

## Quick Seal®

Leak Testing and Filling Connectors



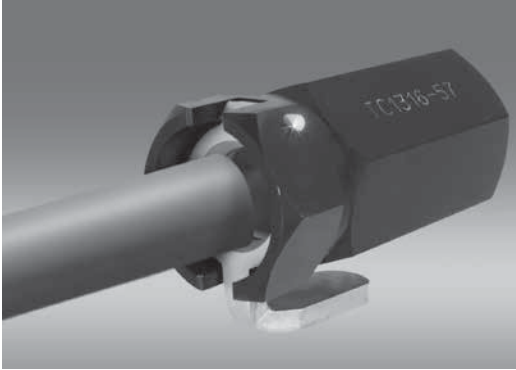
**EATON**

*Powering Business Worldwide*

# Table of Contents

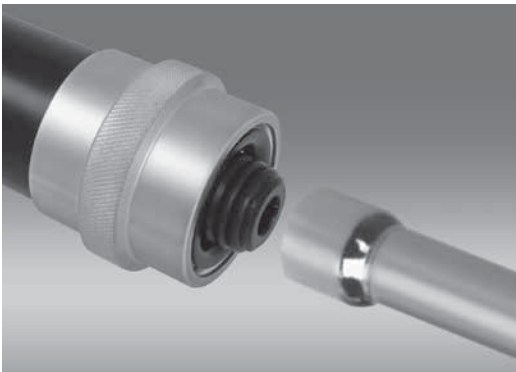
<b>Series</b>	<b>Description</b>	<b>Page No.</b>
	<b>Basic Sealing Methods</b>	3
	<b>Quick Seal Reference Guide</b>	4
	<b>Quick Seal Products</b>	5
<b>PR</b>	Tube Connectors – Straight Tube	5
<b>TC, RTC, OTC, MTC</b>	Tube Connectors – Straight Tube Single Motion/High Speed Leak Test Tool	7
<b>SBP</b>	Low Cost Connectors For Expanded Tubes	10
<b>B, Q, E, EQ</b>	Self-Sealing Test Plugs & Filling Connectors For Pressure Vessels	11
<b>H, K</b>	Expanding Seal Filling Connectors & Plugs	13
<b>CV, XCV</b>	Connecto-Valves For Gas Leak Detection	14
<b>AR0251-57</b>	Automatic Release	15
<b>MP2128</b>	Ammonia Hose Connector	15
	<b>Accessories</b>	16
<b>HK Series</b>	Two-Way Couplings	16
<b>3000/4000/5000/6000 Series</b>	Industrial Interchange, One-Way Couplings	18

# Basic Sealing Methods



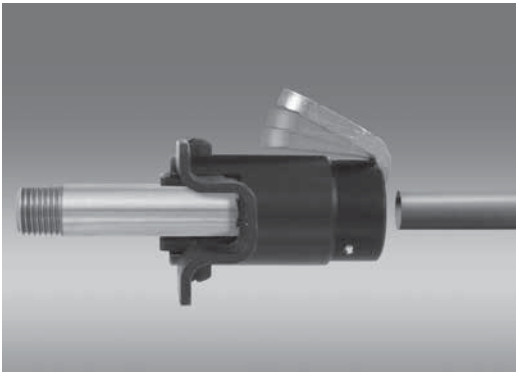
## End Seal — Seals on End of Tube

- General purpose leak testing
- For air, water, refrigerant, and gas



## Inside Diameter (I.D.) Seal

- Works well with all test media including helium, air, and most refrigerants and gases
- I.D. sealing usually done with inexpensive, easy to replace O-rings



## Outside Diameter (O.D.) Seal

- Full flow, minimal restrictions
- Seals on smooth surface
- Seals have minimal exposure to test medium, last longer in hazardous duty
- Seals are larger and longer for better sealing

# Quick Seal® Reference Guide

<b>Tube Connector Part</b>	<b>PR</b>	<b>TC</b>	<b>RTC</b>	<b>OTC</b>	<b>MTC</b>	<b>SBP</b>
Standard Tube Sizes (inches)	1/4 thru 7/8	1/8 thru 2-1/4	1/4 thru 1	.060 thru 3/8	N/A	1/4 thru 7/8
Metric Tube Sizes (mm)	N/A	N/A	N/A	N/A	4 mm thru 54 mm	N/A
Maximum Pressure PSI (BAR)	650 (44)	650 (44)	650 (44)	650 (44)	650 (44)	650 (44)
Vaccum (MICRONS)	10	**	**	**	**	75
*Sealing Method	O.D.	E	E	O.D.	E	I.D.

## Tube Type

Straight



Expanded



Page Numbers	pages 5, 6	pages 7, 8, 9	pages 7, 8, 9	pages 7, 8, 9	page 7,8,9	page 10
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## Test Plug/Filling

<b>Connector Part</b>	<b>B</b>	<b>E</b>	<b>Q</b>	<b>EQ</b>	<b>H</b>	<b>K</b>	<b>CV, XCV</b>
Standard Bore Sizes (inches)	0.421 thru 1.562	0.687 thru 1.281	0.751 thru 1.000	0.751 thru 1.000	0.343 thru 4.250	0.343 thru 4.250	0.437 thru 1.156
Metric Bore Sizes (mm)	N/A	N/A	N/A	N/A	9 mm thru 108 mm	9 mm thru 108 mm	11 mm thru 29 mm
<b>Maximum Pressure</b>							
Smooth Bore - PSI (BAR)	500 (34.5)	500 (34.5)	500 (34.5)	500 (34.5)	50 (3.4)	50 (3.4)	30 (2.1)
Treaded Bore - PSI (BAR)	500 (34.5)	500 (34.5)	500 (34.5)	500 (34.5)	100 (6.8)	100 (6.8)	60 (4.2)
*Sealing Method	E	E	E	E	I.D.	I.D.	I.D.

## Opening Type

Smooth Bore



Threaded Bore



Page Numbers	page 11, 12	page 11, 12	page 11, 12	page 11, 12	page 13	page 13	page 14
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\* Sealing Method: E = End Seal I.D. = Seal on Inside Diameter O.D. - Seal on Outside Diameter

\*\* Not recommended for vacuum applications

For special applications, consult factory

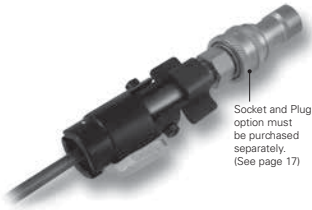


# Quick Seal® Tube Connectors – Straight Tube

For pressure testing, vacuum dehydrating and other applications requiring a quick, leak-free connection.

## PR

1/4" to 7/8" O.D.  
Pressures to 650 PSI (44 BAR)



### Automatic Self-Locking Retention

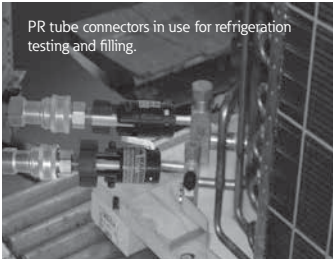
No adjustments other than routine maintenance by the operator are ever necessary.

### Single 1/4" Long Seal

Lasts longer and provides a greater sealing surface which enables it to withstand the sensitivity of helium leak testing.

### Independent Locking and Sealing Actuation

Allows the operator to safely release pressure before removing the connector from the tube.



### Designed to provide the sealing necessary for the greater sensitivity of today's demanding leak detection techniques.

- Specially designed for nitrogen, water, helium\* and most refrigerants (R12, R22, R134A, R407, R409A, R410, AZ220, AZ250).
- Capable of sealing a 10 micron vacuum, pressures to 650 PSI (44 BAR).
- Exclusive design eliminates need for lubrication, allows easy seal replacement.
- Withstands temperatures from -20° to 250° F (-29° to 121° C).

\*Helium leak rate less than  $1 \times 10^{-7}$  cc/sec @ 150 PSI (10 BAR)

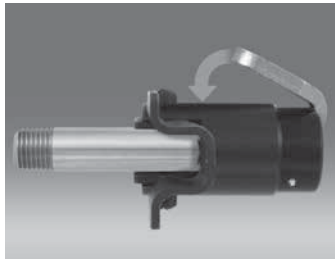
# Quick Seal® Tube Connectors

## Straight Tube

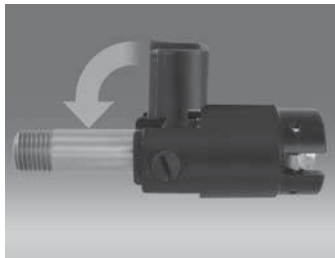


Design allows full flow for quick evacuation and charging. No restrictive small seal or plunger.

### Two locking positions for highest possible secured seal:



Lock Lever



Locking Cam Lever – compresses seal around O.D. of tube.

### Series HK Socket and Plug Option



See page 17 for details.

### PR Connectors

The PR Tube Connectors feature the Eaton automatic self-locking device, which instantly connects seal pressure and vacuum lines to straight end tubing creating a leak-free seal. These units work on the push-on, pull-off principle – the higher the pressure, the tighter the hold.

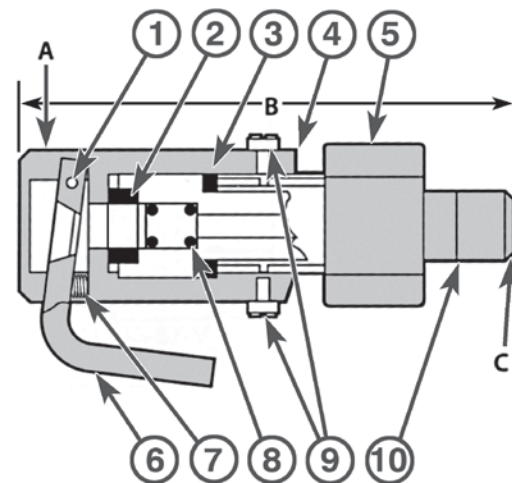
Connection to tube is instantaneous. Just connect unit to service line, depress the lock lever, push on over tubing, pressing firmly to stop position and actuate cam lever. This automatically locks the tube in place for a leak-free seal, ready for pressure testing, vacuum dehydrating or charging with refrigerant. To disconnect from tubing, relieve test pressure, actuate cam lever 90°, depress lock lever and pull off. It's that simple.

Simplified design eliminates lubrication requirements and allows easy seal replacement, which can be done in seconds. The seal is compressed around the O.D.

of tube and actuated by the cam lever independent of the locking mechanism. Since it's not an end type seal, the surface condition of the tube's cutoff end does not affect the seal. It lasts longer and has a greater sealing area to withstand the sensitivity of helium and freon testing.

A quick disconnect can be assembled directly to the male pipe thread inlet port without the need of a short nipple or adapter.

Recommended for a range of services including helium, air, water, vacuum and most refrigerants. The PR is constructed with a heat treated and plated steel lock lever and neoprene seal suitable for temperatures from -20° to 250° F (-29° to 121° C).



### PART material

- ① LEVER PIN hardened and plated steel
- ② SEAL neoprene
- ③ WEAR WASHER hardened and plated steel
- ④ BODY anodized aluminium
- ⑤ CAM LEVER hardened and zinc phosphate coated steel
- ⑥ LOCK LEVER hardened and plated steel
- ⑦ LEVER SPRING stainless steel
- ⑧ SPRING stainless steel
- ⑨ SCREWS hardened and zinc phosphate coated steel
- ⑩ PISTON stainless steel

Part Number*	Tube Size	Minimum Tube Length	Connector Dimensions		
			O.D. (A)	Length (B)	Inlet (C)
<b>PR Series</b>					
PRO250-57	1/4"	1.00"	1.13" rd.	3.50"	1/4" NPT
PRO312-57	5/16"				
PRO375-57	3/8"				
PRO437-57	7/16"	1.13"	1.38" rd.	3.63"	1/4" NPT
PRO500-57	1/2"				
PRO625-57	5/8"				
PRO750-57	3/4"	1.38"	2.00" hex	5.25"	3/4" NPT
PRO875-57	7/8"				

\* When ordering, please specify part number, tube O.D., minimum available tube length, test pressure, media and media temperature. Tube O.D. tolerance must be +.003/- .005 maximum.

# Quick Seal® Tube Connectors – Straight Tube Single Motion/High Speed Leak Test Tool

TC/RTC/OTC/MTC

Pressure to 650 PSI (44 BAR)



**This self-sealing, automatic locking device works on a push-on, pull-off principle. Instantly connects and seals pressure lines.**

### TC & MTC Tube Connectors

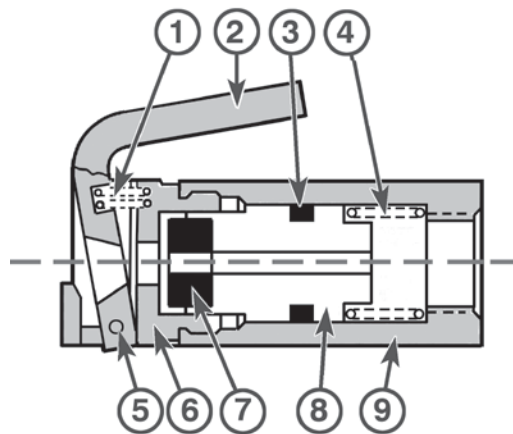
1/8" to 2-1/4" O.D. & 4 - 54 mm

The TC Tube Connectors were originally developed for production line use on refrigeration coils, but have also earned overwhelming acceptance for use on compressor units, heat exchangers and any other assemblies which require a quick, easy and efficient way to attach pressure lines to straight end tubing.

### RTC Tube Connectors

For short length tubes 1/4" to 1" O.D.

The RTC Tube Connectors have been specially designed for use in applications where only a short length of tube is available for engagement. Just attach the connector to the service line, depress the lock lever and push on over the tubing, until the spring loaded seat and plunger assembly is depressed a minimum of 1/8 inch.



### PART material

- ① LEVER SPRING stainless steel
- ② LOCK LEVER hardened and plated steel
- ③ QUAD RING neoprene
- ④ COMPRESSION SPRING stainless steel
- ⑤ LEVER PIN hardened and plated steel
- ⑥ HEAD anodized aluminum
- ⑦ TUBE SEAL neoprene
- ⑧ PLUNGER anodized aluminum
- ⑨ CYLINDER anodized aluminum

# Quick Seal® Tube Connectors

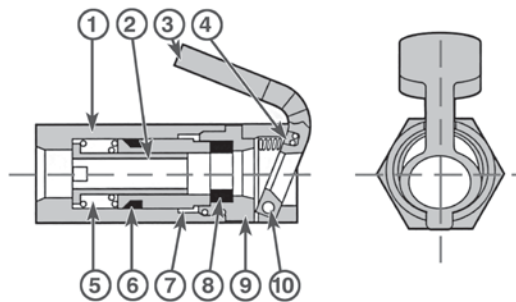
## Straight Tube Single Motion/High Speed Leak Test Tool

### OTC with Outside Diameter Type Seal

0.060" to 3/8" O.D.

The OTC Tube Connectors have been designed specifically for use in those applications where there are advantages to making the tube connector's seal on the outside diameter of the tube – for example, where connection has to be made to smooth tubes which do not have square cut ends. They feature a "Full Flow" design with an

internal tube stop. A seal is compressed around the tube by the plunger as it is actuated by the test pressure. In 1500 Series OTC connectors for capillary tubes, a leak-free seal is created by an O-ring which is compressed around the tube by the plunger as it is actuated by the test pressure. A lock lever grips the tube for positive hold.



### PART material

- ① CYLINDER anodized aluminum
- ② STOP SLEEVE stainless steel
- ③ LOCK LEVER hardened and plated steel
- ④ LEVER SPRING stainless steel
- ⑤ COMPRESSION SPRING stainless steel
- ⑥ QUAD RING neoprene
- ⑦ PLUNGER anodized aluminum
- ⑧ SEAL neoprene
- ⑨ HEAD anodized aluminum
- ⑩ LEVER PIN stainless steel

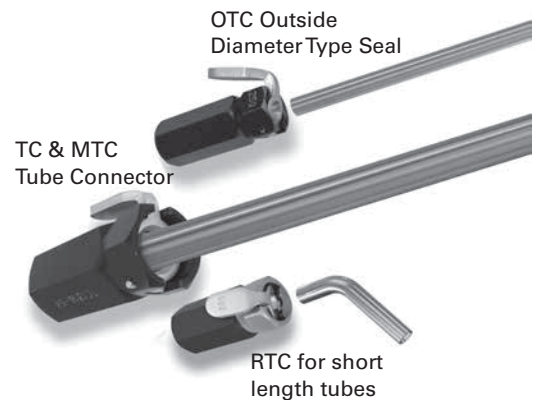


### TC, RTC, OTC & MTC Connectors

Standard TC, RTC, OTC and MTC Connectors are of aluminum construction with a heat treated and plated steel lock lever. Neoprene seals and packing are suitable for temperatures from -20° to 250° F (-29° to 121° C) and are standard; other seal and quad ring materials are available. Also available are STC connectors with stainless steel construction (except the lock lever) a.

Eaton TC, RTC, OTC and MTC Connectors are recommended for a wide variety of services with air, water and most refrigerants.

Connection to tubing is instantaneous. Just attach the connector to the service line, depress the lock lever and push on over tubing, pressing firmly to the stop position. This automatically locks the tube into place for a leak-free seal, ready for pressure testing or charging with refrigerant. To disconnect the tubing, relieve the test pressure and then press the lock lever and pull off. It's that simple.





# Quick Seal® Tube Connectors

## Straight Tube Single Motion/High Speed Leak Test Tool

Part Number*	Tube Size	Minimum Tube Length	Connector Dimensions		
			Across Flats	Length	Inlet
<b>TC Series</b>					
TC1300-57*	1/8"	1.25"	0.88"	2.38"	1/4" NPT
TC1301-57*	3/16"				
TC1302-57	1/4"	1.00"	0.88"	2.38"	1/4" NPT
TC1303-57	5/16"				
TC1304-57	3/8"				
TC1305-57	1/8" pipe	1.25"	1.25"	3.00"	1/4" NPT
TC1306-57	7/16"				
TC1307-57	1/2"				
TC1308-57	1/4" pipe				
TC1309-57	9/16"				
TC1310-57	5/8"				
TC1311-57	3/8" pipe	1.50"	1.75"	3.88"	3/8" NPT
TC1312-57	11/16"				
TC1313-57	3/4"				
TC1314-57	13/16"				
TC1314-57	13/16"				
TC1316-57**	7/8"				
TC1317-57**	15/16"				
TC1000-57	1"	1.88"	2.25"	5.06"	1/2" NPT
TC1319-57	3/4" pipe				
TC1321-57	1-1/8"				
TC1322-57	1-3/16"				
TC1323-57	1-1/4"				
TC1324-57	1-5/16"				
TC1325-57	1" pipe				
TC1326-57**	1-3/8"				
TC1327-57**	1-1/2"				
TC1328-57	1-5/8"	2.25"	3.00"	6.13"	3/4" NPT
TC1329-57	1-1/4" pipe				
TC1332-57	1-1/2" pipe				
TC1333-57	2"				
TC1334-57**	2-1/8"				
TC1335-57**	2-1/4"				
<b>MTC Series</b>					
MTC5040-57	4 mm	25 mm	0.88"	2.38"	1/4" NPT
MTC5050-57	5 mm				
MTC5060-57	6 mm				
MTC5070-57	7 mm				
MTC5080-57	8 mm				
MTC5090-57	9 mm				
MTC5100-57	10 mm				
MTC5120-57	12 mm	32 mm	1.25"	3.00"	1/4" NPT
MTC5130-57	13 mm				
MTC5140-57	14 mm				
MTC5150-57	15 mm				
MTC5160-57	16 mm				
MTC5170-57	17 mm	38 mm	1.75"	3.88"	3/8" NPT
MTC5180-57	18 mm				
MTC5200-57	20 mm				
MTC5210-57	21 mm				
MTC5220-57**	22 mm				
MTC5230-57**	23 mm				
MTC5250-57	25 mm	48 mm	2.25"	5.06"	1/2" NPT
MTC5280-57	28 mm				
MTC5540-57***	54 mm	57 mm	3.00"	6.13"	3/4" NPT

Part Number*	Tube Size	Minimum Tube Length	Connector Dimensions		
			Across Flats	Length	Inlet
<b>RTC Series</b>					
RTC1602-57	1/4"	0.69"	0.88"	2.38"	1/4" NPT
RTC1603-57	5/16"				
RTC1604-57	3/8"				
RTC1605-57	1/8" pipe	0.88"	1.25"	3.00"	1/4" NPT
RTC1606-57	7/16"				
RTC1607-57	1/2"				
RTC1608-57	1/4" pipe				
RTC1609-57	9/16"				
RTC1610-57	5/8"				
RTC1611-57	3/8" pipe	1.00"	1.75"	3.88"	3/8" NPT
RTC1613-57	3/4"				
RTC1616-57	7/8"				
RTC1000-57	1"	1.25"	2.25"	5.06"	1/2" NPT
<b>OTC Series</b>					
OTC2502-57	1/4"	1.00"	0.88"	2.38"	1/4" NPT
OTC2503-57	5/16"				
OTC2504-57	3/8"				
OTC1500-57	.060 – .063"	1.00"	0.88"	2.38"	1/4" NPT
OTC1501-57	.072 – .078"				
OTC1502-57	.081 – .087"				
OTC1503-57	.093 – .099"				
OTC1504-57	.106 – .112"				

\* Seal on O.D. of tube

\*\* Pressures to 500 PSI only

\*\*\* Pressures to 300 PSI only

◆ When ordering, please specify part number, tube O.D., minimum available length, test pressure, media and media temperature. Tolerance of tube O.D. must be +.003/- .005 maximum.

▼ For OTC: Tolerance of tube O.D. must be +.002/- .002 maximum.



# Quick Seal® Low Cost Connectors for Expanded Tubes

## SBP

Pressure to 650 PSI (44 BAR)  
75 Micron Vacuum  
Leak Rate Less than  $1 \times 10^{-7}$  cc/sec  
Helium @ 150 PSI (10 BAR)

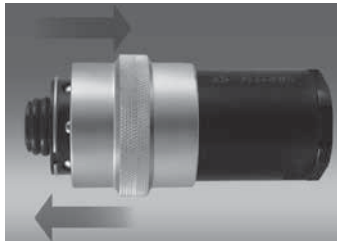


### Designed for High Reliability 1/4" to 7/8"

No disassembly required for seal replacement. No adjustments necessary, keeping maintenance costs to a minimum. Dual O-ring seal design provides greater reliability. Easy push-on/pull-off one motion operation. Hardened stainless steel balls provide dependable tube retention.

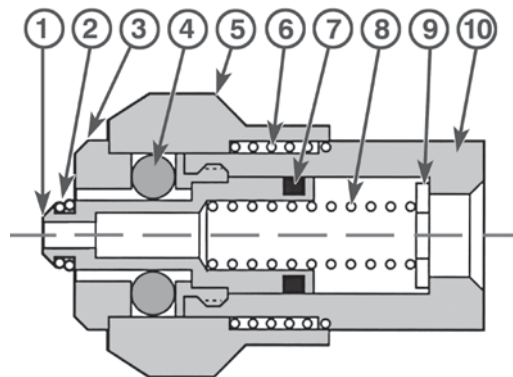
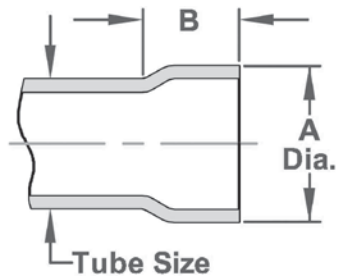
### Particularly Effective for Ultra Sensitive Testing

- Halogen detection
- Pressure decay
- Helium mass spectrometry



Part Number*	Tube Size	Min. A	Max. A	Min. B	Max. B	Flow Dia.	Inlet
<b>SBP Series</b>							
SBP1702-57	1/4"	0.250"	0.260"	0.315"	0.565"	0.100"	1/4" NPT
SBP1703-57	5/16"	0.313"	0.325"	0.315"	0.625"	0.100"	1/4" NPT
SBP1704-57	3/8"	0.375"	0.385"	0.315"	0.625"	0.100"	1/4" NPT
SBP1707-57	1/2"	0.500"	0.510"	0.380"	0.750"	0.187"	1/4" NPT
SBP1710-57	5/8"	0.625"	0.635"	0.500"	0.750"	0.250"	1/4" NPT
SBP1713-57	3/4"	0.750"	0.760"	0.625"	0.875"	0.375"	3/8" NPT
SBP1716-57	7/8"	0.875"	0.885"	0.750"	0.875"	0.422"	3/8" NPT

\* When ordering, please specify part number, dimensions "A", "B" and tube O.D., test pressure, media and media temperature. Tolerance of bore "A" must be  $\pm 0.003/-0.003$  maximum.



### PART material

- ① PLUNGER anodized aluminum
- ② O-RINGS neoprene
- ③ HEAD anodized aluminum
- ④ BALLS stainless steel
- ⑤ SLEEVE hardened and plated steel
- ⑥ SLEEVE SPRING stainless steel
- ⑦ QUAD RING neoprene
- ⑧ PLUNGER SPRING stainless steel
- ⑨ WASHER stainless steel
- ⑩ CYLINDER anodized aluminum

### Simple to Operate

#### Turn off unit pressure

- Retract sleeve ⑤.
- Insert plunger ① into device to be tested.
- Release sleeve ⑤.
- Push connector forward until sleeve snaps into place.

#### To remove unit

- Exhaust test pressure.
- Push connector forward.
- Retract sleeve and remove connector from device being tested.

# Quick Seal® Self-Sealing Test Plugs and Filling Connectors – For Pressure Vessels

Pressures to 500 PSI (34.5 BAR)

## B & Q

Self-Sealing Plugs

## E & EQ

Self-Sealing Filling Connectors



**B** 0.421" to 1.281" Bore

**Q** 0.751" to 1.000" Bore

B and Q Self-Sealing Plugs provide a quick-acting seal to plug pressure vessel openings. Construction features include a cylinder with bayonet lock, seal, plunger and T-head stem (fixed for Type B and pivoted for Type Q).

The Q plug is intended for use with openings that are deeper than the B plug can reach.

### B & Q Self-Sealing Plugs

Part Number*	Piped Tapped	Opening To Be Sealed			
		Depth		Bore Range	
		Min. A	Max. A	Min. B	Max. B
B7051-57	1/4" NPT	0.312"	0.375"	0.421"	0.475"
B7052-57	3/8" NPT	0.312"	0.437"	0.562"	0.593"
B7053-57	1/2" NPT	0.406"	0.500"	0.687"	0.781"
B7054-57	3/4" NPT	0.506"	0.687"	0.906"	1.000"
B7055-57	1" NPT	0.563"	0.750"	1.125"	1.281"
Q3145-57	3/4" NPT	0.625"	3.000"	0.751"	1.000"

\* When ordering, please specify part number, diameter and depth of opening sealed, test pressure, media and media temperature.

**E** 0.687" to 1.281" Bore

**EQ** 0.751" to 1.000" Bore

E and EQ Self-Sealing Filling Connectors have inlet openings that are pipe tapped for connecting pressure lines. Construction features include a cylinder with bayonet lock, seal, plunger and T-head stem (fixed for Type E and pivoted for Type EQ).

The EQ filling connector is intended for use with openings that are deeper than the E filling connector can reach.

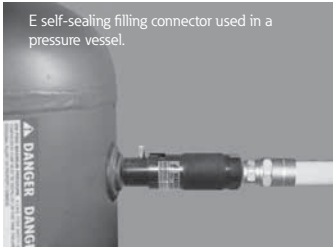
### E & EQ Self-Sealing Filling Connectors

Part Number*	Piped Tapped	Opening To Be Sealed				
		Depth		Bore Range		Inlet
		Min. A	Max. A	Min. B	Max. B	
E7166-57	1/2" NPT	0.406"	0.500"	0.687"	0.781"	1/2" NPT
E7167-57	3/4" NPT	0.506"	0.687"	0.906"	1.000"	3/4" NPT
E7168-57	1" NPT	0.563"	0.750"	1.125"	1.281"	3/4" NPT
EQ4145-57	3/4" NPT	0.625"	3.000"	0.751"	1.000"	3/4" NPT

\* When ordering, please specify part number, diameter and depth of opening sealed, test pressure, media and media temperature.

# Quick Seal® Tube Connectors

## Self-Sealing Test Plugs and Filling Connectors – For Pressure Vessels



B, Q, E and EQ construction materials are aluminum and carbon steel, both treated for corrosion resistance. Neoprene seals are standard.

To connect, insert the connector into the hole, push the cylinder inward and twist it to release the bayonet lock, bringing the seal against the hole ready for test pressure.

The seal is energized by a combination of spring force and test pressure.

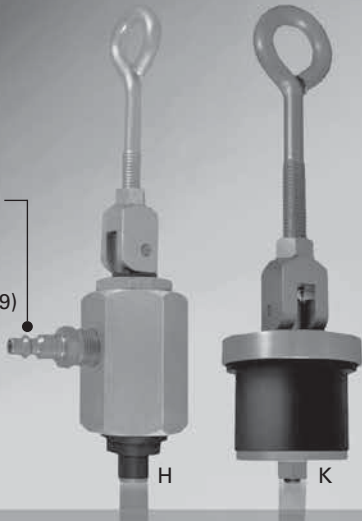
To disconnect, relieve pressure, push cylinder inward, twist it to engage the bayonet lock and pull out the connector.

# Quick Seal®

## Expanding Seal Filling Connectors and Plugs

0.343" to 4.25" (9 mm to 108 mm) Bores  
 Threaded Holes – Pressures to 100 PSI (6.8 BAR)  
 Smooth Bore Holes – Pressures to 50 PSI (3.4 BAR)

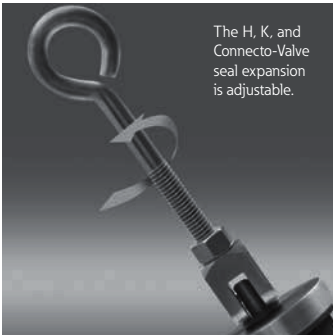
Plug option must be purchased separately. (See page 19)



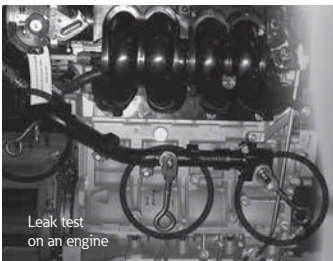
- H**  
Expanding Seal Filling Connectors
- K**  
Expanding Seal Test Plugs



H expanding seal filling connector shown servicing an automotive radiator.



The H, K, and Connecto-Valve seal expansion is adjustable.



Leak test on an engine

### H Expanding Seal Filling Connectors

H Expanding Seal Filling Connectors are widely used for adapting and connecting pressure lines to tanks, drums, castings, etc., during leak testing. These tools effectively seal flanges, couplings, blind holes, deep openings or holes with restricted clearance. Actuation of the hand cam lever expands the seal firmly inside an opening, creating a dependable leak-free connection. Inlet openings are pipe tapped for connecting pressure lines. To remove the connector, relieve test pressure and lift cam lever.

Construction materials are aluminum, stainless steel, and plated carbon steel. Neoprene seals are standard.

The connectors are suitable for operation from -20° to 250° F (-29° to 121° C).

### K Expanding Seal Test Plugs

K Test Plugs use the same sealing principle, materials of construction and action as the type H filling connector, but do not have an inlet port. They are frequently used in pressure testing rough castings. Seals are made of tough long-wearing neoprene and are easily replaced.

All expanding seal plugs and connectors are ruggedly built to assure long, trouble-free service.

Part Number*	Piped Tapped	Opening To Be Sealed		
		Bore	Min. Depth	Inlet
H2075-57	1/8" NPT	0.339"	0.59"	1/4" NPT
H2076-57	1/4" NPT	0.438"	0.72"	1/4" NPT
H2077-57	3/8" NPT	0.578"	0.72"	1/4" NPT
H2078-57	1/2" NPT	0.719"	0.88"	3/8" NPT
H2079-57	3/4" NPT	0.922"	1.13"	3/8" NPT
H2080-57	1" NPT	1.156"	1.38"	1/2" NPT
H2081-57	1-1/4" NPT	1.500"	1.38"	1/2" NPT
H2082-57	1-1/2" NPT	1.734"	1.69"	1/2" NPT
H2083-57	2" NPT	2.219"	1.69"	1/2" NPT
H9084-57	2-1/2" NPT	2.625"	1.56"	3/4" NPT
H9085-57	3" NPT	3.250"	1.56"	3/4" NPT
H9086-57	3-1/2" NPT	3.750"	1.56"	3/4" NPT
H9087-57	4" NPT	4.250"	1.69"	3/4" NPT

\* To order, specify thread size, depth of hole, test pressure and test media.

Part Number*	Piped Tapped	Opening To Be Sealed	
		Bore	Min. Depth
K2063-57	1/8" NPT	0.339"	0.59"
K2064-57	1/4" NPT	0.438"	0.72"
K2065-57	3/8" NPT	0.578"	0.72"
K2066-57	1/2" NPT	0.719"	0.88"
K2067-57	3/4" NPT	0.922"	1.13"
K2068-57	1" NPT	1.156"	1.38"
K2069-57	1-1/4" NPT	1.500"	1.38"
K2070-57	1-1/2" NPT	1.734"	1.69"
K2071-57	2" NPT	2.219"	1.69"
K9072-57	2-1/2" NPT	2.625"	1.56"
K9073-57	3" NPT	3.250"	1.56"
K9074-57	3-1/2" NPT	3.750"	1.56"
K9075-57	4" NPT	4.250"	1.69"

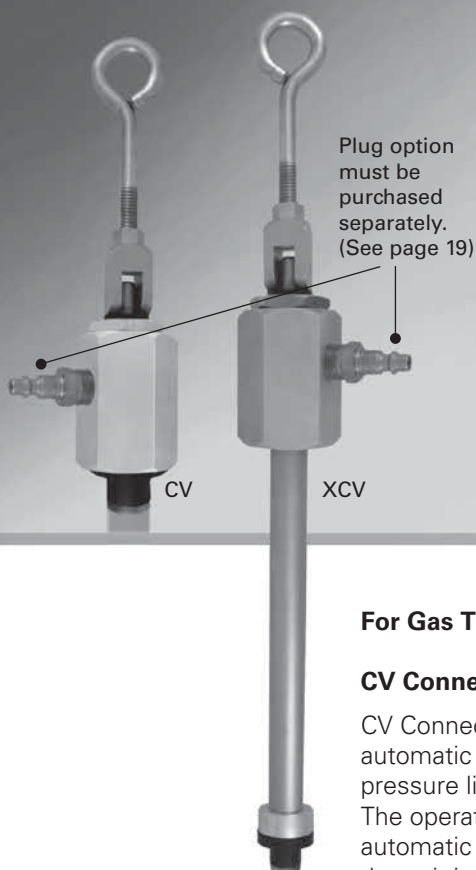
\* To order, specify thread size, depth of hole, test pressure and test media.

# Quick Seal® Connecto-Valves for Gas Leak Detection

0.437" to 1.156" (11 mm to 29 mm)  
Threaded Openings – Pressures to 60 PSI (4.2 BAR)  
Smooth Openings – Pressures to 20 PSI (1.4 BAR)

**CV**  
Connecto-Valves

**XCV**  
Extended Connecto-Valves



## For Gas Testing Hot Water Heaters, Stoves, Valves, Fittings, etc.

### CV Connecto-Valves

CV Connecto-Valves include a built-in automatic valve for connecting gas or any low pressure lines to standard threaded openings. The operation of the Connecto-Valve is fast, automatic and extremely simple. When the unit is inserted in the opening and the cam lever is actuated, the expanding seal and valve are actuated simultaneously, thus creating a positive holding action and releasing a full flow of gas to the appliance being tested. Returning the handle to its original position shuts the valve, stops the gas flow and contracts the seal allowing the valve to be withdrawn from the opening. Construction materials are aluminum, stainless steel and plated carbon steel. Neoprene seals are standard. Connecto-Valves are suitable for applications from -20° to 250° F (-29° to 121° C).

### Modified CV

Modified CV units for smooth bore or straight threaded openings can be ordered by specifying the CV unit for a specific bore size or thread size, test pressure, test medium and depth of opening.

### Modified XCV

Modified XCV units for smooth bore or straight threaded openings can be ordered by specifying the XCV unit for a specific bore size or thread size of opening to be sealed, test pressure, test medium, depth of opening and length of extension.



### The Extended Connecto-Valves (XCV)

The Extended Connecto-Valves (XCV) are similar to the Connecto-Valve but incorporate a long hollow shaft which enables production line workers to make quick leak-tight connections of gas lines to burners already installed in appliances. Hard to reach connections can be easily accessed.

Part Number	Piped Tapped	Opening To Be Sealed		Inlet
		Bore	Min. Depth	
CV2402-57 XCV2402-57	1/4" NPT	0.438"	0.59"	3/8" NPT
CV2403-57 XCV2403-57	3/8" NPT	0.578"	0.59"	3/8" NPT
CV2404-57 XCV2404-57	1/2" NPT	0.719"	0.63"	3/8" NPT
CV2405-57 XCV2405-57	3/4" NPT	0.922"	0.88"	3/8" NPT
CV2406-57 XCV2406-57	1" NPT	1.156"	0.88"	3/8" NPT

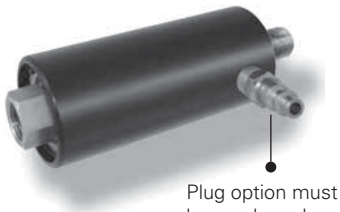


# Quick Seal® Special Purpose

Automatic Release  
Ammonia Hose Connectors

**AR0251-57**

**MP2128**



Plug option must be purchased separately. (See page 19)

AR0251-57

### AR0251-57 Automatic Release

Automatic Release Units are used instead of the conventional pressure/vacuum production line socket. They are designed to speed up the leak testing process by detaching themselves after testing is completed, without operator aid.

A maximum test pressure of 500 PSI (34.5 BAR) can be achieved for leak testing through the AR0251-57 unit. After the test

is completed and the pressure is exhausted, this socket automatically detaches itself from the connector plug at 160 PSI (11 BAR). The connector and plug fitting will remain locked onto the copper process tube to allow additional tests to be performed.



MP2128

### MP2128 Ammonia Hose Connectors

Ammonia Hose Connectors allow a safe, positive connection to gas cylinders in a few seconds. They provide a quick, safe method of adapting service lines to standard right-angle valves used on ammonia tanks. Connectors are provided with a 1/2" NPT opening.

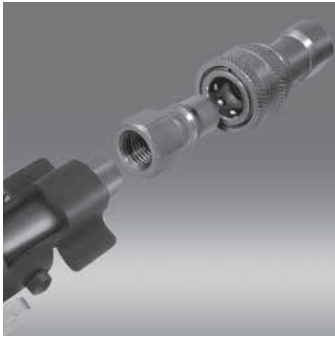
These connectors are easily slipped over the valve. A few turns of the handle then clamps the movable jaw against the valve body. This forces a resilient neoprene sealing washer against the valve outlet, insuring a leak-free

connection. A complete change-over is finished in a matter of seconds.

A one piece ductile iron frame and jaw provides strength, handling ease and a high safety factor. These parts are coated for corrosion resistance.



# Accessories - HK Series



## HK Series ISO 7241-1B

HK Series Couplings are designed for general purpose hydraulic service. Some are suitable for use with various liquids, chemicals, steam, gases and vacuum. HK Series couplings conform to the dimensional requirements of the ISO 7241-1 Series B standard.

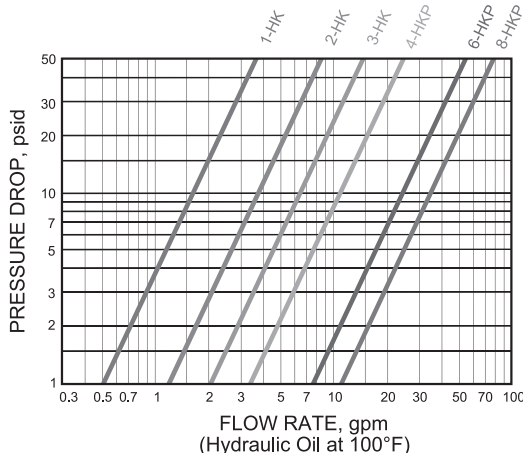
Body sizes in the chart below range from 1/8" to 1". See our coupling catalog for the complete product line.

### Features

- End connections are female NPTF (BSPP also available)

### Standard Materials

- Zinc-plated steel construction (also available in brass and stainless steel)
- Stainless steel springs, balls and retaining rings
- Buna-N (Nitrile) seals
- PTFE back-up rings in 1-HK through 8-HK steel sockets



### Options

- Bleeder-style plug
- Sleeve lock
- Seals: Ask about availability

### Series HK Accessories

- Dust caps and dust plugs



- Release clamp with chain



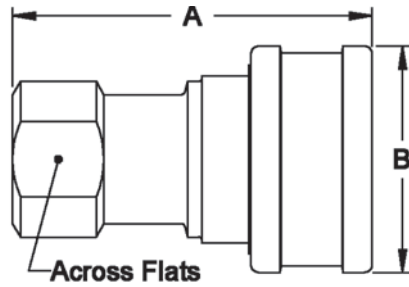
### Rated Pressure and Flow Capacity

Series	Body Size	PSI	BAR
1HK	1/8"	4,000	275
2HK	1/4"	5,000	345
3HK	3/8"	4,000	275
4HKP	1/2"	5,000	345
6HKP	3/4"	4,000	275
8HKP	1"	4,000	275"

Other sizes available.



# Accessories - HK Series

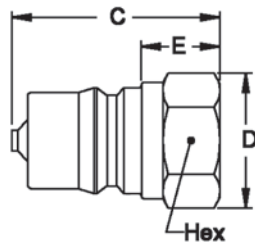


## SOCKET

Steel Construction  
(also available in brass and stainless steel)

Body Size (inch)	Part Number	Thread Size Female NPTF	Dimensions (inches)		
			A	B	Across Flats
1/8	1H11	1/8-27	1.91	0.98	0.56
1/4	2H16	1/4-18	2.26	1.17	0.75
3/8	3H21	3/8-18	2.56	1.42	0.88
1/2	4HP26	1/2-14	2.96	1.86	1.13
3/4	6HP31	3/4-14	3.48	2.22	1.31
1	8HP36	1-111/2	4.13	2.61	1.75

A = Overall length B = Maximum diameter



## PLUG

Steel Construction  
(also available in brass and stainless steel)

Body Size (inch)	Part Number	Thread Size Female NPTF	Dimensions (inches)			
			C	D	E	Hex
1/8	1K11	1/8-27	1.26	0.65	0.44	0.56
1/4	2K16	1/4-18	1.52	0.87	0.56	0.75
3/8	3K21	3/8-18	1.76	1.01	0.61	0.88
1/2	4KP26	1/2-14	2.03	1.30	0.76	1.13
3/4	6KP31	3/4-14	2.36	1.52	0.71	1.31
1	8KP36	1-111/2	2.85	1.88	0.97	1.63

C = Overall length D = Maximum diameter E = Exposed length when connected

More plug and socket configurations are available – see our coupling catalog for the complete product line.

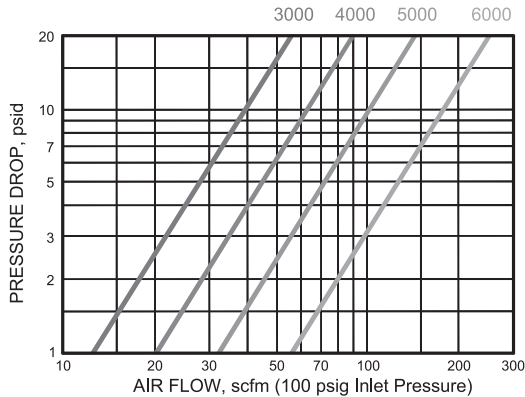
# Accessories - 3000/4000/5000/6000 Series

## 3000/4000/5000/6000 Series

Industrial Interchange Pin Lock Couplings are designed for compressed air, gases and liquids. Body sizes are 1/4", 3/8", 1/2" and 3/4".

### Features

- Easy, automatic, push-to-connect design provides instantaneous connection and disconnection of lines, plus automatic shut-off of socket end of line
- 1/4" and 1/2" sockets accept ISO 6150 Series B and A-59439 plugs/males
- Optional sleeve lock prevents accidental disconnection
- Optional seal and valve materials available



### Rated Pressure

Series	Body Size	PSI	BAR
3000	1/4"	2,000	138
4000	3/8"	1,000	69
5000	1/2"	500	35
6000	3/4"	220	15

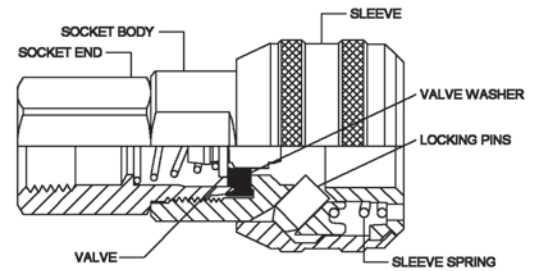
\* Air flow (scfm) with 5 PSI pressure drop and 100 PSIG inlet pressure.

### Standard Materials

- Socket
  - Brass Body
  - Zinc Plated Steel Valve
  - Buna-N (Nitrile) Seal
  - Stainless Steel Springs
  - Stainless Steel Locking Pins
- Plug
  - Zinc Plated Case
  - Hardened Steel (All Sizes)
  - Brass (All Sizes)
  - Stainless Steel (Series 3000)

### Accessories

- Dust caps and dust plugs

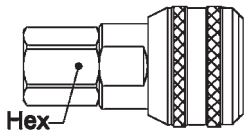


### Flow Capacity

Series	*Scfm
3000	24
4000	45
5000	72
6000	125

# Accessories - 3000/4000/5000/6000 Series

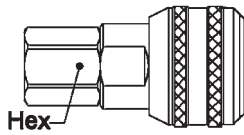
## Series 3000 1/4" Nominal



### SOCKET - male end connections

Model	Thread Size	Finish
2900	1/8-27 NPTF	Brass
3100E	1/4-18 NPTF	Brass
3300E	3/8-18 NPTF	Brass

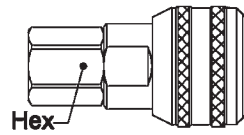
## Series 4000 3/8" Nominal



### SOCKET - male end connections

Model	Thread Size	Finish
4100A	1/8-27 NPTF	Brass
4100	1/4-18 NPTF	Brass
4300	3/8-18 NPTF	Brass
4500E	1/2-14 NPTF	Brass

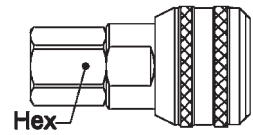
## Series 5000 1/2" Nominal



### SOCKET - male end connections

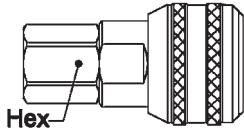
Model	Thread Size	Finish
50100	1/4-18 NPTF	Brass
5100E	3/8-18 NPTF	Brass
5300E	1/2-14 NPTF	Brass
5500	3/4-14 NPTF	Brass

## Series 6000 3/4" Nominal



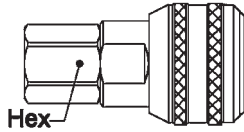
### SOCKET - male end connections

Model	Thread Size	Finish
6300	1/2-14 NPTF	Brass
6500	3/4-14 NPTF	Brass
6700E	1-11/2 NPTF	Brass



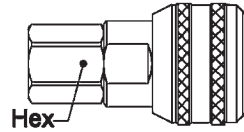
### SOCKET - female end connections

Model	Thread Size	Finish
2800	1/8-27 NPTF	Brass
3000	1/4-18 NPTF	Brass
3200	3/8-18 NPTF	Brass



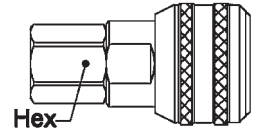
### SOCKET - female end connections

Model	Thread Size	Finish
4000A	1/8-27 NPTF	Brass
4000	1/4-18 NPTF	Brass
4200	3/8-18 NPTF	Brass
4400	1/2-14 NPTF	Brass



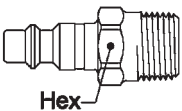
### SOCKET - female end connections

Model	Thread Size	Finish
5000A	1/4-18 NPTF	Brass
5000	3/8-18 NPTF	Brass
5200	1/2-14 NPTF	Brass
5400E	3/4-14 NPTF	Brass



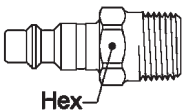
### SOCKET - female end connections

Model	Thread Size	Finish
6200E	1/2-14 NPTF	Brass
6400E	3/4-14 NPTF	Brass
6600E	1-11/2 NPTF	Brass



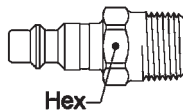
### PLUG - male end connections

Model	Thread Size	Finish
10	1/4-18 NPTF	Steel
14	3/8-18 NPTF	Steel
B10	1/4-18 NPTF	Brass
LL10	1/4-18 NPTF	Stainless



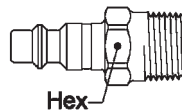
### PLUG - male end connections

Model	Thread Size	Finish
38	1/8-27 NPTF	Steel
40	1/4-18 NPTF	Steel
42	3/8-18 NPTF	Steel
44	1/2-14 NPTF	Steel
B40	1/4-18 NPTF	Brass
B42	3/8-18 NPTF	Brass



### PLUG - male end connections

Model	Thread Size	Finish
50E	1/4-18 NPTF	Steel
52	3/8-18 NPTF	Steel
54E	1/2-14 NPTF	Steel
56	3/4-14 NPTF	Steel
B52	3/8-18 NPTF	Brass
B54	1/2-14 NPTF	Brass



### PLUG - male end connections

Model	Thread Size	Finish
64A	1/2-14 NPTF	Steel
66AE	3/4-14 NPTF	Steel
68A	1-11/2 NPTF	Steel
B64A	1/2-14 NPTF	Steel
B66A	3/4-14 NPTF	Brass

More plug and socket configuration are available – see our coupling catalog for the complete product line.

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