

# Pipe Fittings



- 1/16 to 1 in. sizes
- NPT, ISO/BSP, and SAE threads
- 316 stainless steel, carbon steel, brass, 6-Moly, Alloy 625, Alloy 825, and Alloy 2507

## Contents

**Nipples** Page 5      **Crosses** Page 21



**Adapters, Adapter Gaskets, Gauge Adapter, Reducing Adapters** Page 8



**Union Ball Joints** Page 21



**Reducing Bushings, Reducers** Page 14



**Pipe Caps** Page 22



**Couplings** Page 15



**Pipe Plugs** Page 22



**Elbows** Page 17



**Hollow Hex Plugs** Page 22



**Tees** Page 19



**Hex Head Plugs** Page 23



## Pipe Thread Sealants

Always use a pipe thread sealant when assembling tapered threads. SWAK™ anaerobic pipe thread sealant, PTFE-FREE pipe thread sealant, and Swagelok® PTFE Tape are available.

Refer to *Leak Detectors, Lubricants, and Sealants* catalog, MS-01-91, for additional information.



## Ordering Information

Add a material designator to the basic ordering number.

Example: **SS-2-CN**

| Material            | Designator |
|---------------------|------------|
| 316 stainless steel | SS         |
| Carbon steel        | S          |
| Brass               | B          |
| 6-Moly              | 6Mo        |
| Alloy 625           | 625        |
| Alloy 825           | 825        |
| Alloy 2507          | 2507       |

- Heavy-wall fittings are available only in 316 stainless steel. The basic ordering numbers for these fittings include the material designator.
- Minimum order quantities may apply to certain materials and configurations.
- Contact your authorized Swagelok sales and service representative for information about additional sizes and special alloys.

## Materials

### Material Standards

| Material <sup>®</sup>   | Bar Stock <sup>①</sup>           | Forgings <sup>②</sup>              |
|-------------------------|----------------------------------|------------------------------------|
| 316 stainless steel     | ASTM A276, ASME SA479, EN 1.4401 | ASTM A182, ASME SA182, EN 1.4401   |
| Carbon steel            | ASTM A108                        | —                                  |
| Brass                   | ASME B16, ASTM B453              | ASTM B283                          |
| 6-Moly                  | ASTM A479                        | ASTM A182                          |
| Alloy 625               | ASTM B446 <sup>③</sup>           | ASTM B564, ASME SB564 <sup>④</sup> |
| Alloy 825               | ASTM B425                        | ASTM B564, ASME SB564              |
| Alloy 2507 <sup>⑤</sup> | ASTM A479                        | ASTM A182                          |

- ① Straight fittings and tube adapters.
- ② Elbows, crosses, and tees.
- ③ All straight fittings and tube adapters and 1/4 and 3/8 in.; 6 and 10 mm elbows, crosses, and tees.
- ④ Elbows, crosses, and tees larger than 3/8 in. and 10 mm.
- ⑤ Refer to *Gaugeable Alloy 2507 Super Duplex Tube Fittings* catalog, MS-01-174.
- ⑥ Refer to *Gaugeable Tube Fittings and Adapter Fittings* catalog, MS-01-140 or contact your authorized Swagelok representative for materials not listed.

## Plating and Coating

To resist corrosion, all carbon steel fittings are treated with an electrodeposited zinc plating.

## Dimensions

- Dimensions are for reference only and are subject to change.
- E dimensions refer to the minimum opening.

## Cleaning

Components are cleaned to remove oil, grease, and loose particles. Refer to *Standard Cleaning and Packaging (SC-10)* catalog, MS-06-62, for additional information.

## Temperature Ratings

System temperatures may be limited by the thread sealant or, when applicable, the gasket or O-ring material.

## Fitting Materials

| Material            | Maximum Temperature<br>°F (°C) |
|---------------------|--------------------------------|
| 316 stainless steel | 1000 (537)                     |
| Carbon steel        | 375 (190)                      |
| Brass               | 400 (204)                      |
| 6-Moly              | 600 (315)                      |
| Alloy 625           | 1000 (537)                     |
| Alloy 825           | 800 (426)                      |
| Alloy 2507          | 482 (250)                      |

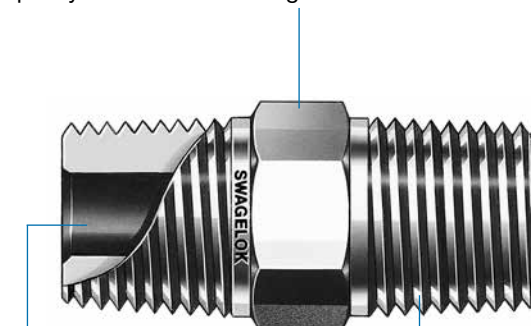
## Gasket, O-Ring Materials

| Component      | Material         | Maximum Temperature<br>°F (°C) | Minimum Temperature<br>°F (°C) |
|----------------|------------------|--------------------------------|--------------------------------|
| RS gaskets     | Buna N           | 230 (110)                      | -13 (-25)                      |
|                | Fluorocarbon FKM | 400 (204)                      | 5 (-15)                        |
| RG, RP gaskets | Copper           | 400 (204)                      | -325 (-198)                    |
| SAE O-rings    | Fluorocarbon FKM | 400 (204)                      | -20 (-28)                      |

## Features

- All fittings have a high-quality appearance.
- Every fitting is marked with manufacturer's name for easy source tracing.
- Male threads are capped for protection.

Straight fittings are manufactured from quality bar stock for strength.

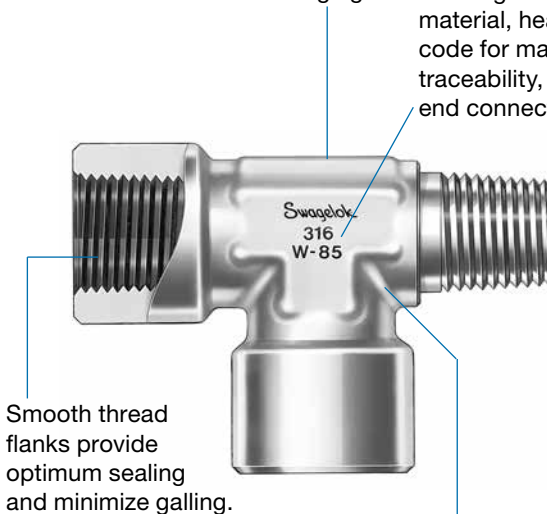


Burr-free internal surfaces.

NPT threads are based on requirements of ASME B1.20.1 and SAE AS71051.

Shaped fittings are manufactured from forgings.

Marking identifies material, heat code for material traceability, and ISO end connection.



Smooth thread flanks provide optimum sealing and minimize galling.

Angles on elbows, tees, and crosses are rigidly controlled for accurate piping layout.

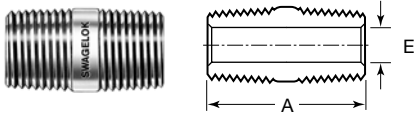
## Pressure Rating Basis and Thread Specifications

| Thread Type (End Connection)  | Pressure Rating Basis   | Thread Type  | Reference Specification         |
|---|---|--|---------------------------------|
| NPT   | ASME B31.3, Process Piping or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.   | NPT  | ASME B1.20.1, SAE AS71051       |
| ISO/BSP (tapered)<br>(Swagelok RT fittings)                                       | ASME B31.3, Process Piping or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.   | ISO/BSP (tapered)<br>Swagelok RT fittings          | ISO 7, BS EN 10226-1, JIS B0203 |
| ISO/BSP (parallel)<br>(Swagelok RS fittings)                                      | ISO 1179-3, ISO 228-1 Threads with Light-Duty Stud Ends with Sealing by O-ring with Retaining Ring (types G and H) or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.   | ISO/BSP (parallel)<br>Swagelok RP and RS fittings  | ISO 228, JIS B0202              |
| ISO/BSP (parallel)<br>(Swagelok RP fittings)                                      | ISO 1179-4, ISO 228-1 Threads with Stud Ends for general use only with metal-to-metal sealing (type B) or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.   | ISO/BSP (parallel)<br>Swagelok RP and RS fittings  | ISO 228, JIS B0202              |
| ISO/BSP (gauge)<br>(Based on EN 837-1 and 837-3)<br>(Swagelok RG and RJ fittings) | ASME B31.3, Process Piping or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.   | ISO/BSP (parallel)<br>Swagelok RG and RJ fittings  | ISO 228, JIS B0202              |
| SAE-Light Duty<br>(Swagelok ST fittings)  | SAE J1926/3, Connections for General Use and Fluid Power-Ports and Stud Ends with ASME B1.1 Threads and O-ring Sealing-Part 3: Light-Duty (L-Series) Stud Ends or pressure testing with a 4:1 design factor based on hydraulic fluid leakage. | Unified Inch Screw Threads<br>Swagelok ST fittings | ASME B1.1                       |
| SAE-Heavy Duty<br>(Swagelok STH fittings)   | SAE J1926/2, Connections for General Use and Fluid Power-Ports and Stud Ends with ASME B1.1 Threads and O-ring Sealing-Part 2: Heavy-Duty (S-Series) or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.           | Unified Inch Screw Threads<br>Swagelok ST fittings | ASME B1.1                       |
| Swagelok AN fittings  | SAE J514, Hydraulic Tube Fittings or pressure testing with a 4:1 design factor based on hydraulic fluid leakage.  | Unified Inch Screw Threads<br>Swagelok AN fittings | ASME B1.1 UNJ, SAE AS 8879      |

Ratings are based on ASME Code for Pressure Piping B31.3, Process Piping, at ambient temperature.

- To determine pressure ratings in accordance with B31.1, Power Piping:
  - Carbon steel material—multiply by 0.85.
 All other material ratings remain the same.

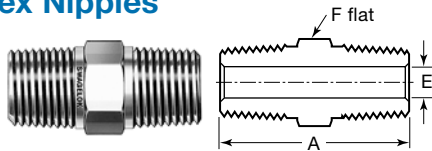
## Close Nipples



### Male NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             | Pressure Ratings, psig (bar) |             |                       |              |              |
|--------------|-----------------------|----------------------|-------------|------------------------------|-------------|-----------------------|--------------|--------------|
|              |                       | A                    | E           | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8          | -2-CN                 | 0.75 (19.1)          | 0.19 (4.8)  | 10 000 (689)                 | 5 000 (344) | 15 000 (1 033)        | 13 500 (930) | 11 600 (799) |
| 1/4          | -4-CN                 | 1.12 (28.4)          | 0.28 (7.1)  | 8 000 (551)                  | 4 000 (275) | 15 000 (1 033)        | 10 800 (744) | 9 300 (640)  |
| 3/8          | -6-CN                 | 1.12 (28.4)          | 0.38 (9.6)  | 7 800 (537)                  | 3 900 (268) | 15 000 (1 033)        | 10 500 (723) | 9 000 (620)  |
| 1/2          | -8-CN                 | 1.50 (38.1)          | 0.47 (11.9) | 7 700 (530)                  | 3 800 (261) | 14 800 (1 019)        | 10 400 (716) | 8 900 (613)  |
| 3/4          | -12-CN                | 1.50 (38.1)          | 0.62 (15.7) | 7 300 (502)                  | 3 600 (248) | 10 000 (689)          | 9 800 (675)  | 8 500 (585)  |
| 1            | -16-CN                | 1.88 (47.8)          | 0.88 (22.4) | 5 300 (365)                  | 2 600 (179) | 10 000 (689)          | 7 100 (489)  | 6 100 (420)  |

## Hex Nipples



### Male NPT

| NPT Size in.               | Basic Ordering Number | Dimensions, in. (mm) |             |        | Pressure Ratings, psig (bar) |             |                       |                |              |
|----------------------------|-----------------------|----------------------|-------------|--------|------------------------------|-------------|-----------------------|----------------|--------------|
|                            |                       | A                    | E           | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly         | Alloy 825    |
| 1/16                       | -1-HN                 | 1.01 (25.6)          | 0.12 (3.0)  | 5/16   | 11 000 (757)                 | 5 500 (378) | 15 000 (1 033)        | 14 900 (1 026) | 12 800 (881) |
| 1/8                        | -2-HN                 | 1.01 (25.6)          | 0.19 (4.8)  | 7/16   | 10 000 (689)                 | 5 000 (344) | 15 000 (1 033)        | 13 500 (930)   | 11 600 (799) |
| 1/4                        | -4-HN                 | 1.40 (35.6)          | 0.28 (7.1)  | 9/16   | 8 000 (551)                  | 4 000 (275) | 15 000 (1 033)        | 10 800 (744)   | 9 300 (640)  |
| 3/8                        | -6-HN                 | 1.43 (36.3)          | 0.38 (9.6)  | 11/16  | 7 800 (537)                  | 3 900 (268) | 15 000 (1 033)        | 10 500 (723)   | 9 000 (620)  |
| 1/2                        | -8-HN                 | 1.84 (46.7)          | 0.47 (11.9) | 7/8    | 7 700 (530)                  | 3 800 (261) | 14 800 (1 019)        | 10 400 (716)   | 8 900 (613)  |
| 3/4                        | -12-HN                | 1.84 (46.7)          | 0.62 (15.7) | 1 1/16 | 7 300 (502)                  | 3 600 (248) | 10 000 (689)          | 9 800 (675)    | 8 500 (585)  |
| 1                          | -16-HN                | 2.32 (58.9)          | 0.88 (22.4) | 1 3/8  | 5 300 (365)                  | 2 600 (179) | 10 000 (689)          | 7 100 (489)    | 6 100 (420)  |
| <b>Heavy-Wall Male NPT</b> |                       |                      |             |        |                              |             |                       |                |              |
| 1/4                        | SS-4-HN-10K           | 1.40 (35.6)          | 0.23 (5.8)  | 9/16   | 10 000 (689)                 | —           | —                     | —              | —            |
| 1/2                        | SS-8-HN-10K           | 1.84 (46.7)          | 0.39 (9.9)  | 7/8    | 10 000 (689)                 | —           | —                     | —              | —            |

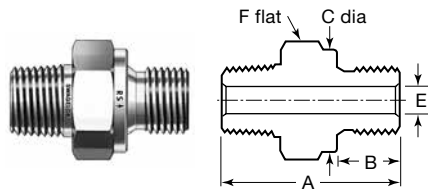
### Male ISO Tapered Thread (RT)

| ISO Thread Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |       | Pressure Ratings, psig (bar) |             |                       |              |              |
|---------------------|-----------------------|----------------------|-------------|-------|------------------------------|-------------|-----------------------|--------------|--------------|
|                     |                       | A                    | E           | F     | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8                 | -2-HN-RT              | 1.01 (25.6)          | 0.19 (4.8)  | 7/16  | 10 000 (689)                 | 5 000 (344) | 15 000 (1 034)        | 13 500 (930) | 11 600 (800) |
| 1/4                 | -4-HN-RT              | 1.40 (35.6)          | 0.28 (7.1)  | 9/16  | 8 000 (551)                  | 4 000 (275) | 15 000 (1 034)        | 10 800 (740) | 9 300 (640)  |
| 3/8                 | -6-HN-RT              | 1.43 (36.3)          | 0.38 (9.6)  | 11/16 | 7 800 (537)                  | 3 900 (268) | 15 000 (1 034)        | 10 500 (720) | 9 000 (620)  |
| 1/2                 | -8-HN-RT              | 1.84 (46.7)          | 0.47 (11.9) | 7/8   | 7 700 (530)                  | 3 800 (265) | 14 800 (1 025)        | 10 400 (710) | 8 900 (610)  |

## Hex Nipples

## Male NPT to Male ISO Tapered Thread (RT)

| NPT Size<br>in. | ISO Thread Size<br>in. | Basic Ordering Number | Dimensions<br>in. (mm) |             |        | Pressure Ratings,<br>psig (bar) |             |                          |              |              |
|-----------------|------------------------|-----------------------|------------------------|-------------|--------|---------------------------------|-------------|--------------------------|--------------|--------------|
|                 |                        |                       | A                      | E           | F      | 316 SS,<br>Carbon Steel         | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8             | 1/8                    | -2-HN-2RT             | 1.01 (25.6)            | 0.19 (4.8)  | 7/16   | 10 000 (689)                    | 5 000 (344) | 15 000 (1 033)           | 13 500 (930) | 11 600 (799) |
| 1/4             | 1/4                    | -4-HN-4RT             | 1.40 (35.6)            | 0.28 (7.1)  | 9/16   | 8 000 (551)                     | 4 000 (275) | 15 000 (1 033)           | 10 800 (744) | 9 300 (640)  |
| 3/8             | 3/8                    | -6-HN-6RT             | 1.43 (36.3)            | 0.38 (9.6)  | 11/16  | 7 800 (537)                     | 3 900 (268) | 15 000 (1 033)           | 10 500 (723) | 9 000 (620)  |
| 1/2             | 1/2                    | -8-HN-8RT             | 1.84 (46.7)            | 0.47 (11.9) | 7/8    | 7 700 (530)                     | 3 800 (261) | 14 800 (1 019)           | 10 400 (716) | 8 900 (613)  |
| 3/4             | 3/4                    | -12-HN-12RT           | 1.84 (46.7)            | 0.62 (15.7) | 1 1/16 | 7 300 (502)                     | 3 600 (248) | 10 000 (689)             | 9 800 (675)  | 8 500 (585)  |
| 1               | 1                      | -16-HN-16RT           | 2.32 (58.9)            | 0.88 (22.4) | 1 3/8  | 5 300 (365)                     | 2 600 (179) | 10 000 (689)             | 7 100 (489)  | 6 100 (420)  |



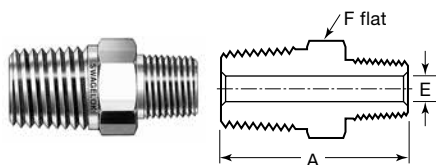
## Male NPT to Male ISO Parallel Thread (RS)

| NPT Size<br>in. | ISO Thread Size<br>in. | Basic Ordering Number | Dimensions<br>in. (mm) |             |             |                |        | Pressure Ratings,<br>psig (bar) |            |                          |            |            |
|-----------------|------------------------|-----------------------|------------------------|-------------|-------------|----------------|--------|---------------------------------|------------|--------------------------|------------|------------|
|                 |                        |                       | A                      | B           | C           | E <sup>①</sup> | F      | 316 SS,<br>Carbon Steel         | Brass      | Alloy 2507,<br>Alloy 625 | 6-Moly     | Alloy 825  |
| 1/8             | 1/8                    | -2-HN-2RS             | 1.09 (27.7)            | 0.32 (8.1)  | 0.54 (13.7) | 0.16 (4.1)     | 9/16   | 5800 (400)                      | 2900 (200) | 5800 (400)               | 5800 (400) | 5800 (400) |
| 1/4             | 1/4                    | -4-HN-4RS             | 1.45 (36.8)            | 0.47 (11.9) | 0.70 (17.8) | 0.23 (5.8)     | 3/4    | 5800 (400)                      | 2900 (200) | 5800 (400)               | 5800 (400) | 5800 (400) |
| 3/8             | 3/8                    | -6-HN-6RS             | 1.48 (37.6)            | 0.47 (11.9) | 0.86 (21.8) | 0.31 (7.9)     | 7/8    | 5800 (400)                      | 2900 (200) | 5800 (400)               | 5800 (400) | 5800 (400) |
| 1/2             | 1/2                    | -8-HN-8RS             | 1.75 (44.4)            | 0.55 (14.0) | 1.02 (25.9) | 0.47 (11.9)    | 1 1/16 | 4700 (324)                      | 2350 (162) | 4640 (320)               | 4640 (320) | 4640 (320) |
| 3/4             | 3/4                    | -12-HN-12RS           | 1.93 (49.0)            | 0.63 (16.0) | 1.25 (31.8) | 0.62 (15.7)    | 1 5/16 | 3620 (250)                      | 1810 (125) | 3620 (250)               | 3620 (250) | 3620 (250) |
| 1               | 1                      | -16-HN-16RS           | 2.23 (56.6)            | 0.71 (18.0) | 1.53 (38.9) | 0.78 (19.8)    | 1 5/8  | 3620 (250)                      | 1810 (125) | 3620 (250)               | 3620 (250) | 3620 (250) |

For gasket information, see page 12.

① The E dimension is the minimum nominal opening. These fittings may have a larger opening at one end.

## Hex Reducing Nipples



### Male NPT

| NPT Size<br>in.            | Basic Ordering Number | Dimensions, in. (mm) |                |        | Pressure Ratings,<br>psig (bar) |             |                          |                |              |
|----------------------------|-----------------------|----------------------|----------------|--------|---------------------------------|-------------|--------------------------|----------------|--------------|
|                            |                       | A                    | E <sup>①</sup> | F      | 316 SS,<br>Carbon Steel         | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly         | Alloy 825    |
| 1/8 to 1/16                | -2-HRN-1              | 1.01 (25.6)          | 0.12 (3.0)     | 7/16   | 11 000 (757)                    | 5 500 (378) | 15 000 (1 033)           | 14 900 (1 026) | 12 800 (881) |
| 1/4 to 1/8                 | -4-HRN-2              | 1.22 (31.0)          | 0.19 (4.8)     | 9/16   | 10 000 (689)                    | 5 000 (344) | 15 000 (1 033)           | 13 500 (930)   | 11 600 (799) |
| 3/8 to 1/8                 | -6-HRN-2              | 1.25 (31.8)          | 0.19 (4.8)     | 11/16  | 10 000 (689)                    | 5 000 (344) | 15 000 (1 033)           | 13 500 (930)   | 11 600 (799) |
| 3/8 to 1/4                 | -6-HRN-4              | 1.43 (36.3)          | 0.28 (7.1)     | 11/16  | 8 000 (551)                     | 4 000 (275) | 15 000 (1 033)           | 10 800 (744)   | 9 300 (640)  |
| 1/2 to 1/8                 | -8-HRN-2              | 1.47 (37.3)          | 0.19 (4.8)     | 7/8    | 7 700 (530)                     | 3 800 (261) | 14 800 (1 019)           | 10 400 (716)   | 8 900 (613)  |
| 1/2 to 1/4                 | -8-HRN-4              | 1.65 (41.9)          | 0.28 (7.1)     | 7/8    | 8 000 (551)                     | 4 000 (275) | 15 000 (1 033)           | 10 800 (744)   | 9 300 (640)  |
| 1/2 to 3/8                 | -8-HRN-6              | 1.65 (41.9)          | 0.38 (9.6)     | 7/8    | 7 800 (537)                     | 3 900 (268) | 15 000 (1 033)           | 10 500 (723)   | 9 000 (620)  |
| 3/4 to 1/4                 | -12-HRN-4             | 1.65 (41.9)          | 0.28 (7.1)     | 1 1/16 | 8 000 (551)                     | 4 000 (275) | 10 000 (689)             | 10 000 (689)   | 9 300 (640)  |
| 3/4 to 1/2                 | -12-HRN-8             | 1.84 (46.7)          | 0.47 (11.9)    | 1 1/16 | 7 700 (530)                     | 3 800 (261) | 10 000 (689)             | 10 000 (689)   | 8 900 (613)  |
| 1 to 1/4                   | -16-HRN-4             | 1.94 (49.3)          | 0.28 (7.1)     | 1 3/8  | 5 300 (365)                     | 2 600 (179) | 10 000 (689)             | 7 100 (489)    | 6 100 (420)  |
| 1 to 1/2                   | -16-HRN-8             | 2.13 (54.1)          | 0.47 (11.9)    | 1 3/8  | 7 700 (530)                     | 3 800 (261) | 10 000 (689)             | 10 000 (689)   | 8 900 (613)  |
| 1 to 3/4                   | -16-HRN-12            | 2.13 (54.1)          | 0.62 (15.7)    | 1 3/8  | 7 300 (502)                     | 3 600 (248) | 10 000 (689)             | 9 800 (675)    | 8 500 (585)  |
| <b>Heavy-Wall Male NPT</b> |                       |                      |                |        |                                 |             |                          |                |              |
| 1/2 to 1/4                 | SS-8-HRN-4-10K        | 1.65 (41.9)          | 0.23 (5.8)     | 7/8    | 10 000 (689)                    | —           | —                        | —              | —            |

① The E dimension is the minimum nominal opening. These fittings may have a larger opening at the larger end.

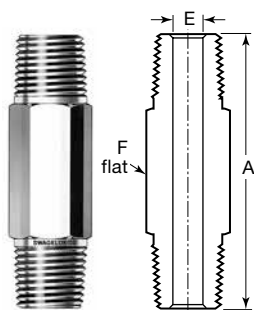
### Male ISO Tapered Thread (RT)

| ISO Thread Size<br>in. | Basic Ordering Number | Dimensions<br>in. (mm) |                |       | Pressure Ratings,<br>psig (bar) |             |                          |              |             |
|------------------------|-----------------------|------------------------|----------------|-------|---------------------------------|-------------|--------------------------|--------------|-------------|
|                        |                       | A                      | E <sup>①</sup> | F     | 316 SS,<br>Carbon Steel         | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly       | Alloy 825   |
| 3/8 to 1/4             | -6-HRNT-4RT           | 1.43 (36.3)            | 0.28 (7.1)     | 11/16 | 7 800 (537)                     | 3 900 (268) | 15 000 (1 033)           | 10 500 (723) | 9 000 (620) |
| 1/2 to 1/8             | -8-HRNT-2RT           | 1.47 (37.3)            | 0.19 (4.8)     | 7/8   | 7 700 (530)                     | 3 800 (261) | 14 800 (1 019)           | 10 400 (716) | 8 900 (613) |
| 1/2 to 3/8             | -8-HRNT-6RT           | 1.65 (41.9)            | 0.38 (9.6)     | 7/8   | 7 800 (537)                     | 3 900 (268) | 15 000 (1 033)           | 10 500 (723) | 9 000 (620) |

① The E dimension is the minimum nominal opening. These fittings may have a larger opening at the larger end.



## Hex Long Nipples



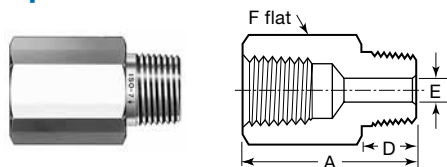
### Male NPT

| NPT Size in. | A (Available Lengths) in. |      |      |      |      |      | Basic Ordering Number | Dimensions in. (mm) |        | Pressure Ratings, psig (bar) |             |                       |              |              |
|--------------|---------------------------|------|------|------|------|------|-----------------------|---------------------|--------|------------------------------|-------------|-----------------------|--------------|--------------|
|              | 1.50                      | 2.00 | 2.50 | 3.00 | 4.00 | 6.00 |                       | E                   | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8          | ✓                         | ✓    | ✓    | ✓    | —    | —    | -2-HLN-               | 0.19 (4.8)          | 7/16   | 10 000 (689)                 | 5 000 (344) | 15 000 (1 033)        | 13 500 (930) | 11 600 (799) |
| 1/4          | ✓                         | ✓    | ✓    | ✓    | ✓    | —    | -4-HLN-               | 0.28 (7.1)          | 9/16   | 8 000 (551)                  | 4 000 (275) | 15 000 (1 033)        | 10 800 (744) | 9 300 (640)  |
| 3/8          | ✓                         | ✓    | ✓    | ✓    | ✓    | —    | -6-HLN-               | 0.38 (9.6)          | 11/16  | 7 800 (537)                  | 3 900 (268) | 15 000 (1 033)        | 10 500 (723) | 9 000 (620)  |
| 1/2          | —                         | ✓    | —    | ✓    | ✓    | ✓    | -8-HLN-               | 0.47 (11.9)         | 7/8    | 7 700 (530)                  | 3 800 (261) | 14 800 (1 019)        | 10 400 (716) | 8 900 (613)  |
| 3/4          | —                         | ✓    | —    | ✓    | ✓    | —    | -12-HLN-              | 0.62 (15.7)         | 1 1/16 | 7 300 (502)                  | 3 600 (248) | 10 000 (689)          | 9 800 (675)  | 8 500 (585)  |
| 1            | —                         | —    | —    | ✓    | ✓    | —    | -16-HLN-              | 0.88 (22.4)         | 1 3/8  | 5 300 (365)                  | 2 600 (179) | 10 000 (689)          | 7 100 (489)  | 6 100 (420)  |

To order, insert the material designator as a prefix and the available length as a suffix to the basic ordering number.

Example: **SS-2-HLN-1.50**

## Adapters

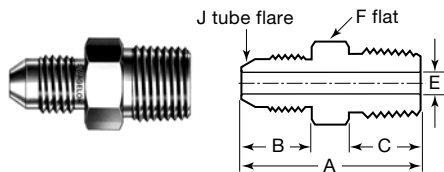


### Female ISO Tapered Thread to Male NPT

| ISO Thread Size in. | NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |        | Pressure Ratings, psig (bar) |             |                       |             |             |
|---------------------|--------------|-----------------------|---------------------|-------------|-------------|--------|------------------------------|-------------|-----------------------|-------------|-------------|
|                     |              |                       | A                   | D           | E           | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/4                 | 1/4          | -4-AT-4               | 1.43 (36.3)         | 0.56 (14.2) | 0.28 (7.1)  | 3/4    | 6 600 (454)                  | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |
| 3/8                 | 3/8          | -6-AT-6               | 1.51 (38.4)         | 0.56 (14.2) | 0.38 (9.6)  | 7/8    | 5 300 (365)                  | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2                 | 1/2          | -8-AT-8               | 1.96 (49.8)         | 0.75 (19.1) | 0.47 (11.9) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |

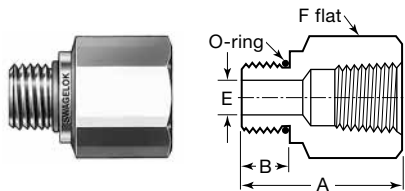


## Adapters



## Male JIC (AN) to Male NPT

| JIC Thread Size in. | NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |                |                |                |       |     | Pressure Ratings, psig (bar) |               |               |                       |               |               |
|---------------------|--------------|-----------------------|---------------------|----------------|----------------|----------------|-------|-----|------------------------------|---------------|---------------|-----------------------|---------------|---------------|
|                     |              |                       | A                   | B              | C              | E              | F     | J   | 316 SS                       | Carbon Steel  | Brass         | Alloy 2507, Alloy 625 | 6-Moly        | Alloy 825     |
| 7/16-20             | 1/4          | -4-AN-1-4             | 1.40<br>(35.6)      | 0.55<br>(13.0) | 0.56<br>(14.2) | 0.17<br>(4.3)  | 9/16  | 1/4 | 8000<br>(551)                | 5000<br>(344) | 4000<br>(275) | 8000<br>(551)         | 8000<br>(551) | 8000<br>(551) |
| 9/16-18             | 1/4          | -6-AN-1-4             | 1.43<br>(36.3)      | 0.56<br>(14.2) | 0.56<br>(14.2) | 0.28<br>(7.1)  | 5/8   | 3/8 | 8000<br>(551)                | 5000<br>(344) | 4000<br>(275) | 8000<br>(551)         | 8000<br>(551) | 8000<br>(551) |
|                     | 3/8          | -6-AN-1-6             | 1.43<br>(36.3)      | 0.56<br>(14.2) | 0.56<br>(14.2) | 0.30<br>(7.6)  | 11/16 | 3/8 | 7800<br>(537)                | 5000<br>(344) | 3900<br>(268) | 7800<br>(537)         | 7800<br>(537) | 7800<br>(537) |
| 3/4-16              | 1/2          | -8-AN-1-8             | 1.75<br>(44.4)      | 0.66<br>(16.8) | 0.75<br>(19.0) | 0.39<br>(9.9)  | 7/8   | 1/2 | 7700<br>(530)                | 4500<br>(310) | 3850<br>(265) | 7700<br>(530)         | 7700<br>(530) | 7700<br>(530) |
| 1 1/16-12           | 3/4          | -12-AN-1-12           | 1.99<br>(50.5)      | 0.86<br>(21.8) | 0.75<br>(19.0) | 0.61<br>(15.5) | 1 1/8 | 3/4 | 7000<br>(482)                | 3500<br>(240) | 3500<br>(241) | 7000<br>(482)         | 7000<br>(482) | 7000<br>(482) |
| 1 5/16-12           | 1            | -16-AN-1-16           | 2.30<br>(58.4)      | 0.91<br>(23.1) | 0.94<br>(23.9) | 0.84<br>(21.3) | 1 3/8 | 1   | 5000<br>(344)                | 3000<br>(210) | 2500<br>(172) | 5000<br>(344)         | 5000<br>(344) | 5000<br>(344) |

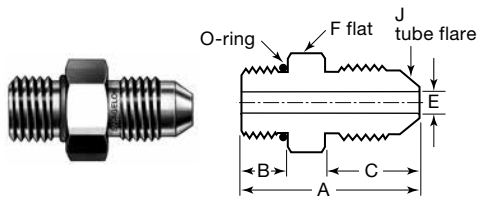


## Male SAE/MS Straight Thread to Female NPT

| SAE/MS Thread Size in. | NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |                |                |        | Uniform O-Ring <sup>①</sup> Size | Pressure Ratings, psig (bar) |               |                       |               |               |
|------------------------|--------------|-----------------------|---------------------|----------------|----------------|--------|----------------------------------|------------------------------|---------------|-----------------------|---------------|---------------|
|                        |              |                       | A                   | B              | E              | F      |                                  | 316 SS, Carbon Steel         | Brass         | Alloy 2507, Alloy 625 | 6-Moly        | Alloy 825     |
| 7/16-20                | 1/4          | -4-SAE-7-4            | 1.32<br>(33.5)      | 0.36<br>(9.1)  | 0.20<br>(5.1)  | 3/4    | -904                             | 5076<br>(350)                | 2538<br>(175) | 5076<br>(350)         | 5076<br>(350) | 5076<br>(350) |
| 9/16-18                | 3/8          | -6-SAE-7-6            | 1.36<br>(34.5)      | 0.39<br>(9.9)  | 0.28<br>(7.1)  | 15/16  | -906                             | 5076<br>(350)                | 2538<br>(175) | 5076<br>(350)         | 5076<br>(350) | 5076<br>(350) |
| 3/4-16                 | 1/2          | -8-SAE-7-8            | 1.62<br>(41.1)      | 0.44<br>(11.2) | 0.42<br>(10.7) | 1 1/16 | -908                             | 4568<br>(315)                | 2277<br>(157) | 4568<br>(315)         | 4568<br>(315) | 4568<br>(315) |
| 1 1/16-12              | 3/4          | -12-SAE-7-12          | 1.82<br>(46.2)      | 0.59<br>(15.0) | 0.66<br>(16.7) | 1 3/8  | -912                             | 3625<br>(250)                | 1812<br>(125) | 3625<br>(250)         | 3625<br>(250) | 3625<br>(250) |
| 1 5/16-12              | 1            | -16-SAE-7-16          | 2.12<br>(53.8)      | 0.59<br>(15.0) | 0.88<br>(22.4) | 1 5/8  | -916                             | 3045<br>(210)                | 1522<br>(105) | 3045<br>(210)         | 3045<br>(210) | 3045<br>(210) |

① O-ring material is 90 durometer fluorocarbon FKM.

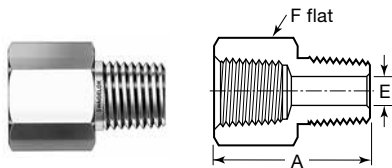
## Adapters



### Male SAE/MS Straight Thread to Male JIC (AN)

| SAE/MS Thread Size in. | JIC Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |             |       |     | Uniform O-Ring <sup>①</sup> Size | Pressure Ratings, psig (bar) |            |                       |            |            |
|------------------------|---------------------|-----------------------|---------------------|-------------|-------------|-------------|-------|-----|----------------------------------|------------------------------|------------|-----------------------|------------|------------|
|                        |                     |                       | A                   | B           | C           | E           | F     | J   |                                  | 316 SS, Carbon Steel         | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 7/16-20                | 7/16-20             | -4-SAE-1-4AN          | 1.19 (30.2)         | 0.36 (9.1)  | 0.55 (14.0) | 0.17 (4.3)  | 9/16  | 1/4 | -904                             | 5076 (350)                   | 2538 (175) | 5076 (350)            | 5076 (350) | 5076 (350) |
| 9/16-18                | 9/16-18             | -6-SAE-1-6AN          | 1.26 (32.0)         | 0.39 (9.9)  | 0.56 (14.2) | 0.28 (7.1)  | 11/16 | 3/8 | -906                             | 5076 (350)                   | 2538 (175) | 5076 (350)            | 5076 (350) | 5076 (350) |
| 3/4-16                 | 3/4-16              | -8-SAE-1-8AN          | 1.44 (36.6)         | 0.44 (11.2) | 0.66 (16.8) | 0.39 (9.9)  | 7/8   | 1/2 | -908                             | 4568 (315)                   | 2284 (150) | 4568 (315)            | 4568 (315) | 4568 (315) |
| 1 1/16-12              | 1 1/16-12           | -12-SAE-1-12AN        | 1.87 (47.5)         | 0.59 (15.0) | 0.86 (21.8) | 0.61 (15.5) | 1 1/4 | 3/4 | -912                             | 3625 (250)                   | 1812 (120) | 3625 (250)            | 3625 (250) | 3625 (250) |
| 1 5/16-12              | 1 5/16-12           | -16-SAE-1-16AN        | 1.98 (50.3)         | 0.59 (15.0) | 0.91 (23.1) | 0.84 (21.3) | 1 1/2 | 1   | -916                             | 3045 (210)                   | 1522 (105) | 3045 (210)            | 3045 (210) | 3045 (210) |

① O-ring material is 90 durometer fluorocarbon FKM.



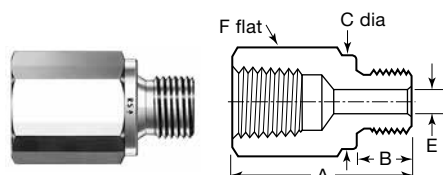
### Female to Male NPT

| NPT Size in.                         | Basic Ordering Number | Dimensions, in. (mm) |             |        | Pressure Ratings, psig (bar) |             |                       |             |             |  |
|--------------------------------------|-----------------------|----------------------|-------------|--------|------------------------------|-------------|-----------------------|-------------|-------------|--|
|                                      |                       | A                    | E           | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |  |
| 1/8                                  | -2-A                  | 1.10 (27.9)          | 0.19 (4.8)  | 9/16   | 6 500 (447)                  | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |  |
| 1/4                                  | -4-A                  | 1.40 (35.6)          | 0.28 (7.1)  | 3/4    | 6 600 (454)                  | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |  |
| 3/8                                  | -6-A                  | 1.51 (38.4)          | 0.38 (9.6)  | 7/8    | 5 300 (365)                  | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |  |
| 1/2                                  | -8-A                  | 1.94 (49.3)          | 0.47 (11.9) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |  |
| 3/4                                  | -12-A                 | 2.02 (51.3)          | 0.62 (15.7) | 1 5/16 | 4 600 (316)                  | 2 300 (158) | 8 900 (613)           | 6 200 (427) | 5 300 (365) |  |
| 1                                    | -16-A                 | 2.28 (57.9)          | 0.88 (22.4) | 1 5/8  | 4 400 (303)                  | 2 200 (151) | 8 500 (585)           | 5 900 (406) | 5 100 (351) |  |
| <b>Heavy-Wall Female to Male NPT</b> |                       |                      |             |        |                              |             |                       |             |             |  |
| 1/4                                  | SS-4-A-10K            | 1.43 (36.3)          | 0.23 (5.8)  | 1      | 10 000 (689)                 | —           | —                     | —           | —           |  |
| 1/2                                  | SS-8-A-10K            | 2.02 (51.3)          | 0.39 (9.9)  | 1 1/2  | 10 000 (689)                 | —           | —                     | —           | —           |  |

## Adapters

## Female to Male ISO Tapered Thread (RT)

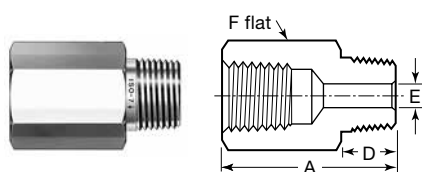
| ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |        | Pressure Ratings psig (bar) |             |                       |             |             |
|---------------------|-----------------------|---------------------|-------------|--------|-----------------------------|-------------|-----------------------|-------------|-------------|
|                     |                       | A                   | E           | F      | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8                 | -2-A-RT               | 1.09 (27.7)         | 0.19 (4.8)  | 9/16   | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |
| 1/4                 | -4-A-RT               | 1.42 (36.1)         | 0.28 (7.1)  | 3/4    | 6 600 (454)                 | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |
| 3/8                 | -6-A-RT               | 1.50 (38.1)         | 0.38 (9.6)  | 7/8    | 5 300 (365)                 | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2                 | -8-A-RT               | 1.95 (49.5)         | 0.47 (11.9) | 1 1/16 | 4 900 (337)                 | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |



## Female NPT to Male ISO Parallel Thread (RS)

| NPT Thread Size in. | ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |             |        | Pressure Ratings psig (bar) |            |                       |            |            |
|---------------------|---------------------|-----------------------|---------------------|-------------|-------------|-------------|--------|-----------------------------|------------|-----------------------|------------|------------|
|                     |                     |                       | A                   | B           | C           | E           | F      | 316 SS, Carbon Steel        | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 1/8                 | 1/8                 | -2-A-2RS              | 0.99 (25.1)         | 0.32 (8.1)  | 0.54 (13.7) | 0.16 (4.1)  | 9/16   | 5800 (400)                  | 2900 (200) | 5800 (400)            | 5800 (400) | 5800 (400) |
| 1/4                 | 1/4                 | -4-A-4RS              | 1.32 (33.5)         | 0.47 (11.9) | 0.70 (17.8) | 0.23 (5.8)  | 3/4    | 5800 (400)                  | 2900 (200) | 5800 (400)            | 5800 (400) | 5800 (400) |
| 3/8                 | 3/8                 | -6-A-6RS              | 1.41 (35.8)         | 0.47 (11.9) | 0.86 (21.8) | 0.31 (7.9)  | 7/8    | 5800 (400)                  | 2900 (200) | 5800 (400)            | 5800 (400) | 5800 (400) |
| 1/2                 | 1/2                 | -8-A-8RS              | 1.74 (44.2)         | 0.55 (14.0) | 1.02 (25.9) | 0.47 (11.9) | 1 1/16 | 4700 (324)                  | 2350 (162) | 4700 (324)            | 4700 (324) | 4700 (324) |
| 3/4                 | 3/4                 | -12-A-12RS            | 1.89 (48.0)         | 0.63 (16.0) | 1.25 (31.8) | 0.62 (15.7) | 1 5/16 | 3620 (250)                  | 1810 (125) | 3620 (250)            | 3620 (250) | 3620 (250) |
| 1                   | 1                   | -16-A-16RS            | 2.10 (53.3)         | 0.71 (18.0) | 1.53 (38.9) | 0.78 (19.8) | 1 5/8  | 3620 (250)                  | 1810 (125) | 3620 (250)            | 3620 (250) | 3620 (250) |

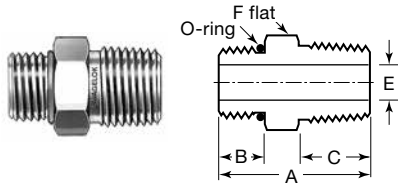
For gasket information, see page 12.



## Female NPT to Male ISO Tapered Thread (RT)

| NPT Thread Size in. | ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |        | Pressure Ratings psig (bar) |            |                       |            |            |
|---------------------|---------------------|-----------------------|---------------------|-------------|-------------|--------|-----------------------------|------------|-----------------------|------------|------------|
|                     |                     |                       | A                   | D           | E           | F      | 316 SS, Carbon Steel        | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 1/8                 | 1/8                 | -2-A-2RT              | 1.09 (27.7)         | 0.38 (9.6)  | 0.19 (4.8)  | 9/16   | 6500 (447)                  | 3200 (220) | 5800 (399)            | 5200 (358) | 2600 (179) |
| 1/4                 | 1/4                 | -4-A-4RT              | 1.42 (36.1)         | 0.56 (14.2) | 0.28 (7.1)  | 3/4    | 6600 (454)                  | 3300 (227) | 5900 (406)            | 5200 (358) | 2600 (179) |
| 3/8                 | 3/8                 | -6-A-6RT              | 1.50 (38.1)         | 0.56 (14.2) | 0.38 (9.6)  | 7/8    | 5300 (365)                  | 2600 (179) | 4700 (323)            | 4200 (289) | 2100 (144) |
| 1/2                 | 1/2                 | -8-A-8RT              | 1.94 (49.3)         | 0.75 (19.1) | 0.47 (11.9) | 1 1/16 | 4900 (337)                  | 2400 (165) | 4400 (303)            | 3900 (268) | 1900 (130) |
| 3/4                 | 3/4                 | -12-A-12RT            | 2.02 (51.3)         | 0.75 (19.1) | 0.62 (15.7) | 1 5/16 | 4600 (316)                  | 2300 (158) | 4100 (282)            | 3600 (248) | 1800 (124) |
| 1                   | 1                   | -16-A-16RT            | 2.30 (58.4)         | 0.94 (23.9) | 0.88 (22.4) | 1 5/8  | 4400 (303)                  | 2200 (151) | 3900 (268)            | 3500 (241) | 1700 (117) |

## Adapters



### Male SAE/MS Straight Thread to Male NPT

| SAE/MS Thread Size in. | NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |             |       | Uniform O-Ring <sup>①</sup> Size | Pressure Ratings, psig (bar) |            |                       |            |            |
|------------------------|--------------|-----------------------|---------------------|-------------|-------------|-------------|-------|----------------------------------|------------------------------|------------|-----------------------|------------|------------|
|                        |              |                       | A                   | B           | C           | E           | F     |                                  | 316 SS, Carbon Steel         | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 7/16-20                | 1/4          | -4-SAE-1-4            | 1.20 (30.5)         | 0.36 (9.1)  | 0.56 (14.2) | 0.20 (5.1)  | 9/16  | -904                             | 5076 (350)                   | 2538 (175) | 5076 (350)            | 5076 (350) | 5076 (350) |
| 9/16-18                | 3/8          | -6-SAE-1-6            | 1.26 (32.0)         | 0.36 (9.1)  | 0.56 (14.2) | 0.28 (7.1)  | 11/16 | -906                             | 5076 (350)                   | 2538 (175) | 5076 (350)            | 5076 (350) | 5076 (350) |
| 3/4-16                 | 1/2          | -8-SAE-1-8            | 1.53 (38.9)         | 0.44 (11.2) | 0.75 (19.1) | 0.42 (10.7) | 7/8   | -908                             | 4568 (315)                   | 2277 (157) | 4568 (315)            | 4568 (315) | 4568 (315) |
| 1 1/16-12              | 3/4          | -12-SAE-1-12          | 1.75 (44.4)         | 0.59 (15.0) | 0.75 (19.1) | 0.62 (15.7) | 1 1/4 | -912                             | 3625 (250)                   | 1812 (125) | 3625 (250)            | 3625 (250) | 3625 (250) |
| 1 5/16-12              | 1            | -16-SAE-1-16          | 2.00 (50.8)         | 0.59 (15.0) | 0.94 (23.9) | 0.88 (22.4) | 1 1/2 | -916                             | 3045 (210)                   | 1522 (105) | 3045 (210)            | 3045 (210) | 3045 (210) |

① O-ring material is 90 durometer fluorocarbon FKM.

## Adapter Gaskets



RS/RSD Gasket

### Steel and Stainless Steel (RS Fitting)

RS fitting steel gaskets provide a seal with male ISO/BSP parallel threads.

The RS gasket is of a fluorocarbon FKM inner ring bonded to a carbon steel outer ring.

The RSD (DIN-style) gasket is a fluorocarbon FKM inner ring bonded to a stainless steel or carbon steel outer ring as recommended in ISO 1179-1973. It can be used with end connections designed in accordance with DIN 3852 Part 2.

The RSNB gasket is an all-metal 304L stainless steel gasket similar to DIN 7603 form D.



RSNB Gasket

| ISO Thread Size, in. | Ordering Number        |                         |                |
|----------------------|------------------------|-------------------------|----------------|
|                      | RS Gasket <sup>①</sup> | RSD Gasket <sup>②</sup> | RSNB Gasket    |
| 1/8                  | S-2-RS-2V              | SS-2-RSD-2V             | 304L-2-RSNB-2  |
| 1/4                  | S-4-RS-2V <sup>③</sup> | SS-4-RSD-2V             | 304L-4-RSNB-2  |
| 3/8                  | S-6-RS-2V <sup>③</sup> | SS-6-RSD-2V             | 304L-6-RSNB-2  |
| 1/2                  | S-8-RS-2V <sup>③</sup> | SS-8-RSD-2V             | 304L-8-RSNB-2  |
| 3/4                  | S-12-RS-2V             | SS-12-RSD-2V            | 304L-12-RSNB-2 |
| 1                    | S-16-RS-2V             | SS-16-RSD-2V            | 304L-16-RSNB-2 |

① Also available with a Buna inner ring. To order, replace **V** with **B** in the ordering number.

Example: S-2-RS-2**B**

② Also available with a carbon steel outer ring. To order, replace **SS** with **S** in the ordering number.

Example: **S**-8-RSD-2V

③ Also available with a stainless steel outer ring. To order, replace **S** with **SS** in the ordering number.

Example: **SS**-8-RS-2V

### Copper (RP and RS Fitting)

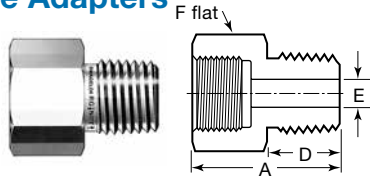
The RP and RS fitting copper gasket provides a seal with male ISO/BSP parallel threads.



| ISO Thread Size, in. | Ordering Number |
|----------------------|-----------------|
| 1/8                  | CU-2-RP-2       |
| 1/4                  | CU-4-RP-2       |
| 3/8                  | CU-6-RP-2       |
| 1/2                  | CU-8-RP-2       |
| 3/4                  | CU-12-RP-2      |
| 1                    | CU-16-RP-2      |

Contact your authorized Swagelok representative for gasket dimensions.

### Gauge Adapters



### Female ISO Parallel (Gauge) Thread to Male NPT

| ISO Thread Size in. | NPT Size in. | Ordering Number | Dimensions in. (mm) |             |            |        | Pressure Ratings psig (bar) |            |                       |            |            |
|---------------------|--------------|-----------------|---------------------|-------------|------------|--------|-----------------------------|------------|-----------------------|------------|------------|
|                     |              |                 | A                   | D           | E          | F      | 316 SS, Carbon Steel        | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 1/4                 | 1/4          | SS-4-AG-4       | 1.19 (30.2)         | 0.56 (14.2) | 0.22 (5.6) | 3/4    | 5700 (392)                  | 2850 (196) | 5700 (392)            | 5700 (392) | 5700 (392) |
| 3/8                 | 3/8          | SS-6-AG-6       | 1.27 (32.2)         | 0.56 (14.2) | 0.26 (6.6) | 15/16  | 5700 (392)                  | 2850 (196) | 5700 (392)            | 5700 (392) | 5700 (392) |
| 1/2                 | 1/2          | SS-8-AG-8       | 1.68 (42.7)         | 0.75 (19.1) | 0.28 (7.1) | 1 1/16 | 3900 (268)                  | 1950 (134) | 3900 (268)            | 3900 (268) | 3900 (268) |

### Gauge Adapter Gaskets



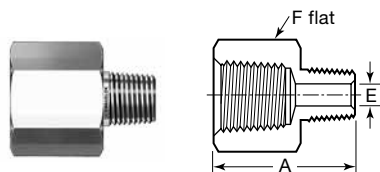
### Copper and Nickel (RG, Gauge Fitting)

The RG fitting gasket provides a seal on pressure gauges equipped with ISO/BSP parallel male threads.

| ISO Thread Size, in. | Ordering Number |           |
|----------------------|-----------------|-----------|
|                      | Copper          | Nickel    |
| 1/4                  | CU-4-RG-2       | NI-4-RG-2 |
| 3/8                  | CU-6-RG-2       | NI-6-RG-2 |
| 1/2                  | CU-8-RG-2       | NI-8-RG-2 |

Contact your authorized Swagelok representative for gasket dimensions.

### Reducing Adapters



### Female to Male NPT

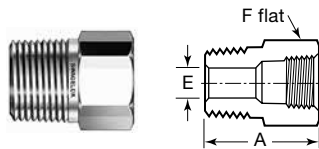
| Female NPT Size in.                  | Male NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |             |        | Pressure Ratings psig (bar) |            |                       |            |            |
|--------------------------------------|-------------------|-----------------------|---------------------|-------------|--------|-----------------------------|------------|-----------------------|------------|------------|
|                                      |                   |                       | A                   | E           | F      | 316 SS, Carbon Steel        | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 1/8                                  | 1/16              | -2-RA-1               | 1.09 (27.7)         | 0.12 (3.0)  | 9/16   | 6 500 (447)                 | 3200 (220) | 12 500 (861)          | 8800 (606) | 7500 (516) |
| 1/4                                  | 1/8               | -4-RA-2               | 1.26 (32.0)         | 0.19 (4.8)  | 3/4    | 6 600 (454)                 | 3300 (227) | 12 700 (875)          | 8900 (613) | 7600 (523) |
| 3/8                                  | 1/8               | -6-RA-2               | 1.33 (33.8)         | 0.19 (4.8)  | 7/8    | 5 300 (365)                 | 2600 (179) | 10 200 (702)          | 7100 (489) | 6100 (420) |
|                                      | 1/4               | -6-RA-4               | 1.50 (38.1)         | 0.28 (7.1)  |        | 5 300 (365)                 | 2600 (179) | 10 200 (702)          | 7100 (489) | 6100 (420) |
| 1/2                                  | 1/8               | -8-RA-2               | 1.58 (40.1)         | 0.19 (4.8)  | 1 1/16 | 4 900 (337)                 | 2400 (165) | 9 400 (647)           | 6600 (454) | 5700 (392) |
|                                      | 1/4               | -8-RA-4               | 1.76 (44.7)         | 0.28 (7.1)  |        | 4 900 (337)                 | 2400 (165) | 9 400 (647)           | 6600 (454) | 5700 (392) |
|                                      | 3/8               | -8-RA-6               | 1.75 (44.4)         | 0.38 (9.6)  |        | 4 900 (337)                 | 2400 (165) | 9 400 (647)           | 6600 (454) | 5700 (392) |
| 3/4                                  | 1/4               | -12-RA-4              | 1.85 (47.0)         | 0.28 (7.1)  | 1 5/16 | 4 600 (316)                 | 2300 (158) | 8 900 (613)           | 6200 (427) | 5300 (365) |
|                                      | 3/8               | -12-RA-6              | 1.82 (46.2)         | 0.38 (9.6)  |        | 4 600 (316)                 | 2300 (158) | 8 900 (613)           | 6200 (427) | 5300 (365) |
|                                      | 1/2               | -12-RA-8              | 2.02 (51.3)         | 0.47 (11.9) |        | 4 600 (316)                 | 2300 (158) | 8 900 (613)           | 6200 (427) | 5300 (365) |
| 1                                    | 1/4               | -16-RA-4              | 1.96 (49.8)         | 0.28 (7.1)  | 1 5/8  | 4 400 (303)                 | 2200 (151) | 8 500 (585)           | 5900 (406) | 5100 (351) |
|                                      | 1/2               | -16-RA-8              | 2.16 (54.9)         | 0.47 (11.9) |        | 4 400 (303)                 | 2200 (151) | 8 500 (585)           | 5900 (406) | 5100 (351) |
|                                      | 3/4               | -16-RA-12             | 2.17 (55.1)         | 0.62 (15.7) |        | 4 400 (303)                 | 2200 (151) | 8 500 (585)           | 5900 (406) | 5100 (351) |
| <b>Heavy-Wall Female to Male NPT</b> |                   |                       |                     |             |        |                             |            |                       |            |            |
| 1/2                                  | 1/4               | SS-8-RA-4-10K         | 1.81 (46.0)         | 0.23 (5.8)  | 1 1/2  | 10 000 (689)                | —          | —                     | —          | —          |

## Reducing Adapters

### Female to Male ISO Tapered Thread (RT)

| Female ISO Thread Size in. | Male ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |            |        | Pressure Ratings psig (bar) |             |                       |             |             |
|----------------------------|--------------------------|-----------------------|---------------------|------------|--------|-----------------------------|-------------|-----------------------|-------------|-------------|
|                            |                          |                       | A                   | E          | F      | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/4                        | 1/8                      | -4-RAT-2RT            | 1.26 (32.0)         | 0.19 (4.8) | 3/4    | 6 600 (454)                 | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |
| 3/8                        | 1/4                      | -6-RAT-4RT            | 1.50 (38.1)         | 0.28 (7.1) | 7/8    | 5 300 (365)                 | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2                        | 1/4                      | -8-RAT-4RT            | 1.76 (44.7)         | 0.28 (7.1) | 1 1/16 | 4 900 (337)                 | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |
|                            | 3/8                      | -8-RAT-6RT            | 1.75 (44.4)         | 0.38 (9.6) |        | 4 900 (337)                 | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |

## Reducing Bushings



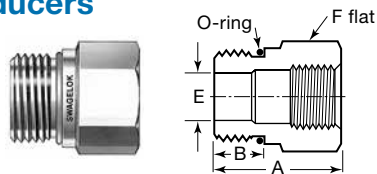
### Male to Female NPT

| Male NPT Size in. | Female NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |             |        | Pressure Ratings psig (bar) |             |                       |                |              |
|-------------------|---------------------|-----------------------|---------------------|-------------|--------|-----------------------------|-------------|-----------------------|----------------|--------------|
|                   |                     |                       | A                   | E           | F      | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly         | Alloy 825    |
| 1/8               | 1/16                | -2-RB-1               | 1.03 (26.2)         | 0.19 (4.8)  | 7/16   | 6 700 (461)                 | 3 300 (227) | 12 900 (888)          | 9 000 (620)    | 7 800 (537)  |
| 1/4               | 1/8                 | -4-RB-2               | 1.06 (26.9)         | 0.28 (7.1)  | 9/16   | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606)    | 7 500 (516)  |
| 3/8               | 1/8                 | -6-RB-2               | 0.86 (21.8)         | 0.34 (8.6)  | 11/16  | 9 200 (633)                 | 4 600 (316) | 15 000 (1 033)        | 12 400 (854)   | 10 700 (737) |
|                   | 1/4                 | -6-RB-4               | 1.19 (30.2)         | 0.38 (9.6)  |        | 3/4                         | 6 600 (454) | 3 300 (227)           | 12 700 (875)   | 8 900 (613)  |
| 1/2               | 1/8                 | -8-RB-2               | 1.08 (27.4)         | 0.34 (8.6)  | 7/8    | 12 200 (840)                | 6 100 (420) | 15 000 (1 033)        | 15 000 (1 033) | 14 200 (978) |
|                   | 1/4                 | -8-RB-4               |                     | 0.45 (11.4) |        | 8 300 (571)                 | 4 100 (282) | 15 000 (1 033)        | 11 200 (771)   | 9 600 (661)  |
|                   | 3/8                 | -8-RB-6               |                     | 1.41 (35.8) |        | 0.47 (11.9)                 | 5 300 (365) | 2 600 (179)           | 10 200 (702)   | 7 100 (489)  |
| 3/4               | 1/4                 | -12-RB-4              | 1.08 (27.4)         | 0.45 (11.4) | 1 1/16 | 10 000 (689)                | 5 000 (344) | 10 000 (689)          | 10 000 (689)   | 10 000 (689) |
|                   | 3/8                 | -12-RB-6              |                     | 0.59 (15.0) |        | 8 200 (564)                 | 4 100 (282) | 10 000 (689)          | 10 000 (689)   | 9 500 (654)  |
|                   | 1/2                 | -12-RB-8              |                     | 1.63 (41.4) |        | 0.62 (15.7)                 | 4 900 (337) | 2 400 (168)           | 9 400 (652)    | 6 600 (456)  |
| 1                 | 1/4                 | -16-RB-4              | 1.37 (34.8)         | 0.45 (11.4) | 1 3/8  | 10 000 (689)                | 5 000 (344) | 10 000 (689)          | 10 000 (689)   | 10 000 (689) |
|                   | 3/8                 | -16-RB-6              |                     | 0.59 (15.0) |        | 10 000 (689)                | 5 000 (344) | 10 000 (689)          | 10 000 (689)   | 10 000 (689) |
|                   | 1/2                 | -16-RB-8              |                     | 0.73 (18.5) |        | 8 600 (592)                 | 4 300 (296) | 10 000 (689)          | 10 000 (689)   | 10 000 (689) |
|                   | 3/4                 | -16-RB-12             |                     | 1.85 (47.0) |        | 0.88 (22.4)                 | 5 300 (365) | 2 600 (179)           | 10 000 (689)   | 7 100 (489)  |

### Male to Female ISO Tapered Thread (RT)

| Male ISO Thread Size in. | Female ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |      | Pressure Ratings psig (bar) |             |                       |              |             |
|--------------------------|----------------------------|-----------------------|---------------------|-------------|------|-----------------------------|-------------|-----------------------|--------------|-------------|
|                          |                            |                       | A                   | E           | F    | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly       | Alloy 825   |
| 1/4                      | 1/8                        | -4-RBT-2RT            | 1.06 (26.9)         | 0.28 (7.1)  | 9/16 | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606)  | 7 500 (516) |
| 3/8                      | 1/4                        | -6-RBT-4RT            | 1.19 (30.2)         | 0.38 (9.6)  | 3/4  | 6 600 (454)                 | 3 300 (227) | 12 700 (875)          | 8 900 (613)  | 7 600 (523) |
| 1/2                      | 1/4                        | -8-RBT-4RT            | 1.08 (27.4)         | 0.44 (11.2) | 7/8  | 8 300 (571)                 | 4 100 (282) | 15 000 (1 033)        | 11 200 (771) | 9 600 (661) |
|                          | 3/8                        | -8-RBT-6RT            | 1.41 (35.8)         | 0.47 (11.9) |      | 5 300 (365)                 | 2 600 (179) | 10 200 (702)          | 7 100 (489)  | 6 100 (420) |

## Reducers

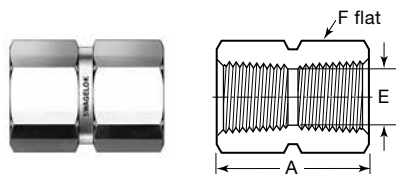


### Male to Female SAE/MS Straight Thread (ST)

| Male Thread Size in. | Female Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |        | Uniform O-Ring <sup>①</sup> Size | Pressure Ratings psig (bar) |            |                       |            |            |
|----------------------|------------------------|-----------------------|---------------------|-------------|-------------|--------|----------------------------------|-----------------------------|------------|-----------------------|------------|------------|
|                      |                        |                       | A                   | B           | E           | F      |                                  | 316 SS, Carbon Steel        | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |
| 9/16-18              | 7/16-20                | -6-RBST-4             | 1.12 (28.4)         | 0.39 (9.9)  | 0.28 (7.1)  | 13/16  | -906                             | 5076 (350)                  | 2538 (175) | 5076 (350)            | 5076 (350) | 5076 (350) |
| 3/4-16               | 7/16-20                | -8-RBST-4             | 0.98 (24.9)         | 0.44 (11.2) | 0.39 (9.9)  | 7/8    | -908                             | 4568 (315)                  | 2277 (157) | 4568 (315)            | 4568 (315) | 4568 (315) |
|                      | 9/16-18                | -8-RBST-6             | 1.19 (30.2)         | 0.44 (11.2) | 0.42 (10.7) | 1      | -908                             | 4568 (315)                  | 2277 (157) | 4568 (315)            | 4568 (315) | 4568 (315) |
| 7/8-14               | 9/16-18                | -10-RBST-6            | 1.10 (27.9)         | 0.50 (12.7) | 0.50 (12.7) | 1      | -910                             | 3625 (250)                  | 1812 (125) | 3625 (250)            | 3625 (250) | 3625 (250) |
|                      | 3/4-16                 | -10-RBST-8            | 1.42 (36.1)         | 0.50 (12.7) | 0.50 (12.7) | 1 3/16 | -910                             | 3625 (250)                  | 1812 (125) | 3625 (250)            | 3625 (250) | 3625 (250) |
| 1 1/16-12            | 3/4-16                 | -12-RBST-8            | 1.27 (32.3)         | 0.59 (15.0) | 0.65 (16.5) | 1 1/4  | -912                             | 3625 (250)                  | 1812 (125) | 3625 (250)            | 3625 (250) | 3625 (250) |
| 1 5/16-12            | 1 1/16-12              | -16-RBST-12           | 1.61 (40.9)         | 0.59 (15.0) | 0.87 (22.1) | 1 5/8  | -916                             | 3045 (210)                  | 1522 (105) | 3045 (210)            | 3045 (210) | 3045 (210) |
| 1 5/8-12             | 1 5/16-12              | -20-RBST-16           | 1.98 (50.3)         | 0.59 (15.0) | 1.09 (27.7) | 2 1/8  | -920                             | 2538 (175)                  | 1261 (87)  | 2538 (175)            | 2538 (175) | 2538 (175) |
| 1 7/8-12             | 1 5/16-12              | -24-RBST-16           | 1.27 (32.3)         | 0.59 (15.0) | 1.23 (31.2) | 2 1/8  | -924                             | 2538 (175)                  | 1261 (87)  | 2538 (175)            | 2538 (175) | 2538 (175) |

① O-ring material is 90 durometer fluorocarbon FKM.

## Hex Couplings



### Female NPT

| NPT Size in.                 | Basic Ordering Number | Dimensions, in. (mm) |             |        | Pressure Ratings, psig (bar) |            |                       |            |            |  |
|------------------------------|-----------------------|----------------------|-------------|--------|------------------------------|------------|-----------------------|------------|------------|--|
|                              |                       | A                    | E           | F      | 316 SS, Carbon Steel         | Brass      | Alloy 2507, Alloy 625 | 6-Moly     | Alloy 825  |  |
| 1/8                          | -2-HCG                | 0.81 (20.6)          | 0.34 (8.6)  | 9/16   | 6 500 (447)                  | 3200 (220) | 12 500 (861)          | 8800 (606) | 7500 (516) |  |
| 1/4                          | -4-HCG                | 1.19 (30.2)          | 0.45 (11.4) | 3/4    | 6 600 (454)                  | 3300 (227) | 12 700 (875)          | 8900 (613) | 7600 (523) |  |
| 3/8                          | -6-HCG                | 1.31 (33.3)          | 0.59 (15.0) | 7/8    | 5 300 (365)                  | 2600 (179) | 10 200 (702)          | 7100 (489) | 6100 (420) |  |
| 1/2                          | -8-HCG                | 1.56 (39.6)          | 0.73 (18.5) | 1 1/16 | 4 900 (337)                  | 2400 (165) | 9 400 (647)           | 6600 (454) | 5700 (392) |  |
| 3/4                          | -12-HCG               | 1.62 (41.1)          | 0.94 (23.9) | 1 5/16 | 4 600 (316)                  | 2300 (158) | 8 900 (613)           | 6200 (427) | 5300 (365) |  |
| 1                            | -16-HCG               | 2.00 (50.8)          | 1.17 (29.7) | 1 5/8  | 4 400 (303)                  | 2200 (151) | 8 500 (585)           | 5900 (406) | 5100 (351) |  |
| <b>Heavy-Wall Female NPT</b> |                       |                      |             |        |                              |            |                       |            |            |  |
| 1/4                          | SS-4-HCG-10K          | 1.19 (30.2)          | 0.45 (11.4) | 1      | 10 000 (689)                 | —          | —                     | —          | —          |  |
| 1/2                          | SS-8-HCG-10K          | 1.56 (39.6)          | 0.73 (18.5) | 1 1/2  | 10 000 (689)                 | —          | —                     | —          | —          |  |

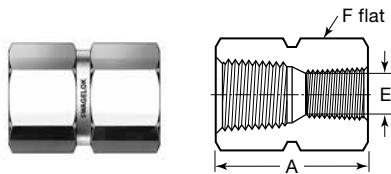


## Hex Couplings

### Female ISO Tapered Thread (RT)

| ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |        | Pressure Ratings psig (bar) |             |                       |             |             |
|---------------------|-----------------------|---------------------|-------------|--------|-----------------------------|-------------|-----------------------|-------------|-------------|
|                     |                       | A                   | E           | F      | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8                 | -2-HCG-RT             | 0.81 (20.6)         | 0.33 (8.4)  | 9/16   | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |
| 1/4                 | -4-HCG-RT             | 1.19 (30.2)         | 0.44 (11.2) | 3/4    | 6 600 (454)                 | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |
| 3/8                 | -6-HCG-RT             | 1.31 (33.3)         | 0.58 (14.7) | 7/8    | 5 300 (365)                 | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2                 | -8-HCG-RT             | 1.56 (39.6)         | 0.72 (18.3) | 1 1/16 | 4 900 (337)                 | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |

### Hex Reducing Couplings



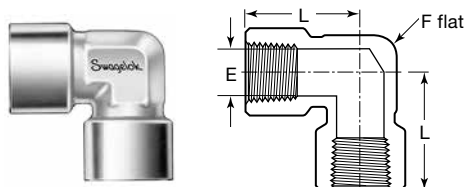
### Female NPT

| NPT Size in.                 | Basic Ordering Number | Dimensions, in. (mm) |             |        | Pressure Ratings, psig (bar) |             |                       |             |             |
|------------------------------|-----------------------|----------------------|-------------|--------|------------------------------|-------------|-----------------------|-------------|-------------|
|                              |                       | A                    | E           | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/4 to 1/8                   | -4-HRCG-2             | 1.22 (31.0)          | 0.34 (8.6)  | 3/4    | 6 600 (454)                  | 3 300 (227) | 12 700 (875)          | 8 900 (613) | 7 600 (523) |
| 3/8 to 1/4                   | -6-HRCG-4             | 1.38 (35.1)          | 0.45 (11.4) | 7/8    | 5 300 (365)                  | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2 to 1/8                   | -8-HRCG-2             | 1.56 (39.6)          | 0.34 (8.6)  | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |
| 1/2 to 1/4                   | -8-HRCG-4             | 1.75 (44.4)          | 0.45 (11.4) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |
| 1/2 to 3/8                   | -8-HRCG-6             | 1.78 (45.2)          | 0.59 (15.0) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |
| 3/4 to 1/4                   | -12-HRCG-4            | 1.81 (46.0)          | 0.45 (11.4) | 1 5/16 | 4 600 (316)                  | 2 300 (158) | 8 900 (613)           | 6 200 (427) | 5 300 (365) |
| 3/4 to 1/2                   | -12-HRCG-8            | 2.06 (52.3)          | 0.73 (18.5) | 1 5/16 | 4 600 (316)                  | 2 300 (158) | 8 900 (613)           | 6 200 (427) | 5 300 (365) |
| 1 to 1/2                     | -16-HRCG-8            | 2.19 (55.6)          | 0.73 (18.5) | 1 5/8  | 4 400 (303)                  | 2 200 (151) | 8 500 (585)           | 5 900 (406) | 5 100 (351) |
| 1 to 3/4                     | -16-HRCG-12           | 2.25 (57.2)          | 0.94 (23.9) | 1 5/8  | 4 400 (303)                  | 2 200 (151) | 8 500 (585)           | 5 900 (406) | 5 100 (351) |
| <b>Heavy-Wall Female NPT</b> |                       |                      |             |        |                              |             |                       |             |             |
| 1/2 to 1/4                   | SS-8-HRCG-4-10K       | 1.75 (44.4)          | 0.45 (11.4) | 1 1/2  | 10 000 (689)                 | —           | —                     | —           | —           |

### Female ISO Tapered Thread (RT)

| ISO Thread Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |        | Pressure Ratings, psig (bar) |             |                       |             |             |
|---------------------|-----------------------|----------------------|-------------|--------|------------------------------|-------------|-----------------------|-------------|-------------|
|                     |                       | A                    | E           | F      | 316 SS, Carbon Steel         | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 3/8 to 1/4          | -6-HRCGT-4RT          | 1.38 (35.1)          | 0.44 (11.2) | 7/8    | 5 300 (365)                  | 2 600 (179) | 10 200 (702)          | 7 100 (489) | 6 100 (420) |
| 1/2 to 1/4          | -8-HRCGT-4RT          | 1.75 (44.4)          | 0.44 (11.2) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |
| 1/2 to 3/8          | -8-HRCGT-6RT          | 1.78 (45.2)          | 0.58 (14.7) | 1 1/16 | 4 900 (337)                  | 2 400 (165) | 9 400 (647)           | 6 600 (454) | 5 700 (392) |

## Elbows

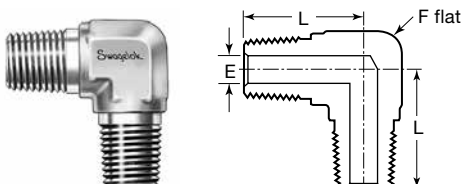


## Female NPT

| NPT Size in.                 | Basic Ordering Number | Dimensions, in. (mm) |             |         | Pressure Ratings<br>psig (bar) |             |                          |             |             |
|------------------------------|-----------------------|----------------------|-------------|---------|--------------------------------|-------------|--------------------------|-------------|-------------|
|                              |                       | E                    | L           | F       | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8                          | -2-E                  | 0.34 (8.6)           | 1.04 (26.4) | 1/2     | 6 500 (447)                    | 3 200 (220) | 12 500 (861)             | 8 800 (606) | 7 500 (516) |
| 1/4                          | -4-E                  | 0.45 (11.4)          | 1.17 (29.7) | 11/16   | 7 200 (496)                    | 3 600 (248) | 13 900 (957)             | 9 700 (668) | 8 300 (571) |
| 3/8                          | -6-E                  | 0.59 (15.0)          | 1.42 (36.1) | 13/16   | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 1/2                          | -8-E                  | 0.73 (18.5)          | 1.56 (39.6) | 1       | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 3/4                          | -12-E                 | 0.94 (23.9)          | 1.92 (48.8) | 1 1/4   | 5 100 (351)                    | 2 500 (172) | 9 800 (675)              | 6 900 (475) | 5 900 (406) |
| 1                            | -16-E                 | 1.17 (29.7)          | 1.91 (48.5) | 1 11/16 | 6 400 (440)                    | 3 200 (220) | 10 000 (689)             | 8 600 (592) | 7 400 (509) |
| <b>Heavy-Wall Female NPT</b> |                       |                      |             |         |                                |             |                          |             |             |
| 1/4                          | SS-4-E-10K            | 0.45 (11.4)          | 1.56 (39.6) | 1       | 10 000 (689)                   | —           | —                        | —           | —           |
| 1/2                          | SS-8-E-10K            | 0.73 (18.5)          | 1.97 (50.0) | 1 11/16 | 10 000 (689)                   | —           | —                        | —           | —           |

## Female ISO Tapered Thread (RT)

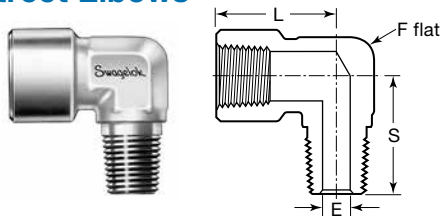
| ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |       | Pressure Ratings<br>psig (bar) |             |                          |             |             |
|---------------------|-----------------------|---------------------|-------------|-------|--------------------------------|-------------|--------------------------|-------------|-------------|
|                     |                       | E                   | L           | F     | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly      | Alloy 825   |
| 1/4                 | -4-E-RT               | 0.44 (11.2)         | 1.17 (29.7) | 11/16 | 7 200 (496)                    | 3 600 (248) | 13 900 (957)             | 9 700 (668) | 8 300 (571) |
| 3/8                 | -6-E-RT               | 0.58 (14.7)         | 1.42 (36.1) | 13/16 | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 1/2                 | -8-E-RT               | 0.72 (18.3)         | 1.56 (39.6) | 1     | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |



## Male NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |       | Pressure Ratings<br>psig (bar) |             |                          |              |              |
|--------------|-----------------------|----------------------|-------------|-------|--------------------------------|-------------|--------------------------|--------------|--------------|
|              |                       | E                    | L           | F     | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8          | -2-ME                 | 0.19 (4.8)           | 0.88 (22.4) | 7/16  | 10 000 (689)                   | 5 000 (344) | 15 000 (1 033)           | 13 500 (930) | 11 600 (799) |
| 1/4          | -4-ME                 | 0.28 (7.1)           | 1.05 (26.7) | 1/2   | 8 000 (551)                    | 4 000 (275) | 15 000 (1 033)           | 10 800 (744) | 9 300 (640)  |
| 3/8          | -6-ME                 | 0.38 (9.6)           | 1.17 (29.7) | 11/16 | 7 800 (537)                    | 3 900 (268) | 15 000 (1 033)           | 10 500 (723) | 9 000 (620)  |
| 1/2          | -8-ME                 | 0.47 (11.9)          | 1.45 (36.8) | 13/16 | 7 700 (530)                    | 3 800 (261) | 14 800 (1 019)           | 10 400 (716) | 8 900 (613)  |

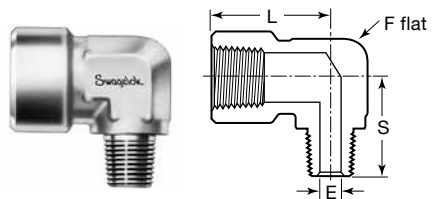
### Street Elbows



### Female to Male NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |         | Pressure Ratings<br>psig (bar) |             |                       |              |              |
|--------------|-----------------------|----------------------|-------------|-------------|---------|--------------------------------|-------------|-----------------------|--------------|--------------|
|              |                       | E                    | L           | S           | F       | 316 SS, Carbon Steel           | Brass       | Alloy 2507, Alloy 625 | 6-Moly       | Alloy 825    |
| 1/16         | -1-SE                 | 0.12 (3.0)           | 0.86 (21.8) | 0.88 (22.4) | 7/16    | 9 200 (633)                    | 4 600 (316) | 15 000 (1 033)        | 12 400 (854) | 10 700 (737) |
| 1/8          | -2-SE                 | 0.19 (4.8)           | 1.04 (26.4) | 0.87 (22.1) | 1/2     | 6 500 (447)                    | 3 200 (220) | 12 500 (861)          | 8 800 (606)  | 7 500 (516)  |
| 1/4          | -4-SE                 | 0.28 (7.1)           | 1.17 (29.7) | 1.17 (29.7) | 11/16   | 7 200 (496)                    | 3 600 (248) | 13 900 (957)          | 9 700 (668)  | 8 300 (571)  |
| 3/8          | -6-SE                 | 0.38 (9.6)           | 1.42 (36.1) | 1.26 (32.0) | 13/16   | 5 600 (385)                    | 2 800 (192) | 10 800 (744)          | 7 500 (516)  | 6 500 (447)  |
| 1/2          | -8-SE                 | 0.47 (11.9)          | 1.56 (39.6) | 1.56 (39.6) | 1       | 5 600 (385)                    | 2 800 (192) | 10 800 (744)          | 7 500 (516)  | 6 500 (447)  |
| 3/4          | -12-SE                | 0.62 (15.7)          | 1.92 (48.8) | 1.67 (42.4) | 1 1/4   | 5 100 (351)                    | 2 500 (172) | 9 800 (675)           | 6 900 (475)  | 5 900 (406)  |
| 1            | -16-SE                | 0.88 (22.4)          | 1.91 (48.5) | 1.94 (49.3) | 1 11/16 | 5 300 (365)                    | 2 600 (179) | 10 000 (689)          | 7 100 (489)  | 6 100 (420)  |

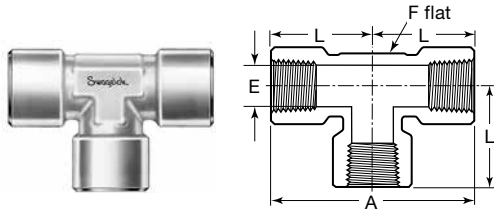
### Reducing Street Elbows



### Female to Male NPT

| Female NPT Size in. | Male NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |       | Pressure Ratings<br>psig (bar) |             |                       |             |             |
|---------------------|-------------------|-----------------------|---------------------|-------------|-------------|-------|--------------------------------|-------------|-----------------------|-------------|-------------|
|                     |                   |                       | E                   | L           | S           | F     | 316 SS, Carbon Steel           | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8                 | 1/16              | -2-RSE-1              | 0.12 (3.0)          | 1.04 (26.4) | 0.87 (22.1) | 1/2   | 6 500 (447)                    | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |
| 1/4                 | 1/8               | -4-RSE-2              | 0.19 (4.8)          | 1.17 (29.7) | 1.00 (25.4) | 11/16 | 7 200 (496)                    | 3 600 (248) | 13 900 (957)          | 9 700 (668) | 8 300 (571) |
| 3/8                 | 1/4               | -6-RSE-4              | 0.28 (7.1)          | 1.42 (36.1) | 1.26 (32.0) | 13/16 | 5 600 (385)                    | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |
| 1/2                 | 1/4               | -8-RSE-4              | 0.28 (7.1)          | 1.56 (39.6) | 1.38 (35.1) | 1     | 5 600 (385)                    | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |
|                     | 3/8               | -8-RSE-6              | 0.38 (9.6)          | 1.56 (39.6) | 1.38 (35.1) | 1     | 5 600 (385)                    | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |

## Tees

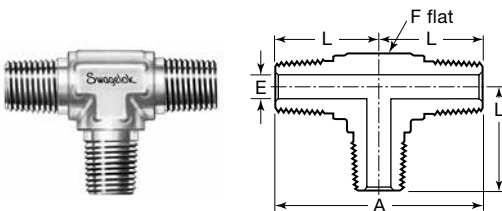


## Female NPT

| NPT Size in.                 | Basic Ordering Number | Dimensions, in. (mm) |             |             |         | Pressure Ratings<br>psig (bar) |             |                          |             |             |
|------------------------------|-----------------------|----------------------|-------------|-------------|---------|--------------------------------|-------------|--------------------------|-------------|-------------|
|                              |                       | A                    | E           | L           | F       | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8                          | -2-T                  | 2.08 (52.8)          | 0.34 (8.6)  | 1.04 (26.4) | 1/2     | 6 500 (447)                    | 3 200 (220) | 12 500 (861)             | 8 800 (606) | 7 500 (516) |
| 1/4                          | -4-T                  | 2.34 (59.4)          | 0.45 (11.4) | 1.17 (29.7) | 11/16   | 7 200 (496)                    | 3 600 (248) | 13 900 (957)             | 9 700 (668) | 8 300 (571) |
| 3/8                          | -6-T                  | 2.84 (72.1)          | 0.59 (15.0) | 1.42 (36.1) | 13/16   | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 1/2                          | -8-T                  | 3.12 (79.2)          | 0.73 (18.5) | 1.56 (39.6) | 1       | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 3/4                          | -12-T                 | 3.84 (97.5)          | 0.94 (23.9) | 1.92 (48.8) | 1 1/4   | 5 100 (351)                    | 2 500 (172) | 9 800 (675)              | 6 900 (475) | 5 900 (406) |
| 1                            | -16-T                 | 3.82 (97.0)          | 1.17 (29.7) | 1.91 (48.5) | 1 11/16 | 6 400 (440)                    | 3 200 (220) | 10 000 (689)             | 8 600 (592) | 7 400 (509) |
| <b>Heavy-Wall Female NPT</b> |                       |                      |             |             |         |                                |             |                          |             |             |
| 1/4                          | SS-4-T-10K            | 3.12 (79.2)          | 0.45 (11.4) | 1.56 (39.6) | 1       | 10 000 (689)                   | —           | —                        | —           | —           |
| 1/2                          | SS-8-T-10K            | 3.94 (100)           | 0.73 (18.5) | 1.97 (50.0) | 1 11/16 | 10 000 (689)                   | —           | —                        | —           | —           |

## Female ISO Tapered Thread (RT)

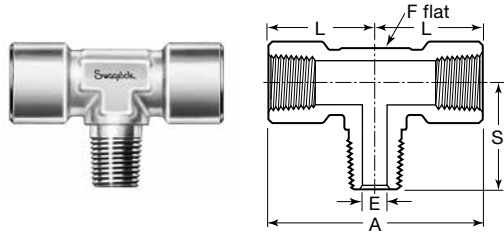
| ISO Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |       | Pressure Ratings<br>psig (bar) |             |                          |             |             |
|---------------------|-----------------------|---------------------|-------------|-------------|-------|--------------------------------|-------------|--------------------------|-------------|-------------|
|                     |                       | A                   | E           | L           | F     | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly      | Alloy 825   |
| 1/4                 | -4-T-RT               | 2.34 (59.4)         | 0.44 (11.2) | 1.17 (29.7) | 11/16 | 7 200 (496)                    | 3 600 (248) | 13 900 (957)             | 9 700 (668) | 8 300 (571) |
| 3/8                 | -6-T-RT               | 2.84 (72.1)         | 0.58 (14.7) | 1.42 (36.1) | 13/16 | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 1/2                 | -8-T-RT               | 3.12 (79.2)         | 0.72 (18.3) | 1.56 (39.6) | 1     | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |



## Male NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |       | Pressure Ratings<br>psig (bar) |             |                          |              |              |
|--------------|-----------------------|----------------------|-------------|-------------|-------|--------------------------------|-------------|--------------------------|--------------|--------------|
|              |                       | A                    | E           | L           | F     | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly       | Alloy 825    |
| 1/8          | -2-MT                 | 1.76 (44.7)          | 0.19 (4.8)  | 0.88 (22.4) | 7/16  | 10 000 (689)                   | 5 000 (344) | 15 000 (1 033)           | 13 500 (930) | 11 600 (799) |
| 1/4          | -4-MT                 | 2.10 (53.3)          | 0.28 (7.1)  | 1.05 (26.7) | 1/2   | 8 000 (551)                    | 4 000 (275) | 15 000 (1 033)           | 10 800 (744) | 9 300 (640)  |
| 3/8          | -6-MT                 | 2.34 (59.4)          | 0.38 (9.6)  | 1.17 (29.7) | 11/16 | 7 800 (537)                    | 3 900 (268) | 15 000 (1 033)           | 10 500 (723) | 9 000 (620)  |
| 1/2          | -8-MT                 | 2.90 (73.7)          | 0.47 (11.9) | 1.45 (36.8) | 13/16 | 7 700 (530)                    | 3 800 (261) | 14 800 (1 019)           | 10 400 (716) | 8 900 (613)  |

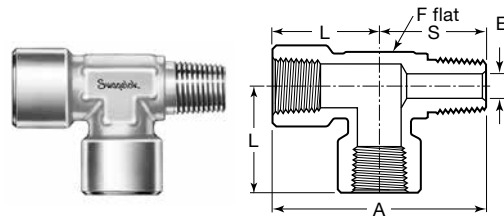
### Branch Tees



### Male and Female NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |             |       | Pressure Ratings psig (bar) |             |                       |             |             |
|--------------|-----------------------|----------------------|-------------|-------------|-------------|-------|-----------------------------|-------------|-----------------------|-------------|-------------|
|              |                       | A                    | E           | L           | S           | F     | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8          | -2-BT                 | 2.08 (52.8)          | 0.19 (4.8)  | 1.04 (26.4) | 0.87 (22.1) | 1/2   | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |
| 1/4          | -4-BT                 | 2.34 (59.4)          | 0.28 (7.1)  | 1.17 (29.7) | 1.17 (29.7) | 11/16 | 7 200 (496)                 | 3 600 (248) | 13 900 (957)          | 9 700 (668) | 8 300 (571) |
| 3/8          | -6-BT                 | 2.84 (72.1)          | 0.38 (9.6)  | 1.42 (36.1) | 1.26 (32.0) | 13/16 | 5 600 (385)                 | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |
| 1/2          | -8-BT                 | 3.12 (79.2)          | 0.47 (11.9) | 1.56 (39.6) | 1.56 (39.6) | 1     | 5 600 (385)                 | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |

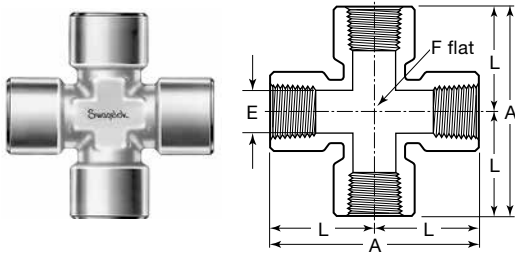
### Street Tees



### Male and Female NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |             |       | Pressure Ratings psig (bar) |             |                       |             |             |
|--------------|-----------------------|----------------------|-------------|-------------|-------------|-------|-----------------------------|-------------|-----------------------|-------------|-------------|
|              |                       | A                    | E           | L           | S           | F     | 316 SS, Carbon Steel        | Brass       | Alloy 2507, Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8          | -2-ST                 | 1.91 (48.5)          | 0.19 (4.8)  | 1.04 (26.4) | 0.87 (22.1) | 1/2   | 6 500 (447)                 | 3 200 (220) | 12 500 (861)          | 8 800 (606) | 7 500 (516) |
| 1/4          | -4-ST                 | 2.34 (59.4)          | 0.28 (7.1)  | 1.17 (29.7) | 1.17 (29.7) | 11/16 | 7 200 (496)                 | 3 600 (248) | 13 900 (957)          | 9 700 (668) | 8 300 (571) |
| 3/8          | -6-ST                 | 2.68 (68.1)          | 0.38 (9.6)  | 1.42 (36.1) | 1.26 (32.0) | 13/16 | 5 600 (385)                 | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |
| 1/2          | -8-ST                 | 3.12 (79.2)          | 0.47 (11.9) | 1.56 (39.6) | 1.56 (39.6) | 1     | 5 600 (385)                 | 2 800 (192) | 10 800 (744)          | 7 500 (516) | 6 500 (447) |
| 3/4          | -12-ST                | 3.59 (91.2)          | 0.62 (15.7) | 1.92 (48.8) | 1.67 (42.4) | 1 1/4 | 5 100 (351)                 | 2 500 (172) | 9 800 (675)           | 6 900 (475) | 5 900 (406) |

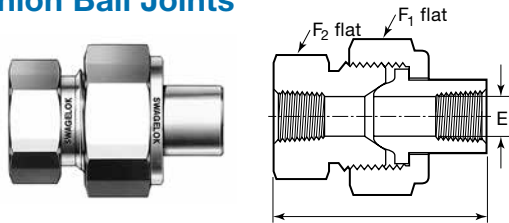
## Crosses



## Female NPT

| NPT Size in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |         | Pressure Ratings<br>psig (bar) |             |                          |             |             |
|--------------|-----------------------|----------------------|-------------|-------------|---------|--------------------------------|-------------|--------------------------|-------------|-------------|
|              |                       | A                    | E           | L           | F       | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly      | Alloy 825   |
| 1/8          | -2-CS                 | 2.08 (52.8)          | 0.34 (8.6)  | 1.04 (26.4) | 1/2     | 6 500 (447)                    | 3 200 (220) | 12 500 (861)             | 8 800 (606) | 7 500 (516) |
| 1/4          | -4-CS                 | 2.34 (59.4)          | 0.45 (11.4) | 1.17 (29.7) | 11/16   | 7 200 (496)                    | 3 600 (248) | 13 900 (957)             | 9 700 (668) | 8 300 (571) |
| 3/8          | -6-CS                 | 2.84 (72.1)          | 0.59 (15.0) | 1.42 (36.1) | 13/16   | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 1/2          | -8-CS                 | 3.12 (79.2)          | 0.73 (18.5) | 1.56 (39.6) | 1       | 5 600 (385)                    | 2 800 (192) | 10 800 (744)             | 7 500 (516) | 6 500 (447) |
| 3/4          | -12-CS                | 3.84 (97.5)          | 0.94 (23.9) | 1.92 (48.8) | 1 1/4   | 5 100 (351)                    | 2 500 (172) | 9 800 (675)              | 6 900 (475) | 5 900 (406) |
| 1            | -16-CS                | 3.82 (97.0)          | 1.17 (29.7) | 1.91 (48.5) | 1 11/16 | 6 400 (440)                    | 3 200 (220) | 10 000 (689)             | 8 600 (592) | 7 400 (509) |

## Union Ball Joints

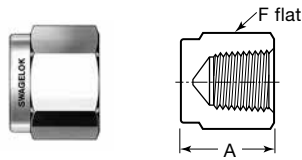


## Female NPT

| NPT Size in. | Basic Ordering Number | Dimensions<br>in. (mm) |             |                |                | Pressure Ratings<br>psig (bar) |             |                          |              |             |
|--------------|-----------------------|------------------------|-------------|----------------|----------------|--------------------------------|-------------|--------------------------|--------------|-------------|
|              |                       | A                      | E           | F <sub>1</sub> | F <sub>2</sub> | 316 SS,<br>Carbon Steel        | Brass       | Alloy 2507,<br>Alloy 625 | 6-Moly       | Alloy 825   |
| 1/8          | -2-UBJ                | 1.81 (46.0)            | 0.27 (6.8)  | 1 1/8          | 15/16          | 8 400 (578)                    | 4 200 (289) | 15 000 (1 033)           | 11 300 (778) | 9 700 (668) |
| 1/4          | -4-UBJ                | 2.34 (59.4)            | 0.36 (9.1)  | 1 3/8          | 1 3/16         | 6 600 (454)                    | 3 300 (227) | 12 700 (875)             | 8 900 (613)  | 7 600 (523) |
| 3/8          | -6-UBJ                | 2.50 (63.5)            | 0.52 (13.2) | 1 1/2          | 1 5/16         | 5 300 (365)                    | 2 600 (179) | 10 200 (702)             | 7 100 (489)  | 6 100 (420) |
| 1/2          | -8-UBJ                | 2.69 (68.3)            | 0.62 (15.7) | 1 3/4          | 1 5/8          | 6 000 (413)                    | 3 000 (206) | 11 600 (799)             | 8 100 (558)  | 6 900 (475) |
| 3/4          | -12-UBJ               | 3.12 (79.2)            | 0.88 (22.4) | 2 1/8          | 1 7/8          | 4 600 (316)                    | 2 300 (158) | 8 900 (613)              | 6 200 (427)  | 5 300 (365) |
| 1            | -16-UBJ               | 3.56 (90.4)            | 1.03 (26.2) | 2 1/2          | 2 3/8          | 6 800 (468)                    | 3 400 (234) | 10 000 (689)             | 9 200 (633)  | 7 900 (544) |

Union ball joint nuts are silver plated. A lubricant is utilized for assembly.

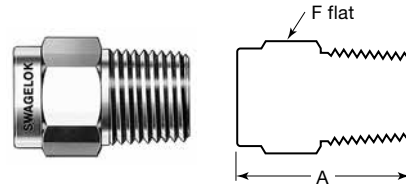
### Pipe Caps



#### Female NPT

| NPT Size in.          | Basic Ordering Number | Dimensions in. (mm) |        |
|-----------------------|-----------------------|---------------------|--------|
|                       |                       | A                   | F      |
| 1/8                   | -2-CP                 | 0.75 (19.1)         | 9/16   |
| 1/4                   | -4-CP                 | 0.91 (23.1)         | 3/4    |
| 3/8                   | -6-CP                 | 1.03 (26.2)         | 7/8    |
| 1/2                   | -8-CP                 | 1.34 (34.0)         | 1 1/16 |
| 3/4                   | -12-CP                | 1.44 (36.6)         | 1 5/16 |
| 1                     | -16-CP                | 1.62 (41.1)         | 1 5/8  |
| Heavy-Wall Female NPT |                       |                     |        |
| 1/4                   | SS-4-CP-10K           | 1.11 (28.2)         | 1      |
| 1/2                   | SS-8-CP-10K           | 1.58 (40.1)         | 1 1/2  |

### Pipe Plugs

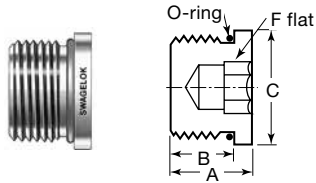


#### Male NPT

| NPT Size in. | Basic Ordering Number | Dimensions in. (mm) |        |
|--------------|-----------------------|---------------------|--------|
|              |                       | A                   | F      |
| 1/16         | -1-P                  | 0.75 (19.1)         | 5/16   |
| 1/8          | -2-P                  | 0.75 (19.1)         | 7/16   |
| 1/4          | -4-P                  | 0.96 (24.4)         | 9/16   |
| 3/8          | -6-P                  | 0.99 (25.1)         | 11/16  |
| 1/2          | -8-P                  | 1.21 (30.7)         | 7/8    |
| 3/4          | -12-P                 | 1.21 (30.7)         | 1 1/16 |
| 1            | -16-P                 | 1.50 (38.1)         | 1 3/8  |

For pipe plugs with male ISO/BSP parallel threads (RS), contact your authorized Swagelok representative.

### Hollow Hex Plugs



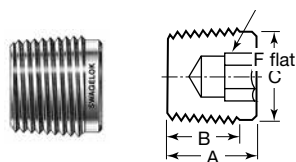
#### Male SAE/MS Straight Thread (ST)

| SAE/MS Thread Size in. | Basic Ordering Number | Dimensions in. (mm) |             |             |      | Uniform O-Ring <sup>①</sup> Size |
|------------------------|-----------------------|---------------------|-------------|-------------|------|----------------------------------|
|                        |                       | A                   | B           | C           | F    |                                  |
| 7/16-20                | -4-HPST               | 0.45 (11.4)         | 0.36 (9.1)  | 0.56 (14.2) | 3/16 | -904                             |
| 9/16-18                | -6-HPST               | 0.48 (12.2)         | 0.39 (9.9)  | 0.69 (17.5) | 1/4  | -906                             |
| 3/4-16                 | -8-HPST               | 0.56 (14.2)         | 0.44 (11.2) | 0.88 (22.4) | 5/16 | -908                             |
| 1 1/16-12              | -12-HPST              | 0.75 (19.1)         | 0.59 (15.0) | 1.25 (31.8) | 9/16 | -912                             |
| 1 5/16-12              | -16-HPST              | 0.75 (19.1)         | 0.59 (15.0) | 1.50 (38.1) | 5/8  | -916                             |

① O-ring material is 90 durometer fluorocarbon FKM.



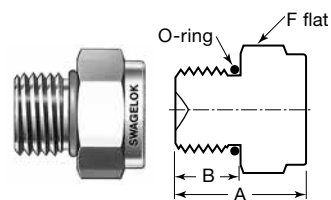
## Hollow Hex Plugs



### Male NPT

| NPT Size<br>in. | Basic Ordering Number | Dimensions, in. (mm) |             |             |      |
|-----------------|-----------------------|----------------------|-------------|-------------|------|
|                 |                       | A                    | B           | C           | F    |
| 1/8             | SS-2-HP               | 0.41 (10.4)          | 0.30 (7.6)  | 0.37 (9.4)  | 3/16 |
| 1/4             | SS-4-HP               | 0.61 (15.5)          | 0.49 (12.4) | 0.48 (12.1) | 1/4  |
| 3/8             | SS-6-HP               | 0.59 (15.0)          | 0.47 (11.9) | 0.62 (15.7) | 5/16 |
| 1/2             | SS-8-HP               | 0.76 (19.3)          | 0.64 (16.2) | 0.76 (19.3) | 3/8  |

## Hex Head Plugs



### Male SAE/MS Straight Thread (ST)

| SAE/MS Thread Size<br>in. | Basic Ordering Number | Dimensions<br>in. (mm) |             |       | Uniform O-Ring Size <sup>①</sup> |
|---------------------------|-----------------------|------------------------|-------------|-------|----------------------------------|
|                           |                       | A                      | B           | F     |                                  |
| 7/16-20                   | -4-PST                | 0.76 (19.3)            | 0.36 (9.1)  | 9/16  | -904                             |
| 9/16-18                   | -6-PST                | 0.82 (20.8)            | 0.39 (9.9)  | 11/16 | -906                             |
| 3/4-16                    | -8-PST                | 0.89 (22.6)            | 0.44 (11.2) | 7/8   | -908                             |
| 1 1/16-12                 | -12-PST               | 1.12 (28.4)            | 0.59 (15.0) | 1 1/4 | -912                             |
| 1 5/16-12                 | -16-PST               | 1.18 (30.0)            | 0.59 (15.0) | 1 1/2 | -916                             |

① O-ring material is 90 durometer fluorocarbon FKM.

## Introduction

Since 1947, Swagelok has designed, developed, and manufactured high-quality, general-purpose and specialty fluid system products to meet the evolving needs of global industries. Our focus is on understanding our customers' needs, finding timely solutions, and adding value with our products and services.

We are pleased to provide this global edition of the book-bound *Swagelok Product Catalog*, which compiles more than 100 separate product catalogs, technical bulletins, and reference documents into one convenient, easy-to-use volume. Each product catalog is up to date at the time of printing, with its revision number shown on the last page of the individual catalog. Subsequent revisions will supersede the printed version and will be posted on the Swagelok website and in the Swagelok electronic Desktop Technical Reference (eDTR) tool.

For more information, visit your Swagelok website or contact your authorized Swagelok sales and service representative.

## Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit [swagelok.com](http://swagelok.com) or contact your authorized Swagelok representative.

### Safe Product Selection

**When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.**

### WARNING

**Do not mix/interchange Swagelok products or components not governed by industrial design standards, including Swagelok tube fitting end connections, with those of other manufacturers.**

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