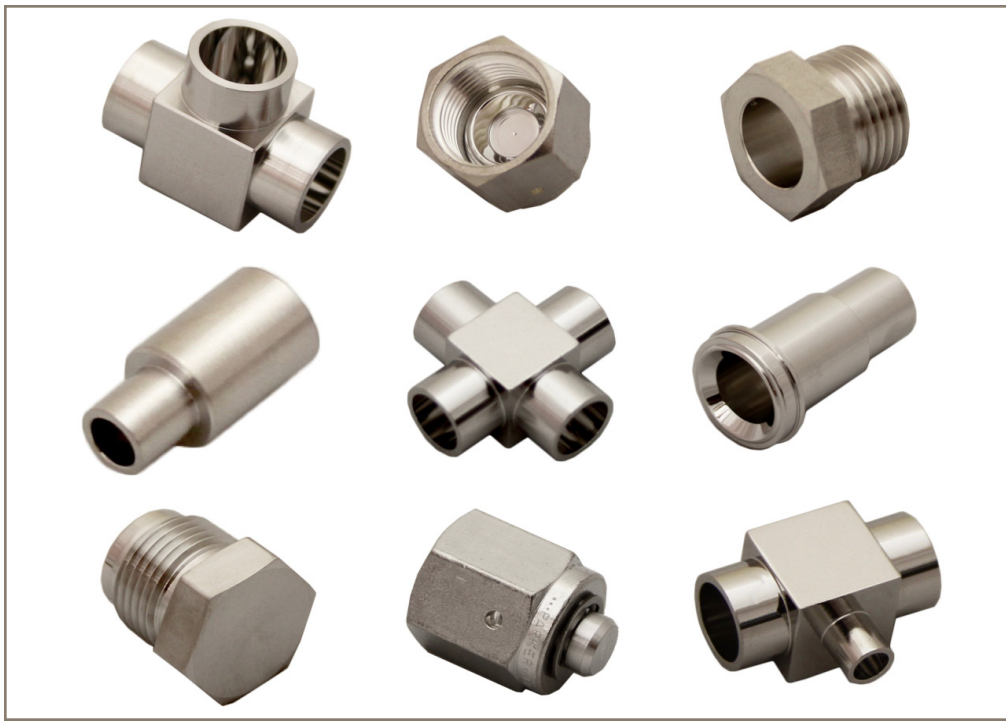
# Fittings

Metal Face Seal and Weld Fittings

## Fittings designed for ultra-high purity conditions for critical applications

These UHP fittings are designed for critical applications where ultra-high pure conditions are required.

The weld fittings provide compact designs for use with orbital weld equipment and the metal face seal fittings provide a high integrity metal-to-metal seal for reliable service from vacuum to positive pressure.



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## Product Features:

- Ultra-High Purity cleaning, assembly, and packaging in a Class 100 Clean Room environment for all wetted components.
- Material traceability to original mill certificate.
- Semi F20 compliant material for all face seal glands and weld fittings.
- Metal face seal fittings are rated to $1x10^{-9}$ scc/sec He inboard when installed
- Tube butt weld ends are square and sharp
- For use with orbital welding equipment.
- Highly controlled internal wetted surfaces.

ENGINEERING YOUR SUCCESS.

# Metal Face Seal and Weld Fittings

## Index

# Metal Face Seal and Weld Fittings

## Index

# Metal Face Seal Fittings

## Introduction

Parker metal face seal fittings are designed for critical applications where ultra-high pure conditions are required. The mating gasket and toroid design provide a high integrity metal-to-metal seal for reliable service from vacuum to positive pressure.

## Specifications

- Pressure ratings comply with calculations per ANSI Code for Pressure Piping B31.3 using 20 ksi allowable stress factor for 316 at ambient temperature (72°F)
- Dimensions are for reference only and are subject to change.
- Female Nut load bearing surfaces are Silver plated with a protective coating. Avoid aggressive chemical processes used for cleaning, electropolishing and passivation that will remove plating. Removal or damage to plating will cause threads to gall, damaging fitting components and preventing a proper seal.
- Leakage: Metal face seal products are rated to a Helium inboard leak rate of 1 X $10^{-9}$ STD cc/sec.
- Standard finish metal face seal fittings have an internal surface roughness average of 10 µin. (0.25µm) Ra. PE finished fittings have an internal surface roughness average of 5 µin. (0.13µm) Ra.
- Ultra high purity cleaning, assembly, and packaging in a Class 100 clean room environment is standard for all wetted components.

## Features

- **Compact Design** allows for system miniaturization and close coupled spacing.
- **Material traceability** via permanently marked heat codes on each wetted component.
- **Permanent product designation** identifies manufacturer, material and internal finish when applicable.
- **Enhanced female nut silver plating** promotes consistent easy assembly.
- **Controlled wetted surfaces** meet stringent ultra high purity system requirements by preventing outgassing and inhibiting corrosion.
- **Patented Torqtite™ gasket** promotes sealing of damaged toroids and virtually eliminates assembly loosening due to vibration or thermo-cycling.

## Materials

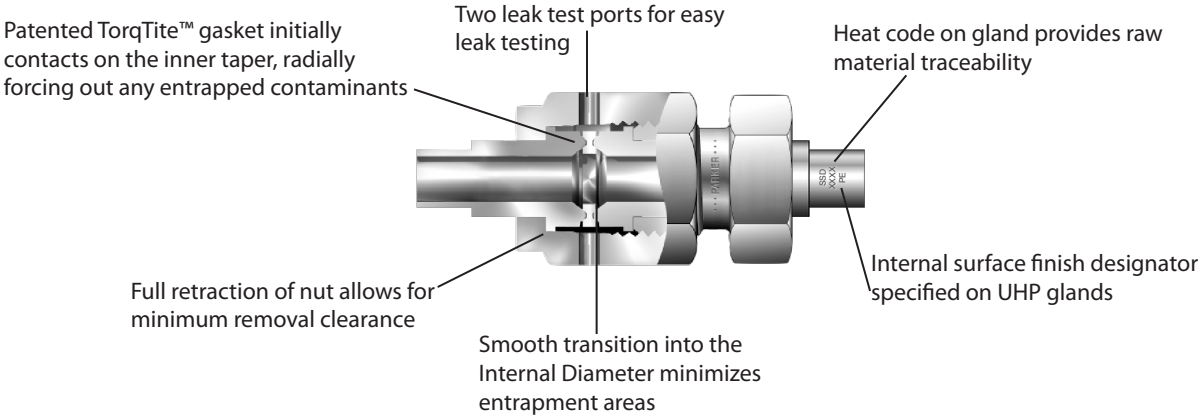
### Typical Raw Material Specifications

| Fitting Material | Designator | Bar Stock | Recommended Tubing Specifications |
|---|---|---|---|
| Stainless Steel 316 | SS | ASTM A276, ASME SA479 | ASME SA213, ASTM A213, ASTM A249 |
| Stainless Steel 316L | SSS | Semi F20-0706 ASTM A276, ASME SA479 | ASME SA213, ASTM A213, ASTM A249 |
| Stainless Steel 316L, double melt | SSD | Semi F20-0706 ASTM A276, ASME SA479 | ASTM A269, MIL T8504, MIL T8506 |

### Gaskets Typical Raw Material Specifications

| MATERIAL SPECIFICATIONS | |
|---|---|
| Nickel | ASTM B162 (unplated) |
| Stainless Steel | ASTM A167 (Silver plated) |

*Material is marked with heat code to ensure raw material traceability.

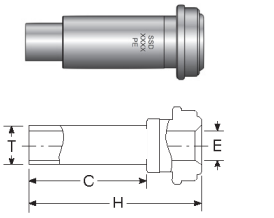


# Metal Face Seal Fittings

## Glands

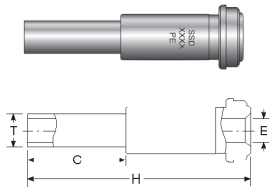
### Female Gland

| Face Seal Size | T Tube O.D. | Ordering Number | C | | E | | H | | Normal Wall Thickness | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | | psi | bar |
| 1/4 | 1/4 | □ - 4FG-25 | 0.25 | 6.3 | 0.18 | 4.6 | 0.60 | 15.2 | 0.035 | 5100 | 350 |
| 1/4 | 1/4 | □ - 4FG-38 | 0.38 | 9.7 | 0.18 | 4.6 | 0.72 | 18.3 | 0.035 | 5100 | 350 |
| 1/4 | 1/4 | □ - 4FG-75 | 0.75 | 19.0 | 0.18 | 4.6 | 1.10 | 27.9 | 0.035 | 5100 | 350 |
| 1/2 | 1/4 | □ - 84FG-75 | 0.75 | 19.0 | 0.18 | 4.6 | 1.12 | 28.4 | 0.035 | 3500 | 240 |
| 1/2 | 3/8 | □ - 86FG-25 | 0.25 | 6.3 | 0.30 | 7.9 | 0.63 | 15.7 | 0.035 | 3300 | 220 |
| 1/2 | 3/8 | □ - 86FG-75 | 0.75 | 19.0 | 0.30 | 7.9 | 1.12 | 28.4 | 0.035 | 3300 | 220 |
| 1/2 | 1/2 | □ - 8FG-25 | 0.25 | 6.3 | 0.40 | 10.2 | 0.63 | 15.7 | 0.049 | 3500 | 240 |
| 1/2 | 1/2 | □ - 8FG-38 | 0.38 | 9.7 | 0.40 | 10.2 | 0.74 | 18.8 | 0.049 | 3500 | 240 |
| 1/2 | 1/2 | □ - 8FG-75 | 0.75 | 19.0 | 0.40 | 10.2 | 1.12 | 28.4 | 0.049 | 3500 | 240 |



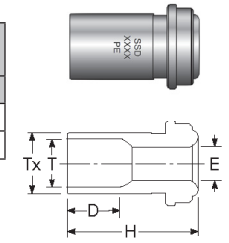

### Male Gland

| Face Seal Size | T Tube O.D. | Ordering Number | C | | E | | H | | Normal Wall Thickness | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | | psi | bar |
| 1/4 | 1/4 | □ - 4MG-25 | 0.25 | 6.3 | 0.18 | 4.6 | 1.20 | 30.5 | 0.035 | 5100 | 350 |
| 1/4 | 1/4 | □ - 4MG-38 | 0.38 | 9.7 | 0.18 | 4.6 | 1.32 | 33.5 | 0.035 | 5100 | 350 |
| 1/4 | 1/4 | □ - 4MG-75 | 0.75 | 19.0 | 0.18 | 4.6 | 1.70 | 43.2 | 0.035 | 5100 | 350 |
| 1/2 | 1/4 | □ - 84MG-75 | 0.75 | 19.0 | 0.18 | 4.6 | 1.79 | 45.7 | 0.035 | 3500 | 240 |
| 1/2 | 3/8 | □ - 86MG-25 | 0.25 | 6.3 | 0.30 | 7.9 | 1.29 | 32.8 | 0.035 | 3300 | 220 |
| 1/2 | 3/8 | □ - 86MG-75 | 0.75 | 19.0 | 0.30 | 7.9 | 1.79 | 45.5 | 0.035 | 3300 | 220 |
| 1/2 | 1/2 | □ - 8MG-25 | 0.25 | 6.3 | 0.40 | 10.2 | 1.29 | 32.8 | 0.049 | 3500 | 240 |
| 1/2 | 1/2 | □ - 8MG-38 | 0.38 | 9.7 | 0.40 | 10.2 | 1.41 | 35.8 | 0.049 | 3500 | 240 |
| 1/2 | 1/2 | □ - 8MG-75 | 0.75 | 19.0 | 0.40 | 10.2 | 1.79 | 45.5 | 0.049 | 3500 | 240 |
| 3/4 | 3/4 | □ - 12MG-75 | 0.75 | 19.0 | 0.65 | 16.5 | 2.03 | 51.6 | 0.049 | 2400 | 160 |
| 1 | 1 | □ - 16MG-75 | 0.75 | 19.0 | 0.87 | 22.1 | 2.32 | 58.9 | 0.065 | 2400 | 160 |



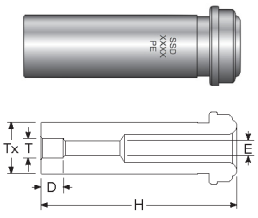

### Short Socket Weld

| Face Seal Size | T Tube Socket | Ordering Number | D | | E | | H | | Tx | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 1/4 | SSS - 4SSW-.50 | 0.28 | 7.1 | 0.19 | 4.8 | 0.50 | 12.7 | 0.35 | 8.9 | 5500 | 370 |
| 1/4 | 1/4 | SSS - 4SSW-.75 | 0.28 | 7.1 | 0.19 | 4.8 | 0.75 | 19.0 | 0.35 | 8.9 | 5500 | 370 |



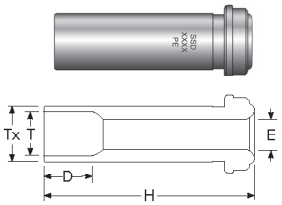

### Reducing Socket Weld

| Face Seal Size | T Tube Socket | Ordering Number | D | | E | | H | | Tx | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 1/8 | SSS - 42RSW | 0.16 | 4.1 | 0.09 | 2.3 | 1.31 | 33.3 | 0.35 | 8.9 | 8000 | 550 |
| 1/2 | 1/4 | SSS - 84RSW | 0.25 | 6.3 | 0.19 | 4.8 | 1.50 | 38.1 | 0.60 | 15.2 | 3500 | 240 |




### Socket Weld

| Face Seal Size | T Tube Socket | Ordering Number | D | | E | | H | | Tx | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 1/4 | SSS - 4SW | 0.28 | 7.1 | 0.19 | 4.6 | 1.31 | 33.3 | 0.35 | 8.9 | 5500 | 370 |
| 1/2 | 3/8 | SSS - 86SW | 0.31 | 7.9 | 0.28 | 7.1 | 1.50 | 38.1 | 0.60 | 15.2 | 3500 | 240 |
| 1/2 | 1/2 | SSS - 8SW | 0.38 | 9.7 | 0.41 | 10.2 | 1.50 | 38.1 | 0.60 | 15.2 | 3000 | 200 |
| 3/4 | 3/4 | SSS - 12SW | 0.44 | 11.2 | 0.62 | 15.7 | 2.00 | 50.8 | 0.88 | 22.4 | 2800 | 190 |
| 1 | 1 | SSS - 16SW | 0.62 | 15.7 | 0.87 | 22.1 | 2.22 | 56.4 | 1.19 | 30.2 | 2400 | 160 |

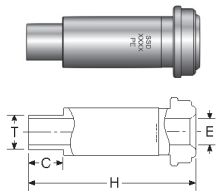


# Metal Face Seal Fittings

## Glands

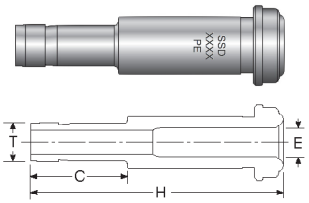
### Male Weld

| Face Seal Size | T Tube O.D. | Ordering Number | C | | E | | H | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 1/4 | SSS - 4MW | 0.41 | 10.4 | 0.12 | 3.0 | 1.31 | 33.3 | 8000 | 550 |
| 1/2 | 1/4 | SSS - 84MW | 0.41 | 10.4 | 0.12 | 3.0 | 1.50 | 38.1 | 3500 | 240 |
| 1/2 | 3/8 | SSS - 86MW | 0.41 | 10.4 | 0.28 | 7.1 | 1.50 | 38.1 | 3500 | 240 |
| 1/2 | 1/2 | SSS - 8MW | 0.50 | 12.7 | 0.40 | 10.2 | 1.50 | 38.1 | 3500 | 240 |
| 3/4 | 3/4 | SSS - 12MW | 0.62 | 15.7 | 0.53 | 13.5 | 2.00 | 50.8 | 3000 | 200 |
| 1 | 1 | SSS - 16MW | 0.81 | 20.6 | 0.75 | 19.0 | 2.22 | 56.4 | 2400 | 160 |



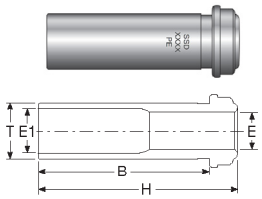

### Tube Adapter Gland (A-LOK®)

| Face Seal Size | T Tube O.D. | Ordering Number | C | | E | | H | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 1/4 | SSS - 4TAG | 0.63 | 15.7 | 0.19 | 4.1 | 1.63 | 41.1 | 8000 | 550 |
| 1/2 | 3/8 | SSS - 86TAG | 0.70 | 17.5 | 0.28 | 7.1 | 1.81 | 46.0 | 3500 | 240 |
| 1/2 | 1/2 | SSS - 8TAG | 0.93 | 23.1 | 0.39 | 9.9 | 1.78 | 45.2 | 3500 | 240 |




### Female Gland, Hi-Flo

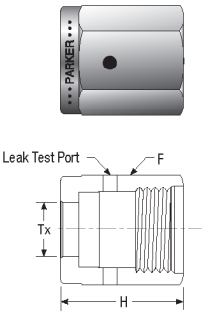
| Face Seal Size | T Tube O.D. | Ordering Number | B | | E | | E1 | | H | | Working Pressure | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm | psig | bar |
| 1/4 | 3/8 | □ - 46HFG-.60 | 0.41 | 10.4 | 0.25 | 6.4 | 0.30 | 7.6 | 0.60 | 15.2 | 3300 | 220 |
| 1/4 | 3/8 | □ - 46HFG-1.19 | 1.00 | 25.4 | 0.25 | 6.4 | 0.30 | 7.6 | 1.19 | 30.2 | 3300 | 220 |
| 1/4 | 3/8 | □ - 46HFG-1.31 | 1.12 | 28.4 | 0.25 | 6.4 | 0.30 | 7.6 | 1.31 | 33.3 | 3300 | 220 |




## Nuts, Caps, and Plugs

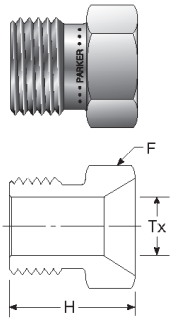
### Female Nut

| Ordering Number | Size | F Hex Flat | H | | Tx | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| SS - 4FN | 1/4 | 3/4 | 0.82 | 20.8 | 0.36 | 9.1 |
| SS - 8FN | 1/2 | 1 1/16 | 0.88 | 22.4 | 0.61 | 15.5 |
| SS - 12FN | 3/4 | 1 1/2 | 1.12 | 28.4 | 0.89 | 22.6 |
| SS - 16FN | 1 | 1 3/4 | 1.34 | 34.0 | 1.20 | 30.5 |




### Male Nut

| Ordering Number | Size | F Hex Flat | H | | Tx | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| SS - 4MN | 1/4 | 5/8 | 0.72 | 18.3 | 0.36 | 9.1 |
| SS - 8MN | 1/2 | 15/16 | 0.81 | 20.6 | 0.61 | 15.5 |
| SS -12MN | 3/4 | 1 5/16 | 1.00 | 25.4 | 0.89 | 22.6 |
| SS - 16MN | 1 | 1 5/8 | 1.19 | 30.2 | 1.20 | 30.5 |

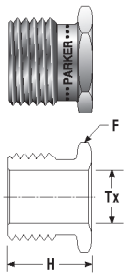


# Metal Face Seal Fittings

## Nuts, Caps, and Plugs

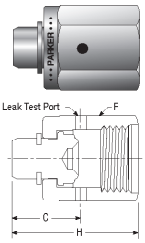
### Short Male Nut

| Ordering Number | Size | F Hex Flat | H | | Tx | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| SS - 4SMN-.54 | 1/4 | 5/8 | 0.54 | 13.7 | 0.36 | 9.1 |



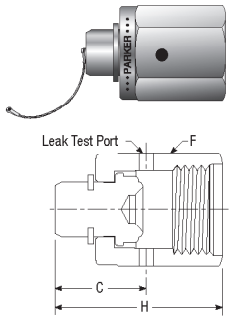

### Female Cap

| Ordering Number | Size | C | | F Hex Flat | H | |
|---|---|---|---|---|---|---|
| | | in. | mm | | in. | mm |
| SS - 4FCP | 1/4 | 0.59 | 15.0 | 3/4 | 1.09 | 27.7 |
| SS - 8FCP | 1/2 | 0.59 | 15.0 | 1 1/16 | 1.16 | 29.5 |
| SS - 12FCP | 3/4 | 0.68 | 16.8 | 1 1/2 | 1.41 | 35.8 |
| SS - 16FCP | 1 | 0.66 | 16.0 | 1 3/4 | 1.55 | 39.4 |



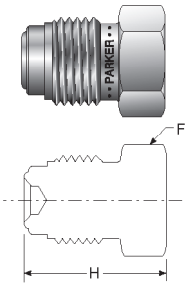

### Female Cap (Lanyard)

| Ordering Number | Size | C | | F Hex Flat | H | | Lanyard Length | |
|---|---|---|---|---|---|---|---|---|
| | | in. | mm | | in. | mm | in. | mm |
| SS - 4FCPL | 1/4 | 0.59 | 15.0 | 3/4 | 1.09 | 27.7 | 6 | 152.4 |
| SS - 8FCPL | 1/2 | 0.59 | 15.0 | 1 1/16 | 1.16 | 29.5 | 6 | 152.4 |



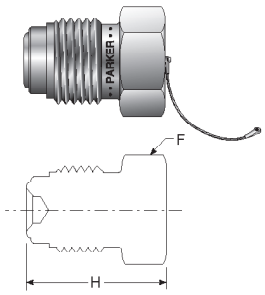

### Male Plug

| Ordering Number | Size | F Hex Flat | H | |
|---|---|---|---|---|
| | | | in. | mm |
| SS - 4MPG | 1/4 | 5/8 | 0.91 | 23.1 |
| SS - 8MPG | 1/2 | 15/16 | 1.08 | 27.4 |
| SS - 12MPG | 3/4 | 1 5/16 | 1.43 | 36.3 |
| SS - 16MPG | 1 | 1 5/8 | 1.52 | 38.6 |




### Male Plug (Lanyard)

| Ordering Number | Size | F Hex Flat | H | | Lanyard Length | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| SS - 4MPGL | 1/4 | 5/8 | 0.91 | 23.1 | 6 | 152.4 |
| SS - 4MPGL | 1/2 | 15/16 | 1.08 | 27.4 | 6 | 152.4 |

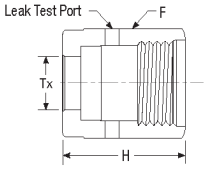


# Metal Face Seal Fittings

## Nuts, Caps, and Plugs

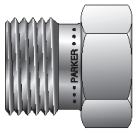
### Female Nut, Hi-Flo

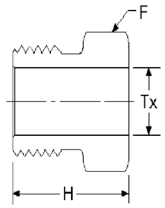
| Size | Ordering Number | F Hex Flat | H | | Tx | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| 3/8 | SS - 4HFN | 3/4 | 0.82 | 20.8 | 0.39 | 9.9 |


### Male Nut, Hi-Flo

| Size | Ordering Number | F Hex Flat | H | | Tx | |
|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm |
| 3/8 | SS - 4HMN | 5/8 | 0.72 | 18.3 | 0.39 | 9.9 |

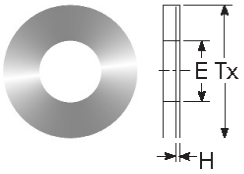


# Gaskets

### Non-Retained Flat Style

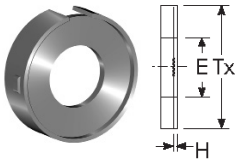
| Size | Ordering Number | E | | H | | Tx | |
|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm |
| 1/4 | 4 VG-* | 0.22 | 5.5 | 0.03 | 0.8 | 0.47 | 11.9 |
| 1/2 | 8 VG-* | 0.44 | 11.1 | 0.03 | 0.8 | 0.78 | 19.9 |
| 3/4 | 12 VG-* | 0.66 | 16.8 | 0.03 | 0.8 | 1.14 | 28.9 |
| 1 | 16 VG-* | 0.89 | 22.7 | 0.03 | 0.8 | 1.41 | 35.7 |




### Retained Flat Style

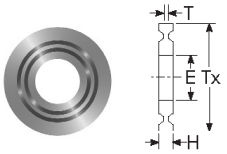
Retainer and gasket must be used as an assembly.
Note: Nickel Retained Flat Style Gaskets utilize a Stainless Steel Retainer

| Size | Ordering Number | E | | H | | Tx | |
|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm |
| 1/4 | 4 VGR-* | 0.23 | 5.8 | 0.03 | 0.8 | 0.50 | 12.7 |
| 1/2 | 8 VGR-* | 0.44 | 11.2 | 0.03 | 0.8 | 0.79 | 20.1 |



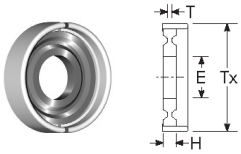

### Non-Retained Grooved Style (TorqTite™ Gasket)

| Size | Ordering Number | E | | H | | Tx | | T | |
|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm | in. | mm |
| 1/4 | 4 GVG-* | 0.21 | 5.3 | 0.06 | 1.6 | 0.50 | 12.6 | 0.03 | 0.8 |
| 1/2 | 8 GVG-* | 0.43 | 10.9 | 0.06 | 1.6 | 0.78 | 19.8 | 0.03 | 0.8 |



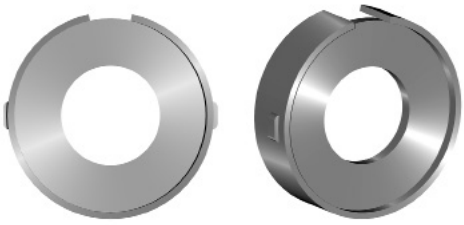

### Retained Grooved Style (Retained TorqTite™ Gasket)

| Size | Ordering Number | E | | H | | Tx | | T | |
|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm | in. | mm |
| 1/4 | 4 GVGR-* | 0.21 | 1.3 | 0.06 | 1.6 | 0.49 | 12.4 | 0.03 | 0.8 |
| 1/2 | 8 GVGR-* | 0.43 | 2.7 | 0.06 | 1.6 | 0.79 | 20.1 | 0.03 | 0.8 |




The retainer of Parker's patented Retained Flat Gasket helps to both locate the gasket over the toroid of the gland and hold the gasket in place during assembly, therefore minimizing radial damage to the toroids of the connection.

The unique design of the retainer minimizes potential scratches or nicks to the critical toroid surfaces during placement onto the gland.



## Ordering Information

Specify gasket material by replacing asterisk with appropriate Ordering Number Designator.

| Material | Ordering Number Designator | Example |
|---|---|---|
| High-Purity Nickel (electropolished) | N | 4 VGR-N |
| Stainless Steel[3] | SS | 4 VGR-SS |
| Teflon®[1,2] | T | 4 VG-T |

Blind (undrilled) gaskets are available by adding a -BL suffix at the end of the part number.
Example: 4 VG-N-BL

1 Parker uses Teflon® or equal PTFE Polymer
2 Teflon® is only available for Non-Retained Flat Style gaskets
3 Stainless Steel gaskets are Silver plated

Note: All gaskets must be ordered in increments of 10
Teflon® is a registered trademark of Dupont Company

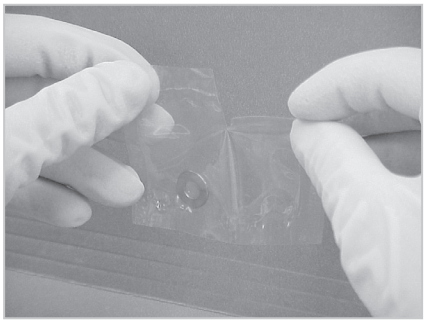
# Metal Face Seal Fittings

## Makeup Information

### Flat and Grooved Gasket Assembly

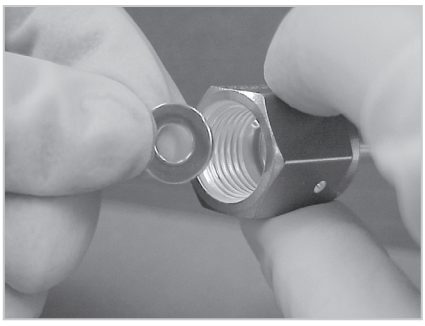
Step 1

Remove gasket from packaging.



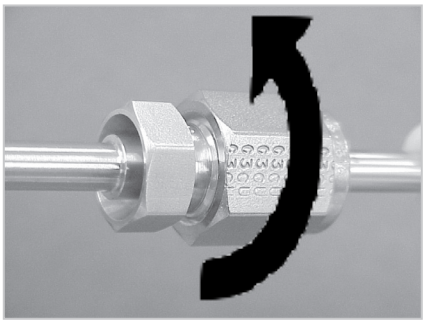
Step 2

Place gasket into female nut.



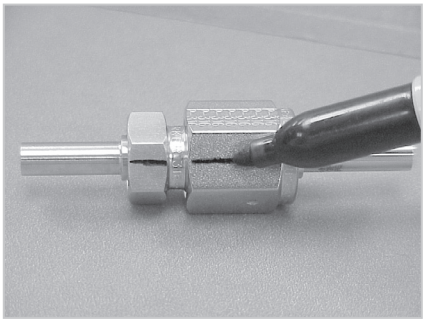
Step 3

Assemble components and snug to fingertight.



Step 4

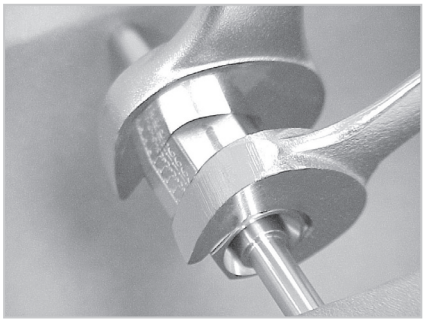
Scribe the hex flat of both the male and female nuts.



Step 5

Holding the backup wrench stationary, tighten the female nut 1/8 turn past fingertight.

Warning: Extreme over tightening will damage toroid surface and cause potential leakage.



### Flat Gasket Remake

Upon remake of flat metal face seal gasket, a new gasket must be installed for each remake, follow procedures for initial make-up.

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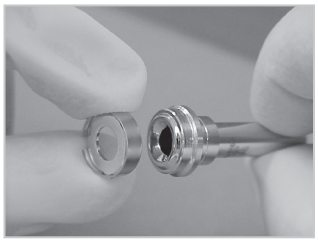
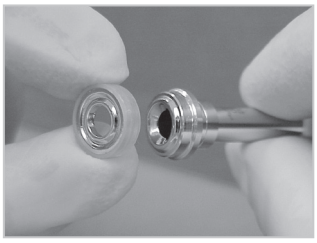




### Retained Gaskets Assembly

Guide retained gaskets over gland face, then continue step 3 of Flat and Grooved Gasket Assembly for completion of make-up.

# Weld Fittings

## Introduction

Parker weld fittings are designed where ultra-high pure applications are required. Optimized for orbital welding equipment, the compact sizes provides service and flow performance equal to larger weld fittings.

## Specifications

- Pressure Ratings will be governed by the tubing selected for a particular application. Working pressures are calculated below for tubing using 20 ksi allowable stress factor for 316 in accordance with ASME/ANSI B31.3 at ambient temperature (72°F).

| Tube O.D. | Pressure Rating | | Normal Wall Thickness |
|---|---|---|---|
| | psig | bar | |
| 1/8 in. | 8500 | 580 | .028 in. |
| 1/4 in. | 5100 | 350 | .035 in. |
| 3/8 in. | 3300 | 220 | .035 in. |
| 1/2 in. | 3500 | 240 | .049 in. |
| 3/4 in. | 2400 | 160 | .049 in. |

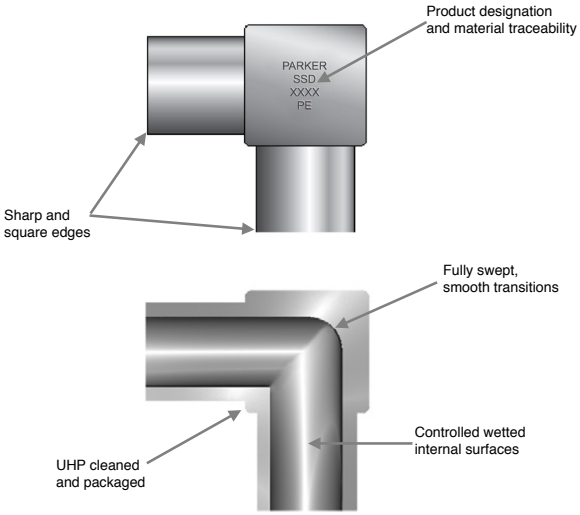
- Dimensions are for reference only and are subject to change.
- Standard finish weld fittings have an internal surface roughness average of 10 µin. (0.25µm) Ra. PE finished fittings have an internal surface roughness average of 5 µin. (0.13µm) Ra.
- Ultra high purity cleaning and packaging in a Class 100 clean room environment is standard for all wetted components.

## Materials

| Material | Designator | Applicable Secifications |
|---|---|---|
| Stainless Steel 316L | SSS | Semi F20-0706<br>ASME SA479, ASTM A276 |
| Stainless Steel 316L, double melt | SSD | Semi F20-0706<br>ASME SA479, ASTM A276 |

## Features

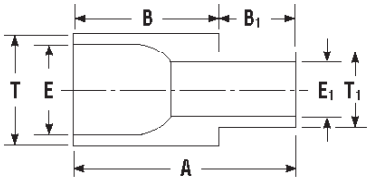
- **Compact Design** allows for system miniaturization and close coupled spacing.
- **Material traceability** via permanently marked heat codes on each wetted component.
- **Permanent product designation** identifies manufacturer, material and internal finish when applicable.
- **Sharp and square tube ends** improves alignment and weld repeatability.
- **Smooth, radiused junctions** promote better flow transition, reduces turbulent flow, and reduces possible entrapment sites.
- **Controlled wetted surfaces** meet stringent ultra high purity system requirements by preventing outgassing and inhibiting corrosion.



# Weld Fittings

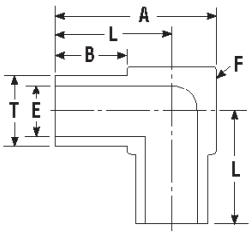
## Reducing Union

| T Tube O.D. | $T_1$ Tube O.D. | Part Number | A | | B | | $B_1$ | | E | | $E_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm. | in. | mm. |
| 1/4 | 1/8 | □ - 42RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.18 | 4.6 | 0.07 | 1.8 |
| 3/8 | 1/4 | □ - 64RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.30 | 7.7 | 0.18 | 4.6 |
| 1/2 | 1/4 | □ - 84RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.40 | 10.2 | 0.18 | 4.6 |
| 1/2 | 3/8 | □ - 86RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.40 | 10.2 | 0.30 | 7.7 |
| 3/4 | 1/4 | □ - 124RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.65 | 16.6 | 0.18 | 4.6 |
| 3/4 | 3/8 | □ - 126RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.65 | 16.6 | 0.30 | 7.7 |
| 3/4 | 1/2 | □ - 128RU | 0.75 | 19.1 | 0.50 | 12.7 | 0.25 | 6.4 | 0.65 | 16.6 | 0.40 | 10.2 |

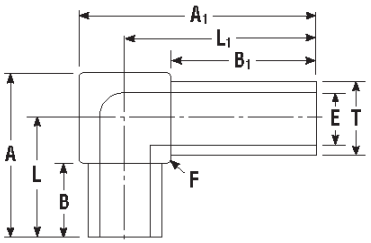

## Union Elbow

| T Tube O.D. | Part Number | A | | B | | E | | F Body Cube | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm. | | in. | mm. |
| 1/4 | □ - 4UE | 0.56 | 14.2 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 |
| 3/8 | □ - 6UE | 0.69 | 17.5 | 0.25 | 6.4 | 0.30 | 7.7 | 7/16 | 0.47 | 11.9 |
| 1/2 | □ - 8UE | 0.81 | 20.6 | 0.25 | 6.4 | 0.40 | 10.2 | 9/16 | 0.53 | 13.5 |
| 3/4 | □ - 12UE | 1.06 | 27.0 | 0.25 | 6.4 | 0.65 | 16.6 | 13/16 | 0.66 | 16.7 |


## Extended Union Elbow

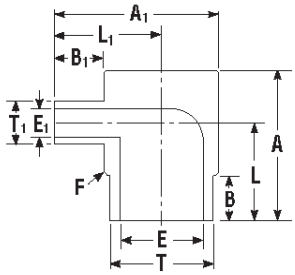
| T Tube O.D. | Part Number | A | | $A_1$ | | B | | $B_1$ | | E | | F Body Cube | L | | $L_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm. | | in. | mm | in. | mm. |
| 1/4 | □ - 4EUE-4161 | 0.56 | 14.2 | 0.76 | 19.3 | 0.25 | 6.4 | .45 | 0.5 | 0.18 | 4.6 | 5/16 | 0.41 | 10.41 | 0.61 | 15.5 |

# Weld Fittings

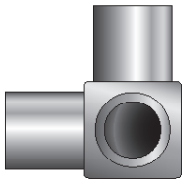
## Reducing Elbow

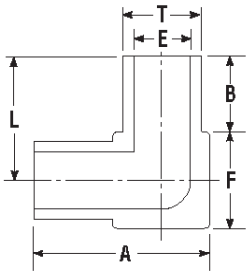
| T Tube O.D. | $T_1$ Tube O.D. | Part Number | A | | $A_1$ | | B | | $B_1$ | | E | | $E_1$ | | F Body Cube | L | | $L_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm. | in. | mm. | | in. | mm | in. | mm. |
| 3/8 | 1/4 | □ - 64RE | 0.69 | 17.5 | 0.69 | 17.5 | 0.25 | 6.4 | 0.25 | 6.4 | 0.30 | 7.7 | 0.18 | 4.6 | 7/16 | 0.47 | 11.9 | 0.47 | 11.9 |
| 1/2 | 1/4 | □ - 84RE | 0.81 | 20.6 | 0.81 | 20.6 | 0.25 | 6.4 | 0.25 | 6.4 | 0.40 | 10.2 | 0.18 | 4.6 | 9/16 | 0.53 | 13.5 | 0.53 | 13.5 |
| 1/2 | 3/8 | □ - 86RE | 0.81 | 20.6 | 0.81 | 20.6 | 0.25 | 6.4 | 0.25 | 6.4 | 0.40 | 10.2 | 0.30 | 7.7 | 9/16 | 0.53 | 13.5 | 0.53 | 13.5 |
| 3/4 | 1/4 | □ - 124RE | 1.06 | 27.0 | 1.06 | 27.0 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.18 | 4.6 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |
| 3/4 | 3/8 | □ - 126RE | 1.06 | 27.0 | 1.06 | 27.0 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.30 | 7.7 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |
| 3/4 | 1/2" | □ - 128RE | 1.06 | 27.0 | 1.06 | 27.0 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.40 | 10.2 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |


## Tribow

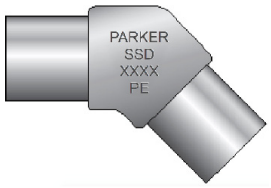
| T Tube O.D. | Part Number | A | | B | | E | | F Body Cube | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm. | | in. | mm. |
| 1/4 | □ - 4TB | 0.56 | 14.2 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 |
| 3/8 | □ - 6TB | 0.69 | 17.5 | 0.25 | 6.4 | 0.30 | 7.7 | 7/16 | 0.47 | 11.9 |
| 1/2 | □ - 8TB | 0.81 | 20.6 | 0.25 | 6.4 | 0.40 | 10.2 | 9/16 | 0.53 | 13.5 |
| 3/4 | □ - 12TB | 1.06 | 27.0 | 0.25 | 6.4 | 0.65 | 16.6 | 13/16 | 0.66 | 16.7 |

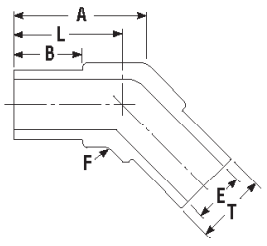





## Union Elbow, 45°

| T Tube O.D. | Part Number | A | | B | | E | | F Body Cube | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm. | | in. | mm. |
| 1/4 | □ - 4UE45 | 0.47 | 11.9 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 |
| 3/8 | □ - 6UE45 | 0.56 | 14.2 | 0.25 | 6.4 | 0.30 | 7.7 | 7/16 | 0.47 | 11.9 |
| 1/2 | □ - 8UE45 | 0.64 | 16.3 | 0.25 | 6.4 | 0.40 | 10.2 | 9/16 | 0.53 | 13.5 |
| 3/4 | □ - 12UE45 | 0.83 | 21.0 | 0.25 | 6.4 | 0.65 | 16.6 | 13/16 | 0.66 | 16.7 |

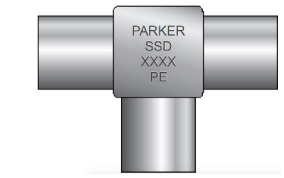


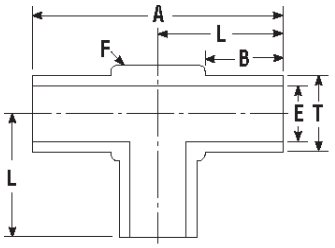



# Weld Fittings

## Union Tee

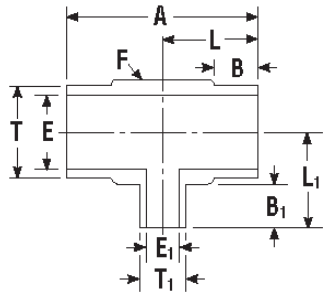
| T Tube O.D. | Part Number | A | | B | | E | | F Body Cube | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm. | | in. | mm. |
| 1/4 | □ - 4UT | 0.82 | 20.8 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 |
| 3/8 | □ - 6UT | 0.94 | 23.9 | 0.25 | 6.4 | 0.30 | 7.7 | 7/16 | 0.47 | 11.9 |
| 1/2 | □ - 8UT | 1.06 | 26.9 | 0.25 | 6.4 | 0.40 | 10.2 | 9/16 | 0.53 | 13.5 |
| 3/4 | □ - 12UT | 1.31 | 33.4 | 0.25 | 6.4 | 0.65 | 16.6 | 13/16 | 0.66 | 16.7 |



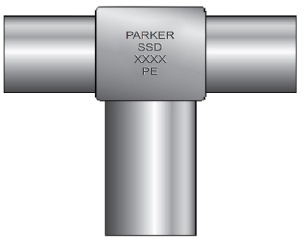

## Reducing Tee

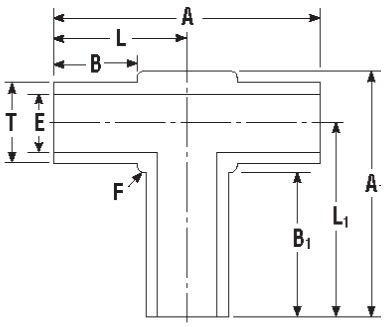
| T Tube O.D. | $T_1$ Tube O.D. | Part Number | A | | B | | $B_1$ | | E | | $E_1$ | | F Body Cube | L | | $L_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | mm | in. | mm | in. | mm | in. | mm. | in. | mm. | | in. | mm | in. | mm. |
| 3/8 | 1/4 | □ - 64RT | 0.94 | 23.9 | 0.25 | 6.4 | 0.25 | 6.4 | 0.30 | 7.7 | 0.18 | 4.6 | 7/16 | 0.47 | 11.9 | 0.47 | 11.9 |
| 1/2 | 1/4 | □ - 84RT | 1.06 | 26.9 | 0.25 | 6.4 | 0.25 | 6.4 | 0.40 | 10.2 | 0.18 | 4.6 | 9/16 | 0.53 | 13.5 | 0.53 | 13.5 |
| 1/2 | 3/8 | □ - 86RT | 1.06 | 26.9 | 0.25 | 6.4 | 0.25 | 6.4 | 0.40 | 10.2 | 0.30 | 7.7 | 9/16 | 0.53 | 13.5 | 0.53 | 13.5 |
| 3/4 | 1/4 | □ - 124RT | 1.31 | 33.4 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.18 | 4.6 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |
| 3/4 | 3/8 | □ - 126RT | 1.31 | 33.4 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.30 | 7.7 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |
| 3/4 | 1/2 | □ - 128RT | 1.31 | 33.4 | 0.25 | 6.4 | 0.25 | 6.4 | 0.65 | 16.6 | 0.40 | 10.2 | 13/16 | 0.66 | 16.7 | 0.66 | 16.7 |

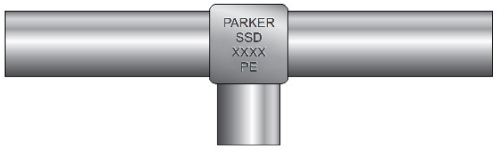

## Extended Branch

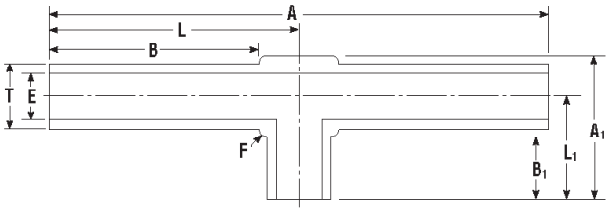
| T Tube O.D. | Part Number | A | | $A_1$ | | B | | $B_1$ | | E | | F Body Cube | L | | $L_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm. | | in. | mm | in. | mm. |
| 1/4 | □ - 4EBT | 0.82 | 20.8 | 0.76 | 19.3 | 0.25 | 6.4 | 0.45 | 11.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 | 0.60 | 15.5 |



# Weld Fittings



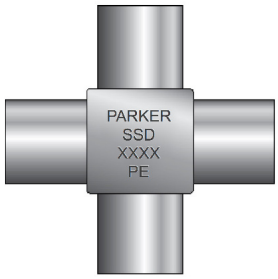



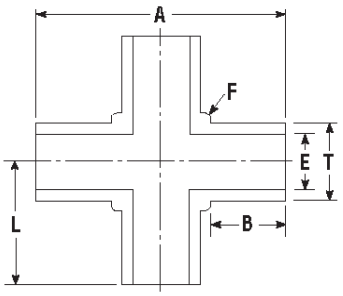

## Run Tee

| T Tube O.D. | Part Number | A | | $A_1$ | | B | | $B_1$ | | E | | F Body Cube | L | | $L_1$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm. | | in. | mm | in. | mm. |
| 1/4 | □ - 4ERT | 1.97 | 50.0 | 0.56 | 14.2 | 0.83 | 21.1 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.99 | 24.9 | 0.41 | 10.4 |

## Union Cross

| T Tube O.D. | Part Number | A | | B | | E | | F Body Cube | L | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | in. | mm | in. | mm | in. | mm. | | in. | mm. |
| 1/4 | □ - 4UC | 0.82 | 20.8 | 0.25 | 6.4 | 0.18 | 4.6 | 5/16 | 0.41 | 10.4 |
| 3/8 | □ - 6UC | 0.94 | 23.9 | 0.25 | 6.4 | 0.30 | 7.7 | 7/16 | 0.47 | 11.9 |
| 1/2 | □ - 8UC | 1.06 | 26.9 | 0.25 | 6.4 | 0.40 | 10.2 | 9/16 | 0.53 | 13.5 |
| 3/4 | □ - 12UC | 1.31 | 33.4 | 0.25 | 6.4 | 0.65 | 16.6 | 13/16 | 0.66 | 16.7 |



# Metal Face Seal and Weld Fittings

## Ordering Information

Parker metal face seal components and weld fittings are ordered by Ordering Number, as listed in this catalog.

SSS - 8 FG - 75 - PE

Material Size Configuration Tube Stub Length Internal Finish

| Material | Size | Tube Stub Length[1] | Internal Finish |
|---|---|---|---|
| SS : 316 SS[4] | 4 : 1/4″ | 25 : .25″ | Blank : 10 Ra |
| SSS : 316L SS | 6 : 3/8″ | 38 : .38″ | PE : 5 Ra |
| SSD : 316L SS, double melt[2] | 8 : 1/2″ | 75 : .75″ | |
| | 12 : 3/4″ | | |
| | 16 : 1″ | | |

| Configuration | | | |
|---|---|---|---|
| FG | Female Gland | FN | Female Nut |
| MG | Male Gland | MN | Male Nut |
| SSW | Short Socket Weld | SMN | Short Male Nut |
| SW | Socket Weld | FCP | Female Cap[3] |
| RSW | Reducing Socket Weld | FCPL | Female Cap, Lanyard[3] |
| MW | Male Weld | MPG | Male Plug[3] |
| TAG | Tube Adaptor Gland | MPGL | Male Plug, Lanyard[3] |
| HFG | Female Gland, Hi-Flo | HFN | Female Nut, Hi-Flo |
| | | HMN | Male Nut, Hi-Flo |

SSD - 8 UC - PE

Material Size Configuration Internal Finish

| Material | Size | Internal Finish |
|---|---|---|
| SSS : 316L SS | 4 : 1/4″ | Blank : 10 Ra |
| SSD : 316L SS, double melt[2] | 6 : 3/8″ | PE : 5 Ra |
| | 8 : 1/2″ | |
| | 12 : 3/4″ | |

| Configuration | | | |
|---|---|---|---|
| RU | Reducing Union | UT | Union Tee |
| UE | Union Elbow | RT | Reducing Tee |
| EUE | Extended Union Elbow | EBT | Extended Branch Tee |
| RE | Reducing Elbow | ERT | Extended Run Tee |
| TB | Tribow | UC | Union Cross |
| UE45 | Union Elbow, 45 | | |

[1] Not all fitting configurations will offer all tube stub lengths.
[2] Components ordered with SSD material designator only sold with "PE" internal finish.
[3] Not offered in "PE" finish.
[4] SS only offered for caps, nuts and plugs.

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Part Number: 25000321 Description: FITTINGS LITERATURE Date: 3/2/2016

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