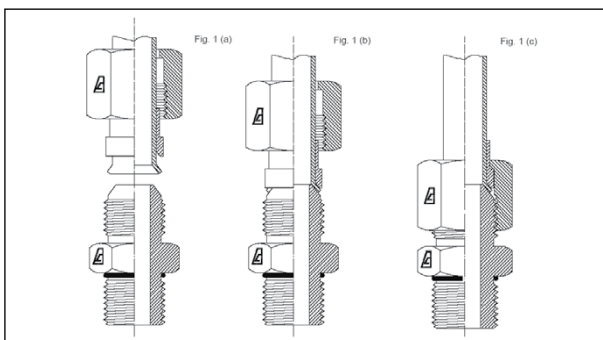


### Flaring Operations

Perfect sealing is guaranteed with tubes having physical and mechanical characteristics obtained by cold-drawing and a ductility expressed as 21% of minimum elongation.

- Cut end of tube must be perpendicular to its axis . Note: cutting operation reduces the whole length of tube (almost  $0,5 \pm 1\text{mm}$  for each end).
- Dimensions of the end of the tube shall allow the correct placing on the flaring machine.
- Flared surface must be inspected to avoid excessive roughness and defects such as cracks or exfoliation.
- Length of flared zone shall be enough to allow a sufficient sealing surface and avoid the blowing off of the tube, but not excessive to prevent the contact with thread of the nut.

A well followed flaring procedure assures no leakage even after frequent assembling and disassembling operations.



## ORFS ADAPTER (ISO 8434-3, SAE J1453)

### Main Features

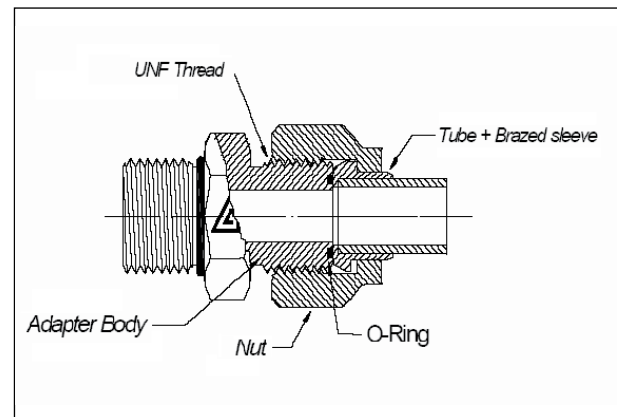
Adapters are designed and manufactured according to standard SAE J1453 and commonly called ORFS adapters.

O-Ring Face Seal adapters performs extremely well in all high pressure applications where elastomeric seals are needed to overcome leakage and leak resistance is crucial.

A seal is made when the O-Ring in the male contacts the 180° flat face of the tube. The male connector has a straight thread and a machined flat face. The seal takes place by compressing the O-Ring onto the flat face of the female.

ORFS system is composed by:.

- Nut.
- Sleeve for flat tube and a shouldered sleeve for brazing. An appropriate choice of sleeve gives the possibility of assembling adapters with both metric and inch-tubes.
- Various kind and size of adapter body.
- O-Ring material is NBR, Shore "A": 90, suitable for a temperature range of:  $-30^{\circ}\text{C}/+130^{\circ}\text{C}$  (  $-22^{\circ}\text{F}/+266^{\circ}\text{F}$  ).

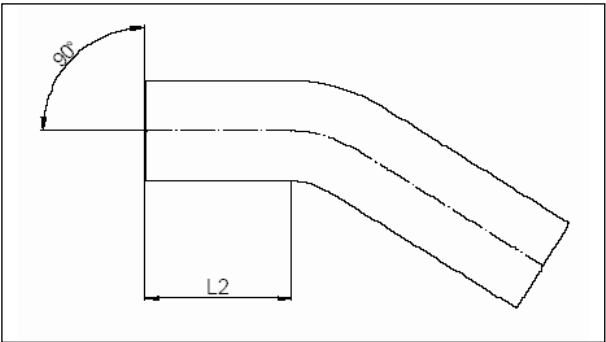


Flaring Tube Operations

Perfect sealing is guaranteed with tubes having physical and mechanical characteristics obtained by cold-drawing and a ductility expressed as 21% of minimum elongation.

- Cut end of tube must be perpendicular to its axis.
- Cutting operation reduces the whole length of tube.
- Dimensions of the end of the tube shall allow the correct placing on the flaring machine.
- Flared surface must be inspected to avoid excessive roughness and defects such as cracks or exfoliation.
- Brazing sleeve guarantees the same performances as the flared tube, and shall be used in the following cases:
- Tube is not in accordance with the above mechanical characteristics.
- The straight part of the tube is not of a sufficient length (see quote L2 and values listed in table of figure O-3 ).
- Tube thickness is lower than values listed in table (O-1).
- For cutting length consider shoulder of the sleeve (quote L1 of table O-1).

A well followed flaring procedure assures no leakage even after frequent assembling and disassembling operations.



| Hose<br>mm  | L2 Min<br>mm |
|-------------|--------------|
| Ø 6 - Ø 12  | 73           |
| Ø 14 - Ø 18 | 100          |
| Ø 20 - Ø 22 | 120          |
| Ø 25 - Ø 42 | 130          |

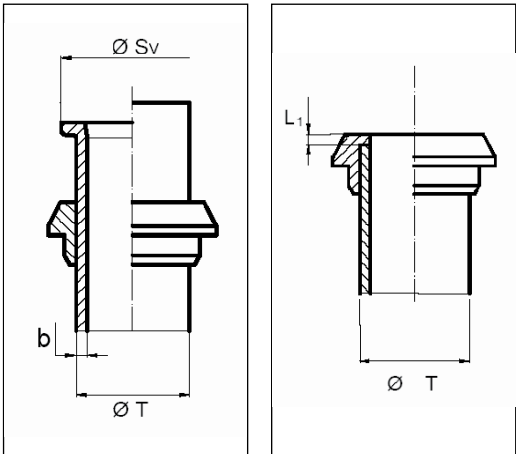
Only a few simple operations are required for assembling ORFS tube/adaptor.

Sleeve and Tube Flared:

- 1a) Place nut and sleeve on the tube with the appropriate orientation.
- 2a) Flare the tube (see procedure)
- 3a) Place the tube near seal surface of the adapter and screw by hand.
- 4a) Lock the adapter and tighten with a torque wrench

Brazed sleeve

- 1b) Cut the tube considering quote L1 of the sleeve (See Figure O-5);
- 2b) Clean and degrease accurately the end of the tube and the sleeve;
- 3b) Put the brazing ring into the sleeve
- 4b) Apply flux at the end of the tube and in the sleeve, then assemble the sleeve on the tube;
- 5b) Start brazing and be aware of not overheating flux material;
- 6b) Clean the connecting part and verify the good quality of weld around the external diameter of the hose;
- 7b) Complete the assembly procedure as described in points 3a) and 4a). See the correct installation torque in the attached table (O-2).



| Hose |       | SV   |      |
|------|-------|------|------|
| mm   | In    | mm   | In   |
| 6    | 1/4   | 12,0 | 12,7 |
| 8    | 5/16  | 14,7 | 15,7 |
| 10   | 3/8   | 14,7 | 15,7 |
| 12   | 1/2   | 17,9 | 18,9 |
| 15   |       | 22,1 | 23,4 |
| 16   | 5/8   | 22,1 | 23,4 |
| 18   |       | 26,3 | 27,8 |
| 20   | 3/4   | 26,3 | 27,8 |
| 22   |       | 32,4 | 34,2 |
| 25   | 1     | 32,4 | 34,2 |
| 28   |       | 39,0 | 40,5 |
| 30   |       | 39,0 | 40,5 |
| 32   | 1.1/4 | 39,0 | 40,5 |
| 35   |       | 46,0 | 48,5 |
| 38   | 1.1/2 | 46,0 | 48,5 |

## BSP ADAPTER (ISO 8434-6, BS 5200)

### Main Features

Adapters are designed and manufactured according to standard BS 5200, ISO 8434-6 and ISO 228-1 and they are commonly called BSP adapters (British Standard Pipe)

BSP adapter is widely employed, it performs extremely well in all high pressure applications with oil and gas.

The seal is made by connecting a 60° coned seat to the 60° male surface and tightening the nut assembly. The O-Ring placed in the tube groove improves the sealing.

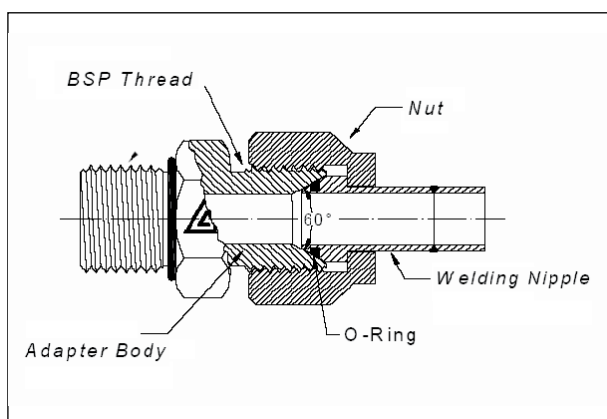
There are not welded part in the locking area and performances are good even after multiple assembly and disassembly operations, severe vibrations and mechanic/hydraulic shocks.

### Assembling Procedure

Only a few simple operations are required for assembling BSP tube/adapter:

- 1) Carefully align tube and adapter. Otherwise sealing is not guaranteed.
- 2) Lubricate accurately sealing surfaces with mineral oil or suitable lubricant.
- 3) Place the tube near seal surface of the adapter and tight by hand.
- 4) Lock the adapter and tighten with a torque wrench.

See the correct installation torque in the attached table B-1



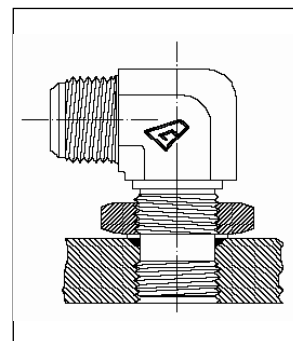
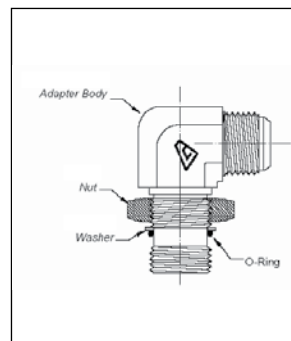
### Assembly Instruction For Adjustable Adapter Thread: SAE, UNF, BSPP, Metric

Lubricate the O-Ring with mineral oil. Back off locknut as far as possible.

Make sure that washer is pushed-up as much as possible. Screw by hand the adapter into the port until the O-Ring enters the port.

To align adaptor orientation to tube end or hose assembly, unscrew the adaptor by the required amount, but not more than one full turn.

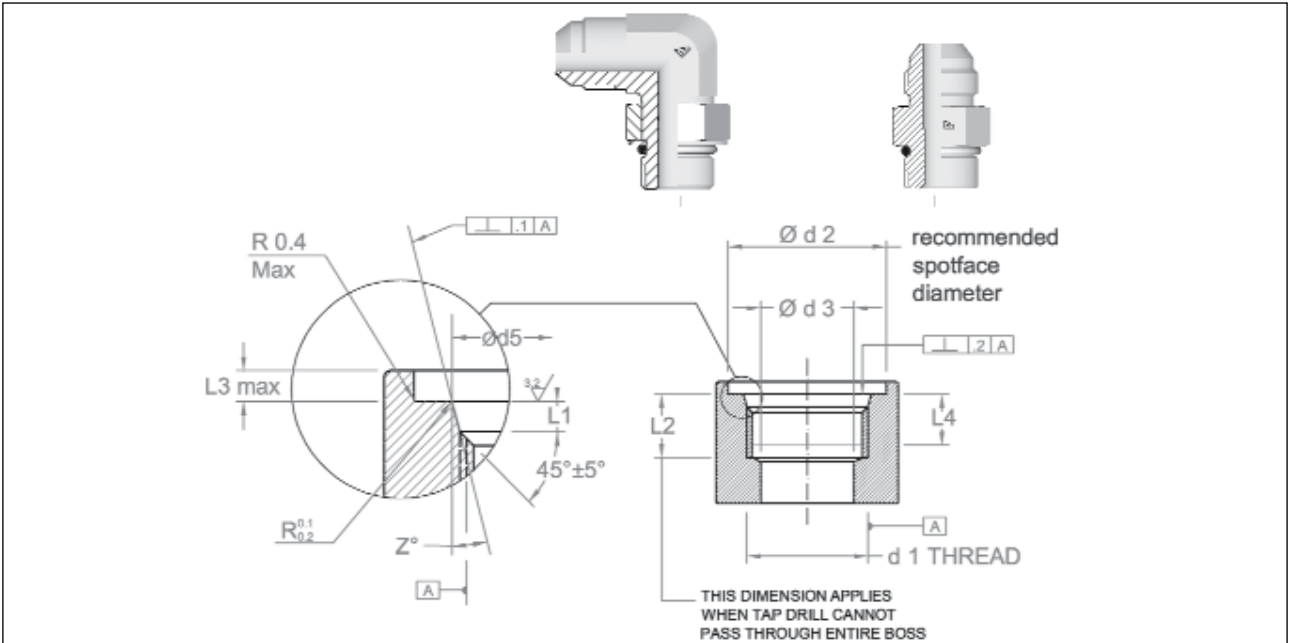
Hold the adapter in desired position by means of a wrench and tighten locknut to the suggested torque value by means of a dynamometric wrench.



METRIC PORT - ISO 6149 - SAE 2244-1

| Metric Thread | D2 <sup>2)</sup> min | D3 <sup>3)</sup> min | D5 +0,10 | D6 +0,50 | L1 +0,40 | L2 min | L3 max | L4   | Z° ±1° | Assembly Torque +10% |
|---------------|----------------------|----------------------|----------|----------|----------|--------|--------|------|--------|----------------------|
| D1            | mm                   | mm                   | mm       | mm       | mm       | mm     | mm     | mm   |        | Nm                   |
| M8x1          | 17                   | 14                   | 9,1      | 14       | 1,6      | 11,5   | 1      | 10   | 12°    | 10                   |
| M10x1         | 20                   | 16                   | 11,1     | 16       | 1,6      | 11,5   | 1      | 10   | 12°    | 20                   |
| M12x1,5       | 23                   | 19                   | 13,8     | 19       | 2,4      | 14     | 1,5    | 11,5 | 15°    | 35                   |
| M14x1,51)     | 25                   | 21                   | 15,8     | 21       | 2,4      | 14     | 1,5    | 11,5 | 15°    | 45                   |
| M16x1,5       | 28                   | 24                   | 17,8     | 24       | 2,4      | 15,5   | 1,5    | 13   | 15°    | 55                   |
| M18x1,5       | 30                   | 28                   | 19,8     | 26       | 2,4      | 17     | 2      | 14,5 | 15°    | 70                   |
| M22x1,5       | 34                   | 29                   | 23,8     | 29       | 2,4      | 18     | 2      | 15,5 | 15°    | 100                  |
| M27x3         | 40                   | 34                   | 29,4     | 34       | 3,1      | 22     | 2      | 19   | 15°    | 170                  |
| M33x2         | 49                   | 43                   | 35,4     | 43       | 3,1      | 22     | 2,5    | 19   | 15°    | 310                  |
| M42x2         | 60                   | 52                   | 44,4     | 52       | 3,1      | 22,5   | 2,5    | 19,5 | 15°    | 330                  |
| M48x2         | 66                   | 57                   | 50,4     | 57       | 3,1      | 25     | 2,5    | 22   | 15°    | 420                  |
| M60x2         | 76                   | 67                   | 52,4     | 67       | 3,1      | 27,5   | 2,5    | 24,5 | 15°    | 500                  |

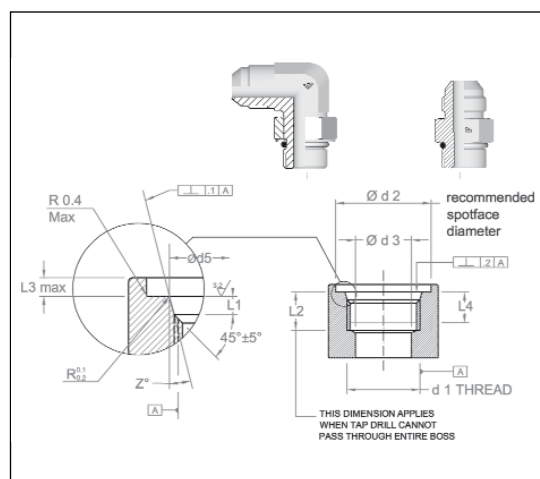
- 1) Preferred for diagnostic port application  
2) Spotface diameter with identification ridge  
3) Spotface diameter without identification ridge





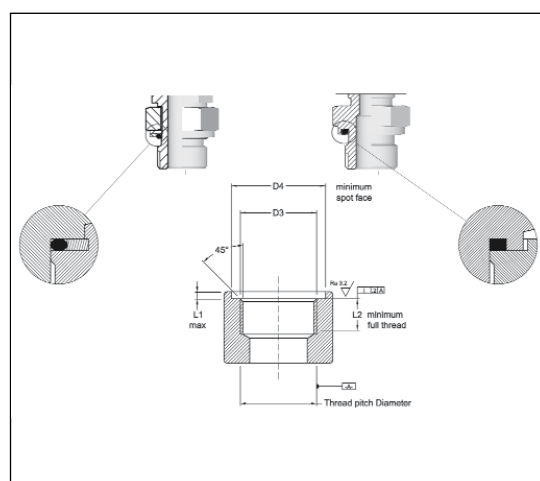
## SAE UNF PORT - SAE J1926-1 - ISO 11926

| ANSI B1.1  | D2 | D3 min | D3 +0,13 | L1 +0,40 | L2 min | L3 max | L4 min | Z° ±1° | Assembly Torque +10% |
|------------|----|--------|----------|----------|--------|--------|--------|--------|----------------------|
| D1         | mm | mm     | mm       | mm       | mm     | mm     | mm     |        | Nm                   |
| 7/16"-20   | 21 | 4,4    | 12,4     | 2,4      | 14     | 1,6    | 11,5   | 12°    | 20                   |
| 1/2"-20    | 23 | 6      | 14       | 2,4      | 14     | 1,6    | 11,5   | 12°    | 25                   |
| 9/16"-18   | 25 | 7,5    | 15,6     | 2,5      | 15,5   | 1,6    | 12,7   | 12°    | 35                   |
| 3/4"-16    | 30 | 10     | 20,6     | 2,5      | 17,5   | 2,4    | 14,3   | 15°    | 70                   |
| 7/8"-14    | 34 | 12,5   | 23,9     | 3,3      | 20     | 2,4    | 16,7   | 15°    | 100                  |
| 1" 1/16-12 | 41 | 16     | 29,2     | 3,3      | 23     | 2,4    | 19     | 15°    | 170                  |



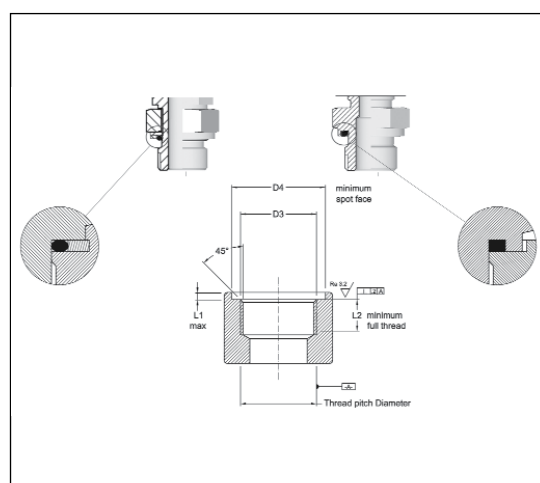
## BSPP PORT - ISO 9974 - DIN 3852-1

| ANSI B1.1 Thread | D3 +0.20 | D4 | L1 max | L2 min | Assembly Torque +10% |
|------------------|----------|----|--------|--------|----------------------|
| D1               | mm       | mm | mm     | mm     | Nm                   |
| 1/8"-28          | 9,8      | 15 | 1      | 8      | 20                   |
| 1/4"-19          | 13,2     | 20 | 1,5    | 12     | 50                   |
| 3/8"-19          | 16,7     | 23 | 2      | 12     | 80                   |
| 1/2"-14          | 21       | 28 | 2,5    | 14     | 100                  |
| 3/4"-14          | 26,5     | 33 | 2,5    | 16     | 200                  |
| 1"-11            | 33,3     | 41 | 2,5    | 18     | 380                  |
| 1" 1/4-11        | 42       | 51 | 2,5    | 20     | 500                  |
| 1" 1/2-11        | 47,9     | 56 | 2,5    | 22     | 600                  |



## METRIC PORT - ISO 9974 - DIN 3852-1

| Metric Thread | D3 +0.20 | D4 min | L1 max | L2 min | Assembly Torque +10% |
|---------------|----------|--------|--------|--------|----------------------|
| D1            | mm       | mm     | mm     | mm     | Nm                   |
| M12x1,5       | 12       | 18     | 1,5    | 12     | 35                   |
| M14x1,5       | 14       | 20     | 1,5    | 12     | 45                   |
| M16x1,5       | 16       | 23     | 1,5    | 12     | 55                   |
| M18x1,5       | 18       | 25     | 2      | 12     | 68                   |
| M20x1,5       | 20       | 27     | 2      | 14     | 80                   |
| M22x1,5       | 22       | 28     | 2,5    | 14     | 98                   |
| M27x2         | 27       | 33     | 2,5    | 16     | 180                  |
| M33x2         | 33       | 41     | 2,5    | 18     | 310                  |
| M42x2         | 42       | 51     | 2,5    | 20     | 330                  |
| M48x2         | 48       | 56     | 2,5    | 22     | 400                  |



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|             |    |
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|--------------------------------------------------------------|----|
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| BSPP Male Flat Seat AGR FD                                   | 49 |
| BSPT MaleAGR K                                               | 50 |
| BSPP Female 60° Cone with O-Ring DKOR                        | 51 |
| 45° BSPP Female 60° Cone with O-Ring DKOR 45 Solid one piece | 52 |
| 90° BSPP Female 60° Cone with O-Ring DKOR 90 Solid one piece | 53 |
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## // DIN METRIC INSERTS

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| 90° Metric Female 24° Cone with O-Ring - Light DIN 3865 - DKOL 90 Solid one piece | 59 |
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| Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS                        | 61 |
| 45° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 45 Solid one piece | 62 |
| 90° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 90 Solid one piece | 63 |
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## // PRESSURE WASHER

|                                      |    |
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|--------------------------------------|----|

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## // JIC 37° INSERTS

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|---------------------------------------------------------------|----|
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| JIC Female 37° Seat DKJ                                       | 73 |
| JIC Female 37° Seat with Stem Hexagon DKJ                     | 74 |
| 45° JIC Female 37° Seat - Medium Drop DKJ 45M Solid one piece | 75 |
| 90° JIC Female 37° Seat - Short Drop DKJ 90S Solid one piece  | 76 |
| 90° JIC Female 37° Seat - Medium Drop DKJ 90M Solid one piece | 77 |
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## // HYDRAULIC FITTING

## // NPTF INSERTS

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|--------------------------------------------|----|
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## // NPSM INSERTS

|                  |    |
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|------------------|----|

## // ORFS INSERTS

|                                                                |    |
|----------------------------------------------------------------|----|
| ORFS Male.....                                                 | 81 |
| ORFS Female with Stem Hexagon.....                             | 82 |
| 45° ORFS Female - Medium Drop DK ORFS 45M Solid one piece..... | 83 |
| 90° ORFS Female - Short Drop DK ORFS 90S Solid one piece.....  | 83 |
| 90° ORFS Female - Medium Drop DK ORFS 90M Solid one piece..... | 84 |
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|------------------------------------|----|
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|------------------------------------------------------|----|
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|                                         |    |
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## // SAE FLANGES

|                                                                    |    |
|--------------------------------------------------------------------|----|
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| 60° Flange SAE 3000 PSI J518 Code 61 - SFL 60 Solid one piece..... | 92 |
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| 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90 Solid one piece..... | 94 |
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## // HYDRAULIC FITTING

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|                                                                  |     |
|------------------------------------------------------------------|-----|
| BSP Male 60° Flare AGR.....                                      | 100 |
| BSP Female 60° Cone with O-Ring DKOR.....                        | 100 |
| 45° BSP Female 60° Cone with O-Ring DKOR 45 Solid one piece..... | 101 |
| 90° BSP Female 60° Cone with O-Ring DKOR 90 Solid one piece..... | 101 |

### // DIN METRIC INSERTS

|                                                                                        |     |
|----------------------------------------------------------------------------------------|-----|
| Metric Male 24° Seat - Heavy DIN 3853 - CES.....                                       | 102 |
| Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS.....                        | 102 |
| 45° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 45 Solid one piece..... | 103 |
| 90° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 90 Solid one piece..... | 103 |

### // JIC 37° INSERTS

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| JIC Male 37° Cone AGJ.....                                         | 104 |
| JIC Female 37° Seat DKJ.....                                       | 104 |
| 45° JIC Female 37° Seat - Medium Drop DKJ 45M Solid one piece..... | 105 |
| 90° JIC Female 37° Seat - Medium Drop DKJ 90M Solid one piece..... | 105 |

### // NPTF INSERTS

|                             |     |
|-----------------------------|-----|
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|-----------------------------|-----|

### // ORFS INSERTS

|                                                                |     |
|----------------------------------------------------------------|-----|
| ORFS Male.....                                                 | 107 |
| ORFS Female with Stem Hexagon.....                             | 107 |
| 45° ORFS Female - Medium Drop DK ORFS 45M Solid one piece..... | 108 |
| 90° ORFS Female - Medium Drop DK ORFS 90M Solid one piece..... | 108 |

### // SAE FLANGES

|                                                                    |     |
|--------------------------------------------------------------------|-----|
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| 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90 Solid one piece..... | 111 |

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|                                          |     |
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### // WATERBLAST INSERTS

|                                                                                              |     |
|----------------------------------------------------------------------------------------------|-----|
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| Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS Slip on Nut with Relief Bore..... | 117 |
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## // HYDRAULIC FITTING

## // INTERLOCK

## // FERRULES

|                                                            |     |
|------------------------------------------------------------|-----|
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| H1400301 Interlock Dual Skive Ferrule for 4-6 Spiral Hoses | 119 |

## // HOSE MENDER

|             |     |
|-------------|-----|
| Hose Mender | 120 |
|-------------|-----|

## // BSP INSERTS

|                                                              |     |
|--------------------------------------------------------------|-----|
| BSPP Male 60° Flare AGR                                      | 121 |
| BSPT Male AGR K                                              | 121 |
| BSPP Female 60° Cone with O-Ring DKOR                        | 121 |
| 45° BSPP Female 60° Cone with O-Ring DKOR 45 Solid one piece | 122 |
| 90° BSPP Female 60° Cone with O-Ring DKOR 90 Solid one piece | 122 |

## // DIN METRIC INSERTS

|                                                                                   |     |
|-----------------------------------------------------------------------------------|-----|
| Metric Male 24° Seat - Heavy DIN 3853 - CES                                       | 123 |
| Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS                        | 123 |
| 45° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 45 Solid one piece | 124 |
| 90° Metric Female 24° Cone with O-Ring - Heavy DIN 3865 - DKOS 90 Solid one piece | 124 |

## // JIC 37° INSERTS

|                                                |     |
|------------------------------------------------|-----|
| JIC Male 37° Cone AGJ                          | 125 |
| JIC Female 37° Seat DKJ                        | 125 |
| 45° JIC Female 37° Seat DKJ 45 Solid one piece | 126 |
| 90° JIC Female 37° Seat DKJ 90 Solid one piece | 126 |

## // NPTF INSERTS

|                        |     |
|------------------------|-----|
| NPTF Male 60° Seat AGN | 127 |
|------------------------|-----|

## // ORFS INSERTS

|                                            |     |
|--------------------------------------------|-----|
| ORFS Male                                  | 128 |
| ORFS Female with Stem Hexagon              | 128 |
| 45° ORFS Female DK ORFS 45 Solid one piece | 129 |
| 90° ORFS Female DK ORFS 90 Solid one piece | 129 |

## // SAE FLANGES

|                                                                               |     |
|-------------------------------------------------------------------------------|-----|
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| 45° Flange SAE 6000 PSI J518 Code 62 - SFS 45 Solid one piece                 | 131 |
| 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90 Solid one piece                 | 132 |
| Flange SAE 6000 PSI J518 Code 62 - SFS Special version                        | 132 |
| 45° Flange SAE 6000 PSI J518 Code 62 - SFS 45 Solid one piece Special version | 132 |
| 90° Flange SAE 6000 PSI J518 Code 62 - SFS 90 Solid one piece Special version | 133 |

## // SUPERCAT FLANGES

|                                     |     |
|-------------------------------------|-----|
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| 45° Flange SUPERCAT Solid one piece | 134 |
| 90° Flange SUPERCAT Solid one piece | 134 |

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| Female Hammer Union Fig. 1502 integral fitting with Rubber Ring Special version | 135 |

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| 45° union JIC - JIC Bulkhead.....        | 142 |
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| Branch Tee union JIC - JIC Bulkhead..... | 143 |
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