

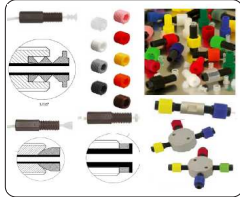
Chromatography Fittings



PEEK Fittings High Pressure



360um & 1/32 Fittings



PEEK/PPS Low Pressure



Stainless steel Fittings



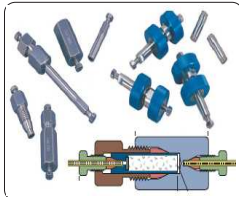
Adaptors, Tees, Crosses



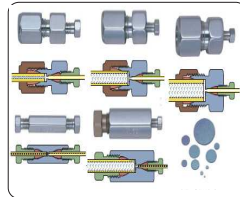
Pipe Adaptors



Filters & Frits



Precolumns FT Cartridge



HPLC End-Fittings



Nuts M&F, Caps, Plugs

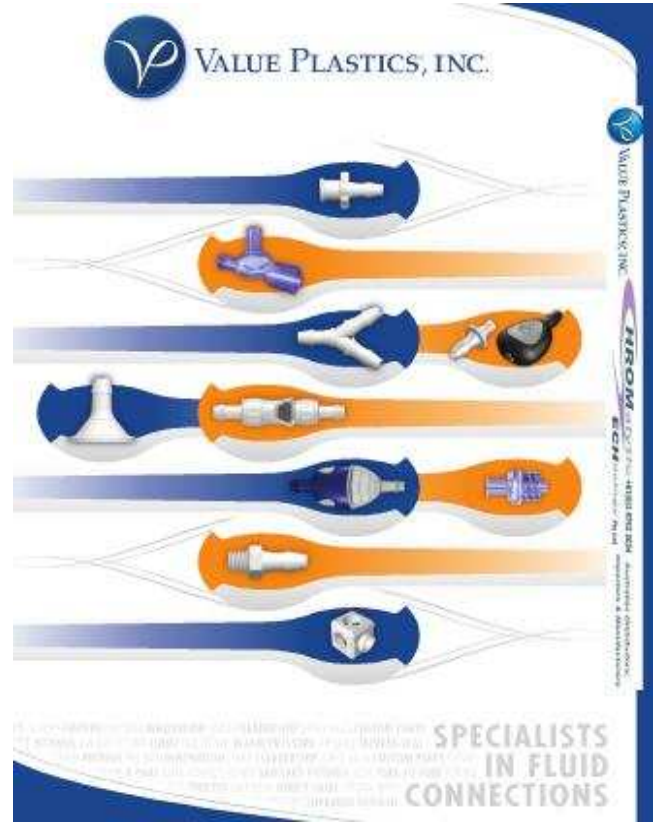


Ferrules/Reducers/FS



Injection Valves / Loops

mini Plastic Fittings



VICI Jour Products for Chromatography and Fluid/Gas Transfer



Swagelok/Parker - Silcosteel Fittings



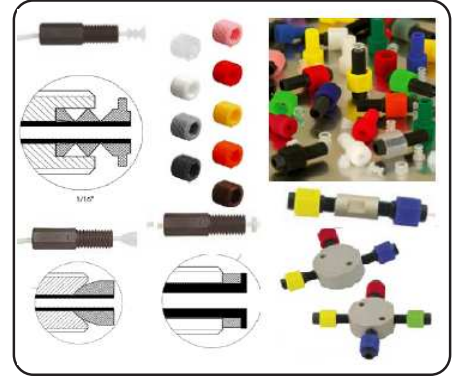
Liquid Chromatography Fittings (HPLC)



PEEK Fittings High Pressure



360um & 1/32 Fittings



PEEK/PPS Low Pressure



Stainless steel Fittings



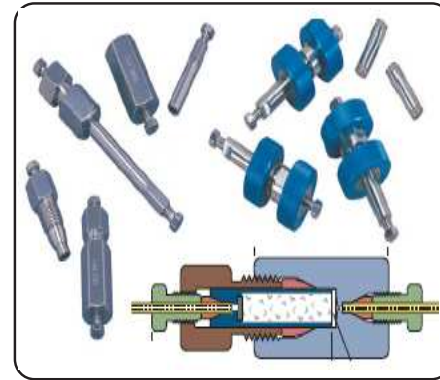
Adaptors, Tees, Crosses



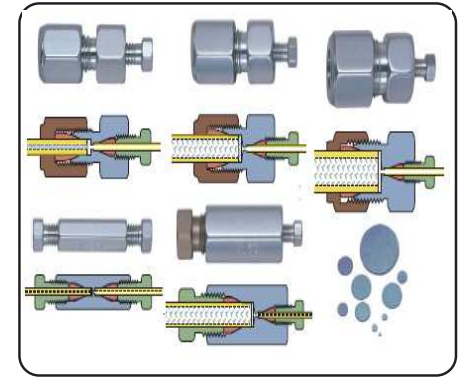
Pipe Adaptors



Filters & Frits



PreColumns FT Cartridge



HPLC End-Fittings



Nuts M&F, Caps,Plugs



Ferrules/Reducers/FS



Injection Valves / Loops



Valco Fittings

The two piece compression fitting (**Figure 1**), in which a ferrule is compressed onto the tube as a nut is tightened, offers reliability in high pressure situations and in connecting metal tubing. Valco excels in all critical areas of the design and manufacture of such fittings. Quality considerations, which cannot be ignored if an analytical system is to reach and maintain optimum performance levels, include interchangeability, counterbore tolerances, ID/OD concentricity, mixing potential, cleaning procedures, and the method employed to “make up” the ferrule on the tube.

No Tubing Deformation

The basic concept of compression fittings carries the inherent danger of tube deformation (**Figure 2**). While some manufacturers emphasize this positively as a method of ensuring that the tubing doesn’t blow out of the ferrule, the flow anomalies introduced by the restricted ID make these fittings a poor choice for many instrument applications.

Valco metal ferrules cut a ring near the end of the tube (**Figure 3**), which prevents tube release at high pressures without significantly deforming and restricting the tube interior. Because our ferrules have a sharp edge at the ID near the nose, this usually takes only about 1/4 turn beyond the point where the ferrule first starts to grab the tubing. There is so little tube distortion that they are routinely used with glass-lined tubing! Only Valco’s polymer fittings rely on friction to hold a tube.

CAUTION!

The analytical devices market has attracted numerous companies which copy Valco/Cheminert designs. Please exercise caution in the use of copies, which may not be compatible with the original versions in this catalog.

Because of VICI’s high volume production and dedicated machinery, our fittings are often less expensive and of consistently higher quality than competing copies.

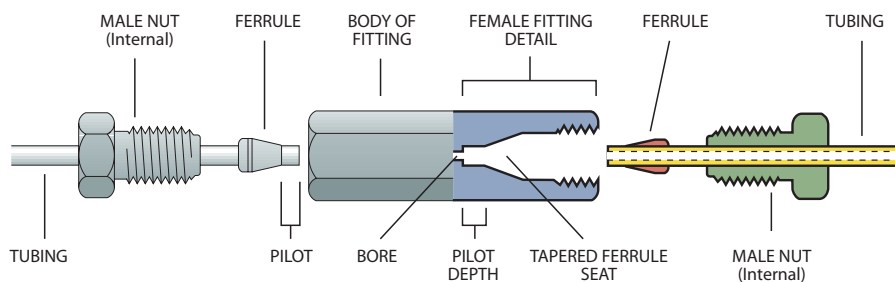


Figure 1
Valco compression fitting

TECH TIP

For optimal zero dead volume connections, make sure your tubing meets the best industry standards—OD tolerance should be nominal dimension $\pm .002$ ".

Fractional dimension	Nominal dimension
1/32"	.031
1/16"	.062
1/8"	.125
1/4"	.250
3/8"	.375
1/2"	.500

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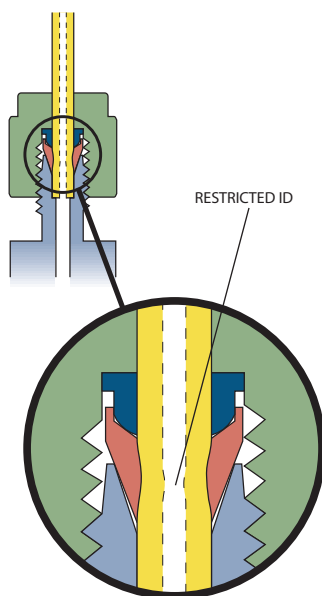


Figure 2
ID restriction
in common compression fitting

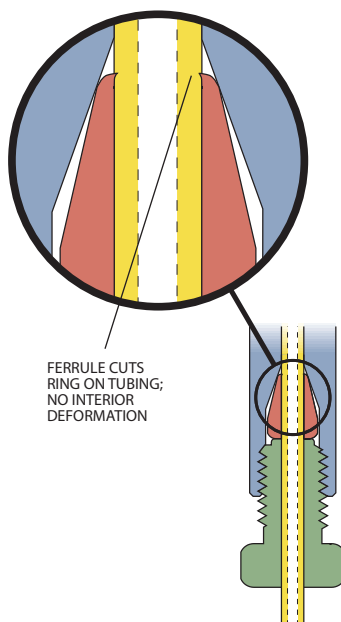


Figure 3
No ID restriction
in Valco compression fitting

Interchangeability

Valco fitting details are designed with a consistent pilot depth, permitting reliable interchangeability as connections are revised or fittings are replaced. This interchangeability extends throughout the Valco and Cheminert fitting and valve product lines. Indeed, the Valco standard has been so widely copied that Valco and Cheminert fittings are, in general, fully interchangeable with those of our major competitors. In initial installations, Valco ferrules will often improve other manufacturers' fitting connections.

Because of variations in tubing OD and in pilot and taper designs from manufacturer to manufacturer, the amount of tubing extending beyond the made up ferrule can vary. (The most radical variation is in the fittings manufactured by Waters. Based on the old Swagelok design, they have a pilot depth considerably longer than standard.) **Figure 4a** shows a properly made up fitting. If that same fitting is installed in a detail which was designed for a slightly longer tube extension (as in **Figure 4b**), dead volume will be introduced. In the opposite case, with the pilot shorter than the pilot depth (**Figure 4c**), the tube will bottom out before the ferrule has sealed. However, our tests prove that except in the most extreme cases, a Valco ferrule will "creep" on the tubing until it reaches the bottom of the ferrule taper, making a proper seal.

Reliably Clean

Most of our state of the art CNC machines use water-based lubricants. After each part comes off the machine, it is cleaned with water-soluble detergents and then rinsed in hot deionized water. Finally, every metal fitting that we make is given a thorough cleaning with steam from deionized water at 140°C. Any critical parts processed with oil-based lubricants are baked to remove all traces. The practical result of the extra effort is this: you don't have to be concerned about solvent residues.

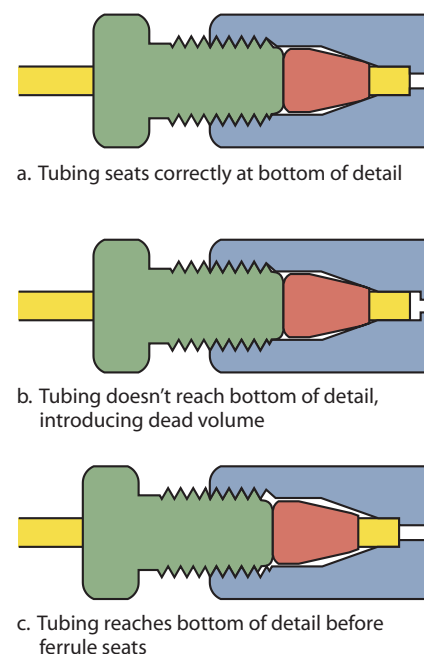


Figure 4

Introduction

Precision Machining, Finishing, and Tolerances

The machining methods used by different manufacturers to finish the detail of compression fittings vary in several ways that affect performance, as shown below. The fitting in **Figure 5** is the best choice for high performance fittings, as the tube fits squarely into the bottom of the detail. This is the detail used in Valco and Cheminert high pressure fittings.

Some fitting manufacturers omit a critical finishing operation which makes the bottom of the detail square, leaving the shape of the typical tapered drill bit instead. This results in the fitting shown in **Figure 6**, which introduces extra volume and mixing potential. VICI uses proprietary tooling specifically designed to produce the same high precision detail in every Valco and Cheminert fitting.

Although sometimes the tube end may seal in the bottom of the detail, the intent is for the seal to be made at the ferrule. This leaves the possibility of seepage up around the tube and into the minute cavities between the end of the ferrule and the bottom of the ferrule seat. The probability of this seepage increases when there is an excessive variance between the tubing OD and the diameter of the counterbored pilot in which it sits, and between the ferrule OD and the ferrule ID at the point where it "bites" or crimps the tubing. The possibility is virtually eliminated in VICI's fittings, which are manufactured with the precise dimensions that chromatographic applications demand. Use of VICI precut tubing, which is manufactured to quality standards in excess of most commercial tubing, further assures the best fitting connection.

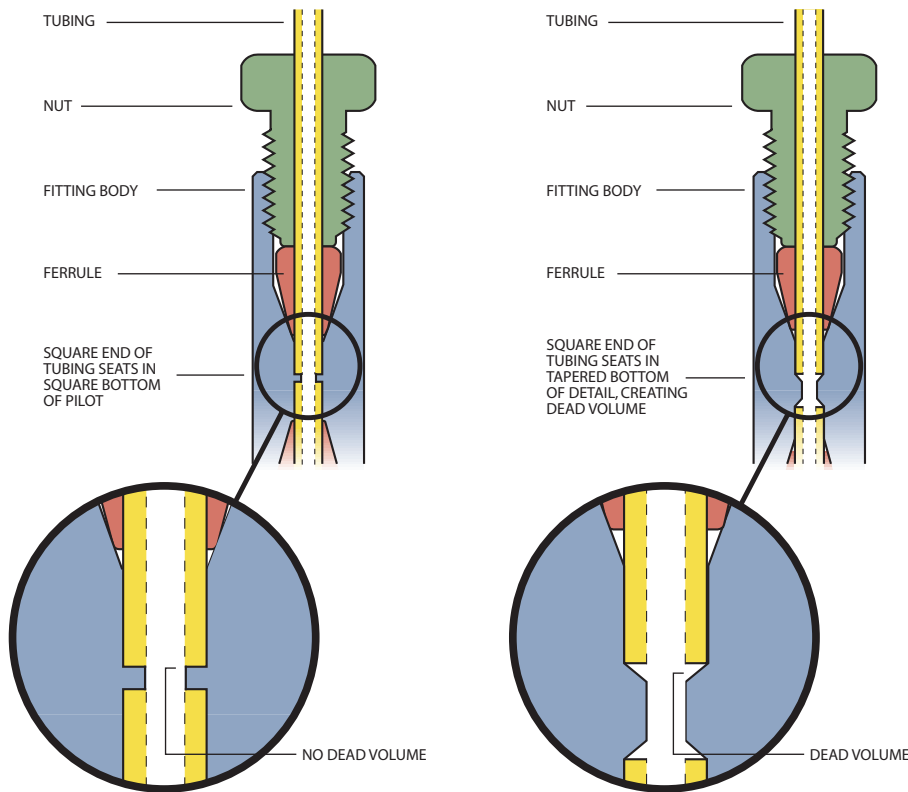


Figure 5
Valco/Cheminert high pressure
compression fitting

Figure 6
Poor quality
compression fitting

Comparison of Compression Fitting Designs

The potential for dead volume and mixing is a consideration in other aspects of fitting design as well, and varies considerably among manufacturers. For example, the common gas distribution reducing union in **Figure 7** illustrates two problems for instrumentation: a large connecting volume, and various steps and restrictions which cause mixing. While there are many uses for these fittings upstream of the analytical system (such as bulk gas distribution), they cause problems when used downstream in critical applications.

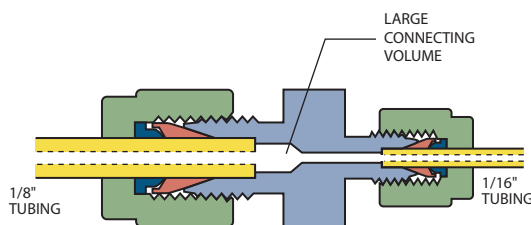


Figure 7
Common commercial
reducing union

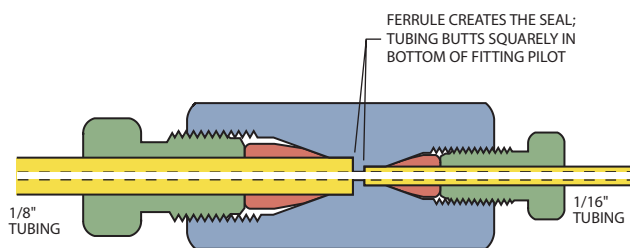


Figure 8
Valco zero dead volume
reducing union

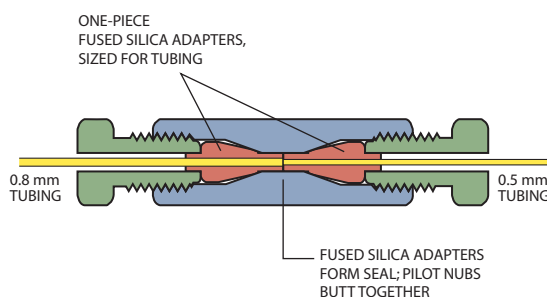


Figure 9
Valco zero dead volume
through-bore union

Additional difficulties may be encountered if this type of fitting is loosened and retightened repeatedly. The male threaded part can become flared to the point where it is impossible to get the nut on, and the tube end often flares out in the fitting detail so that it's difficult to remove the tube.

The Valco internal union (**Figure 8**) has a larger mass surrounding the ferrule, so that even with repeated remakes or overtightening, it's impossible to flare the fitting as in the external design. When a union is selected with a bore to match the ID of the connecting tubing, mixing and dead volume are virtually eliminated.

For connection of fused silica tubing of the same or differing sizes, the through-bore union shown in **Figure 9** is recommended. This fitting permits the use of our one-piece fused silica adapters to effect a true zero dead volume connection. The ferrule features an integrated pilot which adapts to the ID of the unions, resulting in an inert, zero volume connection.

Every Valco and Cheminert fitting is manufactured to exacting specifications. Fitting concentricity – the relationship of the center of one fitting to another – is held to within 10% of the bore size (0.05 mm in a typical 1/16" union with 0.5 mm bore), which is better than that of commonly used tubing. This results in fittings which contribute no "extra column effects" or loss of efficiency to the chromatographic system.

Nuts

Internal nuts – stainless steel

Nuts with product numbers starting with Z are for use with all standard Valco internal fittings and most valves. They may be used with fittings from other manufacturers as well. The L (long) and XL (extra-long) types are for situations where the fitting head may be otherwise inaccessible or where interference between fittings exists, as on many Valco multiposition valves. Standard material is 300 series stainless.

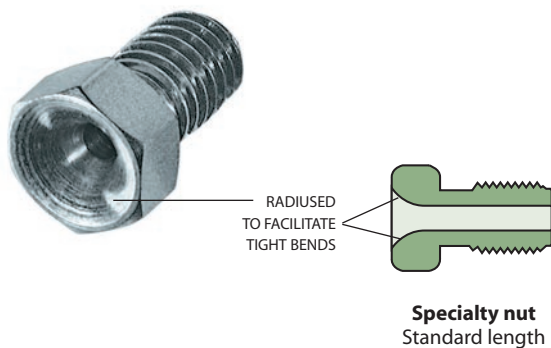
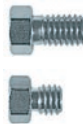
Stainless nuts			
Package of 10:	Length	Prod No	Price
1/32" nut	.30"	ZN.5-10	
1/32" nut	.45"	LZN.5-10	
1/16" nut	.43"	ZN1-10	
1/16" nut	.50"	MZN1-10	
1/16" nut	.75"	LZN1-10	
1/16" nut	1.00"	XLZN1-10	
1/8" nut	.57"	ZN2-10	
1/8" nut	.82"	LZN2-10	
1/8" nut	1.07"	XLZN2-10	
1/4" nut	.70"	ZN4-10	
1/4" nut	1.11"	LZN4-10	



NEW Specialty nuts – stainless steel

These special purpose nuts facilitate a tight bend as the tube exits the fitting, and can also help prevent kinks in very thin wall tubing. Quick bend nuts are available in standard length (.43") and in a short version (.30") for certain custom applications. Note that the short version (ZSN1) can *only* be used in certain applications. Call for more information.

Stainless nuts			
Description	Length	Prod No	Price
1/16", standard	.43"	ZN1Q	
1/16", short	.30"	ZSN1	



MORE INFORMATION

PEEK nuts	page 63
HPLC column end fittings	43-46
Reducing unions	
Internal	29
External	30
External/internal	31
Internal/external	31
Unions	
Internal	26
External	27
External/internal	27

TECH TIP

Fittings for **360 micron** tubing are available on pages 57-58.

0.25 mm =	.010"
0.50 mm =	.020"
0.75 mm =	.030"
1.0 mm =	.040"
1.5 mm =	.060"
2.0 mm =	.080"
4.6 mm =	.180"
6.0 mm =	.236"
6.4 mm =	.253"
7.0 mm =	.275"
10.0 mm =	.400"
27.0 mm =	1.08"
1/32" =	0.8 mm
1/16" =	1.6 mm
1/8" =	3.2 mm
1/4" =	6.4 mm
3/8" =	9.5 mm
1/2" =	12.7 mm



External nuts – stainless steel

External nuts are used with external fittings, such as our column end fittings (ECEP series) and external unions (EZU and EZRU series). They may also be used with Valco ferrules on Parker CPI and Swagelok type fittings. Standard material is 300 series stainless.

* PTFE-coated threads standard.

Description	Stainless nuts	
	Prod No	Price
1/32" external nut	EN.5	
1/32" external nut, knurled	EN.5KN	
1/16" external nut	EN1	
1/8" external nut	EN2	
1/4" external nut	EN4 *	
3/8" external nut	EN6 *	
1/2" external nut	EN8 *	
1" external nut	EN1K *	



Plugs – stainless steel and high pressure

Stainless plugs consist of a zero volume nut with a ferrule made up on a solid rod. For high pressure applications such as UHPLC, SFE, and SFC (>7000 psi), we recommend the special high pressure plugs with the ferrule and rod machined as a single, solid piece.

Description	Length of nut*	Stainless plugs		High pressure Stainless plugs	
		Prod No	Price	Prod No	Price
1/32"	.30"	ZP.5		ZP.5H	
1/16"	.43"	ZP1		ZP1H	
1/16"	.75"	LZP1		LZP1H	
1/8"	.57"	ZP2		ZP2H	
1/8"	.82"	LZP2		LZP2H	
1/4"	.70"	ZP4		-	



Caps – stainless steel

A cap is essentially a piece of hex stock with a zero volume fitting detail machined into it, but with no through-hole.

Description	Length of nut*	Stainless caps	
		Prod No	Price
1/32"	.30"	ZC.5	
1/16"	.43"	ZC1	
1/8"	.57"	ZC2	
1/4"	.70"	ZC4	

MORE INFORMATION

- PEEK plugs ... pages 64, 71
- PEEK plugs for high pressure Cheminert valves 64
- PEEK caps 57, 64

Ferrules

Valco metal ferrules cut a ring near the end of the tube, preventing tube release at high pressures without significantly deforming and restricting the tube interior. (However, if the hardness of the tubing is equal to or greater than that of the ferrule, deformation of the tube rather than a cut ring is likely.) Make up usually takes only about a 1/4 turn beyond the point where the ferrule first starts to grab the tubing. Polymeric ferrules seal by the increased friction from compression.

Valco zero volume ferrules may be used with all Valco fittings and with those of most other manufacturers. The maximum pressure limit is generally determined by the yield strength of the tubing. The maximum pressure for softer materials (such as brass and polymers) is lower, and depends on the tubing used. If in doubt about a particular combination, consult our technical staff.

For trace gas analysis, use gold-plated ferrules to achieve sealing with $<10^{-9}$ cc/atm/sec leakage.



MORE INFORMATION

For more detailed information on metals, refer to the discussion on pages 254-255.

Metal ferrules

	Prod No	Price	Prod No	Price	Prod No	Price
Package of 10:	Stainless, Type 303		Stainless, Type 316		Stainless, Gold-plated	
1/32"	ZF5-10		ZF5S6-10	\$40	ZF5GP-10	
1/16"	ZF1-10		ZF1S6-10	30	ZF1GP-10	
1/8"	ZF2-10		ZF2S6-10	22	ZF2GP-10	
1/4"	-		ZF4S6-10	19	ZF4GP-10	
Sold individually:	Hastelloy C		Nickel		Titanium	
1/32"	ZF5HC		ZF5NI	\$9	ZF5TI	
1/16"	ZF1HC		ZF1NI	8	ZF1TI	
1/8"	ZF2HC		ZF2NI	8	ZF2TI	
1/4"	ZF4HC		ZF4NI	9	ZF4TI	
Package of 10:	Brass					
1/32"	ZF5B-10					
1/16"	ZF1B-10					
1/8"	ZF2B-10					
1/4"	ZF4B-10					

- Not available

Larger sizes and/or specific materials may be available on special order.

METALS AT A GLANCE

Hastelloy C®HC
Resistant to pitting;
Resists oxidizing atmospheres

Nickel NI
Resistant to caustics,
high temp halogens,
and hydrogen halides

Stainless steel,
Gold-platedGP
More inert than standard stainless

Stainless steel,
Type 303
GC, gas lines, general purpose

Stainless steel,
Type 316S6
LC with high chloride ion in solutions

TitaniumTI
Outstanding resistance to most media except hydrofluoric acids

Brass B
Not recommended for most chromatographic applications

0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"

1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"

4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"

7.0 mm = .275"
10.0 mm = .400"

27.0 mm = 1.08"

1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm

1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm



Polymeric ferrules

MORE INFORMATION
 PEEK ferrules page 63
 Grooved PEEK
 ferrules 63

For more detailed
 information on polymers,
 refer to the discussion
 on page 256.

**POLYMERS
 AT A GLANCE**

CTFE KF
*Resists all inorganic
 corrosives.
 Produced as Kel-F®*

FEP FEP
*Chemical resistance
 equals PTFE, but lower
 creep and higher
 friction*

PTFE, Glass-filled TFG
*Inert, mechanically
 stable*

PTFE, Virgin TF
*Inert; very soft, easily
 cold flows.
 Produced as Teflon®*

Polyimide, Graphite GV
*Soft, easy to form fer-
 rules*

Polyimide, Valcon V
*High temp, graphite
 reinforced*

Polyimide, Virgin V1
*High temp, electrical
 insulator*

	Prod No	Price	Prod No	Price	Prod No	Price
<i>Package of 10:</i>	PTFE, Virgin		PTFE, Glass-filled		FEP	
1/32"	ZF.5TF-10		ZF.5TFG-10		ZF.5FEP-10	
1/16"	ZF1TF-10		ZF1TFG-10		ZF1FEP-10	
1/8"	ZF2TF-10		ZF2TFG-10		ZF2FEP-10	
1/4"	ZF4TF-10		ZF4TFG-10		ZF4FEP-10	
3/8"	ZF6TF-10		ZF6TFG-10		ZF6FEP-10	
1/2"	ZF8TF-10		ZF8TFG-10		ZF8FEP-10	

	Prod No	Price	Prod No	Price
<i>Package of 10:</i>	PFA		CTFE	
1/32"	ZF.5PFA-10		ZF.5KF-10	
1/16"	ZF1PFA-10		ZF1KF-10	
1/8"	ZF2PFA-10		ZF2KF-10	
1/4"	ZF4PFA-10		ZF4KF-10	
3/8"	ZF6PFA-10		ZF6KF-10	
1/2"	ZF8PFA-10		ZF8KF-10	

	Prod No	Price	Prod No	Price	Prod No	Price
<i>Package of 5:</i>	Polyimide, Graphite		Polyimide, Valcon		Polyimide, Virgin	
1/32"	ZF.5GV-5		ZF.5V-5		ZF.5V1-5	
1/16"	ZF1GV-5		ZF1V-5		ZF1V1-5	
1/8"	ZF2GV-5		ZF2V-5		ZF2V1-5	
1/4"	ZF4GV-5		ZF4V-5		ZF4V1-5	
3/8"	ZF6GV-5		ZF6V-5		ZF6V1-5	
1/2"	ZF8GV-5		ZF8V-5		ZF8V1-5	

**FERRULE
 IDENTIFICATION**

To differentiate among
 the most commonly
 ordered metal ferrules,
 ring(s) are engraved on
 the non-sealing surfaces.



Reducing Ferrules

Reducing ferrules provide an inexpensive way to connect small temporary transfer lines to valves or fittings designed for larger tubing. For long term use, we recommend our reducing unions, internal reducers (IZRs), or external reducers (EZRs), as appropriate.

Internal ZDV (zero dead volume) reducing ferrules are designed for use with all standard Valco internal style fittings – that is, those with a male nut and female fitting detail. The ferrule features an integral pilot which fills the pilot cavity (the space between the end of the ferrule and the bottom of the detail), yielding a zero dead volume fitting.

External ZDV reducing ferrules are designed for use with all standard external style fittings – that is, those with a female nut and a male fitting detail. This ferrule has a slightly longer pilot than the internal version, to accommodate the longer external detail. The result is a zero dead volume fitting. A single groove indicates that the ferrule has the longer pilot and is for use in an external detail.

Standard reducing ferrules can be used where mixing is not a problem, such as with liquid or gas delivery. A 1/16" to 1/32" ferrule of this style is simply a 1/16" ferrule with a 1/32" hole.



Internal reducing ferrules

Use these ferrules in internal type fitting details, with nuts that have external threads.

	Prod No	Price	Prod No	Price	Prod No	Price
Package of 5:	PTFE, Glass-filled		PEEK		Polyimide, Valcon	
1/16" to 1/32"	ZRF1.5TFG-5		ZRF1.5PK-5		ZRF1.5V-5	
1/8" to 1/32"	ZRF2.5TFG-5		ZRF2.5PK-5		ZRF2.5V-5	
1/8" to 1/16"	ZRF21TFG-5		ZRF21PK-5		ZRF21V-5	
1/4" to 1/16"	ZRF41TFG-5		ZRF41PK-5		ZRF41V-5	
1/4" to 1/8"	ZRF42TFG-5		ZRF42PK-5		ZRF42V-5	
Package of 5:	CTFE		Polyimide, Virgin			
1/16" to 1/32"	ZRF1.5KF-5		ZRF1.5V1-5			
1/8" to 1/32"	ZRF2.5KF-5		ZRF2.5V1-5			
1/8" to 1/16"	ZRF21KF-5		ZRF21V1-5			
1/4" to 1/16"	ZRF41KF-5		ZRF41V1-5			
1/4" to 1/8"	ZRF42KF-5		ZRF42V1-5			

MORE INFORMATION

Internal reducers (IZR)..... page 34
 External reducers (EZR)..... 35
 Ferrule removal kits.... 16

For 1/16" and 1/32" reducing ferrules with smaller ODs for use with fused silica, see the FS and FSR adapters on pages 16-17.

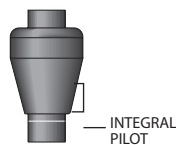
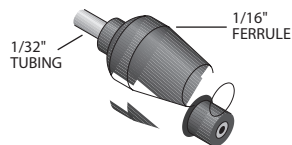
TECH TIP

Fittings for 360 micron tubing are available on pages 57-58.

TECH TIP

If you are doing resistive heating of traps or columns, note that our virgin polyimide ferrules are effective electrical insulators.

Virgin polyimide is produced as Vespel®.



Internal reducing ferrule (ZRF)



PEEK reducing ferrule and internal nut
 (Order nut separately.)

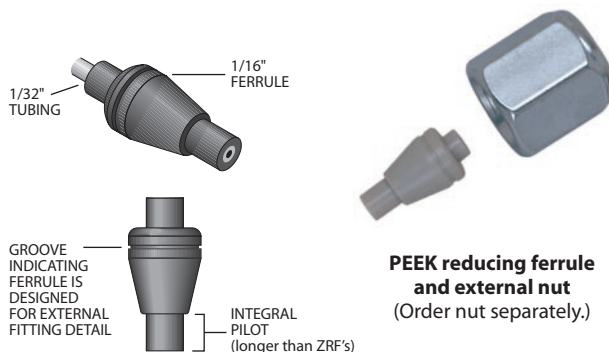
OPTION

Available in Virgin Polyimide.

External reducing ferrules

Use these ferrules in external type fitting details, with nuts that have internal threads.

	Prod No	Price	Prod No	Price	Prod No	Price
<i>Package of 5:</i>	PTFE, Glass-filled		PEEK		Polyimide, Valcon	
	1/16" to 1/32"	EZRF1.5TFG-5	EZRF1.5PK-5		EZRF1.5V-5	
	1/8" to 1/32"	EZRF2.5TFG-5	EZRF2.5PK-5		EZRF2.5V-5	
	1/8" to 1/16"	EZRF21TFG-5	EZRF21PK-5		EZRF21V-5	
	1/4" to 1/16"	EZRF41TFG-5	EZRF41PK-5		EZRF41V-5	
	1/4" to 1/8"	EZRF42TFG-5	EZRF42PK-5		EZRF42V-5	
<i>Package of 5:</i>	CTFE					
	1/16" to 1/32"	EZRF1.5KF-5				
	1/8" to 1/32"	EZRF2.5KF-5				
	1/8" to 1/16"	EZRF21KF-5				
	1/4" to 1/16"	EZRF41KF-5				
	1/4" to 1/8"	EZRF42KF-5				

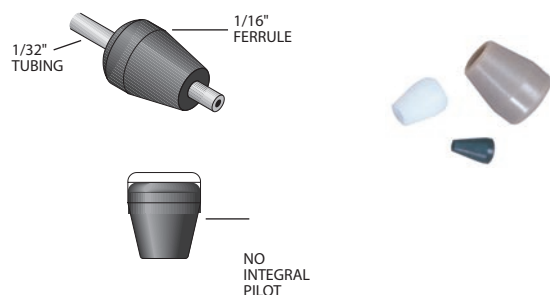


External reducing ferrule (EZRF)

Standard reducing ferrules

Use these ferrules for bulk distribution only, since the resulting connection will not be zero dead volume. These ferrules can be used in either internal or external type fitting details.

	Prod No	Price	Prod No	Price	Prod No	Price
<i>Package of 5:</i>	PTFE, Glass-filled		PEEK		Polyimide, Valcon	
	1/16" to 1/32"	RF1.5TFG-5	RF1.5PK-5		RF1.5V-5	
	1/8" to 1/32"	RF2.5TFG-5	RF2.5PK-5		RF2.5V-5	
	1/8" to 1/16"	RF21TFG-5	RF21PK-5		RF21V-5	
	1/4" to 1/16"	RF41TFG-5	RF41PK-5		RF41V-5	
	1/4" to 1/8"	RF42TFG-5	RF42PK-5		RF42V-5	
<i>Package of 5:</i>	CTFE					
	1/16" to 1/32"	RF1.5KF-5				
	1/8" to 1/32"	RF2.5KF-5				
	1/8" to 1/16"	RF21KF-5				
	1/4" to 1/16"	RF41KF-5				
	1/4" to 1/8"	RF42KF-5				



Standard reducing ferrule (RF)

- 0.25 mm = .010"
- 0.50 mm = .020"
- 0.75 mm = .030"
- 1.0 mm = .040"
- 1.5 mm = .060"
- 2.0 mm = .080"
- 4.6 mm = .180"
- 6.0 mm = .236"
- 6.4 mm = .253"
- 7.0 mm = .275"
- 10.0 mm = .400"
- 27.0 mm = 1.08"
- 1/32" = 0.8 mm
- 1/16" = 1.6 mm
- 1/8" = 3.2 mm
- 1/4" = 6.4 mm
- 3/8" = 9.5 mm
- 1/2" = 12.7 mm

Fused Silica Adapters

Fused silica adapters are available in Valcon polyimide for use up to 350°C and in PEEK for lower temperature applications (up to 175°C). Valcon polyimide is a unique graphite-reinforced composite, specially prepared to maximize mechanical stability at high temperatures. Small blocks are subjected to extreme loads by a process known as hot isostatic pressing, with individual ferrules

subsequently machined from these blocks. The result of this two-step process is a fused silica adapter with high temperature stability which far exceeds that of parts produced by conventional molding. Note that the determining factor in adapter size selection is the fused silica tubing's outer diameter, or OD. Typical ODs for common columns are included in the product number tables.



One piece fused silica adapter (FS)

The one piece FS adapter, essentially a reducing ferrule, is recommended for use in fittings where the polyimide ferrule will not be removed. Connections are made and disconnected by loosening the fitting nut and sliding the tube out.

Package of 5:

	Tubing OD:	Polyimide, Valcon		PEEK		Polyimide, Virgin	
		Prod No	Price	Prod No	Price	Prod No	Price
1/32" Adapters	< 0.25 mm	FS.25-5		FS.25PK-5		FS.25V1-5	
	0.25 ≤ 0.40 mm	FS.4-5		FS.4PK-5		FS.4V1-5	
	0.40 ≤ 0.50 mm	FS.5-5		FS.5PK-5		FS.5V1-5	
	0.50 ≤ 0.80 mm	ZF.5V-5		ZF.5PK-5		ZF.5V1-5	
1/16" Adapters	< 0.25 mm	FS1.2-5		FS1.2PK-5		FS1.2V1-5	
	0.25 ≤ 0.30 mm	FS1.25-5		FS1.25PK-5		FS1.25V1-5	
	0.30 ≤ 0.35 mm	FS1.3-5		FS1.3PK-5		FS1.3V1-5	
	0.35 ≤ 0.40 mm	FS1.4-5		FS1.4PK-5		FS1.4V1-5	
	0.40 ≤ 0.50 mm	FS1.5-5		FS1.5PK-5		FS1.5V1-5	
	0.50 ≤ 0.80 mm	FS1.8-5		FS1.8PK-5		FS1.8V1-5	
	0.80 ≤ 0.90 mm	FS1.9-5		FS1.9PK-5		FS1.9V1-5	
	0.90 ≤ 1.0 mm	FS11.0-5		FS11.0PK-5		FS11.0V1-5	

TEMPERATURE RATINGS

Polyimide adapters can be used at temperatures up to 350°C.

PEEK adapters are not recommended for use above 175°C.

TECH TIP

Virgin polyimide adapters are effective electrical insulators, making them the ideal choice for capillary electrophoresis.

Virgin polyimide is produced as Vespel®.

TECH TIP

If a fused silica tube breaks off in a through-type union, remove the nuts and the tube opposite the broken one. Clear the fitting by passing a drill or wire of the appropriate diameter into the unbroken side and through the center of the fitting.

Our **ferrule removal kit**, left, can be used to remove ferrules from all types of fittings.

Ferrule removal kit

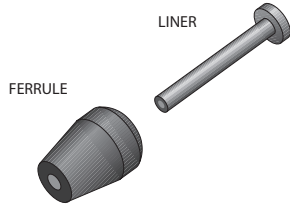
These tapered tools have teeth designed to grip and remove fused silica adapters if they get stuck in a fitting detail. Each kit has two sizes of tools, so they can retrieve 1/32" and 1/16" adapters.

Prod No Price
FRK1 \$23



WHICH ADAPTER FOR WHICH COLUMN?

Column ID	Typical column OD	1/32" adapter	1/16" adapter
< 0.20 mm	0.25 mm	FS.25	FS1.25
0.25 mm	0.4 mm	FS.4	FS1.4
0.32 mm	0.5 mm	FS.5	FS1.5
0.53 mm	0.8 mm	ZF.5V	FS1.8



Removable fused silica adapters (FSR)

The FSR adapter is the only adapter recommended for use in valves. It consists of a liner which slides over the fused silica tubing and a ferrule which makes up on the liner. The polyimide liner has an enlarged diameter at one end which is captured by the nut, so the liner and the tube within it are removed as the nut is unscrewed from the valve. The 1/16" FSR adapter includes a special counter-bored 1/16" nut. The 1/32" FSR adapter uses standard Valco 1/32" nuts.

MORE INFORMATION

Fused silica
 Unions . pp 18-19, 58, 61
 Fittings 18-21
 A pin vise and drill index are useful for enlarging the inner diameters of the FS adapters.
 Pin vise and drill index 55

REPLACEMENT PARTS

Ferrules (package of 5)		
1/32" Polyimide	ZF.5V-5	\$30
1/16" Polyimide	ZF1V-5	25
(package of 10)		
1/16" PEEK	ZF1PK-10	33
Nuts (package of 10)		
1/32" SS	ZN.5-10	29
<i>Special nuts for FSRs:</i>		
1/16" SS	ZCN1-10	30
1/16" SS long	LZCN1-10	45

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Package of 5:

1/32"

Removable adapters	Tubing OD:	
	< 0.25 mm	FSR.25-5
	0.30 ≤ 0.35 mm	FSR.3-5
	0.35 ≤ 0.40 mm	FSR.4-5
	0.40 ≤ 0.50 mm	FSR.5-5

1/32"

Replacement liners	Tubing OD:	
	< 0.25 mm	FSL.25-5
	0.25 ≤ 0.40 mm	FSL.4-5
	0.40 ≤ 0.50 mm	FSL.5-5

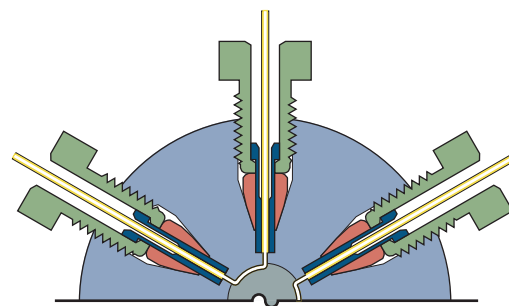
Package of 5:

1/16"

Removable adapters	Tubing OD:		
	< 0.15 mm	-	FS1R.15PK-5
	< 0.20 mm	FS1R.2-5	FS1R.2PK-5
	0.20 ≤ 0.40 mm	FS1R.4-5	FS1R.4PK-5
	0.40 ≤ 0.50 mm	FS1R.5-5	FS1R.5PK-5
0.50 ≤ 0.80 mm	FS1R.8-5	FS1R.8PK-5	
0.90 ≤ 1.0 mm	FS1R1.0-5	FS1R1.0PK-5	

1/16"

Replacement liners	Tubing OD:		
	< 0.15 mm	-	FS1L.15PK-5
	< 0.20 mm	FS1L.2-5	FS1L.2PK-5
	0.20 ≤ 0.40 mm	FS1L.4-5	FS1L.4PK-5
	0.40 ≤ 0.50 mm	FS1L.5-5	FS1L.5PK-5
0.50 ≤ 0.80 mm	FS1L.8-5	FS1L.8PK-5	
0.90 ≤ 1.0 mm	FS1L1.0-5	FS1L1.0PK-5	



Removable FSR adapters in a valve

Fused Silica Fittings

The patented design of our fused silica fittings ensures stable, leak-free connections at temperatures up to 400°C, and undistorted ferrules that are easily removed and reused. Columns may be changed without the risk of the leaks which can devastate systems such as mass spectrometers or atomic emission detectors. This is accomplished with a spring-loaded

self-compensating nut which provides a constant sealing force as the temperature varies.

Self-compensating nuts are currently employed in two basic designs: a fused silica-lined union and an injector/detector nut for Agilent 6890 and 5890 GCs.

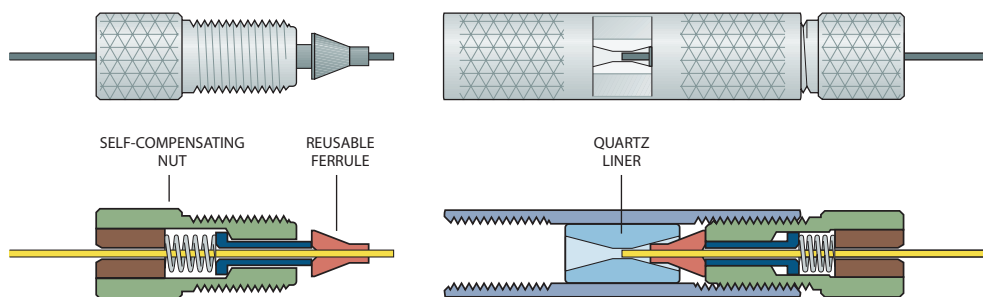
Fused silica unions

The fused silica union* has a quartz liner, providing an inert connection zone of minimal volume. Since the seal occurs only at the ferrule tip, the total sealing force is minimized, leaving the ferrule undistorted and reusable.

Note: The ferrules used in this union are unique, due to the seal at the tip. Standard ferrules will not work in this union.



Description	Prod No	Price
Fused silica union	FSKZU1	
Replacement liner	FSQ1	
Replacement nut	FSZN1	



Fused silica union with self-compensating nut

Replacement ferrules for fused silica unions and self-compensating nuts (Agilent injector nuts)

These reusable ferrules seal at the tip, and are different from standard ferrules. Order for use with FSKZU1 fused silica unions and FSZNA-HP nuts on these two pages.

Package of 10:	Column ID:	Prod No	Price
	.20-.25 mm	FS1.35-R10	
	.32 mm	FS1.45-R10	
	.53 mm	FS1.75-R10	

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

*U.S. patent numbers 5,234,235 and 4,991,883.

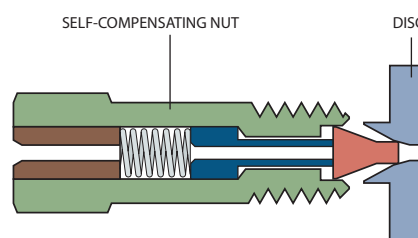
CHROMalytic TECHNOlogy Pty Ltd AUSTRALIAN Distributors e-mail: sales@chromtech.net.au Tel: 03 9762 2034

Injector nut for Agilent 6890 and 5890, Series I and II



This self-compensating nut is a direct replacement for the standard nut on the split/splitless injectors of Agilent 6890 and 5890 series GCs. This retrofit offers enhanced ferrule reusability and temperature stability, resulting in fingertight leak-free connections over the full programmed temperature range of mass spectrometry and gas chromatography. To use this nut, the split/splitless disk must also be upgraded; the new disk will also work with older HP nuts and ferrules.

	<i>Prod No</i>	<i>Price</i>
Injector nut system Includes nut and seal disk	FSZA-HP	
Replacement parts		
Self-compensating nut	FSZNA-HP	
HP-5890 split/splitless seal disk	SEAL1-HP	



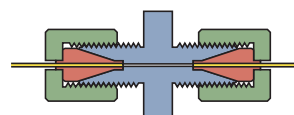
Self-compensating nut
for the 6890/5890 GC

1/32" Ultra low mass external unions



The 1/32" external union is specially designed for use with capillary columns in GC. It has very low mass and does not require wrenches to seal. Use only with one-piece fused silica adapters, since metal ferrules will distort the detail. Order fused silica adapters separately (*see box at left*).

<i>Bore</i>	<i>Prod No</i>	<i>Price</i>
0.25 mm	EU.5	
0.50 mm	EU.5L	
1/32"	EU.5T	



1/32" external union
for use with capillary columns in GC

MORE INFORMATION

1/32" fused silica adapter ferrules..... page 16

1/32" FUSED SILICA FERRULES
(package of 5)

Tubing OD:

	≤ 0.25 mm	FS.25-5	\$25
0.25 mm	≤ 0.4 mm	FS.4-5	25
0.4 mm	≤ 0.5 mm	FS.5-5	25
0.5 mm	≤ 0.8 mm	ZF.5V-5	25

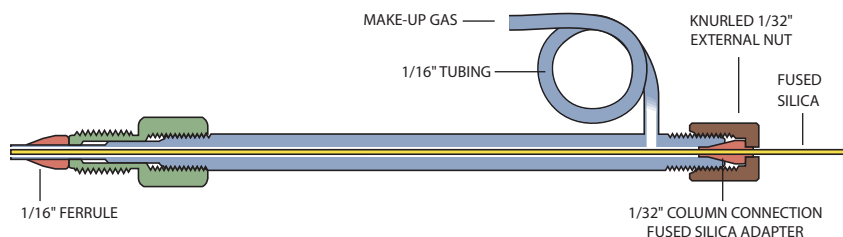
Fused Silica Adapters

Fused silica make-up adapters

The fused silica make-up adapter connects a fused silica capillary column to a valve or detector while adding a make-up gas. In the reverse mode it works like a splitter, without the uneven or erratic split seen with basic tees. Two lengths are available. Order 1/32" fused silica adapter ferrules separately (see box on facing page).



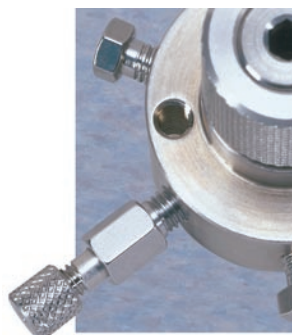
Description	Length	Bore	Prod No	Price
1/16" to 1/32"	1.5"	0.5 mm	FSMUAS1.5M	
	1.5"	0.75 mm	FSMUAS1.5	
	1.5"	1.0 mm	FSMUAS1.5L	
	3.5"	0.75 mm	FSMUA1.5	



Fused silica make-up adapter
(FSMUA1.5)

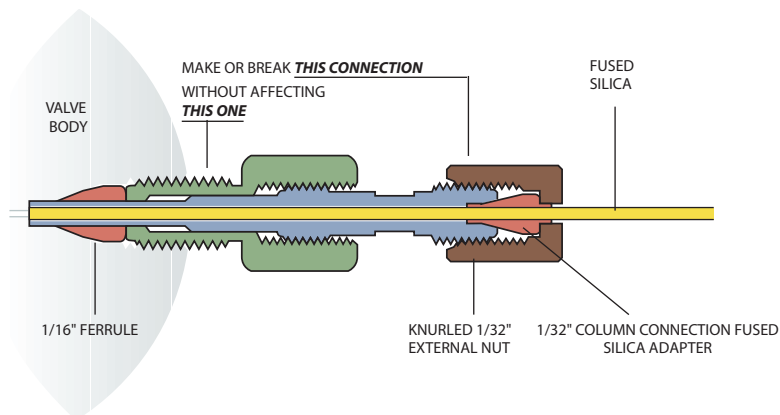
100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	
	= 9.5 mm
1/2"	= 12.7 mm

Internal to external reducer/adapters



Internal fittings provide the smallest possible fitting volume. But there are situations, such as when you're using graphite ferrules which tend to become lodged in internal details, when an external fitting might be more desirable. A typical situation of that nature is the connection of a fused silica capillary to a valve. Our unique design permits the 1/32" nut to be tightened without affecting the 1/16" connection. Order 1/32" fused silica adapter ferrules separately (see box below).

Description	Bore	Prod No	Price
1/16" to 1/32"	0.25 mm	IZERA1.5C	
	0.5 mm	IZERA1.5M	
	1.0 mm	IZERA1.5	



Internal to external FS adapter (IZERA1.5)
shown installed in a valve

MORE INFORMATION

1/32" fused silica adapter ferrules..... page 16

CAUTION

Polymeric ferrules are strongly recommended for 1/16" and 1/32" external details. Metal ferrules may distort the fitting.

1/32" FUSED SILICA FERRULES

(package of 5)

Tubing OD:

	≤ 0.25 mm	FS.25-5	\$30
0.25 mm	≤ 0.4 mm	FS.4-5	30
0.4 mm	≤ 0.5 mm	FS.5-5	30
0.5 mm	≤ 0.8 mm	ZF.5V-5	30

Microvolume Connectors

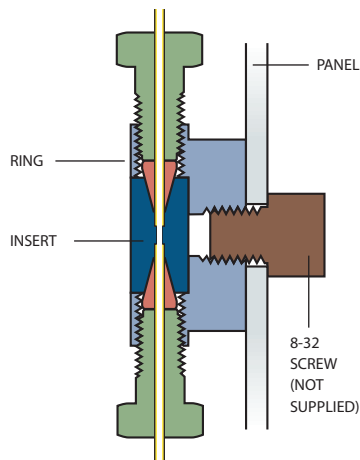
Micro-unions, -tees, -crosses, and -Y's have a unique two-piece design which allows us to provide an extremely small bore in a conventional ferrule and nut fitting. The actual connection area is separated from the nut threads, with the ferrule detail in a metal or polymer insert and the threads machined into a stainless steel or polymer ring. Since the insert has a much smaller diameter than a standard one-piece fitting, it can be drilled with much shorter tools; and, since a shorter drill has less tendency to wander or break, holes as small as .006" (0.15 mm) can be machined with the same high degree of concentricity found in all Valco fittings.

Valco microvolume fittings make it possible to couple 100 micron ID capillary GC, HPLC, or CZE columns without special nuts and ferrules. A stainless ring with one of the plastic

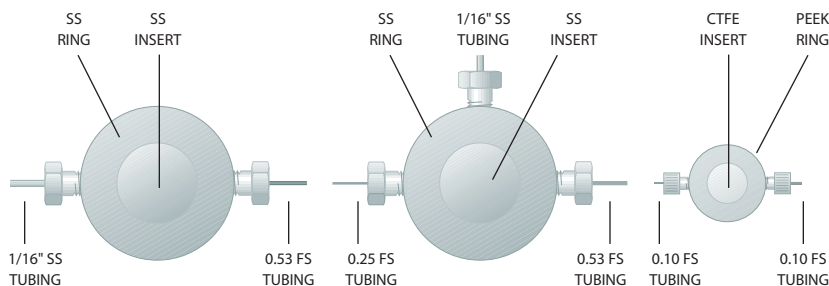
inserts provides electrical insulation within the insert, while the PEEK ring achieves total isolation.

The ring containing the threads is made from PEEK or stainless steel. Inserts are made of stainless steel, Hastelloy C, Titanium, PEEK, or CTFE. PEEK rings are not as robust as stainless steel, and are not usable above 75°C. The stainless steel ring with a metal insert can operate at up to 10,000 psi for HPLC or SFC.

All standard Valco zero dead volume reducing ferrules (ZRF, FS, and FSR) will work in these fittings. They are uniquely designed to fill the void between the fitting pilot and the smaller tubing OD, eliminating any dead volume in the fitting. (Reducing ferrules such as Valco's RF series should be avoided, since they leave dead volume.)



Panel mounting



Stainless to fused silica union
1/16" fittings

Make-up adapter
1/16" fittings

CZE union
1/32" fittings

MORE INFORMATION

FS fused silica adapters..... page 16
FSR fused silica adapters..... 17
ZRF internal reducing ferrules 14

Ferrules
Metal..... 12
Polymeric 13

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
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6.0 mm	= .236"
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10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

1/32" Microvolume connectors

Includes ring, nuts, and ferrules. With metal inserts: ferrules are the same material as the insert, and ring and nuts are stainless steel. With polymer inserts: ferrules are the same material as the insert, and ring and nuts are PEEK.

Insert Material:	Stainless steel		Hastelloy C		Titanium		PEEK		CTFE	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
0.15 mm bore										
Union	MU.5XCS6		MU.5XCHC		MU.5XCTI		MU.5XCPK		MU.5XCKF	
Tee	MT.5XCS6		MT.5XCHC		MT.5XCTI		MT.5XCPK		MT.5XCKF	
Y	MY.5XCS6		MY.5XCHC		MY.5XCTI		MY.5XCPK		MY.5XCKF	
Cross	MX.5XCS6		MX.5XCHC		MX.5XCTI		MX.5XCPK		MX.5XCKF	
0.25 mm bore										
Union	MU.5CS6		MU.5CHC		MU.5CTI		MU.5CPK		MU.5CKF	
Tee	MT.5CS6		MT.5CHC		MT.5CTI		MT.5CPK		MT.5CKF	
Y	MY.5CS6		MY.5CHC		MY.5CTI		MY.5CPK		MY.5CKF	
Cross	MX.5CS6		MX.5CHC		MX.5CTI		MX.5CPK		MX.5CKF	

1/16" Microvolume connectors

Includes ring, nuts, and ferrules. With metal inserts: ferrules are the same material as the insert, and ring and nuts are stainless steel. With polymer inserts: ferrules are the same material as the insert, and ring and nuts are PEEK.

Insert Material:	Stainless steel		Hastelloy C		Titanium		PEEK		CTFE	
	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price	Prod No	Price
0.15 mm bore										
Union	MU1XCS6		MU1XCHC		MU1XCTI		MU1XCPK		MU1XCKF	
Tee	MT1XCS6		MT1XCHC		MT1XCTI		MT1XCPK		MT1XCKF	
Y	MY1XCS6		MY1XCHC		MY1XCTI		MY1XCPK		MY1XCKF	
Cross	MX1XCS6		MX1XCHC		MX1XCTI		MX1XCPK		MX1XCKF	
0.25 mm bore										
Union	MU1CS6		MU1CHC		MU1CTI		MU1CPK		MU1CKF	
Tee	MT1CS6		MT1CHC		MT1CTI		MT1CPK		MT1CKF	
Y	MY1CS6		MY1CHC		MY1CTI		MY1CPK		MY1CKF	
Cross	MX1CS6		MX1CHC		MX1CTI		MX1CPK		MX1CKF	

Replacement components

Description	1/32" connectors		1/16" connectors	
	Prod No	Price	Prod No	Price
SS ring for union, tee, or cross	MRX.5S6		MRX1S6	
SS ring for Y	MRY.5S6		MRY1S6	
PEEK ring for union, tee, or cross	MRX.5PK		MRX1PK	
PEEK ring for Y	MRY.5PK		MRY1PK	
Nuts for SS ring	ZN.5		ZN1	
Nuts for PEEK ring	ZN.5FPK		ZN1FPK	

Inserts for any connector:

To order an insert, add an "I" after the "M" in the product number, and deduct \$5 from the connector price.

For example, to order an insert for a 1/16" microvolume union MU1CS6, order part number MIU1CS6.

OPTIONS

0.50, 0.75, and 1.0 mm bores are available in most materials and configurations.

NANOVOLUME CONNECTIONS

For 0.10 mm (100 µm) bore fittings, see pages 57- 60.

Unions

Unions join two pieces of tubing of the same OD. Select the union with the bore that matches the ID of the tubing. If the IDs are different, choose the union with a bore which matches the smaller tube bore. Standard material is 300 series stainless steel.

- **Internal** unions have female threads and a fitting detail for zero volume fittings. The nuts have male (external) threads.
- **External** unions have male threads, requiring a nut with internal threads.
- **External/internal** unions have male threads on one end and female threads on the other, for connecting a standard zero dead volume fitting to an existing tube which already has an external nut made up on it.

Internal fittings are almost always the best with tubing of 1/8" OD or smaller. They make a stronger connection and offer the lower volume necessary for high performance instrumentation. Also, because 1/16" external fittings have very thin, easily distorted walls, they are not as durable as 1/16" internal fittings. In sizes larger than 1/8", external fittings are generally easier to make up because of less thread friction.

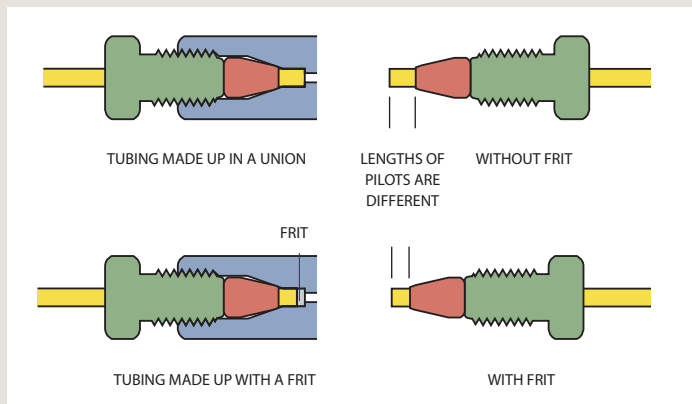
Bulkhead versions can be mounted through an instrument panel or on a bracket. The fitting body is undercut so that it bites into the panel when the mounting nut is tightened, eliminating the need for a lock washer. An O-ring can be installed between the body and the panel to allow operation in purged environments. Typically the mounting nut goes inside the instrument, so that the long threaded portion will be out of sight. In the external/internal bulkhead unions, the mounting nut is on the side with the Valco internal fitting.



TECH TIP

Filtering capability can be added to a union by inserting a screen or frit into it before making up the fittings. However, when a fitting detail has a screen or frit in it, the pilot depth is reduced, so that the ferrule makes up closer to the tube end than it otherwise would. If that tube is used in any other Valco fitting, it will introduce unswept volume. Our filter design takes this into account, allowing our fittings to remain truly interchangeable.

Filters pages 50-52
Frits and screens. 53

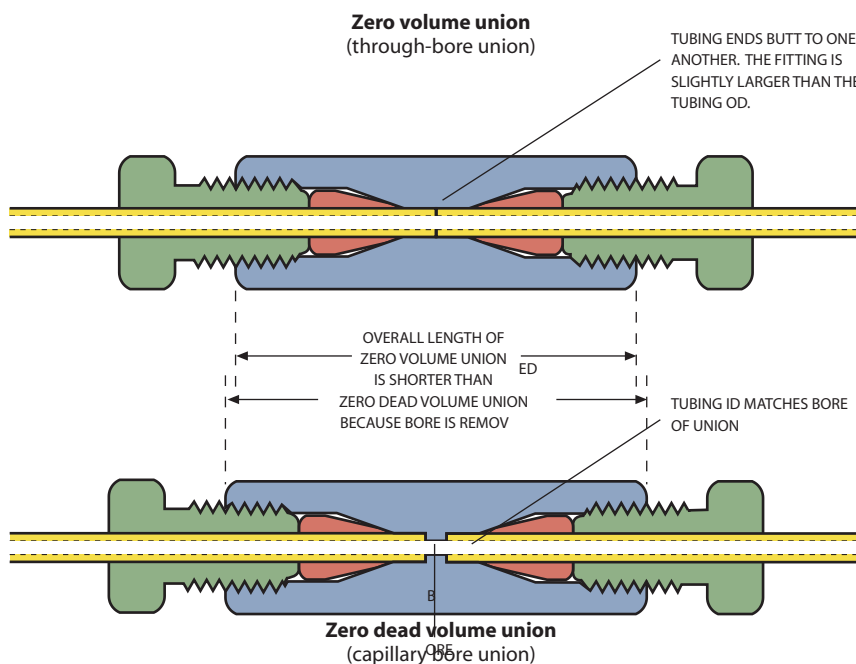


0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Zero Volume vs. Zero Dead Volume

A true zero volume fitting is one in which no part of the fitting actually becomes a part of the flow path. The only Valco fittings which fit this description are our through-bore unions, which allow tubing to butt end-to-end. (So these are only zero volume if the tube ends are perfectly square.)

All other fittings are designed with zero *dead* volume: that is, there is no volume introduced by the fitting which is not cleanly swept.



MORE INFORMATION

Reducing unions to connect two tubes with different ODs p 29-31
Unions with 1/4-28 fittings 72

TECH TIP

Through-bore Union Installation

Because the tubing will pass all the way through a through-bore union, we suggest making up the first tube in a standard Valco fitting to establish the proper length of tubing extending beyond the ferrule. Install this made-up connection in the through-bore union; then the second tube can be butted against it for a zero volume connection.

Unions

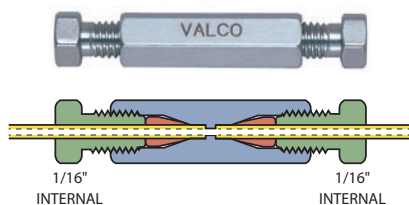
Internal unions – stainless steel

Standard material is 300 series stainless. Also available in Hastelloy C, gold-plated stainless, and titanium.

Standard internal unions

Tubing

OD	Bore	Prod No	Price
1/32"	0.15 mm	ZU.5XC	
	0.25 mm	ZU.5	
	0.50 mm	ZU.5L	
	1/32"	ZU.5T	
1/16"	0.15 mm	ZU1XC	
	0.25 mm	ZU1C	
	0.50 mm	ZU1M	
	0.75 mm	ZU1	
	1.0 mm	ZU1L	
	1/16"	ZU1T	
1/8"	0.75 mm	ZU2	
	2.0 mm	ZU2L	
	1/8"	ZU2T	
1/4"	0.75 mm	ZU4	
	4.6 mm	ZU4L	
	1/4"	ZU4T	



Internal union – metal
Standard bore version
(ZU1)

Ends of tubing seat squarely
at bottoms of fitting details

Bulkhead internal unions

Tubing

OD	Bore	Prod No	Price	Bulkhead panel hole diameter
1/32"	0.15 mm	ZBU.5XC		5/16"
	0.25 mm	ZBU.5		5/16"
	0.50 mm	ZBU.5L		5/16"
	1/32"	ZBU.5T		5/16"
1/16"	0.15 mm	ZBU1XC		5/16"
	0.25 mm	ZBU1C		5/16"
	0.50 mm	ZBU1M		5/16"
	0.75 mm	ZBU1		5/16"
	1.0 mm	ZBU1L		5/16"
	1/16"	ZBU1T		5/16"
1/8"	0.75 mm	ZBU2		7/16"
	2.0 mm	ZBU2L		7/16"
	1/8"	ZBU2T		7/16"
1/4"	0.75 mm	ZBU4		5/8"
	4.6 mm	ZBU4L		5/8"
	1/4"	ZBU4T		5/8"



Bulkhead internal union – metal
(ZBU1)

MORE INFORMATION

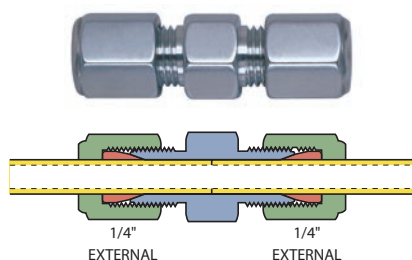
Internal unions, high pressure PEEK ... p 57,65

For special materials and/or smaller bores:

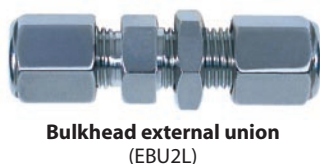
Microvolume connectors offer a complete range of 1/32" and 1/16" unions in various metals and polymers, with bore sizes ranging from .006" (0.15 mm) to .040" (1.0 mm). Refer to pages 22-23.

0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm

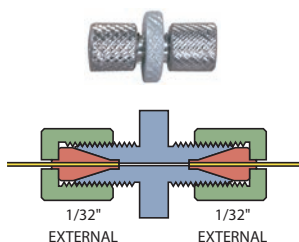
5/16"	=	.312"	=	7.9 mm
3/8"	=	.375"	=	9.5 mm
7/16"	=	.437"	=	11.1 mm



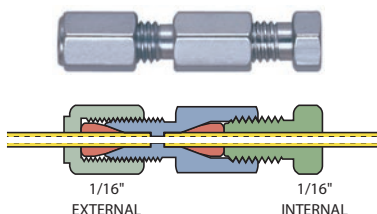
External union
Through-bore version
(EU4T)
Ends of tubing butt together



Bulkhead external union
(EBU2L)



1/32" external union
(EU.5)
For use with GC capillary columns



External/internal union
Standard bore
(EZU1)
Adapts existing external fittings
to Valco zero volume internal fittings



Bulkhead external/internal union
(EZBU1)

External unions

Standard material is 300 series stainless. Also available in Hastelloy C and gold-plated stainless.

Note: Because 1/16" external fittings have very thin, easily distorted walls, they are not as durable as 1/16" internal fittings. We recommend the use of external/internal unions (below) when connecting to an installed external nut.

Tubing OD	Bore	Standard		Bulkhead		Bulkhead panel hole diameter	
		Prod No	Price	Prod No	Price		
1/16"	See note above						
1/8"	1.0 mm	EU2		-		-	
	2.0 mm	EU2L		EBU2L		5/16"	
	1/8"	EU2T		EBU2T		5/16"	
1/4"	2.0 mm	EU4		EBU4		7/16"	
	4.6 mm	EU4L		EBU4L		7/16"	
	1/4"		EU4T		EBU4T		7/16"

External unions – 1/32" ultra low mass

The 1/32" external union is specially designed for use with capillary columns in GC. It is very low mass and does not require wrenches to seal. Use *only* with one-piece fused silica adapters, since metal ferrules will distort the detail. Order fused silica adapters separately (page 16). Standard material is 300 series stainless.

Bore	Prod No	Price
0.25 mm	EU.5	
0.50 mm	EU.5L	
1/32"	EU.5T	

External/internal unions

Standard material is 300 series stainless. Also available in Hastelloy C and gold-plated stainless.

Tubing OD	Bore	Standard		Bulkhead		Bulkhead panel hole diameter
		Prod No	Price	Prod No	Price	
1/32"	0.25 mm	EZU.5		-		-
	0.50 mm	EZU.5L		-		-
1/16"	0.25 mm	EZU1C		EZBU1C		5/16"
	0.50 mm	EZU1M		EZBU1M		5/16"
	0.75 mm	EZU1		EZBU1		5/16"
	1/16"	EZU1T		EZBU1T		5/16"
1/8"	1.0 mm	EZU2		EZBU2		7/16"
	2.0 mm	EZU2L		EZBU2L		7/16"
	1/8"	EZU2T		EZBU2T		7/16"

Reducing Unions

Reducing unions join two tubes of different outside diameters. Standard material is 300 series stainless.

- Internal reducing unions have female threads and a fitting detail for zero volume fittings. The nuts have male (external) threads.
- External reducing unions have male threads, requiring a nut with internal threads.
- External/internal and internal/external reducing unions have male threads on one end and female threads on the other. We recommend the use of external/internal fittings when connecting to an existing external nut.

Internal fittings are almost always the best with tubing of 1/8" OD or smaller. They make a stronger connection and offer the lower volume necessary for high performance instrumentation. Also, because 1/16" external fittings have very thin, easily distorted walls,

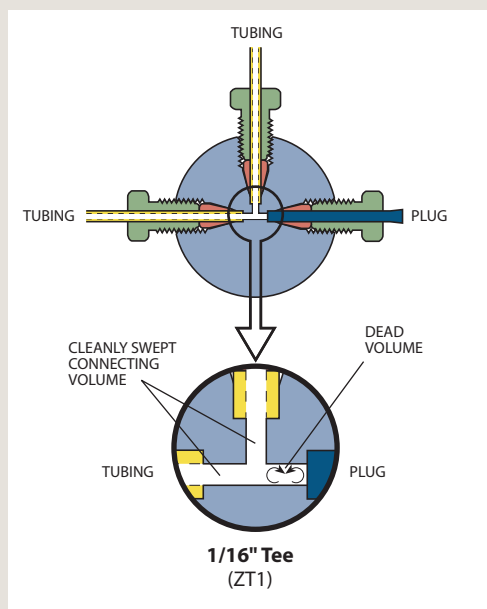
they are not as durable as 1/16" internal fittings. In sizes larger than 1/8", external fittings are generally easier to make up because of less thread friction.

Bulkhead versions can be mounted through an instrument panel or on a bracket. The fitting body is undercut so that it bites into the panel when the mounting nut is tightened, eliminating the need for a lock washer. An O-ring can be installed between the body and the panel to allow operation in purged environments. Typically the mounting nut goes inside the instrument, so that the long threaded portion will be out of sight. In the external/internal bulkhead unions, the mounting nut is on the side with the Valco internal fitting.



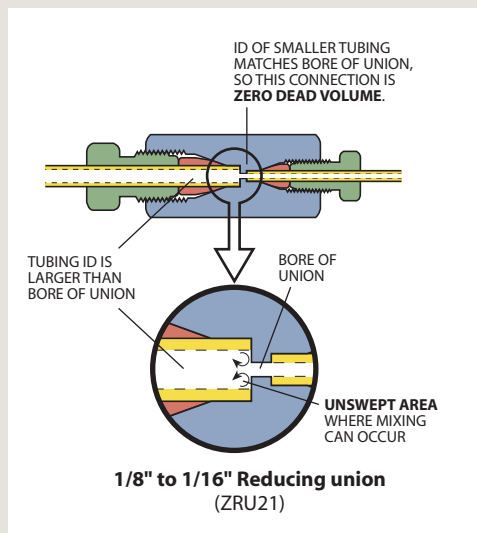
DEAD VOLUME

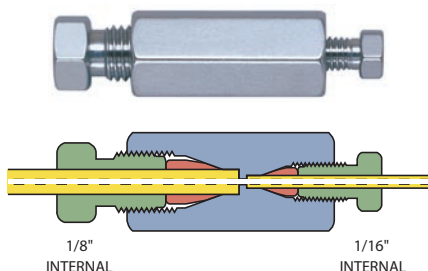
"Dead volume" is created in obvious situations such as the one shown.



UNSWEPT VOLUME

Even in connections which are by most definitions "zero dead volume", unswept volume may be created where large ID transitions occur. The amount of mixing depends on the amount of mismatch in the IDs.





Internal reducing union – metal
Standard bore
(ZRU21)

Internal reducing unions – stainless steel

These unions connect two sizes of tubing, using zero dead volume internal fittings on each end. In the bulkhead version, the bulkhead nut is on the side with smaller tubing.

Standard material is 300 series stainless. Also available in Hastelloy C, gold-plated stainless, and titanium.

Standard internal reducing unions

Tube OD	Bore	Prod No	Price
1/16" to 1/32"	0.15 mm	ZRU1.5XC	
	0.25 mm	ZRU1.5	
	0.50 mm	ZRU1.5L	
	1/32"	ZRU1.5T	
1/8" to 1/32"	0.25 mm	ZRU2.5	
	0.50 mm	ZRU2.5L	
	1/32"	ZRU2.5T	
1/8" to 1/16"	0.25 mm	ZRU21C	
	0.75 mm	ZRU21	
	1/16"	ZRU21T	
1/4" to 1/16"	0.25 mm	ZRU41C	
	0.75 mm	ZRU41	
	1/16"	ZRU41T	
1/4" to 1/8"	0.75 mm	ZRU42	
	2.0 mm	ZRU42L	
	1/8"	ZRU42T	

Bulkhead internal reducing unions

Tube OD	Bore	Prod No	Price	Bulkhead panel hole diameter
1/16" to 1/32"	0.25 mm	ZBRU1.5		5/16"
	0.50 mm	ZBRU1.5L		5/16"
	1/32"	ZBRU1.5T		5/16"
1/8" to 1/32"	0.25 mm	ZBRU2.5		5/16"
	0.50 mm	ZBRU2.5L		5/16"
	1/32"	ZBRU2.5T		5/16"
1/8" to 1/16"	0.25 mm	ZBRU21C		5/16"
	0.75 mm	ZBRU21		5/16"
	1/16"	ZBRU21T		5/16"
1/4" to 1/16"	0.25 mm	ZBRU41C		7/16"
	0.75 mm	ZBRU41		7/16"
	1/16"	ZBRU41T		7/16"
1/4" to 1/8"	0.75 mm	ZBRU42		7/16"
	2.0 mm	ZBRU42L		7/16"
	1/8"	ZBRU42T		7/16"



Bulkhead internal reducing union – metal
(ZBRU21)

MORE INFORMATION

- Internal reducing unions, high pressure PEEK page 65
- External/internal reducing unions 31
- Internal/external reducing unions 31
- Standard unions 26
- Unions with 1/4-28 fittings 72

- 0.25 mm = .010"
- 0.50 mm = .020"
- 0.75 mm = .030"
- 1.0 mm = .040"
- 1.5 mm = .060"
- 2.0 mm = .080"
- 4.6 mm = .180"
- 6.0 mm = .236"
- 6.4 mm = .253"
- 7.0 mm = .275"
- 10.0 mm = .400"
- 27.0 mm = 1.08"
- 1/32" = 0.8 mm
- 1/16" = 1.6 mm
- 1/8" = 3.2 mm
- 1/4" = 6.4 mm
- 3/8" = 9.5 mm
- 1/2" = 12.7 mm

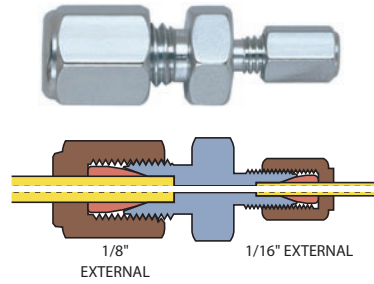
Reducing Unions

External reducing unions

These unions connect two sizes of tubing, using external fittings on each end. Standard material is 300 series stainless. Custom bulkhead versions are available in OEM quantities.

Standard external reducing unions

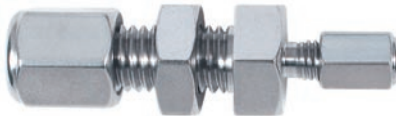
Tubing OD	Bore	Prod No	Price
1/8" to 1/16"	0.75 mm	ERU21	
	1.00 mm	ERU21L	
	1/16"	ERU21T	
1/4" to 1/16"	0.75 mm	ERU41	
	1/16"	ERU41T	
1/4" to 1/8"	1.0 mm	ERU42	
	2.0 mm	ERU42L	
	1/8"	ERU42T	



External reducing union
Standard bore
(ERU21)

Bulkhead external reducing unions

Tubing OD	Bore	Prod No	Price	Bulkhead panel hole diameter
1/8" to 1/16"	1.0 mm	EBRU12L		5/16"
	1/16"	EBRU12T		5/16"
1/4" to 1/16"	1.0 mm	EBRU14L		7/16"
	1/16"	EBRU14T		7/16"
1/4" to 1/8"	2.0 mm	EBRU24L		7/16"



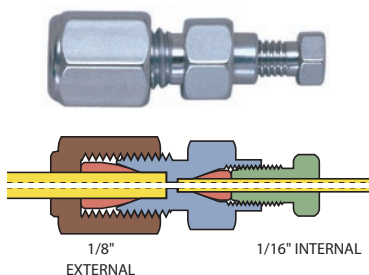
Bulkhead external reducing union
(EBRU12L)

TECH TIP

Note: Because 1/16" external fittings have very thin, easily distorted walls, they are not as durable as 1/16" internal fittings. We recommend the use of 1/16" internal fittings when possible.

0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm

5/16" = .312" = 7.9 mm
3/8" = .375" = 9.5 mm
7/16" = .437" = 11.1 mm



External/internal reducing union
Standard bore
(EZRU21)



Bulkhead external/internal reducing union
(EZBRU21)

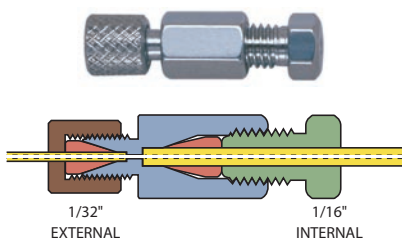
External/internal reducing unions

In these reducing unions, the larger size tubing is made up with an external fitting and the smaller size tubing is made up with an internal fitting. In the bulkhead version, the bulkhead nut is on the side with the internal fitting. Other configurations, such as an external nut on the locking nut side, are available on special request.

Standard material is 300 series stainless. Also available in Hastelloy C, gold-plated stainless, and titanium.

Tubing OD	Bore	Standard		Bulkhead		Bulkhead panel hole diameter
		Prod No	Price	Prod No	Price	
1/16" to 1/32"	0.25 mm	EZRU1.5		-		-
	0.50 mm	EZRU1.5L		EZBRU1.5L		5/16"
	1/32"	EZRU1.5T		EZBRU1.5T		5/16"
1/8" to 1/32"	0.25 mm	EZRU2.5		-		-
	0.50 mm	EZRU2.5L		EZBRU2.5L		5/16"
	1/32"	EZRU2.5T		EZBRU2.5T		5/16"
1/8" to 1/16"	0.25 mm	EZRU21C		-		-
	0.75 mm	EZRU21		EZBRU21		5/16"
	1/16"	EZRU21T		EZBRU21T		5/16"
1/4" to 1/16"	0.25 mm	EZRU41C		-		-
	0.75 mm	EZRU41		EZBRU41		7/16"
	1/16"	EZRU41T		EZBRU41T		7/16"
1/4" to 1/8"	1.0 mm	EZRU42		EZBRU42		7/16"
	2.0 mm	EZRU42L		EZBRU42L		7/16"
	1/8"	EZRU42T		EZBRU42T		7/16"

Internal/external reducing unions



Internal/external reducing union
Standard bore
(EZRU.51)



Bulkhead internal/external reducing union
(EZBRU.51)

These reducing unions are the opposite of the ones above. The larger size tubing is made up with an internal fitting and the smaller size tubing is made up with an external fitting. In the bulkhead version, the bulkhead nut is on the side with the internal fitting. Standard material is 300 series stainless.

Internal/external reducing unions are typically used to connect 1/16" stainless steel tubing to fused silica tubing.

Only polymeric ferrules should be used with 1/32" external details – metal ferrules will distort them. These unions include a stainless steel ferrule for the 1/16" SS tube, but because of the variety of fused silica ODs and corresponding ferrules, a 1/32" fused silica adapter must be ordered separately. (See page 16.)

Tubing OD	Bore	Standard		Bulkhead		Bulkhead panel hole diameter
		Prod No	Price	Prod No	Price	
1/16" to 1/32"	0.25 mm	EZRU.51		EZBRU.51		5/16"
	0.50 mm	EZRU.51L		EZBRU.51L		5/16"
	1/32"	EZRU.51T		EZBRU.51T		5/16"

MORE INFORMATION

- Fused silica adapters... page 16-17
- Polymeric ferrules 13
- External unions..... 27
- Internal reducing unions 29
- Internal unions 26

Tees and Crosses

Tees

Tees connect three lines. Standard material is 300 series stainless. Also available in Hastelloy C, gold plated stainless, and titanium.

Tubing OD	Bore	Prod No	Price
1/32"	0.25 mm	ZT.5	
	0.50 mm	ZT.5L	
1/16"	0.25 mm	ZT1C	
	0.50 mm	ZT1M	
	0.75 mm	ZT1	
	1.00 mm	ZT1L	
1/8"	0.75 mm	ZT2	
	2.00 mm	ZT2L	
1/4"	1.00 mm	ZT4	
	4.60 mm	ZT4L	



MORE INFORMATION
PEEK tees . . . pages 57, 64
PEEK crosses57, 64

Crosses

Crosses connect four lines. Standard material is 300 series stainless. Also available in Hastelloy C, gold plated stainless, and titanium.

Tubing OD	Bore	Prod No	Price
1/32"	0.25 mm	ZX.5	
	0.50 mm	ZX.5L	
1/16"	0.25 mm	ZX1C	
	0.50 mm	ZX1M	
	0.75 mm	ZX1	
	1.00 mm	ZX1L	
1/8"	0.75 mm	ZX2	
	2.00 mm	ZX2L	
1/4"	1.00 mm	ZX4	
	4.60 mm	ZX4L	



SPECIAL METALS AND/OR SMALLER BORES

See microvolume connectors: 1/32" and 1/16" tees, crosses, Y's, and unions in various metals and polymers, with smaller bores.

Microvolume connectorspp 22-23
High pressure PEEK connectors . .63-66
Nanovolume connectors57-61

TECH TIP

To join tubes of different ODs, use the fitting sized for the largest tube along with IZR reducers for the smaller tubes.

IZR reducer. page 34

0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm

1/16" Manifolds

1/16" manifolds connect 4 - 16 inlet lines to a single outlet, and are often used to connect the outlets from several columns to a single detector. The unique angled entry of our design reduces dispersion to a minimum. Available with 1.00 mm inlet/outlet bore. Standard materials are PEEK or 300 series stainless.



	<i>Inlet bore</i>	<i>Outlet bore</i>	<i>Material</i>	<i>Prod No</i>	<i>Price</i>
4 inlets	0.25 mm	0.75 mm	Stainless steel	Z4M1	
	0.25 mm	0.75 mm	PEEK	Z4M1PK	
6 inlets	0.25 mm	0.75 mm	Stainless steel	Z6M1	
	0.25 mm	0.75 mm	PEEK	Z6M1PK	
8 inlets	0.25 mm	0.75 mm	Stainless steel	Z8M1	
	0.25 mm	0.75 mm	PEEK	Z8M1PK	
10 inlets	0.25 mm	0.75 mm	Stainless steel	Z10M1	
	0.25 mm	0.75 mm	PEEK	Z10M1PK	
12 inlets	0.25 mm	0.75 mm	Stainless steel	Z12M1	
	0.25 mm	0.75 mm	PEEK	Z12M1PK	
14 inlets	0.25 mm	0.75 mm	Stainless steel	Z14M1	
	0.25 mm	0.75 mm	PEEK	Z14M1PK	
16 inlets	0.40 mm	0.75 mm	PEEK	Z16M1PK	

1/8" Manifolds

1/8" manifolds connect 4 - 12 inlet lines to a single outlet, and are typically used in a gas distribution system to minimize the number of fitting connections. A manifold pipe fitting version is also available. (See page 37.) Standard material is 300 series stainless steel.

	<i>Inlet bore</i>	<i>Outlet bore</i>	<i>Prod No</i>	<i>Price</i>
4 inlets	2.00 mm	2.00 mm	Z4M2	
6 inlets	2.00 mm	2.00 mm	Z6M2	
8 inlets	2.00 mm	2.00 mm	Z8M2	
10 inlets	2.00 mm	2.00 mm	Z10M2	
12 inlets	2.00 mm	2.00 mm	Z12M2	



TECH TIP

A manifold used with an SD flowpath multiposition valve allows HPLC column selection with a single valve. See page 139 for an illustration.

SD UW valves.pg 132

Internal Reducers

NEW Internal reducers

for 360 µm tubing

Directly connect 360 µm tubing into a 1/32" Valco valve or fitting detail, providing a positive leak-free seal with zero dead volume. The same patented design as our larger internal reducers (below). Both versions have a stainless steel body.

Tubing OD	Nut/ferrule material	Prod No	Price
1/32" to 360 µm	Stainless	C360IZR.5S6	
	PEEK	C360IZR.5S6PKG	

Internal reducers

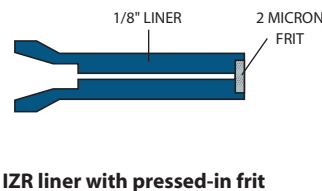
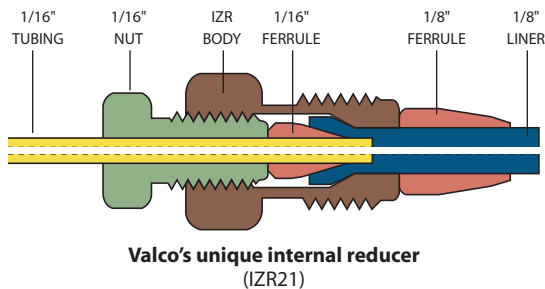
Valco's patented internal reducer (IZR) allows smaller tubing to be used in valves with fitting details for larger tubing, forming a positive leak-free seal with zero dead volume. The small line from your system goes directly into the IZR and the sample goes directly into the valve, without the short pieces of connecting tubing required if a reducing union was used instead. (A reducing ferrule would also work, but makes a seal of less integrity.) Once the fitting is installed, only one wrench is required to remove and reinstall it.

A second version has a 2 micron stainless steel frit pressed into the end of the liner, adding filtering capability. However, we suggest using these only as a final or backup filter, with a standard filter (see page 52) as the primary filter. Because IZR's have a much smaller surface area than the standard filter, they tend to plug too often if used in a stand-alone capacity.



Patent No. 4,173,363.

Tubing OD	Bore	Without frit		With 2µ frit	
		Prod No	Price	Prod No	Price
1/16" to 1/32"	0.25 mm	IZR1.5		IZR1.5F	
	0.50 mm	IZR1.5L		IZR1.5LF	
	1/32"	IZR1.5T		-	
1/8" to 1/16"	0.25 mm	IZR21C		IZR21CF	
	0.50 mm	IZR21		IZR21F	
	1.00 mm	IZR21L		IZR21LF	
	1/16"	IZR21T		-	
1/4" to 1/16"	1.00 mm	IZR41		IZR41F	
1/4" to 1/8"	1.00 mm	IZR42		IZR42F	
1/4" to 1/8"	2.00 mm	IZR42L		IZR42LF	



0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

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External to internal adapters (injector/detector adapters)

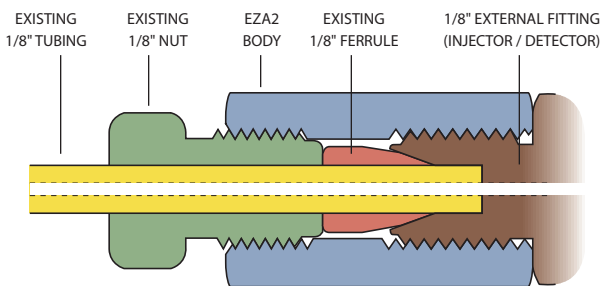
EZAs (external adapters) and EZRs (external reducers) adapt an external tee or union or the external type fittings common on injectors and detectors to Valco zero dead volume connections. Since EZAs are commonly used to connect an external fitting to an existing tube already made up with a Valco internal fitting, a nut and ferrule are not included.

Only one wrench is required to change tubes after the fitting is made up. While an external to internal union or reducing union plus a length of tubing can accomplish the same thing, these adapters do the trick with a single fitting.

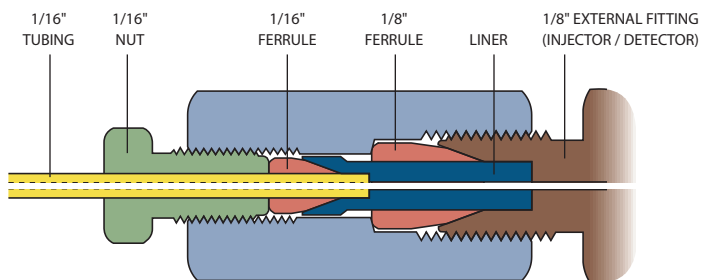
Standard material is 300 series stainless. The EZA does not include a nut or ferrule. The EZR includes a liner, one nut, and two ferrules.

Patent No.4,173,363

Description	Bore	Prod No	Price
External to internal adapters			
1/16" ext. to 1/16" int.	-	EZA1	
1/8" ext. to 1/8" int.	-	EZA2	
External reducers			
1/16" ext. to 1/32" int.	0.25 mm	EZR1.5	
	1/32"	EZR1.5T	
1/8" ext. to 1/32" int.	0.25 mm	EZR2.5	
1/8" ext. to 1/16" int.	0.50 mm	EZR21	
	1/16"	EZR21T	
1/4" ext. to 1/16" int.	1.00 mm	EZR41	
	1/16"	EZR41T	
1/4" ext. to 1/8" int.	1.00 mm	EZR42	
	1/8"	EZR42T	



External to internal adapter (EZA2)



External to internal reducer (EZR21)

MORE INFORMATION
 Ferrules page 12
 Nuts 10

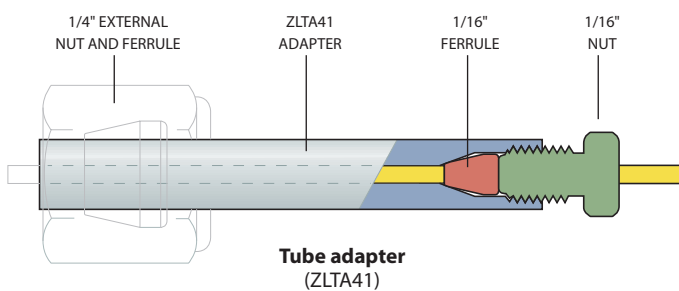
Special Fittings

Tube adapters

These external adapters are ideal for connecting 1/16" tubing to a detector or injector with a 1/4" fitting. The shorter size is used with 1/4" external fittings while the longer works with 1/4" internal or external fittings. (1/16" nut and ferrule are included; 1/4" nut and ferrule are not.) Standard material is 300 series stainless.



Description	Bore	Prod No	Price
1/4" to 1/16"			
0.975" long	1/16"	ZTA41	
2.075" long	1/16"	ZLTA41	
2.800" long	1/16"	ZXLTA41	



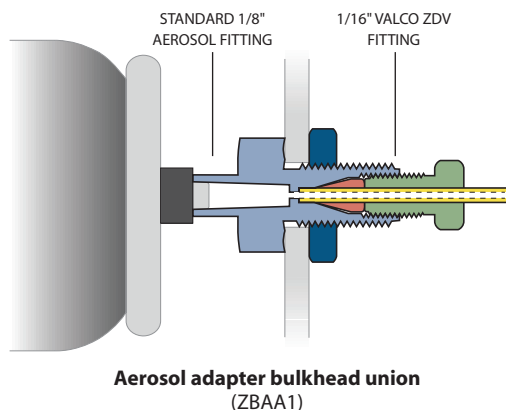
Aerosol adapter bulkhead union

This unique fitting provides an easy, direct method of connecting the nozzle of a standard aerosol can to a 1/16" Valco zero dead volume fitting.

As with all Valco bulkhead fittings, the flange is undercut to act as a "lock nut" against the instrument wall. Standard material is 300 series stainless.



Description	Prod No	Price
Aerosol adapter bulkhead union	ZBAA1	



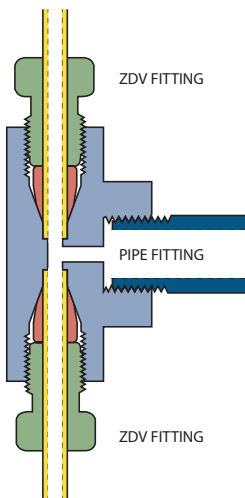
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Manifold pipe adapters

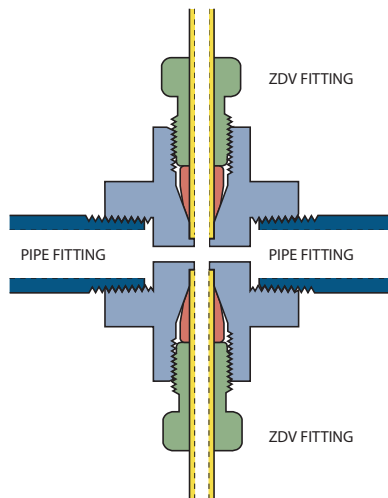
These manifolds, which go from one or two pipe fittings to three or more Valco zero dead volume fittings, minimize the number of connections between a regulator and the various carrier gas lines in a chromatographic system. The models with two pipe fittings go a step further, allowing the support of a gauge, a second regulator, or a valve leading to a separate system. Additional Valco zero dead volume fittings can be machined on a special order basis. Standard material is 300 series stainless. Also available in Hastelloy C and titanium by special order.



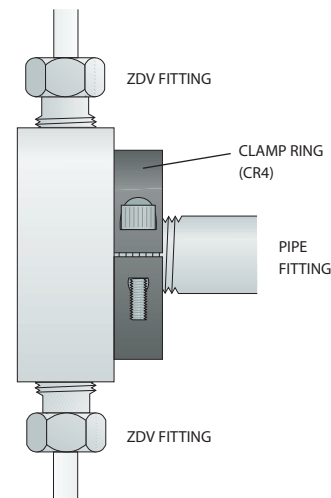
Description	Bore	Prod No	Price
One 1/8" female pipe to:			
three 1/16" ZDV fittings	1.0 mm	FP1Z3M21	
three 1/8" ZDV fittings	2.0 mm	FP1Z3M22	
three 1/4" ZDV fittings	4.6 mm	FP1Z3M24	
One 1/4" female pipe to:			
three 1/16" ZDV fittings	1.0 mm	FP1Z3M41	
three 1/8" ZDV fittings	2.0 mm	FP1Z3M42	
three 1/4" ZDV fittings	4.6 mm	FP1Z3M44	
Two 1/8" female pipe to:			
three 1/16" ZDV fittings	1.0 mm	FP2Z3M21	
three 1/8" ZDV fittings	2.0 mm	FP2Z3M22	
three 1/4" ZDV fittings	4.6 mm	FP2Z3M24	
Two 1/4" female pipe to:			
three 1/16" ZDV fittings	1.0 mm	FP2Z3M41	
three 1/8" ZDV fittings	2.0 mm	FP2Z3M42	
three 1/4" ZDV fittings	4.6 mm	FP2Z3M44	



One pipe fitting
to Valco ZDV fittings



Two pipe fittings
to Valco ZDV fittings



Adapter with optional
mounting clamp ring

Pipe Adapters

Male pipe to Valco internal adapters

Male pipe adapters make a minimum volume connection from the female pipe fittings on pressure gauges and regulators to Valco zero dead volume internal fittings. Standard material is 300 series stainless. Also available in Hastelloy C and titanium.



Description	Bore	Prod No	Price
1/8" NPT male to:			
1/16" ZDV fitting	1.0 mm	PZA21	
1/16" ZDV fitting	1/16"	PZA21T	
1/8" ZDV fitting	1.0 mm	PZA22	
1/4" NPT male to:			
1/16" ZDV fitting	1.0 mm	PZA41	
1/8" ZDV fitting	1.0 mm	PZA42	
1/8" ZDV fitting	2.0 mm	PZA42L	
1/4" ZDV fitting	4.6 mm	PZA44L	
1/2" NPT male to:			
1/16" ZDV fitting	1.0 mm	PZA81	
1/8" ZDV fitting	1.0 mm	PZA82	
1/8" ZDV fitting	2.0 mm	PZA82L	
1/4" ZDV fitting	4.6 mm	PZA84L	

Female pipe to Valco internal adapters

Female pipe adapters make a minimum volume connection from the male pipe fittings typically found in gas distribution plumbing to Valco zero dead volume internal fittings. Standard material is 300 series stainless. Also available in Hastelloy C and titanium.

Description	Bore	Prod No	Price
1/8" NPT female to:			
1/16" ZDV fitting	1.0 mm	FPZA21	
1/8" ZDV fitting	1.0 mm	FPZA22	
1/8" ZDV fitting	2.0 mm	FPZA22L	
1/4" NPT female to:			
1/16" ZDV fitting	1.0 mm	FPZA41	
1/8" ZDV fitting	1.0 mm	FPZA42	
1/8" ZDV fitting	2.0 mm	FPZA42L	
1/4" ZDV fitting	4.6 mm	FPZA44L	
1/2" NPT female to:			
1/16" ZDV fitting	1.0 mm	FPZA81	
1/8" ZDV fitting	1.0 mm	FPZA82	
1/8" ZDV fitting	2.0 mm	FPZA82L	
1/4" ZDV fitting	4.6 mm	FPZA84L	

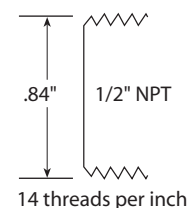
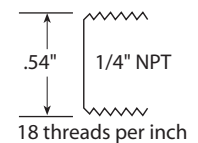
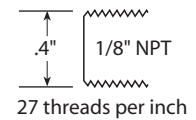


MORE INFORMATION

Our manifold pipe adapters on page 37 allow you to connect one or two pipe fittings to three Valco zero dead volume fittings.

TECH TIP

NPT, National Pipe Thread, is a standard developed a long time ago by people without rulers. 1/8" NPT is nowhere close to 1/8"! Measure the diameter of the fitting across the narrow end. You can also count the number of threads in a 1" section. Then look at the diagrams below to determine the correct size needed.





Male pipe to Valco external adapters

Male pipe adapters make a minimum volume connection from the female pipe fittings typically found on pressure gauges and regulators to Valco external fittings. Standard material is 300 series stainless.

Note: We do not manufacture adapters with 1/16" external fittings because they have very thin, easily distorted walls. We recommend use of the PZAs on the facing page.

Description	Bore	Prod No	Price
1/8" NPT male to:			
1/8" external fitting	2.0 mm	PEA22	
1/4" external fitting	4.6 mm	PEA24	
1/4" NPT male to:			
1/8" external fitting	2.0 mm	PEA42	
1/4" external fitting	4.6 mm	PEA44	
1/2" NPT male to:			
1/8" external fitting	2.0 mm	PEA82	
1/4" external fitting	4.6 mm	PEA84	

TECH TIP

Because of their dead volume and the risk of thread leaks, pipe fittings are a poor choice for trace gas analysis. Thread sealants, particularly PTFE tape, cannot boost their performance to adequate levels. For trace gas applications, choose Valco zero dead volume fittings with gold-plated stainless ferrules. (See page 12.)

0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Female pipe to Valco external adapters

Female pipe adapters make a minimum volume connection from the male pipe fittings typically found in gas distribution plumbing to Valco external fittings. Standard material is 300 series stainless.

Note: We do not manufacture adapters with 1/16" external fittings because they have very thin, easily distorted walls. We recommend use of the FPZAs on the facing page.

Description	Bore	Prod No	Price
1/8" NPT female to:			
1/8" external fitting	2.0 mm	FPEA22	
1/4" external fitting	4.6 mm	FPEA24	
1/4" NPT female to:			
1/8" external fitting	2.0 mm	FPEA42	
1/4" external fitting	4.6 mm	FPEA44	
1/2" NPT female to:			
1/8" external fitting	2.0 mm	FPEA82	
1/4" external fitting	4.6 mm	FPEA84	



Syringe Adapters

NEW Zero dead volume fill ports

The ZVISF-1 is a unique fill port fitting designed so that a leaktight seal is formed against the face of the bottom of the fitting detail instead of at the end of an angular ferrule, resulting in a true zero dead volume connection with no carry over or sample loss. The polymer bushing snaps into the knurled PEEK nut, providing the convenience of a one-piece fitting. An ultrathin metal sleeve surrounds and supports the portion of the bushing which extends into the pilot of the fitting detail, preventing the bushing from mushrooming and getting stuck in the pilot as the fitting is tightened.

For use with 22 gauge blunt tip needle.

Description

Prod No

Price

For high pressure 1/16" Cheminert injectors with polymeric stators (C2, C3, C4, and C52 series)

Most applications	PFA bushing	ZVISF-1PFAH
High throughput applications	High density polyethylene bushing	ZVISF-1PEH



For low pressure 1/16" Cheminert injectors, fittings, and most Valco injectors

Most applications	PFA bushing	ZVISF-1PFA
High throughput applications	High density polyethylene bushing	ZVISF-1PE



Fill ports

for 1/16" polymeric Cheminert valves

These fill ports provide direct syringe connections to polymeric valves and fittings. Since the fitting detail in the high pressure Cheminert valve is unique, be sure to order the high pressure version for polymeric HPLC injectors. For use with 22 gauge blunt tip needle.

Description

Prod No

Price

For high pressure injectors (C2, C3, C4, and C52 series injectors)

C-VISF-1H



For fittings and low pressure injectors (C22Z and C62Z series injectors)

C-VISF-1



Replacement liners and ferrules

Liner for C-VISF-1	VISL-1
Liner for C-VISF-1H	VISL-1H
Ferrule for C-VISF-1 (or 1H)	ZF1VISF

Fill ports

for metal Valco and Cheminert valves

Fill ports provide direct syringe connections to valves and fittings, with the polymeric ferrule compressing a liner to seal around the needle. These fill ports are for use with metal valves.

Description

Prod No

Price

For use with blunt tip needle

For 1/16" fittings and injectors - 22 ga VISF-1



For 1/32" fittings and injectors - 26 ga VISF.5FPK



For use with 2" 22 gauge blunt tip needle

For 1/16" fittings and injectors VISF-2
For 1/8" fittings and injectors VISF-A



Replacement liners and ferrules

Liner for VISF-1	VISL-1
Liner for VISF-2 or VISF-A	VISL-2
Ferrule for VISF-1 or VISF-2	ZF1VISF



TECH TIP

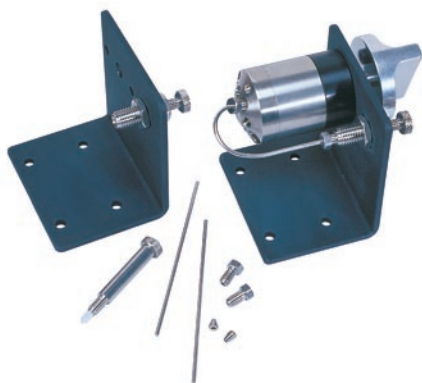
When using Cheminert Nanovolume® CN2 injectors and valves, use fill ports designed just for them.



Nanovolume fill ports page 60

Syringe Adapters

for Cheminert C2 and C4 valves



Loop fill port assembly

The loop fill port assembly, for use with Cheminert high pressure valves (C2 and C4 series), permits sample loading and manual injection from the front of the valve. It includes an aluminum bracket, two syringe fill ports (for 3/4" or 2" needles), a bulkhead union, and two pieces of stainless tubing: one piece is 0.013" ID with a volume of 7 µl, and the other is 0.50 mm ID and 17 µl.

Description	Prod No	Price
Loop fill port assembly	C-LFP	



Female luer adapters

Female luer adapters provide direct syringe connections to zero dead volume fittings and valves.

Description	Prod No	Price
Female luer to: 1/32" fitting	ZLA-5	
1/16" fitting	ZLA-1	
1/8" fitting	ZLA-2	



Septum injector nuts

Septum injector nuts are a simple way to provide syringe access to any point of a gas or liquid system. The injector nut includes a Valcon T polyimide septum support which accepts a standard 1/4" GC septum. The nut's 1/8" external fitting detail can connect directly to common external type fittings, or can be adapted to Valco internal fittings using an external/internal union or reducing union.

Description	Prod No	Price
Septum injector nut with support	EN2SI	
Replacement support	ZF2SI	
Septum, low bleed, pka. of 10	SI4G	

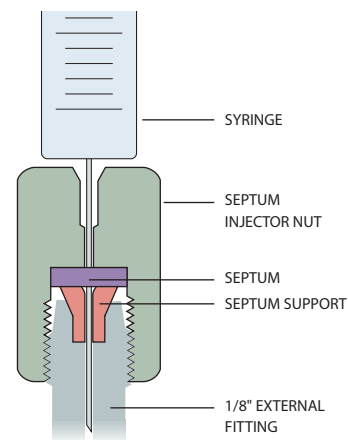
MORE INFORMATION

External/internal reducing unions . . pg 31
 External/internal unions 27

Cheminert valves

Model C2 158, 161
 Model C4 159, 162

0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm



Septum injector nut with septum and support (EN2SI)

HPLC Column End Fittings

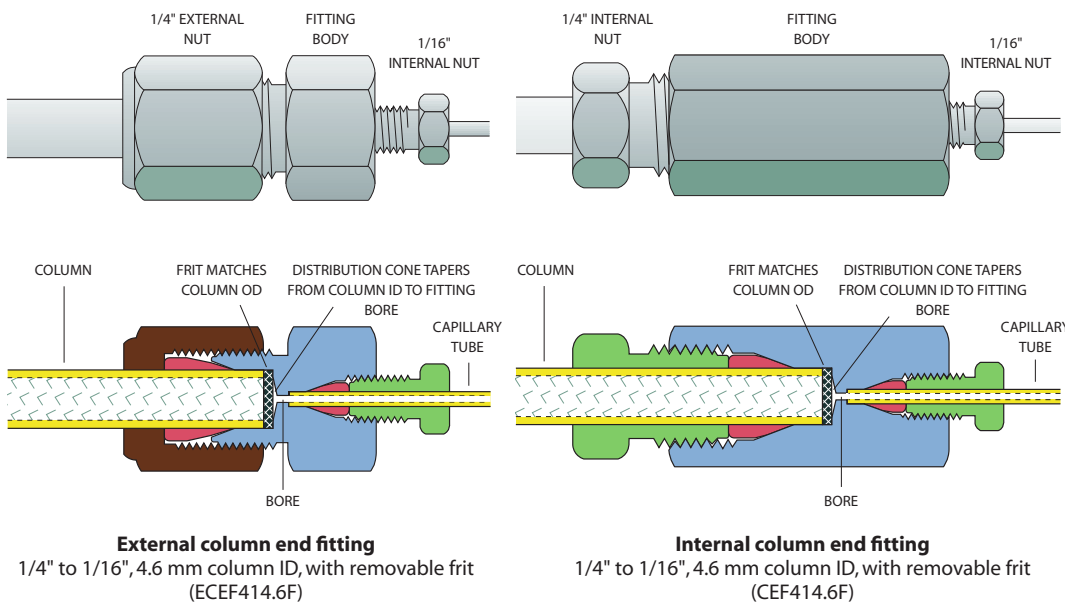
Although our column end fittings look like ordinary reducing unions, they are machined with a conical recess to match a specific column ID so that there are no abrupt or irregular diameter changes which can cause loss of theoretical plates. (See illustrations, below.) This optimization results in an assortment of column end fittings for each column OD. To receive full benefit of this design, use column end fittings only with the specific column ID for which they are intended. We can design special fittings for unusual sizes or OEM use.

If a temporary frit is used during column packing, the frit OD should match the column OD. Permanent frits should have an OD matched to the column ID, and should be pressed in to give the lowest dead volume. Our frits are available in a variety of pore sizes,

and we offer titanium and Hastelloy C frits for systems sensitive to exposed stainless steel.

All column end fittings are rated to 10,000 psi. However, the functional limit is dictated by the yield strength of the tubing used with the fitting. Standard 1/4", 3/8", and 1/2" columns are usually packed at 8,000-10,000 psi, which is right at the yield strength for the tubing commonly used. Columns with 1" ID have a yield strength of 6,000-8,000 psi, and the fitting will not hold if the system pressure exceeds that limit.

The newest addition to the line is the Nanovolume® column end fitting. (See page 62.) These all-PEEK fittings feature fingertight zero dead volume connections with 100 or 150 micron bore. PEEK sleeves permit use with any fused silica tubing.



MORE INFORMATION
Frits..... page 45

TECH TIP
Standard column end fittings are Type 316 stainless, but since the column wall and frit form over 99% of the column surface area, standard fittings with titanium frits can generally be used on inert columns.

TECH TIP
When packing columns, use Valco "through-type" unions to couple the column to the packing reservoir.

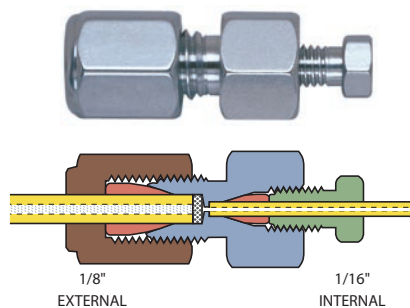
Size	Prod No
1/16" union	ZU1T
1/8" union	ZU2T
1/4" union	ZU4T

Through-type unions for packing columns..... page 26

Microbore column end fittings (1.0 mm – 2.0 mm column ID)

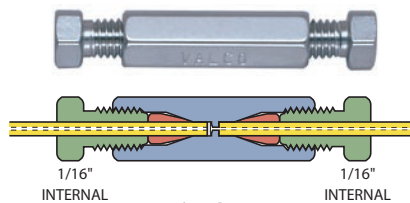
Standard material is Type 316 stainless.

	Bore	Column ID	Without frit		Removable 2µ frit	
			Prod No	Price	Prod No	Price
External column end fittings						
1/16" to 1/16"	0.25 mm	1.0 mm	ECEF111.0		ECEF111.0F	
1/8" to 1/16"	0.25 mm	1.0 mm	ECEF211.0		ECEF211.0F	



Microbore external column end fitting
(ECEF211.0F)

	Bore	Column ID	Without frit		Removable 2µ frit	
			Prod No	Price	Prod No	Price
Internal column end fittings						
1/16" to 1/32"	0.25 mm	1.0 mm	CEF1.5		CEF1.5F	
1/16" to 1/16"	0.25 mm	1.0 mm	CEF1		CEF1F	
1/8" to 1/32"	0.25 mm	1.0 mm	CEF2.51.0		CEF2.51.0F	
1/8" to 1/16"	0.25 mm	1.0 mm	CEF211.0		CEF211.0F	
1/8" to 1/16"	0.25 mm	2.0 mm	CEF212.0		CEF212.0F	



Microbore internal column end fitting
(CEF1F)

NANOBORE COLUMN END FITTINGS

See our complete line of 100 µm and 150 µm bore fittings on page 62.

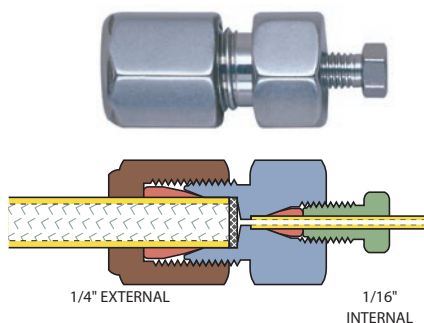
- 100 µm = .004"
- 150 µm = .006"
- 0.25 mm = .010"
- 0.50 mm = .020"
- 0.75 mm = .030"
- 1.0 mm = .040"
- 1.5 mm = .060"
- 2.0 mm = .080"
- 4.6 mm = .180"
- 6.0 mm = .236"
- 6.4 mm = .253"
- 7.0 mm = .275"
- 10.0 mm = .400"
- 27.0 mm = 1.08"
- 1/32" = 0.8 mm
- 1/16" = 1.6 mm
- 1/8" = 3.2 mm
- 1/4" = 6.4 mm
- 3/8" = 9.5 mm
- 1/2" = 12.7 mm

HPLC Column End Fittings

Analytical column end fittings *(2.0 mm – 4.6 mm column ID)*

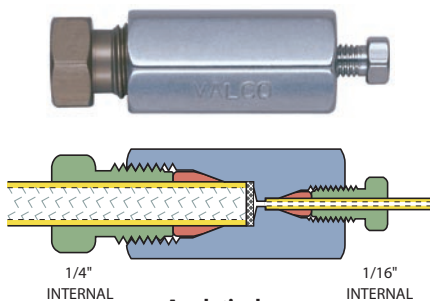
Standard material is Type 316 stainless.

	Bore	Column ID	Without frit		Removable 2µ frit	
			Prod No	Price	Prod No	Price
External column end fittings						
1/4" to 1/16"	0.4 mm	2.1 mm	ECEF412.1		ECEF412.1F	
1/4" to 1/16"	0.4 mm	3.0 mm	ECEF413.0		ECEF413.0F	
1/4" to 1/16"	0.4 mm	4.0 mm	ECEF414.0		ECEF414.0F	
1/4" to 1/16"	0.4 mm	4.6 mm	ECEF414.6		ECEF414.6F	



Analytical external column end fitting with removable frit (ECEF414.6F)

	Bore	Column ID	Without frit		Removable 2µ frit	
			Prod No	Price	Prod No	Price
Internal column end fittings						
1/4" to 1/16"	0.4 mm	2.1 mm	CEF412.1		CEF412.1F	
1/4" to 1/16"	0.4 mm	3.0 mm	CEF413.0		CEF413.0F	
1/4" to 1/16"	0.4 mm	4.0 mm	CEF414.0		CEF414.0F	
1/4" to 1/16"	0.4 mm	4.6 mm	CEF414.6		CEF414.6F	



Analytical internal column end fitting with removable frit (CEF414.6F)

NANOBORE COLUMN END FITTINGS

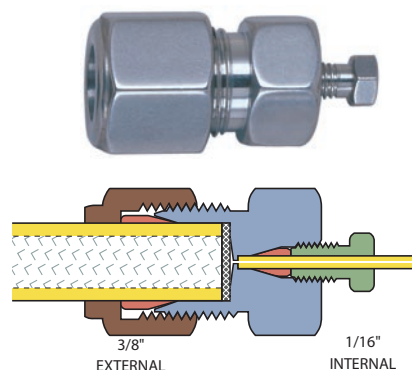
See our complete line of 100 µm and 150 µm bore fittings on page 62.

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Semi-preparative and preparative column end fittings

Standard material is Type 316 stainless steel.

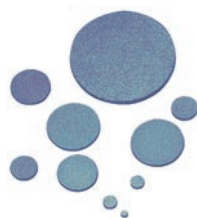
	Bore	Column ID	Without frit		Removable 2 μ frit	
			Prod No	Price	Prod No	Price
External column end fittings						
3/8" to 1/16"	0.40 mm	6.0 mm	ECEF616.0		ECEF616.0F	
3/8" to 1/16"	0.40 mm	7.0 mm	ECEF617.0		ECEF617.0F	
1/2" to 1/16"	0.75 mm	9.0 mm	ECEF819.0		ECEF819.0F	
1/2" to 1/16"	0.75 mm	10.0 mm	ECEF8110.0		ECEF8110.0F	
1" to 1/16"	0.75 mm	20.0 mm	ECEF1K1		ECEF1K1F	



**Semi-preparative
external column end fitting
(ECEF616.0F)**

Replacement frits

1/16", 1/8" and 1/4" frits are sold in packages of 10. 3/8", 1/2", and 1" frits are sold individually. Other sizes may be available or special-ordered in OEM quantities.



	Pore Size	Frit thickness	Stainless steel		Hastelloy C		Titanium	
			Prod No	Price	Prod No	Price	Prod No	Price
<i>Package of 10:</i>								
1/16" frits	0.5 μ	0.75 mm	.5FR1-10		.5FR1HC-10		-	
	2 μ	0.75 mm	2FR1-10		2FR1HC-10		2FR1TI-10	
	10 μ	0.75 mm	10FR1-10		-		-	
1/8" frits	0.5 μ	1.00 mm	.5FR2-10		-		-	
	2 μ	1.00 mm	2FR2-10		2FR2HC-10		2FR2TI-10	
	10 μ	1.00 mm	10FR2-10		-		-	
1/4" frits	0.5 μ	1.00 mm	.5FR4-10		-		-	
	2 μ	1.00 mm	2FR4-10		2FR4HC-10		2FR4TI-10	
	10 μ	1.00 mm	10FR4-10		10FR4HC-10		-	
<i>Each:</i>								
3/8" frits	2 μ	1.00 mm	2FR6		2FR6HC		2FR6TI	
1/2" frits	2 μ	1.00 mm	2FR8		2FR8HC		2FR8TI	
1" frits	2 μ	1.50 mm	2FR1K		2FR1KHC		2FR1KTI	

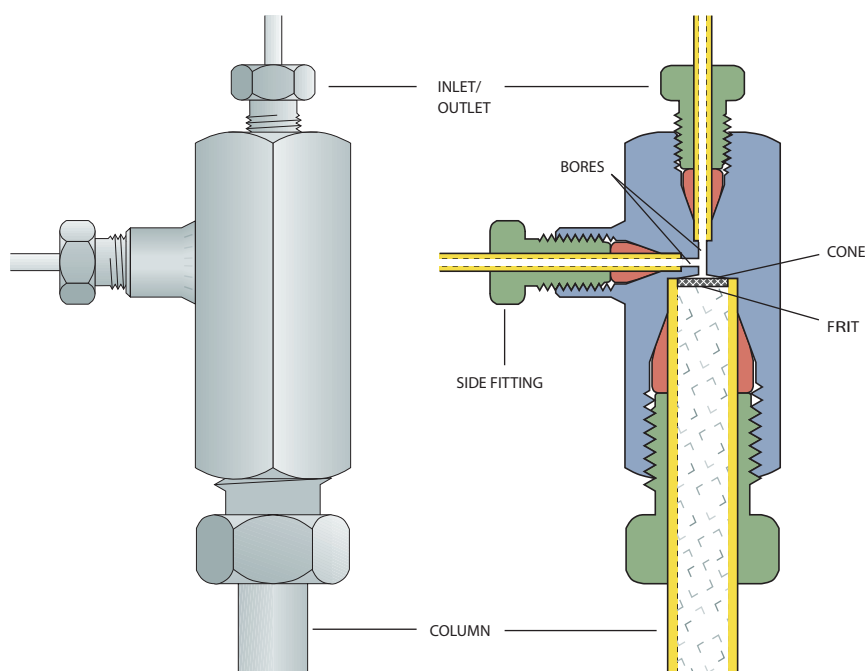
Post-Column Reaction Tee Fittings

Post-column reaction tee fitting

The tee column end fitting (TCEF) has a third connection perpendicular to the normal flowpath. The TCEF permits post-column derivation, or may be used as a curtain flow column inlet fitting. Standard material is Type 316 stainless.



Column OD	Cone OD	Inlet/outlet OD	Bore	Side OD	Bore	Prod No	Price
1/16"	1.0 mm	1/32"	0.25 mm	1/32"	0.25 mm	TCEF1.5.5C	
1/16"	1.0 mm	1/32"	0.90 mm	1/32"	0.25 mm	TCEF1.5.5T	
1/16"	1.0 mm	1/16"	0.25 mm	1/16"	0.25 mm	TCEF111	
1/8"	1.0 mm	1/16"	0.50 mm	1/16"	0.50 mm	TCEF211	
1/8"	1.0 mm	1/16"	1.65 mm	1/16"	0.40 mm	TCEF211T	
1/4"	4.6 mm	1/16"	0.25 mm	1/16"	0.25 mm	TCEF411C	
1/4"	4.6 mm	1/16"	0.75 mm	1/16"	0.75 mm	TCEF411	
1/4"	4.6 mm	1/16"	1.65 mm	1/16"	0.75 mm	TCEF411T	
1/4"	4.6 mm	1/8"	0.75 mm	1/16"	0.75 mm	TCEF421	
3/8"	6.0 mm	1/16"	0.75 mm	1/16"	0.75 mm	TCEF611	
3/8"	6.0 mm	1/16"	1.65 mm	1/16"	0.75 mm	TCEF611T	
1/2"	9.0 mm	1/16"	0.75 mm	1/16"	0.75 mm	TCEF811	
1/2"	9.0 mm	1/16"	1.65 mm	1/16"	0.75 mm	TCEF811T	



Post-column reaction fitting
(TCEF411)

0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm

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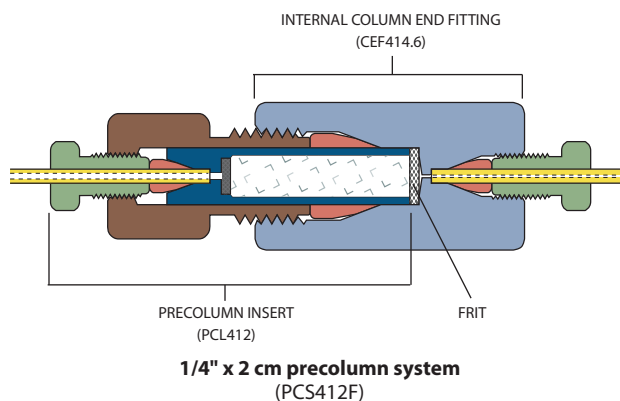
Precolumns (Guard Columns)



Precolumns (guard columns)

Precolumns are available in 2 cm and 5 cm lengths, and can be filled with either 5 μ packing or 37 - 44 μ pellicular packing. Both lengths are used in conjunction with a column end fitting. When packed for high efficiency they can be used as analytical columns, but a more typical use is as a guard column installed between the injector and the analytical column. Standard material is Type 316 stainless.

Description	Prod No	Price
1/4" x 2 cm precolumn system	PCS412F	
Includes:		
One precolumn insert		
One internal column end fitting		
One 2 μ frit		
1/4" x 5 cm precolumn system	PCS415F	
Includes:		
One precolumn insert		
One external column end fitting		
One 2 μ frit		
Precolumns (for use with existing column end fittings)		
1/4" x 2 cm precolumn insert	PCL412	
1/4" x 5 cm precolumn insert	PCL415	



Fingertight HPLC cartridge precolumns

This cartridge-based system is designed for use as a precolumn or concentrator column in HPLC and FIA applications. It is particularly suited to applications requiring frequent changes: snap-on seals are replaceable, the cartridge is reusable, and the tubing connections are stable since the end fittings do not rotate as the assembly is tightened. Standard material is Type 316 stainless, with PEEK seals and 2 μ titanium frits.



Description	Prod No	Price
0.25 ml (4.0 mm ID x 2 cm)		
Fin gertight cartridge assembly	SFECH412	
Replaceable cartridge	SFEC42	

NOTE:

As a courtesy to our OEM customers, VICI does not supply pre-packed columns.

Filters

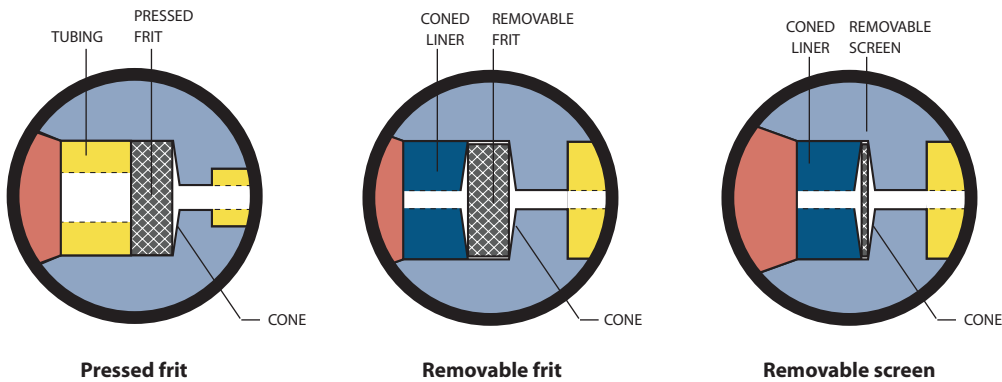
There are many flow elements of analytical instruments which require protection from foreign particles, such as orifices that may become plugged or surfaces that may get scratched. However, conventional filtering devices may have too large a volume to be consistent with good system performance – particularly in chromatographic applications.

Valco's unique patented* filter design results in extremely low internal volume and simplifies filter element replacement. Filter bodies are "coned" for uniform flow and maximum filter surface area. The filters are made entirely of metal, so they can be used at any instrumentation temperature. While the standard metal is 316 series stainless, filters can be made from alloys that can be used in virtually any application.

We offer a choice of three different filtering elements. All styles are available in bulkhead configurations for mounting on a panel or instrument wall. (Please note that since frits and

screens have significantly different thicknesses, they cannot be used interchangeably in the same filter body.)

- **Pressed frits**, permanently installed in the filter, are recommended where contaminants are the exception and not the rule. The frits are 2 μ stainless.
- **Removable frits** are the best choice for maximum filtration, or if the application requires Hastelloy C or titanium. However, they allow more mixing and tend to clog more than screens. A 2 μ frit is included with the filter, but 0.5, 2, and 10 μ replacement frits are available in three materials.
- **Removable screens** plug less rapidly and provide lower pressure drop than frits. Since they are thinner, there is less mixing and dispersal than might occur with a frit, but frits provide better filtration. A 2 μ screen is included with the filter, and 2 and 10 μ stainless replacement screens may be ordered.



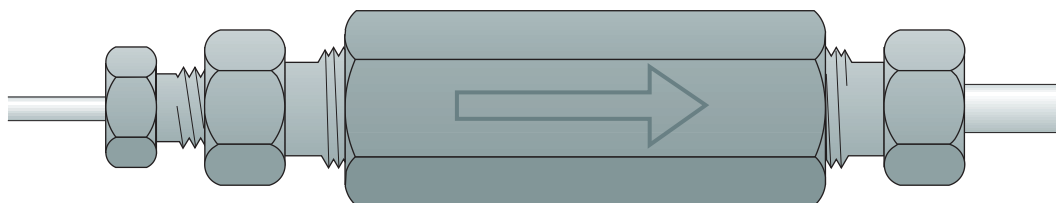
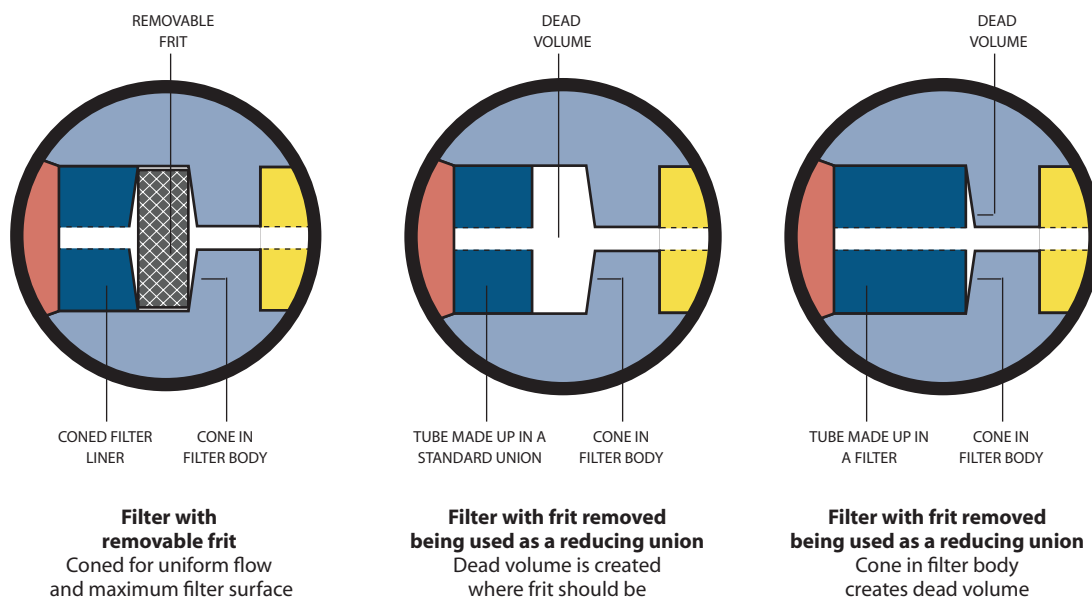
* Patent Numbers 4,281,679 and 4,173,363

MORE INFORMATION
 Biocompatible filter . p 78
 In-line filters for
 1/4-28 fittings 78
 Mobile phase
 filters. 79

Filters with removable frits are designed to compensate for the thickness of the filter element – the resulting pilot depths are identical with the rest of the Valco product line, facilitating interchangeability of *made up* fittings. Therefore, although our filters look very much like our unions, they are not interchangeable with unions; a filter with its frit removed should not be substituted for a union,

because the space designed for the frit introduces dead volume into the system. In addition, since filter bodies are coned, they will have dead volume when used as a union even if the tubing is made up in the filter with a longer, non-standard pilot length.

An arrow imprinted on all filter bodies serves to differentiate them from unions and to indicate recommended flow direction.



Arrow imprinted on filter body showing recommended direction of flow

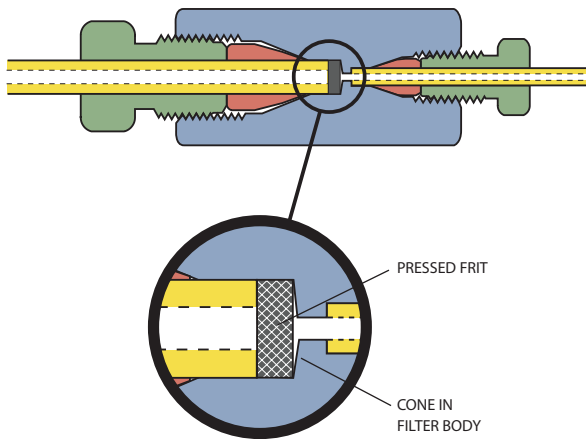
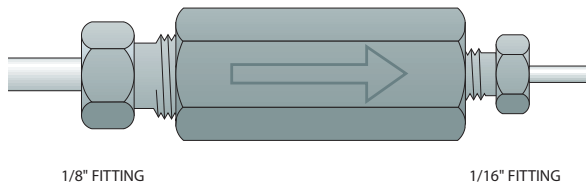
Filters

Filters with a pressed frit

Pressed frit filters contain a permanently installed stainless steel 2 μ frit, and are recommended for applications where contaminants are the exception and not the rule – that is, when the sample is generally clean but you wish to guard against the stray burr from a carelessly prepared tube end that might find its way into the flowpath. Standard material is Type 316 stainless.



Description	Bore	Standard		Bulkhead	
		Prod No	Price	Prod No	Price
1/16" to 1/32"	0.25 mm	ZRUF1.5		ZBRUF1.5	
1/16" to 1/16"	0.75 mm	ZUF1		ZBUF1	
1/8" to 1/16"	0.75 mm	ZRUF21		ZBRUF21	
1/8" to 1/8"	0.75 mm	ZUF2		ZBUF2	
1/4" to 1/8"	2.00 mm	ZRUF42		ZBRUF42	
1/4" to 1/4"	4.60 mm	ZUF4		ZBUF4	



Reducing filter with a pressed frit
1/8" to 1/16"
(ZRUF21)

0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm

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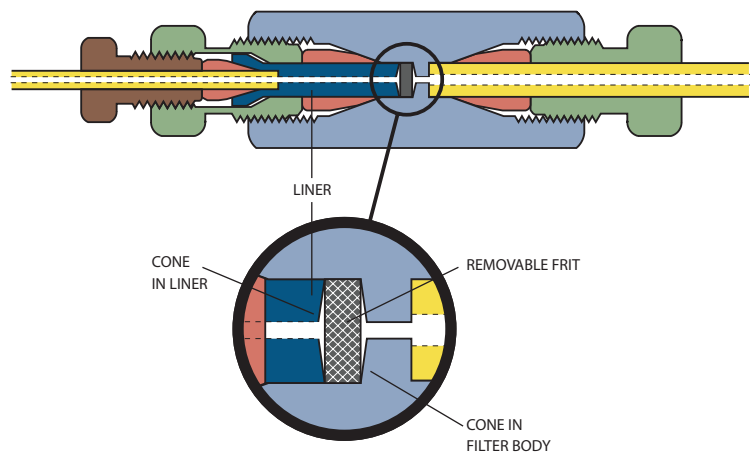
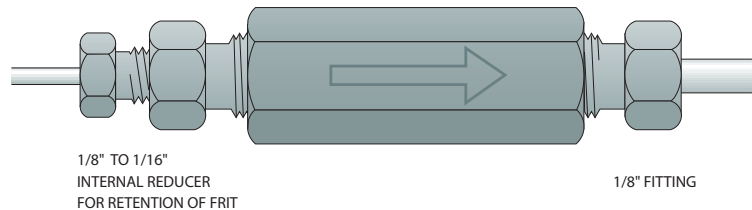
Filters with a removable frit



These filters come with a removable 2µ frit. The standard frit can be replaced with any frit of the proper diameter, *but not by a screen*. These filters are suitable for streams with frequent contamination, since the filtering element is easily changed. Standard material is Type 316 series stainless.

Patent Numbers 4,281,679 and 4,173,363

Description	Bore	Standard		Bulkhead	
		Prod No	Price	Prod No	Price
1/32" to 1/32"	0.25 mm	ZUFR.5F		ZBUFR.5F	
1/16" to 1/32"	0.25 mm	ZRUFR1.5F		ZBRUFR1.5F	
1/16" to 1/16"	0.25 mm	ZUFR1CF		ZBUFR1CF	
	0.50 mm	ZUFR1F		ZBUFR1F	
1/8" to 1/16"	0.75 mm	ZRUFR21F		ZBRUFR21F	
1/8" to 1/8"	2.00 mm	ZUFR2F		ZBUFR2F	
1/4" to 1/16"	1.00 mm	ZRUFR41F		ZBRUFR41F	
1/4" to 1/8"	2.00 mm	ZRUFR42F		ZBRUFR42F	



Reducing filter with a removable frit
1/8" to 1/16"
(ZRUFR21F)

TECH TIP
Should you use a filter with a frit or one with a screen?

Screens have much higher flow capacity (Cv), but frits are the best choice for maximum filtration or if your application requires Hastelloy C or titanium. However, since they are thicker than screens, frits allow more mixing, and the downside of their superior filtration is that they clog more often than screens.

Note! The difference in thickness also means that frits and screens cannot be used interchangeably in the same fitting body:

A frit must always be replaced with a frit.

A screen must always be replaced with a screen.

Replacement frits page 53

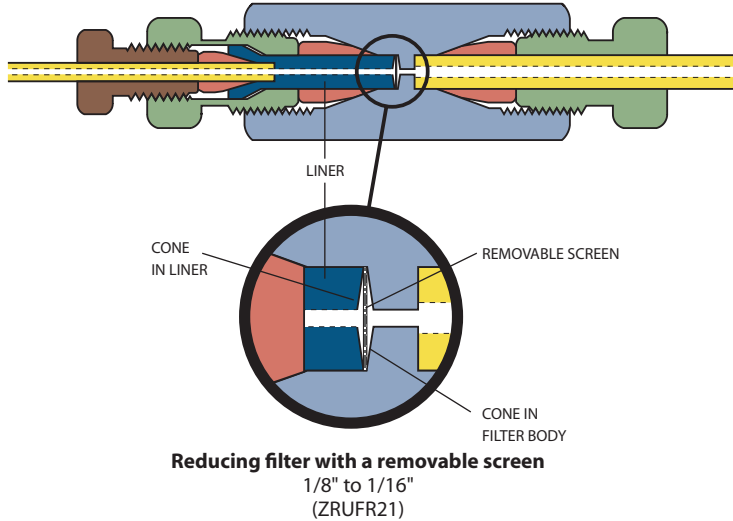
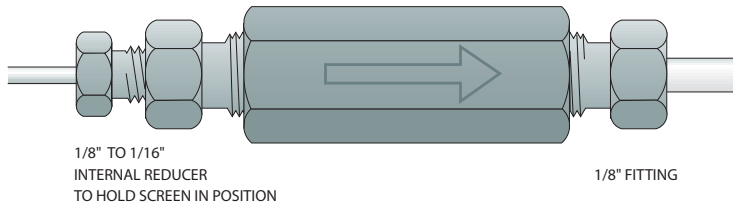
Filters

Filters with a removable screen

These filters come with a removable 2µ screen. The standard screen can be replaced with any screen of the proper diameter, *but not by a frit*. These filters are suitable for streams with frequent contamination, since the filtering element is easily changed. Standard material is Type 316 series stainless. Patent Numbers 4,281,679 and 4,173,363

P

Description	Bore	Standard		Bulkhead	
		Prod No	Price	Prod No	Price
1/32" to 1/32"	0.25 mm	ZUFR.5		ZBUFR.5	
1/16" to 1/32"	0.25 mm	ZRUFR1.5		ZBRUFR1.5	
1/16" to 1/16"	0.25 mm	ZUFR1C		ZBUFR1C	
	0.50 mm	ZUFR1		ZBUFR1	
1/8" to 1/16"	0.75 mm	ZRUFR21		ZBRUFR21	
1/8" to 1/8"	2.00 mm	ZUFR2		ZBUFR2	
1/4" to 1/16"	1.00 mm	ZRUFR41		ZBRUFR41	
1/4" to 1/8"	2.00 mm	ZRUFR42		ZBRUFR42	



TECH TIP
Should you use a filter with a frit or one with a screen?

Screens have much higher flow capacity (Cv), but frits are the best choice for maximum filtration or if your application requires Hastelloy C or titanium. However, since they are thicker than screens, frits allow more mixing, and the downside of their superior filtration is that they clog more often than screens.

Note! The difference in thickness also means that frits and screens cannot be used interchangeably in the same fitting body:

A frit must always be replaced with a frit.

A screen must always be replaced with a screen.

Replacement screens..... page 53

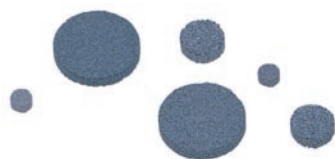
- 0.25 mm = .010"
- 0.50 mm = .020"
- 0.75 mm = .030"
- 1.0 mm = .040"
- 1.5 mm = .060"
- 2.0 mm = .080"
- 4.6 mm = .180"
- 6.0 mm = .236"
- 6.4 mm = .253"
- 7.0 mm = .275"
- 10.0 mm = .400"
- 27.0 mm = 1.08"
- 1/32" = 0.8 mm
- 1/16" = 1.6 mm
- 1/8" = 3.2 mm
- 1/4" = 6.4 mm
- 3/8" = 9.5 mm
- 1/2" = 12.7 mm

- 5/16" = .312" = 7.9 mm
- 3/8" = .375" = 9.5 mm
- 7/16" = .437" = 11.1 mm

Replacement frits

Other sizes may be available or special ordered in OEM quantities.

Note: If a filter was ordered with a removable frit, the frit **cannot** be replaced with a screen.



Package of 10:	Pore Size	Frit Thickness	Stainless Steel		Hastelloy C		Titanium	
			Prod No	Price	Prod No	Price	Prod No	Price
1/16" frits	0.5µ	0.75 mm	.5FR1-10		.5FR1HC-10		-	
	2µ	0.75 mm	2FR1-10		2FR1HC-10		2FR1TI-10	
	10µ	0.75 mm	10FR1-10		-		-	
1/8" frits	0.5µ	1.00 mm	.5FR2-10		.5FR2HC-10		-	
	1µ	1.00 mm	1FR2-10		1FR2HC-10		-	
	2µ	1.00 mm	2FR2-10		2FR2HC-10		2FR2TI-10	
	10µ	1.00 mm	10FR2-10		-		-	
1/4" frits	0.5µ	1.00 mm	.5FR4-10		-		-	
	2µ	1.00 mm	2FR4-10		2FR4HC-10		2FR4TI-10	
	10µ	1.00 mm	10FR4-10		10FR4HC-10		-	

WHICH FRIT FITS MY FILTER?

1/16" frit fits:

- ZUFR.5F
- ZBUFR.5F
- ZRUFR1.5F
- ZBRUFR1.5F

1/8" frit fits:

- ZUFR1CF
- ZBUFR1CF
- ZUFR1F
- ZBUFR1F
- ZRUFR21F
- ZBRUFR21F

1/4" frit fits:

- ZUFR2F
- ZBUFR2F
- ZRUFR41F
- ZBRUFR41F
- ZRUFR42F
- ZBRUFR42F

WHICH SCREEN FITS MY FILTER?

1/16" screen fits:

- ZUFR.5
- ZBUFR.5
- ZRUFR1.5
- ZBRUFR1.5

1/8" screen fits:

- ZUFR1C
- ZBUFR1C
- ZUFR1
- ZBUFR1
- ZRUFR21
- ZBRUFR21

1/4" screen fits:

- ZUFR2
- ZBUFR2
- ZRUFR41
- ZBRUFR41
- ZRUFR42
- ZBRUFR42



Replacement screens

Other sizes may be available or special ordered in OEM quantities.

Note: If a filter was ordered with a removable screen, the screen **cannot** be replaced with a frit.

Package of 10:	Pore Size	Screen Thickness	Stainless Steel	
			Prod No	Price
1/32" screens	0.5µ	0.040 mm	.5SR.5-10	
	1µ	0.050 mm	1SR.5-10	
	2µ	0.075 mm	2SR.5-10	
	10µ	0.125 mm	10SR.5-10	
1/16" screens	0.5µ	0.040 mm	.5SR1-10	
	1µ	0.050 mm	1SR1-10	
	2µ	0.075 mm	2SR1-10	
	10µ	0.125 mm	10SR1-10	
1/8" screens	0.5µ	0.040 mm	.5SR2-10	
	1µ	0.050 mm	1SR2-10	
	2µ	0.075 mm	2SR2-10	
	10µ	0.125 mm	10SR2-10	
1/4" screens	0.5µ	0.040 mm	.5SR4-10	
	1µ	0.050 mm	1SR4-10	
	2µ	0.075 mm	2SR4-10	
	10µ	0.125 mm	10SR4-10	

Tools

Custom socket wrench

This 1/4" socket wrench with a slot to slip over 1/16" tubing works great for all types of 1/4" hex nuts (such as Valco 1/16" ZDV fitting nuts). It's especially useful when nuts are difficult to access with an open end wrench.

Prod No Price
SWH4



Ferrule removal kit

When polymeric ferrules get stuck in a fitting detail, these little ferrule spears will save you from becoming so irritated that you tear up your entire lab in frustration. Each kit includes two sizes of tapered stabbers for retrieving capillary size ferrules.

Prod No Price
FRK1



Hex key set

The hex key set has a wrench to fit any socket head screw on any VICI valve or actuator. Includes the following sizes: .050", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", and 5/32".

Prod No Price
HKS



TECH TIP

If a fused silica tube breaks off in a through-type union, remove the nuts and the tube opposite the broken one. Clear the fitting by passing a drill or wire of the appropriate diameter into the unbroken side and through the center of the fitting.

Our ferrule removal kit can be used to remove ferrules from tee and cross fittings.



Open end wrenches

Size	For use with	Prod No	Price
3/16" x 1/4"	1/32" and 1/16" nuts	OEW	
3/8" x 7/16"	1/8" nuts	OEW-2	
1/2" x 9/16"	1/4" nuts	OEW-3	



Pin vise and drill index

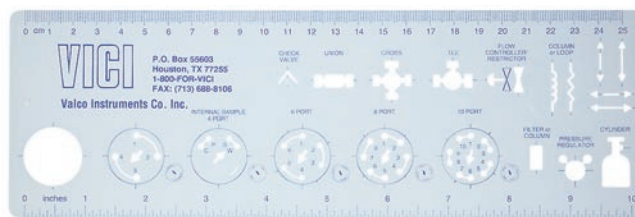
The drill index has drills sized from 0.0135" to 0.039" (0.34 to 1 mm). These are useful tools when a fused silica tube breaks in a union (see Tech Tip on the facing page) and for enlarging the inner diameter of fused silica adapters.

Prod No	Price
PV	

Template

This tool is just what you need when you're working out plumbing and valve switching schematics. It features templates for two position valves with 4, 6, 8, and 10 ports with indications of both positions, as well as various flow symbols. For added convenience, the sides are edged with metric and inch rulers.

Prod No	Price
TEMPLATE1	



MORE INFORMATION

- Tools for valves
- Pencil magnet p 210
- Valve spanner handle 211
- Tightening tools for PEEK fittings 67
- Tubing accessories 90



Cheminert® Fittings and Accessories

Cheminert fittings are ideally suited for applications requiring an inert, biocompatible, metal-free flowpath. Wetted materials are PFA, FEP, CTFE, or PEEK, and uniform flow passages minimize mixing. All connections have zero dead volume.

High Pressure Fittings

Cheminert high pressure fittings are rated at 5000 psi with fingertight nuts, well beyond the burst strength of most PEEK tubing. These fittings are machined from high quality inert polymers to the same exacting tolerances as our popular Valco zero dead volume fittings, and the taper angle and detail design conform to the industry standard established by the Valco line.

High Pressure Nanovolume® Fittings

Nanovolume generally refers to components with bore sizes of 100-150 µm (.004" - .006"). The minimal transfer volume contributed by nanovolume components makes them especially beneficial in applications with flow rates in the µl/min range, when the transfer volume can be critical.

NEW 360 Micron Nanovolume Fittings

Our newest high pressure fittings permit direct connection of 360 micron OD fused silica, PEEK, stainless, or electroformed nickel tubing without the use of liners. The ferrule snaps into the nut so that the fitting is "one-piece", but the ferrule remains free to rotate as the nut is tightened so that the tube doesn't twist. Because of the compact size and fine 2-56 threads, a leak-free connection that seals at pressures in excess of 20,000 psi can be easily formed with the available manual tool.

1/32" Nanovolume Fittings

1/32" Cheminert nanovolume fittings, with 100 µm or 150 µm bore, are ideal for high resolution capillary chromatography. Rated at 5,000 psi with fingertight nuts, they will remain leak-tight well beyond the burst strength of most PEEK tubing. These fittings are machined from high quality inert polymers to the same exacting tolerances as our popular Valco zero dead volume fittings, and the taper angle and detail design conform to the industry standard established by the Valco line.

MORE INFORMATION

High pressure Cheminert fittings pp 63-67
 Low pressure Cheminert fittings 68-81
 Nanovolume fittings 57-62
 Valco fittings 6-55

TECH TIP

For optimal zero dead volume connections, make sure your tubing meets the best industry standards. OD tolerance should be nominal dimension ± .002".

Fractional dimension	Nominal dimension
1/32"	.031
1/16"	.062
1/8"	.125
1/4"	.250
3/8"	.375
1/2"	.500

10,000 psi = 689.5 bar
 20,000 psi = 1,378.9 bar

50 µm	= .002"
100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

CHROMalytic TECHnology Pty Ltd AUSTRALIAN Distributors e-mail: sales@chromtech.net.au Tel: 03 9762 2034



2009 #60



- For direct connection of 360 µm tubing
- Work with metal, fused silica, or PEEK
- Up to 20,000 psi with metal tubing
- Snap-in rotating ferrule for "one-piece" fitting with no tubing twist
- Eliminate use of troublesome liners

Our new high pressure fittings permit direct connection of 360 micron OD fused silica, PEEK, stainless, or electroformed nickel tubing without the use of liners. The ferrule snaps into the nut so that the fitting is "one-piece", but the ferrule remains free to rotate as the nut is tightened so that the tube doesn't twist. Because of the compact size and fine 2-56 threads, a leak-free connection that seals at pressures in excess of 20,000 psi can be easily formed with the available manual tool.

360 µm fittings are dedicated for use with either fused silica, metal, or PEEK tubing; components cannot be mixed or used with a different tubing material.

Tees and crosses offer a choice of three bore sizes, and feature a "quick-mount" base with adhesive backing to make sure that the fitting is stable and fragile tubing doesn't get broken. There is also a quick-mount PEEK union.

MORE INFORMATION





Nanovolume fittings
 For fused silica tubing,
 10,000+ psi pg 58
 For metal tubing,
 up to 20,000 psi 58

1/32" Nanovolume
 fittings59-60
 Injectors with
 360 micron fittings. .152




For PEEK or fused silica tubing — up to 10,000 psi

These fittings are constructed from premium grade natural PEEK material. They are intended for use with PEEK or fused silica tubing at pressures up to 10,000 psi, or the maximum pressure for which the tubing is rated, whichever is lower. Quick-mount versions have integral base with double stick tape to secure fittings to a surface.



Nut/ferrules, caps, plugs, tightening tool for 360 µm tubing

	Prod No	Price
 Nut/ferrule	C360NFKG	
 Cap	C360CPKG	
 Plug	C360PPK	
 Tightening tool	C360ET	

Unions and reducing unions for 360 µm tubing

	Bore size:	50 micron		100 micron		150 micron	
		Prod No	Price	Prod No	Price	Prod No	Price
 Union, quick mount		C360QUPKG2		C360QUPKG4	\$65	C360QUPKG6	
 Union		C360UPKG2		C360UPKG4	48	C360UPKG6	
 Reducing union, 1/16" to 360 µm		—		—		C360RU1PK6	

Tees and crosses for 360 µm tubing

	Bore size:	50 micron		100 micron		150 micron	
		Prod No	Price	Prod No	Price	Prod No	Price
 Tee, quick mount		C360QTPKG2		C360QTPKG4	\$82	C360QTPKG6	
 Cross, quick mount		C360QXPKG2		C360QXPKG4	100	C360QXPKG6	

CHROMalytic TECHNOlogy Pty Ltd AUSTRALIAN Distributors e-mail: sales@chromtech.net.au Tel: 03 9762 2034

NEW 360 µm Nanovolume Fittings





2009 #60




For fused silica tubing — 10,000 psi and above

These fittings are constructed from HPLC grade stainless steel, with stainless steel nut and a special ferrule which is precision machined from electroformed nickel. For optimal sealing characteristics, the ferrule is gold plated.

Nut/ferrules and caps for 360 µm FS tubing

	Prod No	Price
 Nut/ferrule	C360NFFS	
 Cap	C360CFS	



Unions and reducing unions for 360 µm FS tubing

	50 micron		100 micron		150 micron	
	Prod No	Price	Prod No	Price	Prod No	Price
 Union	C360UFS2		C360UFS4		C360UFS6	
 Reducing unions, 1/32" to 360 µm	C360RU.5FS2		C360RU.5FS4		C360RU.5FS6	
 Reducing unions, 1/16" to 360 µm	—		—		C360RU1FS6	




For metal tubing — up to 20,000 psi

Our highest pressure Nanovolume fittings are constructed of HPLC grade stainless steel, including stainless steel nut and ferrule. These fittings are optimized for use with stainless or electroformed nickel tubing.

Nut/ferrules and caps for 360 µm tubing

	Prod No	Price
 Nut/ferrule	C360NFS6	
 Cap	C360C	

Unions and reducing unions for 360 µm tubing

	50 micron		100 micron		150 micron	
	Prod No	Price	Prod No	Price	Prod No	Price
 Union	C360US62		C360US64		C360US66	
 Reducing unions, 1/32" to 360 µm	C360RU.5S62		C360RU.5S64		C360RU.5S66	
 Reducing unions, 1/16" to 360 µm	—		—		C360RU1S66	

MORE INFORMATION

360 µm fittings for use below 10,000 psi..... 57
 360 µm tubing
 Electroformed nickel. 87
 PEEK 88
 1/32" Nanovolume fittings 59-60

TECH TIP

Use these **metal 360 micron nuts** with nano injectors:
 C72MU p 152
 C72MX 152

50 µm	=	.002"
100 µm	=	.004"
150 µm	=	.006"
0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm

NEW INTERNAL REDUCERS FOR 360 µm TUBING

Directly connect 360 µm tubing into a 1/32" Valco valve or fitting detail, providing a positive leak-free seal with zero dead volume. The same patented design as our larger internal reducers (page 34). Both versions have a stainless steel body.

Tubing OD	Nut/ferrule material	Prod No	Price
1/32" to 360 µm	Stainless	C360IZR.5S6	\$34
	PEEK	C360IZR.5S6PK	34

Nanovolume Fittings for 1/32" Tubing



Designed for high resolution capillary HPLC, Cheminert nanovolume connectors include our one-piece 1/32" fingertight fittings, with a patented collapsible ferrule that makes fingertight nanovolume connections a snap. These fittings

work with a variety of tubing, including PEEK, fused silica, and 1/32" electroformed nickel. Liners adapt the fittings for use with fused silica.





To avoid potential confusion, all fittings utilizing the Cheminert collapsible ferrule are made of black PEEK; fittings with a standard Valco ZDV fitting detail are natural PEEK.



Nuts and ferrules

for 1/32" tubing

Valves and fittings are supplied with the appropriate quantity of nuts and ferrules. However, if additional fittings are required, they may be ordered separately. The two internal nuts include collapsible ferrules as an integral part of the fitting; the external nut must be used with the separate ferrule listed below.

		Prod No	Price each:
	Internal nut with collapsible ferrule <i>For use with:</i> Fittings on pages 60-62 6 port valve CN2-4346, page 154 4 port internal sampling injector CN4-4344, page 155	C-NNFFPK	
	Internal nut with collapsible ferrule <i>For use with:</i> 10 port nanovolume valve CN2-4340, page 154	C-NNFLPK	
	External nut <i>For use with:</i> Unions on page 61 Column end fittings on page 62 Note: Requires collapsible PEEK ferrule, below	C-EN.5FPKB	
	Collapsible PEEK ferrule <i>For use with:</i> External nut, above	ZGF.5PK	

MORE INFORMATION


360 µm fittings . . . pp 57-58
1/32" Nanovolume column end fittings . . 62
Tubing
PEEK 88-89
Electroformed nickel 87

TECH TIP

Use these **collapsible ferrule-nuts** with:
1/32" Nanovolume fittings pp 60-62
and with injectors:
CN2 154
CN4 155

Plugs

for 1/32" tubing

		Prod No	Price each:
	Internal plug <i>For use with:</i> Fittings on page 60 Nanovolume valves on pages 154-155	C-NPFPK	



Nanovolume Unions, Tees, Y's, and Crosses for 1/32" Tubing

Unions

for 1/32" tubing

	100 µm bore		150 µm bore	
	Prod No	Price	Prod No	Price
Union for 1/32" PEEK or electroformed nickel tubing Does not require or include liners.	C-NEU.5XFPK	\$43	C-NEU.5FPK	



Reducing unions

for 1/32" tubing

	200 µm bore
	Prod No
Reducing union, 1/32" to 1/16" tubing, natural PEEK	ZERU1.5FPK



Tees, y's, and crosses

for 1/32" tubing or FS* tubing

		100 µm bore		150 µm bore	
		Prod No	Price	Prod No	Price
Tee	1/32" tubing or fused silica*	C-NTXFPK	\$105	C-NTFPK	
Y	1/32" tubing or fused silica*	C-NYXFPK	105	C-NYFPK	
Cross	1/32" tubing or fused silica*	C-NXXFPK	120	C-NXFPK	



*A liner is needed for use with fused silica. Order 27 mm length, page 61.

Fill ports

for 1/32" nanovolume® valves

These fill ports provide direct syringe connections to Model CN2 nanovolume valves. For use with 26 gauge blunt tip needle.

	Prod No
Fill port for 1/32" CN2 series HPLC injectors	C-NVISF



1/32" Nanovolume frits

These frits are the answer to filtration of 1/32" nanovolume fitting connections. A mere .25 mm (0.010") thin and 1/32" in diameter, they can be placed in any 1/32" fitting detail and add minimal volume. Price is for a package of 5 frits.

Pkg/5:	Pore size	Prod No
	0.2 micron	.2FR.5-5
	0.5 micron	.5FR.5-5

MORE INFORMATION

Unions for fused silica
... p. 18, 19, 57-58, 61

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

TECH TIP

Liners adapt nanovolume fittings for use with fused silica tubing. They are included with nanovolume **unions** for fused silica, but must be ordered separately for other fittings.



Liners page 61

Nanovolume Unions and Liners for FS Tubing

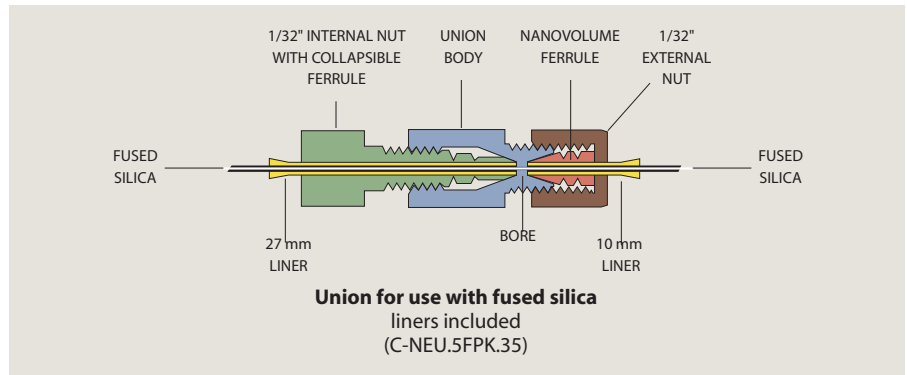


Unions

for fused silica tubing



	FS tubing OD	100 µm bore Prod No	150 µm bore Prod No
Union for fused silica tubing Includes liners.	125 - 175 µm	C-NEU.5XFPK.15	C-NEU.5FPK.15
	175 - 225 µm	C-NEU.5XFPK.20	C-NEU.5FPK.20
	225 - 275 µm	C-NEU.5XFPK.25	C-NEU.5FPK.25
	275 - 325 µm	C-NEU.5XFPK.30	C-NEU.5FPK.30
	325 - 375 µm	C-NEU.5XFPK.35	C-NEU.5FPK.35



MORE INFORMATION

360 µm fittings . . . pp 57-58
 1/32" nanovolume
 Fittings 59-60
 External nuts 59
 Internal nuts with
 collapsible ferrules . 59
 Liners for column end
 fittings 62

TECH TIP

Use 27 mm liners



with internal nuts with
collapsible ferrules:



Use 10 mm liners



with external nuts:



Liners for 1/32" connectors


for use with fused silica tubing

Use these liners with nanovolume connectors to adapt to the most common sizes of fused silica tubing. Natural PEEK.

The 27 mm liners are for internal nuts with collapsible ferrules. 10 mm liners are for use with external nuts. Sold in packages of 5.


27 mm liners

Use with internal nuts C-NNFFPK or C-NNFLFPK

	For tubing OD	Prod No
	125 - 175 µm	C-NL.15L-5
	175 - 225 µm	C-NL.20L-5
	225 - 275 µm	C-NL.25L-5
	275 - 325 µm	C-NL.30L-5
	325 - 375 µm	C-NL.35L-5

10 mm liners

Use with external nut C-EN.5FPKB

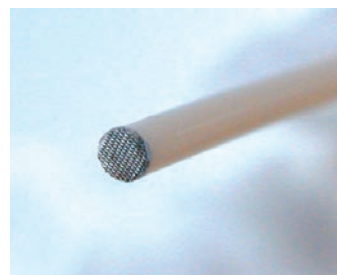
	For tubing OD	Prod No
	125 - 175 µm	C-NL.15S-5
	175 - 225 µm	C-NL.20S-5
	225 - 275 µm	C-NL.25S-5
	275 - 325 µm	C-NL.30S-5
	325 - 375 µm	C-NL.35S-5

Nanovolume Column End Fittings for FS Capillaries



Nanovolume column end fittings include two liners to adapt the 1/32" fitting to fused silica. The 27 mm liner, used inside the internal nut, has a 1 µm 316 stainless steel screen embedded in the PEEK to provide closure for fused silica columns. The 10 mm liner is used with the external nut.

Like other nanovolume fittings, they include our one-piece 1/32" fingertight fittings, with a patented* collapsible ferrule. To avoid potential confusion, all fittings utilizing the Cheminert collapsible ferrule are made of black PEEK. The liners are natural PEEK.

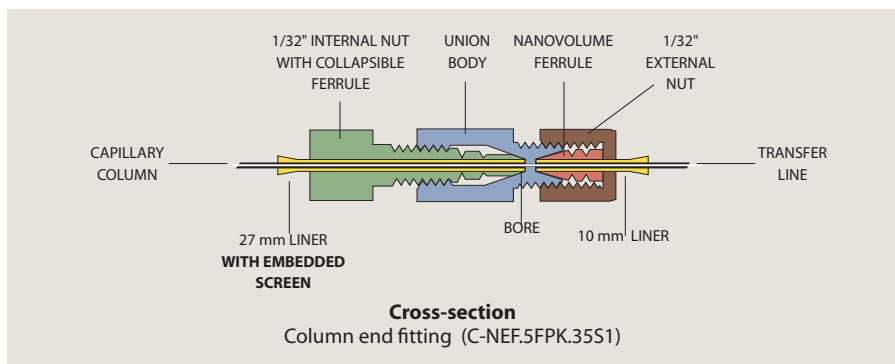


Screen embedded in end of liner for column end fittings

Column end fittings

for 1/32" tubing

Each:	For tubing OD	100 µm bore Prod No	150 µm bore Prod No
Column end fitting	125 - 175 µm	C-NEF.5XFPK.15S1	C-NEF.5FPK.15S1
for fused silica tubing	175 - 225 µm	C-NEF.5XFPK.20S1	C-NEF.5FPK.20S1
Includes liners	225 - 275 µm	C-NEF.5XFPK.25S1	C-NEF.5FPK.25S1
	275 - 325 µm	C-NEF.5XFPK.30S1	C-NEF.5FPK.30S1
	325 - 375 µm	C-NEF.5XFPK.35S1	C-NEF.5FPK.35S1



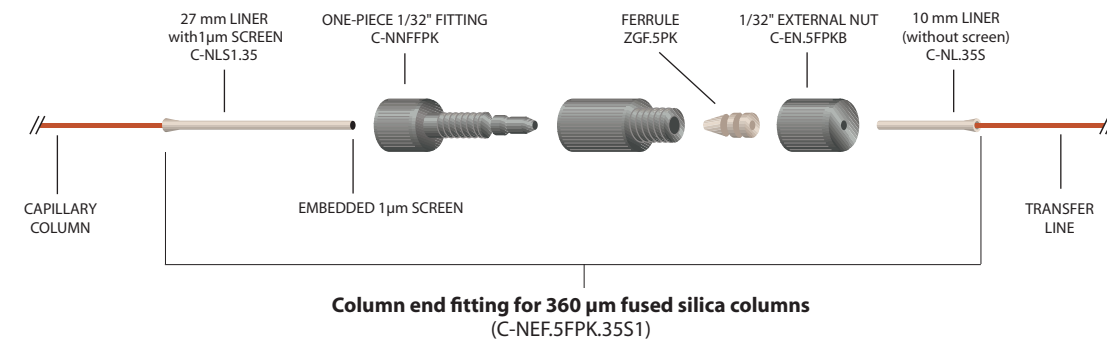
Replacement liners for column end fittings

for FS capillaries

Use these liners with nanovolume column end fittings to adapt to the most common sizes of fused silica tubing. Natural PEEK, with embedded screen to provide full closure for fused silica capillaries. Sold individually.

27 mm liners for column end fittings

For tubing OD	Prod No
125 - 175 µm	C-NL S1.15
175 - 225 µm	C-NLS1.20
225 - 275 µm	C-NLS1.25
275 - 325 µm	C-NLS1.30
325 - 375 µm	C-NLS1.35



*U.S. patent no. 6,575,501.

MORE INFORMATION
Liners for 1/32" fittings .. page 61

TECH TIP
Liners with embedded screens are also available for 1/16" PEEK tubing. Consult the factory for sizes and product numbers.



2009 #60



No twist one-piece fittings

10-32 for 1/16" tubing

These new fittings offer the convenience of a one-piece fitting while solving a problem inherent to such designs. In other one-piece designs, the ferrule rotates against the fitting detail, creating particulates. The no twist design has a separate ferrule that snaps into the nut, so it's attached but still free to avoid rotation during tightening.

Since the ferrule is not machined onto the nut, it can be made from a different material. PEEK nut with PEEK ferrule, or PEEK nut with CTFE ferrule – the possibilities are endless.

Package of 5:	Glass-filled PEEK ferrule	PEEK ferrule	CTFE ferrule
Nut type Length	Prod No	Prod No	Prod No
PEEK, hex short	ZNF1PKG-5	ZNF1PK-5	ZNF1KF-5
PEEK, hex medium	MZNF1PKG-5	MZNF1PK-5	MZNF1KF-5
PEEK, hex long	LZNF1PKG-5	LZNF1PK-5	LZNF1KF-5
PEEK, fingertight	ZNF1FPKG-5	ZNF1FPK-5	ZNF1FKF-5

Optional ferrule materials available – FEP, PFA, PTFE, and glass-filled PTFE. Call for availability. Some 1/32" versions are available. Call for details.

Patent No. 7,316,777

Internal nuts – high pressure PEEK

PEEK nuts are used in Cheminert polymeric valves with zero dead volume fittings. They can also be used as alternatives to standard stainless steel Valco nuts when polymeric ferrules are used (up to approximately 175°C). Fingertight nuts have a knurled surface designed to provide sufficient sealing force on the ferrule without wrenches. Hex style nuts allow wrench tightening; however, since they are polymeric, they can break and are recommended for use only when space is limited and fingers won't fit.

Caution: PEEK nuts are intended for use only with polymeric ferrules, which seal with lower force than their stainless steel counterparts. Overtightening can result in breakage.

Package of 10:	Prod no	Length
1/32" fingertight	ZN.5FPK-10	.42"
1/32" fingertight	LZN.5FPK-10	.54"
1/16" fingertight	ZN1FPK-10	.88"
1/16" hex	ZN1PK-10	.45"
1/16" hex	MZN1PK-10	.62"
1/16" hex	LZN1PK-10	.87"
1/8" hex	ZN2PK-10	.62"



Ferrules – high pressure PEEK

PEEK ferrules seal by the increased friction from compression.

Package of 10:	Prod No	Pkg of 10:
1/32"	ZF.5PK-10	1/4"
1/16"	ZF1PK-10	3/8"
1/8"	ZF2PK-10	1/2"



Ferrules – grooved PEEK

These patented ferrules* feature a grooved design that permits the ferrule to grip the tube in multiple places. They work great on tubing that is softer than the ferrule material. For example, PEEK grooved ferrules work well on PTFE or FEP tubing. They are not generally recommended if the tubing is the same material as the ferrule.

Package of 10:	Prod No
1/32"	ZGF.5PK-10
1/16"	ZGF1PK-10



MORE INFORMATION

Tightening tool for hex-head PEEK nuts. . 67

POLYMERS AT A GLANCE

PEEKPK

Chemical resistance; up to 225°C

100 µm	= .004"
150 µm	= .006"
0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm



High Pressure PEEK Fittings

Plugs and caps – high pressure PEEK

Polymeric plugs and caps are available in knurled fingertight and wrench-tight hex nut designs, for use in valves or fittings. See discussion of PEEK nuts on page 63. PEEK caps include a PEEK nut and ferrule. For high pressure polymeric valve plugs, see below. For low pressure valve plugs, see page 71.



Description	Length of nut*	PEEK plugs	PEEK caps
		Prod No	Prod No
1/32" fingertight	.42"	ZP.5FPK	ZC.5FPK
1/32" fingertight	.54"	LZP.5FPK	--
1/16" fingertight	.87"	ZP1FPK	ZC1FPK
1/16" hex	.62"	MZP1PK	ZC1PK
1/16" long hex	.87"	LZP1PK	--
1/8" hex	.62"	ZP2PK	ZC2PK

PEEK plugs for high pressure polymeric valves

These PEEK plugs are for use **only** in Cheminert HPLC polymeric valves (C1-C5 series) since the fitting detail in these valves is unique.

Description	Length of nut*	Prod No
1/16" hex	.62"	C-MZP1PK
1/16" long hex	.87"	C-LZP1PK
1/16" fingertight	.88"	C-ZP1FPK



Tees and crosses – high pressure PEEK

Tees connect three lines. Crosses connect four lines. The 1/32" and 1/16" nuts are fingertight; 1/8" nuts are hex, for wrench tightening.

Tubing OD	Bore	PEEK tees	PEEK crosses
		Prod No	Prod No
1/32"	0.25 mm	ZT.5FPK	ZX.5FPK
	0.50 mm	ZT.5LFPK	ZX.5LFPK
1/16"	0.25 mm	ZT1CFPK	ZX1CFPK
	0.50 mm	ZT1MFPK	ZX1MFPK
	0.75 mm	ZT1FPK	ZX1FPK
	1.00 mm	ZT1LFPK	ZX1LFPK
1/8"	0.75 mm	ZT2PK	ZX2PK
	2.00 mm	ZT2LPK	ZX2LPK



POLYMERS AT A GLANCE

PEEK PK
Chemical resistance;
up to 225°C

TECH TIP

Ferrules for high pressure PEEK fittings are available in PEEK and PFA.

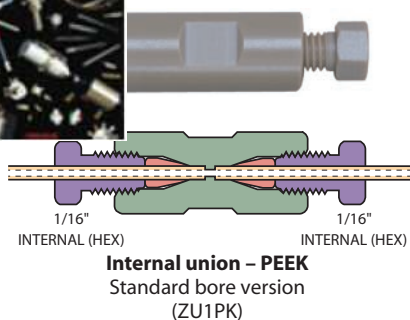
PEEK ferrules page 63
PFA ferrules 13

0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm



Internal unions – high pressure PEEK

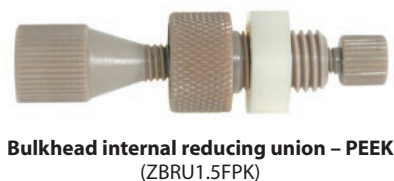
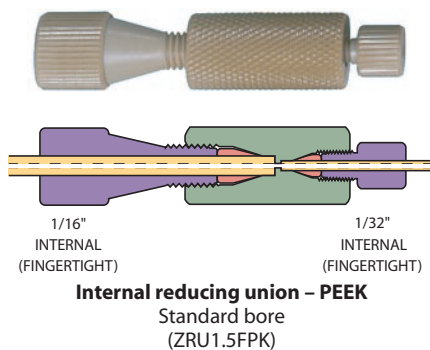
The 1/32" nuts are fingertight; 1/16" nuts are available in a choice of fingertight or hex; and 1/8" nuts are hex, for wrench tightening.



Tubing		Standard	Bulkhead	Bulkhead
OD	Bore	Prod No	Prod No	panel hole diameter
1/32" fingertight				
	0.25 mm	ZU.5FPK	ZBU.5FPK	5/16"
	0.50 mm	ZU.5LFPK	ZBU.5LFPK	5/16"
	1/32"	ZU.5TFPK	ZBU.5TFPK	5/16"
1/16" fingertight				
	0.25 mm	ZU1CFPK	ZBU1CFPK	3/8"
	0.50 mm	ZU1MFPK	ZBU1MFPK	3/8"
	0.75 mm	ZU1FPK	ZBU1FPK	3/8"
	1/16"	ZU1TFPK	ZBU1TFPK	3/8"
1/16" hex				
	0.25 mm	ZU1CPK	ZBU1CPK	3/8"
	0.50 mm	ZU1MPK	ZBU1MPK	3/8"
	0.75 mm	ZU1PK	ZBU1PK	3/8"
	1/16"	ZU1TPK	ZBU1TPK	3/8"
1/8" hex				
	0.75 mm	ZU2PK	ZBU2PK	7/16"
	2.0 mm	ZU2LPK	ZBU2LPK	7/16"
	1/8"	ZU2TPK	ZBU2TPK	7/16"

Internal reducing unions – high pressure PEEK

These unions connect two different sizes of tubing, with zero dead volume internal fittings on each end. In the bulkhead version, the bulkhead nut is on the side with smaller tubing. The 1/32" and 1/16" nuts are fingertight; 1/8" nuts are hex, for wrench tightening. A version with 1/16" and 1/8" hex nuts is also available.



Tubing		Standard	Bulkhead	Bulkhead
OD	Bore	Prod No	Prod No	panel hole diameter
1/16" to 1/32"				
	0.25 mm	ZRU1.5FPK	ZBRU1.5FPK	5/16"
	0.50 mm	ZRU1.5LFPK	ZBRU1.5LFPK	5/16"
	1/32"	ZRU1.5TFPK	ZBRU1.5TFPK	5/16"
1/8" to 1/32"				
	0.25 mm	ZRU2.5FPK	ZBRU2.5FPK	3/8"
	0.50 mm	ZRU2.5LFPK	ZBRU2.5LFPK	3/8"
	1/32"	ZRU2.5TFPK	ZBRU2.5TFPK	3/8"
1/8" to 1/16"				
	0.25 mm	ZRU21CFPK	ZBRU21CFPK	3/8"
	0.75 mm	ZRU21FPK	ZBRU21FPK	3/8"
	1.00 mm	ZRU21LFPK	ZBRU21LFPK	3/8"
	1/16"	ZRU21TFPK	ZBRU21TFPK	3/8"

High Pressure Specialty PEEK Fittings



2009 #60

One-piece fingertight fittings – color-coded PEEK

These molded fingertight fittings are rated to 5000 psi (350 bar), so they can be used in virtually any HPLC fitting detail with 10-32 threads. Six colors allow easy identification of tubing lines.

Package of 5:

Color	Prod No
Natural	JR-55020-5
Black	JR-55021-5
Red	JR-55022-5
Yellow	JR-55023-5
Blue	JR-55024-5
Green	JR-55025-5



One-piece PEEK fingertight fittings – narrow hex-head

This natural PEEK machined fitting has a narrow hex head and 10-32 threads.

Package of 5:

Color	Prod No
Natural	JR-5508-5



Color-It fingertight adapters

Use Color-It snap-on extensions to color-code our 1/4" hex-head nuts, and turn the nut into a fingertight fitting at the same time. Color-It adapters are available in six different colors, and can be used with PEEK and stainless hex-head nuts.

Package of 5:

Color	Prod No
Blue	JR-55010-5
Yellow	JR-55011-5
Green	JR-55012-5
Black	JR-55013-5
White	JR-55014-5
Red	JR-55015-5

Package of 12:

Color	Prod No
Multi-color	JR-55016-12 (2 of each color)



MORE INFORMATION

Color-coded
PEEK tubing ... page 89

CAUTION

One-piece combination nuts and ferrules are not for high pressure gas service.

0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm



PEEK starter kit

In LC applications involving proteins, peptides, nucleic acids, or other samples of biological origin, metal systems may interact with samples or release transition metals that will deactivate columns. The PEEK starter kit facilitates replacement of stainless steel tubing, fittings, ferrules, mobile phase filters, etc., to create a biocompatible environment for samples and mobile phase.

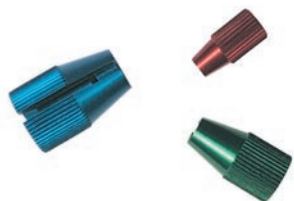
Prod No

PEEK starter kit JR-35P

Includes:

- 1 Plastic box
- 10 PEEK one-piece fittings, 10-32
- 5 PEEK handtight fittings
- 5 PEEK nuts, hex-head long
- 20 PEEK ferrules, double-ended 1/16"
- 1 PEEK union, HP body only, 10-32
- 2 Tubing elbows 90°
- 2 Tubing elbows 180°
- 1 PEEK filter, in-line, incl. PAT frit 5 µm
- 1 Clean-cut tubing cutter
- 1 Last Drop PTFE filter 5 µm
- 3m PEEK tubing, 1/16" x 0.25 mm ID, blue stripe
- 3m PEEK tubing, 1/16" x 0.50 mm ID, orange stripe
- 1 Tweezers

Tightening tools for PEEK fittings



These handy tools make it fast and easy to tighten PEEK hex-head fittings. The red version is for use with the C360 series fittings shown on page 57. The green tool is for any 1/32" PEEK fitting with a 3/16" hex head nut, and the blue version fits the 1/4" hex common in fittings for 1/16" tubing.

<i>Color</i>	<i>For use with</i>	<i>Prod No</i>
Red	360 µm fittings	C360ET
Green	1/32" fittings	CNFT
Blue	1/16" fittings	ZNFT

MORE INFORMATION

Hex-head PEEK fittings
 360 µm..... page 57
 1/32" 63-65
 1/16"
 High pressure... 63-65
 Low pressure 71



Low Pressure Flangeless Tube End Fittings

Cheminert low pressure fittings are ideally suited for flow injection analysis, low pressure liquid chromatography, and stream sampling devices. They may be safely used at pressures up to 500 psi and temperatures to 50°C. Two designs of low pressure tube end fittings are available. *Flangeless* tube end fittings

utilize our new collapsible ferrule, which grips the tubing as the fitting is tightened without significantly reducing the tube ID. *Standard* tube end fittings are retained on polymeric tubing by a flange formed with a Cheminert flanging tool.

Flangeless tube end fittings

1/4-28

Flangeless tube end fittings eliminate the flanging tool required with standard tube end fittings. The nut turns on the tubing as freely as with our flanged fitting, eliminating the possibility of cracking or unscrewing that can occur when plastic tubing is subjected to twisting as fittings are connected.

Cheminert flangeless fittings include our patented* collapsible ferrule design. This innovative design utilizes a one-piece ferrule engineered to collapse as it is tightened. The collapse takes place in a very narrow area, resulting in a very effective seal with virtually no distortion of the tubing ID and no dead volume. The assembly is rated at 500 psi liquid when tightened by hand. Since only the tubing and the ferrule come into contact with the solution, the result is an inert system. Use CTFE ferrules for soft tubing (PTFE, FEP, etc.), but use PEEK ferrules for harder tubing (PEEK, ETFE, polyurethane, etc.)

Cheminert tube end fittings work with any 1/16" or 1/8" OD polymeric tubing, and come in twelve different colors for system color coding.



Flangeless fittings with CTFE ferrules

	1/16" OD		1/8" OD	
(pkg/5)	Prod No	Price	Prod No	Price
Black	CFL-1BK		CFL-2BK	
Blue	CFL-1BE		CFL-2BE	
Brown	CFL-1BR		CFL-2BR	
Dark gray	CFL-1DG		CFL-2DG	
Green	CFL-1G		CFL-2G	
Lavender/pink	CFL-1L		CFL-2L	
Natural	CFL-1N		CFL-2N	
Orange	CFL-1E		CFL-2E	
Purple	CFL-1P		CFL-2P	
Red	CFL-1R		CFL-2R	
White	CFL-1W		CFL-2W	
Yellow	CFL-1Y		CFL-2Y	

Assorted (pkg/12, one of each color)

with ferrule:

CTFE	CFL-1A	CFL-2A
PEEK	CFL-1A-PK	CFL-2A-PK

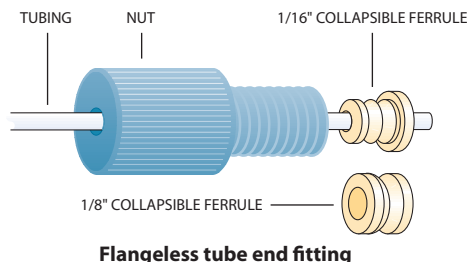
Replacements

PEEK ferrules (pkg/10)	CFL-CB1PK	CFL-CB2PK
CTFE ferrules (pkg/10)	CFL-CB1KF	CFL-CB2KF
PEEK nuts (pkg/5)	CFL-1PK	CFL-2PK

Setting tool

CST	CST
-----	-----

Patent No. 6,575,501

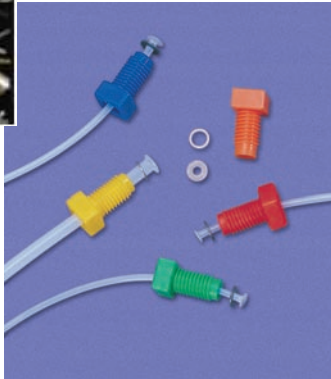


0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm

Low Pressure Standard Tube End Fittings and External Nuts



2009 #60



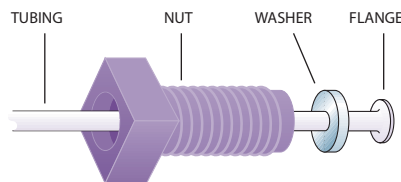
Standard flanged tube end fittings

1/4-28

The basic component of the Cheminert system is the polypropylene nut, retained on PTFE or FEP tubing by a flange formed with a Cheminert flanging tool (page 70). This is an excellent method for connecting fluorocarbon tubing, as there is no reduction of the inside diameter and no binding or twisting of the tubing when the fitting is tightened. A mating of the parts is achieved with zero dead volume, making this an ideal fitting for biological systems.

Cheminert tube end fittings come in twelve different colors for system color coding, and are available for 1/16" or 1/8" OD fluorocarbon tubing. (While in theory other polymers could be molded to form a flange, only fluorocarbons such as PTFE or FEP have low-temperature malleability and good form retention at operating temperatures.) Tube end fittings attach directly to Cheminert valves and fittings, and are easily joined to each other with a union. Tightening by hand is all that is required to make a leak-free seal at 500 psi liquid, although for long term reliability a wrench could be used to apply an additional 1/8 turn.

Packages include the same number of washers as fittings.



Flanged tube end fitting

MORE INFORMATION

High pressure fittingspp 63-66
PTFE and FEP tubing..... 90

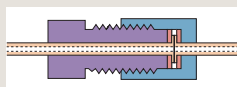
TECH TIP

To make up standard flanged tube end fittings, use the flanging tool on page 70.

A flanging starter kit, complete with flanging tool, flanging tips, and an array of tubing and fittings, is also available. (See page 70.)

TECH TIP

Use our external nut tube end fittings to make true zero volume butt connections without a coupling.



Flanged fittings

(pkg/10)

1/16" OD

Prod No

Price

1/8" OD

Prod No

Price

Black

CF-1BK

CF-2BK

Blue

CF-1BE

CF-2BE

Brown

CF-1BR

CF-2BR

Dark gray

CF-1DG

CF-2DG

Green

CF-1G

CF-2G

Lavender/pink

CF-1L

CF-2L

Natural

CF-1N

CF-2N

Orange

CF-1E

CF-2E

Purple

CF-1P

CF-2P

Red

CF-1R

CF-2R

White

CF-1W

CF-2W

Yellow

CF-1Y

CF-2Y

Assorted (pkg/12, one of each color)

CF-1A

CF-2A

Washers

(pkg/10)

CF-W1

CF-W2

External nuts for flanged tube ends

1/4-28

External nuts with female 1/4-28 threads are designed for use on tubing with a flanged end, just like the standard tube end fittings. Use them instead of a union or coupling to make a zero volume butt connection.

Package of 5:

Tubing OD

PEEK

Prod No

Price

CTFE

Prod No

Price

1/16"

CEN1PK

CEN1KF

1/8"

CEN2PK

CEN2KF



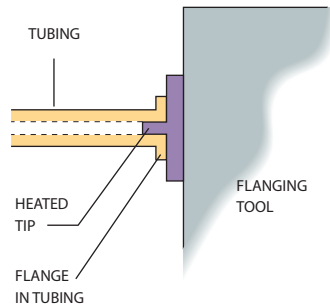


Flanging Tool, Starter Kit

Cheminert flanging tools

The flanging tool makes the flange which retains the standard 1/4-28 tube end fitting and washer on PTFE or FEP tubing. With this tool, lengths of tubing may be easily assembled to any required dimension. The time required is approximately 5 to 10 seconds per flange.

Flanging tools are available for 110 VAC or 230 VAC, and come complete with tips for 0.75 mm, 1.0 mm, and 2.00 mm ID tubing, a tubing holder for gripping the tubing during the flanging operation, a razor blade for tube cutting, and instructions.



Flange being made on tubing

	<i>Prod No</i>	<i>Price</i>
Flanging tools 110 VAC	CFT-110	
230 VAC	CFT-220	
Flanging tool accessories		
Flanging tips		
for tubing ID ≤ 0.25 mm	CFT-TXC	
for tubing ID ≤ 0.75 mm	CFT-TC	
for tubing ID ≤ 1.00 mm	CFT-TM	
for tubing ID ≤ 1.50 mm	CFT-TL	
for tubing ID ≤ 2.00 mm	CFT-TXL	
Razor blades (<i>pkg /10</i>)	CFT-R	
Tubing holder	CFT-H	



Cheminert starter kits

Starter kits come in either 1/16" or 1/8" versions, with flanging tools for 110 VAC or 230 VAC.

	110 VAC		230 VAC	
	<i>Prod No</i>	<i>Price</i>	<i>Prod No</i>	<i>Price</i>
Starter kits				
1/16" tubing	CFT1K-110		CFT1K-220	
1/8" tubing	CFT2K-110		CFT2K-220	

The starter kit includes:

- 1 flanging tool with 3 flanging tips
- 1 tubing holder
- 20 standard tube end fittings
- 20 stainless steel washers
- 10 couplings
- 20 feet of PTFE tubing
(1/16" OD x 0.030" ID
or
1/8" OD x .060" ID)
- 1 male luer adapter
- 1 female luer adapter
- 1 plug
- 1 tee
- 1 glass connector



MORE INFORMATION

Standard tube end fittings	page 69
Stainless steel washers	69
Couplings	72
Male luer adapter.....	76
Female luer adapter ...	76
Plug.....	71
Tee	74
Glass connector	75

Starter Kit, Low Pressure Plugs and Caps



Easy-Flange kit

The Easy-Flange flange-rolling tool uses mechanical force to form a flange on 1/16" - 1/8" OD PTFE tubing, offering an excellent non-electric alternative to the heated flanging tool.

The quality of the flange is excellent, since it is formed without stressing the tubing by heat. The specially designed negative conical profile of the flange-forming component yields an ideal shape for maximum sealing properties.

	<i>Prod No</i>	<i>Price</i>
Easy-Flange kit	JR-201540	
<i>Includes:</i>		
Plastic box		
Flanging discs with:		
0.5 mm SS pin for PEEK tubing		
0.8 mm polymer pin		
0.8 mm titanium pin		
1.3 mm polymer pin		
1.3 mm titanium pin		
Clean-cut tubing cutter		
PTFE tubing, 1/16" x 0.75 mm ID, 6 ft.		

Plugs

1/4-28

Plugs can be used to close off an unused port in a 1/4-28 valve or manifold.



	PEEK		CTFE	
<i>Package of 5:</i>	<i>Prod No</i>	<i>Price</i>	<i>Prod No</i>	<i>Price</i>
	CPPK		CPKF	

Low pressure PEEK plugs

10-32

These all-PEEK plugs are for use in Cheminert PEEK fittings and low pressure polymeric valves (C20Z and C30Z series). For high pressure polymeric valves (C1-C5 series), use plugs on page 64.



<i>Package of 1: Length of nut*</i>		PEEK	
		<i>Prod No</i>	<i>Price</i>
1/16" hex	.62"	MZP1PK	
1/16" long hex	.87"	LZP1PK	
1/16" fingertight	.88"	ZP1FPK	

Caps

1/4-28

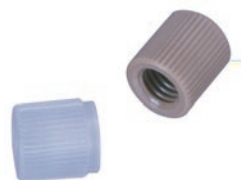
Caps are used to close off lines with 1/4-28 tube end fittings.

	PEEK		CTFE	
<i>Package of 5:</i>	<i>Prod No</i>	<i>Price</i>	<i>Prod No</i>	<i>Price</i>
	CCPK-5		CCKF-5	

MORE INFORMATION

Clean-cut tubing
cutter page 90
Tightening tool for
hex-head PEEK nuts... 67

0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm





2009 #60

Low Pressure Unions

Unions *Cheminert to Cheminert* 1/4-28 to 1/4-28

Includes flangeless 1/4-28 fittings for tubing OD indicated. Polypropylene unions are for use with flanged tubing only.

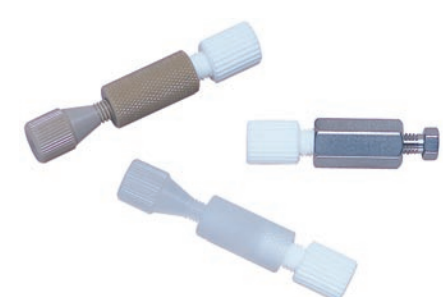
Tubing OD	Bore	PEEK		CTFE		Polypropylene	
		Prod No	Price	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CUCPK		CUCKF		-	
1/16"	0.50 mm	CUPK		CUKF		-	
1/16"	0.75 mm	CUMPK		CUMKF		-	
1/8"	1.50 mm	CULPK		CULKF		-	
1/8"	Butt connection	CUTPK		CUTKF		CUTPP *	(* pkg/5)



Unions *Cheminert to 1/16" ZDV* 1/4-28 to 10-32

Includes flangeless 1/4-28 and ZDV 10-32 fittings for 1/16" tubing.

Tubing OD	Bore	PEEK		CTFE		316 Stainless	
		Prod No	Price	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CZUCPK		CZUCKF		CZUCS6	
1/16"	0.50 mm	CZUPK		CZUKF		CZUS6	
1/16"	0.75 mm	CZUMPK		CZUMKF		CZUMS6	



Unions *Cheminert to 1/4" tubing* 1/4-28 to 1/2-20

Includes flangeless 1/4-28 and 1/2-20 fittings.

Tubing OD	Bore	PEEK		CTFE	
		Prod No	Price	Prod No	Price
1/8" to 1/4"	1.50 mm	CU4LPK		CU4LKF	

Components	Prod No	Price
1/2-20 nut, CTFE	CFL-4KF	
1/2-20 nut, Delrin	CFL-4D	
CTFE ferrule	CFL-CB4KF-S	



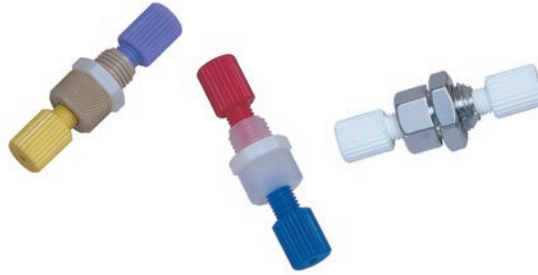
0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm



Bulkhead unions *Cheminert to Cheminert* 1/4-28 to 1/4-28

Includes flangeless 1/4-28 fittings for tubing OD indicated.

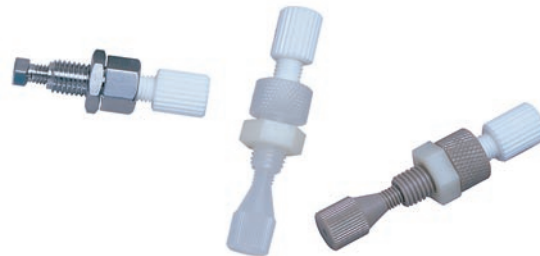
Tubing OD	Bore	PEEK		CTFE		316 Stainless	
		Prod No	Price	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CBUCPK		CBUCKF		CBUCS6	
1/16"	0.50 mm	CBUPK		CBUKF		CBUS6	
1/16"	0.75 mm	CBUMPK		CBUMKF		CBUMS6	
1/8"	1.50 mm	CBULPK		CBULKF		CBULS6	



Bulkhead unions *Cheminert to 1/16" ZDV* 1/4-28 to 10-32

Includes flangeless 1/4-28 and ZDV 10-32 fittings for 1/16" OD tubing.

Tubing OD	Bore	PEEK		CTFE		316 Stainless	
		Prod No	Price	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CZBUCPK		CZBUCKF		CZBUCS6	
1/16"	0.50 mm	CZBUPK		CZBUKF		CZBUS6	
1/16"	0.75 mm	CZBUMPK		CZBUMKF		CZBUMS6	



Low Pressure Tees, Crosses, and Manifolds



2009 #60

Tees 1/4-28

Includes flangeless 1/4-28 fittings for tubing OD indicated.

Tubing		PEEK		CTFE	
OD	Bore	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CTCPK		CTCKF	
1/16"	0.50 mm	CTPK		CTKF	
1/16"	0.75 mm	CTMPK		CTMKF	
1/8"	1.50 mm	CTLPK		CTLKF	



Crosses 1/4-28

Includes flangeless 1/4-28 fittings for tubing OD indicated.

Tubing		PEEK		CTFE	
OD	Bore	Prod No	Price	Prod No	Price
1/16"	0.25 mm	CXCPK		CXCKF	
1/16"	0.50 mm	CXPK		CXKF	
1/16"	0.75 mm	CXMPK		CXMKF	
1/8"	1.50 mm	CXLPK		CXLKF	



Manifolds 1/4-28

Includes flangeless 1/4-28 fittings for tubing OD indicated.

Tubing		PEEK		CTFE	
OD	Bore	Prod No	Price	Prod No	Price
5 ports					
1/16"	0.75 mm	C5M1PK		C5M1KF	
1/8"	1.50 mm	C5M2PK		C5M2KF	
9 ports					
1/16"	0.75 mm	C9M1PK		C9M1KF	
1/8"	1.50 mm	C9M2PK		C9M2KF	



MORE INFORMATION
Flangeless tube end fittings page 68

0.25 mm	=	.010"
0.50 mm	=	.020"
0.75 mm	=	.030"
1.0 mm	=	.040"
1.5 mm	=	.060"
2.0 mm	=	.080"
4.6 mm	=	.180"
6.0 mm	=	.236"
6.4 mm	=	.253"
7.0 mm	=	.275"
10.0 mm	=	.400"
27.0 mm	=	1.08"
1/32"	=	0.8 mm
1/16"	=	1.6 mm
1/8"	=	3.2 mm
1/4"	=	6.4 mm
3/8"	=	9.5 mm
1/2"	=	12.7 mm



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Mixing tees

1/4-28



Includes flangeless 1/4-28 fittings for tubing OD indicated.

Tubing		PEEK		CTFE	
OD	Bore	Prod No	Price	Prod No	Price
1/16"	0.75 mm	CM1XPK		CM1XKF	
1/8"	1.50 mm	CM2XPK		CM2XKF	

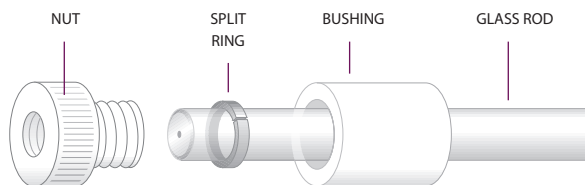


Glass connectors

1/4-28 female to 1/4" glass tube

Glass connectors join a Cheminert tube end fitting to 1/4" OD glass tubing. They are available as individual components or as complete assemblies. Assemblies include a bushing and nut, a polypropylene or CTFE split ring, and a 1/4" OD x 3-1/4" long piece of 1 mm or 2 mm ID glass tube. This connector works only with our glass tubes.

Description	Acetal		CTFE	
	Prod No	Price	Prod No	Price
Complete assembly				
1 mm ID glass tubing	CGC41		CGC41KF	
2 mm ID glass tubing	CGC42		CGC42KF	
Components				
Bushing	CGCB		CGCBKF	
Nut	CGCN		CGCNKF	
Glass rod, 3-1/4" long				
1 mm ID	CGCG41		-	
2 mm ID	CGCG42		-	
Split rings (package of 5)	CGCR		CGCRKF	



Glass connector



Adapters

Tube adapters

1/4-28

Tube adapters have male 1/4-28 threads going to 1/4" or 1/8" OD tubing.

Tubing OD	Bore	PEEK		CTFE		316 Stainless	
		Prod No	Price	Prod No	Price	Prod No	Price
1/8"	1.5 mm	CTA2PK		CTA2KF		CTA2S6	
1/4"	1.5 mm	CTA4PK		CTA4KF		CTA4S6	



Luer adapters

Luer to 1/4-28 or 10-32

Luer adapters make a leak-tight connection from male or female luer to 1/4-28 threads.

Description	Bore	PEEK		CTFE		PFA	
		Prod No	Price	Prod No	Price	Prod No	Price
Female luer to 1/4-28	1.50 mm	CFLAPK		CFLAKF		CFLAPFA	
to 10-32	0.75 mm	ZUFLPK		ZUFLKF		-	
Male luer to 1/4-28	1.50 mm	CMLAPK		CMLAKF		CMLAPFA	



Luer adapter bulkhead unions

Luer to 1/4-28 or 10-32

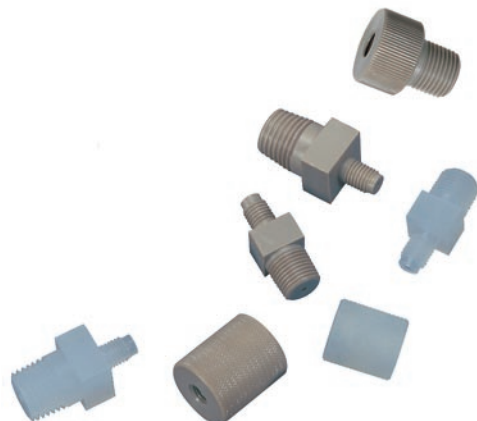
Our luer adapter bulkhead union connects a male or female luer to 1/4-28 or 10-32 fittings. These are the ideal fittings for through-the-panel syringe injections. The 1/4-28 versions include flangeless fittings for 1/16" OD tubing. Versions with 10-32 connections (for 1/16" OD tubing) include a fingertight PEEK nut and a ferrule of the same material as the union.



Description	Bore	PEEK		CTFE	
		Prod No	Price	Prod No	Price
Female luer to 1/4-28	1.50 mm	CBUFLPK		CBUFLKF	
to 10-32	1.00 mm	ZBUFLPK		ZBUFLKF	
Male luer to 10-32	1.00 mm	ZBUMLPK		ZBUMLKF	



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Pipe adapters

1/4-28 to NPT

Versions adapt male or female 1/4-28 fittings to male or female NPT.

NPT	Bore	PEEK		CTFE	
		Prod No	Price	Prod No	Price
Female 1/4-28 to male NPT					
1/8"	1.5 mm	CPA2PK		CPA2KF	\$18
1/4"	1.5 mm	CPA4PK		CPA4KF	
Male 1/4-28 to male NPT					
1/8"	1.5 mm	CEPA2PK		CEPA2KF	
1/4"	1.5 mm	CEPA4PK		CEPA4KF	
Female 1/4-28 to female NPT					
1/8"	1.5 mm	CFPA2PK		CFPA2KF	
1/4"	1.5 mm	CFPA4PK		CFPA4KF	



Cheminert 1/4-28 to Valco 10-32 ZDV adapter

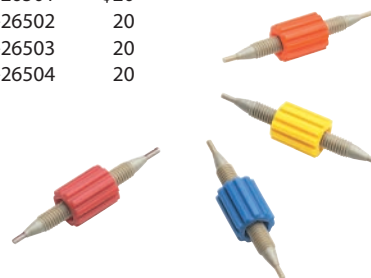
This adapter permits Valco 10-32 fittings to be installed into any 1/4-28 fitting detail. (Nut and ferrule are not included.)

Description	Bore	Prod No	Price
Port adapter	0.50 mm	ZLCA1PK	

One-piece fingertight column coupler

Choose from a variety of coupler IDs, indicated by the color of the sleeve (which parallels the color-coding of our PEEK tubing on page 89). A unique feature of this column coupler is that it adapts automatically to fit all pilot lengths – Valco, Waters, Upchurch, Rheodyne, etc. Since the tubing bottoms out in any fitting detail, added void volume is minimal. Material is PEEK.

Color	Bore	Prod No	Price
Red	0.13 mm ID	JR-26501	\$20
Yellow	0.17 mm ID	JR-26502	20
Blue	0.25 mm ID	JR-26503	20
Orange	0.50 mm ID	JR-26504	20



0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm

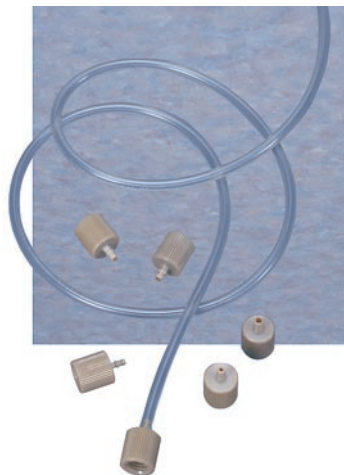
CHROMalytic TECHNOlogy Pty Ltd AUSTRALIAN Distributors e-mail: sales@chromtech.net.au Tel: 03 9762 2034

Filters and Perifit Fittings



Perifit fittings for peristaltic pump tubing

The Cheminert Perifit is a unique fitting with a barb on one end and a 1/4-28 female fitting on the other end, for connecting a FIA line with the most commonly used peristaltic tubing. The fitting is compact and easy to install while providing a secure, trouble-free connection. A Perifit can be used as a "stop" on standard inexpensive Tygon® tubing, eliminating the need to buy the more expensive pre-cut tubing with pre-installed stops. Unlike many competitive systems, Perifits are reusable as the tubing wears.



Three sizes of Perifits are available to cover the range of tubing most commonly used in FIA.

For use with tubing sizes	Prod No	Price
0.50 to 1.02 mm ID	C-PFS	
1.12 to 1.65 mm ID	C-PFM	
1.85 to 2.29 mm ID	C-PFL	
Kit with 2 of each size above	C-PF	

In-line filters

1/4-28

These convenient filters can be simply dropped into any 1/4-28 fitting detail. Constructed of PTFE and CTFE, with 316 stainless low-pressure-drop screen. (Fitting shown is not included.)



Pore size	Prod No	Price
2 micron	CFE-S2	
10 micron	CFE-S10	
75 micron	CFE-S75	

Biocompatible filter

This all-PEEK filter can be placed in any 1/16" line, providing filtration to 0.5 microns. The filter can be changed without tools, since both the filter housing and the fittings are designed to be hand tightened.



Tubing OD	Bore	Prod No	Price
1/16"	0.5 mm	ZU1FPK.5	

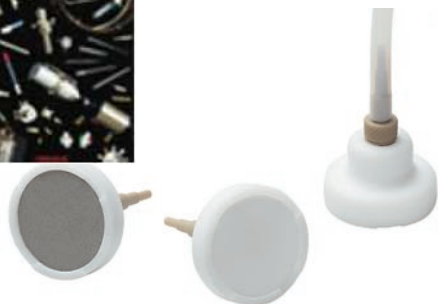
Replacement elements (PEEK-encapsulated titanium)

Pore size	Prod No	Price
0.5 micron	C-F1.5TI	

0.25 mm	= .010"
0.50 mm	= .020"
0.75 mm	= .030"
1.0 mm	= .040"
1.5 mm	= .060"
2.0 mm	= .080"
4.6 mm	= .180"
6.0 mm	= .236"
6.4 mm	= .253"
7.0 mm	= .275"
10.0 mm	= .400"
27.0 mm	= 1.08"
1/32"	= 0.8 mm
1/16"	= 1.6 mm
1/8"	= 3.2 mm
1/4"	= 6.4 mm
3/8"	= 9.5 mm
1/2"	= 12.7 mm



2009 #60



Last Drop mobile phase filter

The Last Drop mobile phase filter allows more analyses per batch of mobile phase and helps reduce hazardous waste. The flat filter element sits parallel to the bottom of the reservoir, allowing the Last Drop to filter all but the last 2% of the mobile phase from the reservoir without drawing air into the system. Compare this with conventional cylindrical filters that can begin to draw air into the system when nearly 10% of the solvent remains in the reservoir.

The Last Drop mobile phase filter consists of a 316 stainless or PTFE filter element pressed into an inert PTFE housing. The top of the housing has a PEEK tripod which slips into 1.5, 2.2, or 3.5 mm ID pump inlet lines. It will also work with our 1/16" and 1/8" flangeless fittings.

Use the metal-free PTFE version for sensitive biochromatography applications where metal surfaces may corrode or interact with samples.

	<i>Filter element</i>	<i>Prod No</i>	<i>Price</i>
Last drop filter, 2.5µm	PTFE	JR-9000-0520	
	Stainless steel	JR-9000-0530	



Last Drop filter/spargers

The Last Drop filter/sparger combines filtration and sparging in a single unit. The PTFE housing contains a mobile phase filter with either a stainless steel or a PTFE filter element. The filter/sparger features a PEEK tripod connector for the solvent line, and a nut and ferrule for the sparging line.

	<i>Filter element</i>	<i>Prod No</i>	<i>Price</i>
Last drop filter/sparger 2.5 µm filter, 10 µm sparger	PTFE	JR-9000-0602	
	Stainless steel	JR-9000-0640	



No-Met biocompatible mobile phase filter

Stainless steel in the flowpath is not acceptable in a growing number of applications involving the separation of biomolecules. High salt buffers can corrode stainless steel, and the metal ions released from metallic filters may contaminate or otherwise react with the biomolecules of interest.

The No-Met polyethylene filter is designed for these applications, with inert polymeric fittings and 20 µm filter effectively eliminating metal contamination from the fluid path. Use them for IC and biochromatography applications.

Because they are hydrophobic, No-Met filters may initially require some priming with methanol or acetonitrile.



	<i>Prod No</i>	<i>Price</i>
No-met mobile phase filter, 1/8"	JR-32178	
Replacement element	JR-32179	

Stainless steel mobile phase filters and helium spargers

Mobile phase filters protect your HPLC system from small particles in the mobile phase. These filters are made from 316 stainless and PEEK or PTFE, and are suitable for use with most solvents.

Helium spargers offer an inexpensive way to prepare and maintain mobile phases free of dissolved gases. Connect these spargers to a regulated supply of helium gas (0-400 ml/min) to remove dissolved gases from the mobile phase. Spargers are made from 10 micron porosity stainless steel.



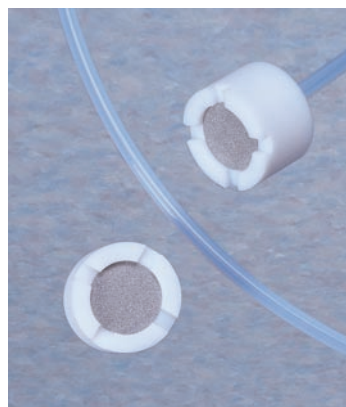
<i>Tubing OD</i>	<i>Porosity</i>	<i>Suggested Max. Flow Rate (ml/min)</i>	<i>Prod No</i>	<i>Price</i>
1/16"	2 µm	8	JR-367016-2	
1/16"	10 µm	20	JR-367016-10	
1/16"	20 µm	20	JR-367016-20	
1/8"	2 µm	8	JR-367008-2	
1/8"	10 µm	20	JR-367008-10	
1/8"	20 µm	20	JR-367008-20	

Mobile phase filters

Direct connect

Cheminert mobile phase filters provide point-of-use filtering of common HPLC or FIA solvents. They are designed to connect directly to 1/8" OD PTFE or PEEK tubing using a simple press fit. The filter housing is PTFE and includes a 2 or 10 micron titanium frit.

<i>Pore size</i>	<i>Prod No</i>	<i>Price</i>
2 micron	C-MPFT12	
10 micron	C-MPFT110	



0.25 mm = .010"
0.50 mm = .020"
0.75 mm = .030"
1.0 mm = .040"
1.5 mm = .060"
2.0 mm = .080"
4.6 mm = .180"
6.0 mm = .236"
6.4 mm = .253"
7.0 mm = .275"
10.0 mm = .400"
27.0 mm = 1.08"
1/32" = 0.8 mm
1/16" = 1.6 mm
1/8" = 3.2 mm
1/4" = 6.4 mm
3/8" = 9.5 mm
1/2" = 12.7 mm



2009 #60



Mobile phase or solvent reservoirs 1/4-28

These high density polyethylene reservoirs for in-line solvent use come with polypropylene caps, 1/4-28 flangeless fittings, and 1/8" PTFE tubes for one or two lines plus vent. Plugs are included for conversion to solvent storage when the reservoir is removed from the system. Optional PTFE filters with titanium frits are available on the facing page.

Capacity	Cap	Prod No	Price
0.5 liter	2-hole	C-MPR2	
0.5 liter	3-hole	C-MPR3	
0.5 liter	plain	C-BOT16	
1.0 liter	plain	C-BOT32	

VICI-cap



The VICI-cap is the most economical way to helium sparge and deliver HPLC mobile phases. The insert is manufactured from PTFE with an EPDM* O-ring and a polypropylene screw cap.

The VICI-cap is available for either GL45 or S40 threaded bottles. It has a 1/4-28 female port and three ports for tubing insertion: two 1/8" tubing ports and a 1/16" tubing port. The tubing ports are made so that you push the tubing through the hole, while 1/4-28 fittings provide the best connection. Unused ports can be plugged as required.

	Prod No	Price
VICI-cap GL-45	JR-9000-0001	
VICI-cap S40	JR-9000-0006	

Valves for vials

The screw-cap Mininert is available in a variety of sizes. The crimp-top valve for 13 mm ID glassware slides into the neck of the vial and features a threaded flange, which is turned to provide a leak-tight fit.



Pkg/12:	Cap/thread size	Prod No	Price
	13 mm-425	PS-614158	
	15 mm-425	PS-614160	
	18 mm-400	PS-614161	
	20 mm-400	PS-614170	
	24 mm-400	PS-614163	
	Crimp top	PS-614250	

MORE INFORMATION

Bulkhead connectors page 73
 Flangeless fittings 68
 Plugs 71
 Polymeric tubing 90

TECH TIP

The VICI-cap is not usable for building up a helium atmosphere within the solvent bottle. It is only designed for continuous helium sparging.

*Ethylene Propylene Diene Monomer

Siltek®/Sulfinert® and Silcosteel®-CR Treated Swagelok® Fittings

- Full line of treated 1/16", 1/8", and 1/4" fittings.
- Silcosteel®-CR treatment enhances corrosion resistance by 10x, or more.
- Custom treatment available for any Swagelok® fitting, or other system parts not listed here (call for details).
- Description of custom Restek coatings listed below.

Fitting Type	Size	Swagelok #	Siltek/Sulfinert Treated			Silcosteel-CR Treated		
			qty.	cat.#	price	qty.	cat.#	price
Union	1/16"	SS-100-6	ea.	22540		ea.	22575	
	1/8"	SS-200-6	ea.	22541		ea.	22576	
	1/4"	SS-400-6	ea.	22542		ea.	22577	
	3/8"	SS-600-6	ea.	22909		ea.	22904	
Tee	1/16"	SS-100-3	ea.	22543		ea.	22578	
	1/8"	SS-200-3	ea.	22544		ea.	22579	
	1/4"	SS-400-3	ea.	22545		ea.	22580	
	3/8"	SS-600-3	ea.	22910		ea.	22905	
Reducing Union	1/8" to 1/16"	SS-200-6-1	ea.	22546		ea.	22581	
	1/4" to 1/16"	SS-400-6-1	ea.	22547		ea.	22582	
	1/4" to 1/8"	SS-400-6-2	ea.	22548		ea.	22583	
	3/8" to 1/4"	SS-600-6-4	ea.	22911		ea.	22906	
Elbow	1/8"	SS-200-9	ea.	22549		ea.	22584	
	1/4"	SS-400-9	ea.	22550		ea.	22585	
Plug	1/8"	SS-200-P	ea.	22573		ea.	22620	
	1/4"	SS-400-P	ea.	22574		ea.	22597	
Cross	1/8"	SS-200-4	ea.	22551		ea.	22586	
	1/4"	SS-400-4	ea.	22552		ea.	22587	
Tube End Reducer	1/8" tube to 1/16"	SS-100-R-2	ea.	22553		ea.	22588	
	1/4" tube to 1/16"	SS-100-R-4	ea.	22554		ea.	22589	
	1/8" tube to 1/4"	SS-400-R-2	ea.	22555		ea.	22590	
	1/4" tube to 1/8"	SS-200-R-4	ea.	22556		ea.	22591	
Port Connector	1/8"	SS-201-PC	ea.	22557		ea.	22592	
	1/4"	SS-401-PC	ea.	22558		ea.	22593	
	1/8" tube to 1/4"	SS-401-PC-2	ea.	22559		ea.	22594	
Male Connector	1/8" to 1/8" NPT	SS-200-1-2	ea.	22561		ea.	22595	
	1/4" to 1/4" NPT	SS-400-1-4	ea.	22562		ea.	22596	
	1/16" to 1/8" NPT	SS-100-1-2	ea.	22563		ea.	22610	
	1/8" to 1/4" NPT	SS-200-1-4	ea.	22564		ea.	22611	
	1/4" to 3/8" NPT	SS-400-1-2	ea.	22565		ea.	22612	
	3/8" to 3/8" NPT	SS-600-1-6	ea.	22912		ea.	22907	
Female Connector	1/8" to 1/8" NPT	SS-200-7-2	ea.	22566		ea.	22613	
	1/4" to 1/4" NPT	SS-400-7-4	ea.	22567		ea.	22614	
	1/4" to 1/8" NPT	SS-400-7-2	ea.	22568		ea.	22615	
	1/8" to 1/4" NPT	SS-200-7-4	ea.	22569		ea.	22616	
Bulkhead Union	1/8"	SS-200-61	ea.	22570		ea.	22617	
	1/4"	SS-400-61	ea.	22571		ea.	22618	



Custom Restek Coatings

- **Siltek®**—The ultimate passivation of treated surfaces, from glass to high nickel alloys of steel; ideal for sulfurs, automotive exhaust testing, or stack gas sampling.
- **Sulfinert®**—A required treatment for metal components when analyzing for parts-per-billion levels of organo-sulfur compounds.
- **Silcosteel®-CR**—A corrosion resistant layer that increases the lifetime of system components in acidic environments containing hydrochloric acid, nitric acid, or seawater.

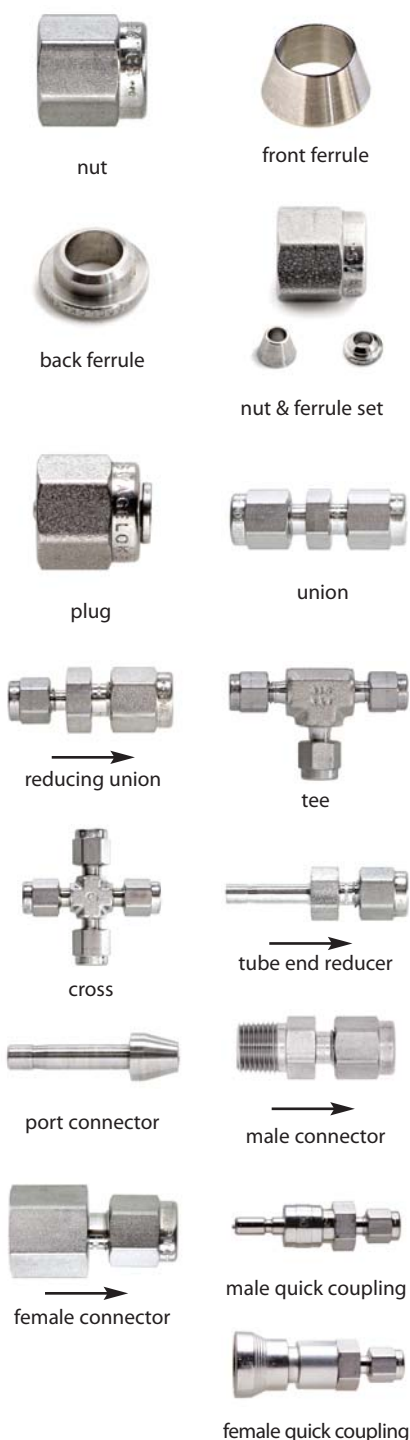
For more information on our custom coatings, see page 242.





Swagelok® Fittings

Restek is pleased to offer one of the premier lines of fittings available for chromatographers in the market today. We can supply the entire line of Swagelok® fittings. If you don't see the exact product you're looking for, please call us for a quote.



Fitting Type	Size	Swagelok #	qty.	Brass		316 Grade Stainless Steel	
				cat.#	price	qty.	cat.#
Nut	1/16"	102-1	20-pk.	23100		5-pk.	23150
	1/8"	202-1	40-pk.	23101		10-pk.	23151
	1/4"	402-1	40-pk.	23102		10-pk.	23152
Front Ferrule	1/16"	103-1	20-pk.	23103		10-pk.	23153
	1/8"	203-1	40-pk.	23104		20-pk.	23154
	1/4"	403-1	40-pk.	23105		20-pk.	23155
Back Ferrule	1/16"	104-1	20-pk.	23106		10-pk.	23156
	1/8"	204-1	40-pk.	23107		20-pk.	23157
	1/4"	404-1	40-pk.	23108		20-pk.	23158
Nut & Ferrule Set	1/16"	—	10-pk.	23109		2-pk.	23159
	1/8"	—	20-pk.	23110		5-pk.	23160
	1/4"	—	20-pk.	23111		5-pk.	23161
Plug	1/16"	100-P	5-pk.	23112		2-pk.	23162
	1/8"	200-P	10-pk.	23113		4-pk.	23163
	1/4"	400-P	10-pk.	23114		4-pk.	23164
Union	1/16"	100-6	3-pk.	23115		ea.	23165
	1/8"	200-6	5-pk.	23116		2-pk.	23166
	1/4"	400-6	5-pk.	23117		2-pk.	23167
Reducing Union	1/8" to 1/16"	200-6-1	5-pk.	23118		ea.	23168
	1/4" to 1/16"	400-6-1	5-pk.	23119		2-pk.	23169
	1/4" to 1/8"	400-6-2	5-pk.	23120		2-pk.	23170
Tee	1/16"	100-3	2-pk.	23121		ea.	23171
	1/8"	200-3	2-pk.	23122		ea.	23172
	1/4"	400-3	2-pk.	23123		ea.	23173
Cross	1/8"	200-4	2-pk.	23124		ea.	23174
	1/4"	400-4	2-pk.	23125		ea.	23175
Tube End Reducer	1/8" to 1/16"	100-R-2	5-pk.	23126		2-pk.	23176
	1/4" to 1/16"	100-R-4	5-pk.	23127		2-pk.	23177
	1/8" to 1/4"	400-R-2	5-pk.	23128		2-pk.	23178
	1/4" to 1/8"	200-R-4	5-pk.	23129		2-pk.	23179
Port Connector	1/8"	201-PC	5-pk.	23130		2-pk.	23180
	1/4"	401-PC	10-pk.	23131		2-pk.	23181
	1/8" to 1/4"	401-PC-2	5-pk.	23132		2-pk.	23182
Male Connector	1/8" to 1/8" NPT	200-1-2	10-pk.	23133		2-pk.	23183
	1/4" to 1/4" NPT	400-1-4	10-pk.	23134		2-pk.	23184
	1/16" to 1/8" NPT	100-1-2	5-pk.	23135		2-pk.	23185
	1/8" to 1/4" NPT	200-1-4	10-pk.	23136		2-pk.	23186
	1/4" to 1/8" NPT	400-1-2	10-pk.	23137		2-pk.	23187
Female Connector	1/8" to 1/8" NPT	200-7-2	5-pk.	23138		2-pk.	23188
	1/4" to 1/4" NPT	400-7-4	5-pk.	23139		2-pk.	23189
	1/4" to 1/8" NPT	400-7-2	5-pk.	23140		2-pk.	23190
Male & Female Quick Couplings	1/8" male*	QC4D-200	—	—	—	ea.	23191
	1/8" male	QC4S-200	—	—	—	ea.	23192
	1/8" female*	QC4B-200	—	—	—	ea.	23193
	1/4" male*	QC4D-400	—	—	—	ea.	23194
	1/4" male	QC4S-400	—	—	—	ea.	23195
1/4" female*	QC4B-400	—	—	—	ea.	23196	

*Includes self-sealing shut-off valve.

also available

Restek also carries specialized tools for Swagelok® fittings. See page 249.

Siltek®/Sulfinert® and Silcosteel®-CR Treated Swagelok® Fittings

- Full line of treated 1/16", 1/8", and 1/4" fittings.
- Silcosteel®-CR treatment enhances corrosion resistance by 10x, or more.
- Custom treatment available for any Swagelok® fitting, or other system parts not listed here (call for details).
- Description of custom Restek coatings listed below.

Fitting Type	Size	Swagelok #	Siltek/Sulfinert Treated			Silcosteel-CR Treated		
			qty.	cat.#	price	qty.	cat.#	price
Union	1/16"	SS-100-6	ea.	22540		ea.	22575	
	1/8"	SS-200-6	ea.	22541		ea.	22576	
	1/4"	SS-400-6	ea.	22542		ea.	22577	
	3/8"	SS-600-6	ea.	22909		ea.	22904	
Tee	1/16"	SS-100-3	ea.	22543		ea.	22578	
	1/8"	SS-200-3	ea.	22544		ea.	22579	
	1/4"	SS-400-3	ea.	22545		ea.	22580	
	3/8"	SS-600-3	ea.	22910		ea.	22905	
Reducing Union	1/8" to 1/16"	SS-200-6-1	ea.	22546		ea.	22581	
	1/4" to 1/16"	SS-400-6-1	ea.	22547		ea.	22582	
	1/4" to 1/8"	SS-400-6-2	ea.	22548		ea.	22583	
	3/8" to 1/4"	SS-600-6-4	ea.	22911		ea.	22906	
Elbow	1/8"	SS-200-9	ea.	22549		ea.	22584	
	1/4"	SS-400-9	ea.	22550		ea.	22585	
Plug	1/8"	SS-200-P	ea.	22573		ea.	22620	
	1/4"	SS-400-P	ea.	22574		ea.	22597	
Cross	1/8"	SS-200-4	ea.	22551		ea.	22586	
	1/4"	SS-400-4	ea.	22552		ea.	22587	
Tube End Reducer	1/8" tube to 1/16"	SS-100-R-2	ea.	22553		ea.	22588	
	1/4" tube to 1/16"	SS-100-R-4	ea.	22554		ea.	22589	
	1/8" tube to 1/4"	SS-400-R-2	ea.	22555		ea.	22590	
	1/4" tube to 1/8"	SS-200-R-4	ea.	22556		ea.	22591	
Port Connector	1/8"	SS-201-PC	ea.	22557		ea.	22592	
	1/4"	SS-401-PC	ea.	22558		ea.	22593	
	1/8" tube to 1/4"	SS-401-PC-2	ea.	22559		ea.	22594	
Male Connector	1/8" to 1/8" NPT	SS-200-1-2	ea.	22561		ea.	22595	
	1/4" to 1/4" NPT	SS-400-1-4	ea.	22562		ea.	22596	
	1/16" to 1/8" NPT	SS-100-1-2	ea.	22563		ea.	22610	
	1/8" to 1/4" NPT	SS-200-1-4	ea.	22564		ea.	22611	
	1/4" to 3/8" NPT	SS-400-1-2	ea.	22565		ea.	22612	
	3/8" to 3/8" NPT	SS-600-1-6	ea.	22912		ea.	22907	
Female Connector	1/8" to 1/8" NPT	SS-200-7-2	ea.	22566		ea.	22613	
	1/4" to 1/4" NPT	SS-400-7-4	ea.	22567		ea.	22614	
	1/4" to 1/8" NPT	SS-400-7-2	ea.	22568		ea.	22615	
	1/8" to 1/4" NPT	SS-200-7-4	ea.	22569		ea.	22616	
Bulkhead Union	1/8"	SS-200-61	ea.	22570		ea.	22617	
	1/4"	SS-400-61	ea.	22571		ea.	22618	

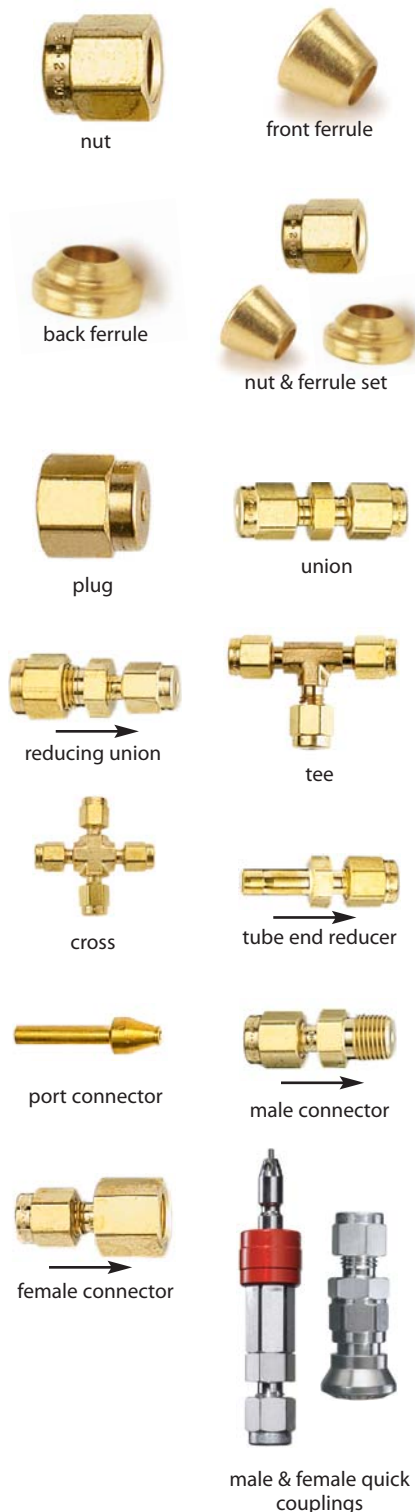


Custom Restek Coatings

- **Siltek®**—The ultimate passivation of treated surfaces, from glass to high nickel alloys of steel; ideal for sulfurs, automotive exhaust testing, or stack gas sampling.
- **Sulfinert®**—A required treatment for metal components when analyzing for parts-per-billion levels of organo-sulfur compounds.
- **Silcosteel®-CR**—A corrosion resistant layer that increases the lifetime of system components in acidic environments containing hydrochloric acid, nitric acid, or seawater.

For more information on our custom coatings, see page 242.





Parker Fittings

Parker's (A-Lok) two-piece ferrules and NPT fittings are ideal for installing new equipment, modifying existing instrumentation, or replacing worn connections. Restek offers both brass and stainless steel fittings. If there is a particular Parker fitting that you are looking for and it is not listed here, please contact us to inquire about availability.

Fitting Type	Size	Parker #	qty.	Brass		316 Grade Stainless Steel	
				cat.#	price	qty.	cat.#
Nut	1/16"	1 Nu 1	20-pk.	21800		5-pk.	21900
	1/8"	2 Nu 2	40-pk.	21801		10-pk.	21901
	1/4"	4 Nu 4	40-pk.	21802		10-pk.	21902
Front Ferrule	1/16"	1 FF 1	20-pk.	21803		10-pk.	21903
	1/8"	2 FF 2	40-pk.	21804		20-pk.	21904
	1/4"	4 FF 4	40-pk.	21805		20-pk.	21905
Back Ferrule	1/16"	1 BF 1	20-pk.	21806		10-pk.	21906
	1/8"	2 BF 2	40-pk.	21807		20-pk.	21907
	1/4"	4 BF 4	40-pk.	21808		20-pk.	21908
Nut & Ferrule Set	1/16"	—	10-pk.	21809		2-pk.	21909
	1/8"	—	20-pk.	21810		5-pk.	21910
	1/4"	—	20-pk.	21811		5-pk.	21911
Plug	1/16"	1 BLP 1	5-pk.	21815		2-pk.	21915
	1/8"	2 BLP 2	10-pk.	21816		4-pk.	21916
	1/4"	4 BLP 4	10-pk.	21817		4-pk.	21917
Union	1/16"	1 SC 1	3-pk.	21818		ea.	21918
	1/8"	2 SC 2	5-pk.	21819		2-pk.	21919
	1/4"	4 SC 4	5-pk.	21820		2-pk.	21920
Reducing Union	1/8" to 1/16"	2 RU 1	5-pk.	21823		ea.	21923
	1/4" to 1/16"	4 RU 1	5-pk.	21824		2-pk.	21924
	1/4" to 1/8"	4 RU 2	5-pk.	21825		2-pk.	21925
Tee	1/16"	1 ET 1	2-pk.	21826		ea.	21926
	1/8"	2 ET 2	2-pk.	21827		ea.	21927
	1/4"	4 ET 4	2-pk.	21828		ea.	21928
Cross	1/4"	2 ECR 2	2-pk.	21829		ea.	21929
	1/4"	4 ECR 4	2-pk.	21830		ea.	21930
Tube End Reducer	1/8" tube to 1/16"	2 TUR 1	5-pk.	21831		2-pk.	21931
	1/4" tube to 1/16"	4 TUR 1	5-pk.	21832		2-pk.	21932
	1/8" tube to 1/4"	2 TUR 4	5-pk.	21833		2-pk.	21933
	1/4" tube to 1/8"	4 TUR 2	5-pk.	21834		2-pk.	21934
Port Connector	1/8"	2 PC 2	5-pk.	21835		2-pk.	21935
	1/4"	4 PC 4	10-pk.	21836		2-pk.	21936
	1/8" tube to 1/4"	2 PC 4	5-pk.	21837		2-pk.	21937
Male Connector	1/8" to 1/8" NPT	2 MSC 2N	10-pk.	21841		2-pk.	21941
	1/4" to 1/4" NPT	4 MSC 4N	10-pk.	21842		2-pk.	21942
	1/16" to 1/8" NPT	1 MSC 2N	5-pk.	21843		2-pk.	21943
	1/8" to 1/4" NPT	2 MSC 4N	10-pk.	21844		2-pk.	21944
Female Connector	1/8" to 1/8" NPT	4 MSC 2N	10-pk.	21845		2-pk.	21945
	1/8" to 1/8" NPT	2 FSC 2N	5-pk.	21846		2-pk.	21946
	1/4" to 1/4" NPT	4 FSC 4N	5-pk.	21847		2-pk.	21947
Male & Female Quick Couplings	1/4" to 1/8" NPT	4 FSC 2N	5-pk.	21848		2-pk.	21948
	1/8" male*	2A-Q4VN	—	—	—	ea.	21957
	1/8" male	2A-Q4P	—	—	—	ea.	21958
	1/8" female*	2A-Q4CN	—	—	—	ea.	21959
1/4" male*	4A-Q4VN	—	—	—	ea.	21960	
1/4" male	4A-Q4P	—	—	—	ea.	21961	
1/4" female*	4A-Q4CN	—	—	—	ea.	21962	

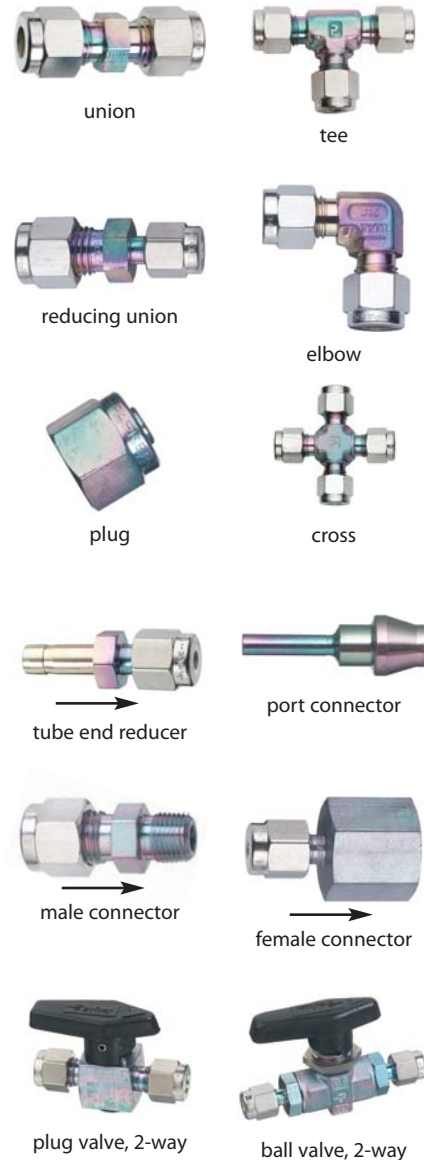
*Includes self-sealing shut-off valve.

Siltek®/Sulfinert® Treated and Silcosteel®-CR Treated Parker Fittings

A broad line of 1/16", 1/8" and 1/4" fittings are available with Siltek®/Sulfinert® or Silcosteel®-CR treatment. Because of expanding applications for these coatings, we have received many requests for a broader product offering. If you do not see everything you need, contact us for information on custom coating services.

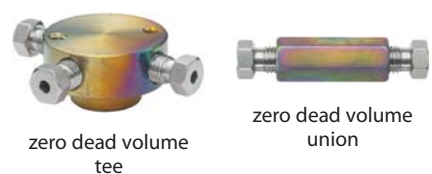
Fitting Type	Size	Parker #	Siltek/Sulfinert Treated			Silcosteel-CR Treated		
			qty.	cat.#	price	qty.	cat.#	price
Union	1/16"	1 SC 1	ea.	22520		ea.	22863	
	1/8"	2 SC 2	ea.	22521		ea.	22864	
	1/4"	4 SC 4	ea.	22522		ea.	22865	
Tee	1/16"	1 ET 1	ea.	22526		ea.	22866	
	1/8"	2 ET 2	ea.	22527		ea.	22867	
	1/4"	4 ET 4	ea.	22528		ea.	22868	
Reducing Union	1/8" to 1/16"	2 RU 1	ea.	22523		ea.	22869	
	1/4" to 1/16"	4 RU 1	ea.	22524		ea.	22870	
	1/4" to 1/8"	4 RU 2	ea.	22525		ea.	22871	
Elbow	1/16"	1 EE 1	—	—	—	ea.	22874	
	1/8"	1 EE 2	ea.	22530		ea.	22875	
	1/4"	1 EE 4	ea.	22531		ea.	22876	
Plug	1/16"	1 BLP 1	ea.	21539		ea.	22877	
	1/8"	2 BLP 2	ea.	21540		ea.	22878	
	1/4"	4 BLP 4	ea.	21541		ea.	22879	
Cross	1/8"	2 ECR 2	ea.	21542		ea.	22872	
	1/4"	4 ECR 4	ea.	21543		ea.	22873	
Tube End Reducer	1/8" tube to 1/16"	2 TUR 1	ea.	21544		ea.	22880	
	1/4" tube to 1/16"	4 TUR 1	ea.	21545		ea.	22881	
	1/8" tube to 1/4"	2 TUR 4	ea.	21546		ea.	22882	
	1/4" tube to 1/8"	4 TUR 2	ea.	21547		ea.	22883	
Port Connector	1/8"	2 PC 2	ea.	21548		ea.	22884	
	1/4"	4 PC 4	ea.	21549		ea.	22885	
	1/8" tube to 1/4"	2 PC 4	ea.	21550		ea.	22886	
Male Connector	1/8" to 1/8" NPT	2 MSC 2N	ea.	21551		ea.	22887	
	1/4" to 1/4" NPT	4 MSC 4N	ea.	21552		ea.	22888	
	1/16" to 1/8" NPT	1 MSC 2N	ea.	21553		ea.	22889	
	1/8" to 1/4" NPT	2 MSC 4N	ea.	21554		ea.	22890	
	1/4" to 1/8" NPT	4 MSC 2N	ea.	21555		ea.	22891	
Female Connector	1/8" to 1/8" NPT	2 FSC 2N	ea.	21556		ea.	22892	
	1/4" to 1/4" NPT	4 FSC 4N	ea.	21557		ea.	22893	
	1/4" to 1/8" NPT	4 FSC 2N	ea.	21558		ea.	22894	
	1/8" to 1/4" NPT	2 FSC 4N	ea.	21559		ea.	22895	
Plug Valve, 2-Way	1/8"	2A PR4 VT SS	ea.	21586		—	—	
	1/4"	4A PR4 VT SS	ea.	21587		—	—	
Ball Valve, 2-Way	1/8"	2A B2LJ2 SSP	ea.	21588		—	—	
	1/4"	4A B2LJ2 SSP	ea.	21589		—	—	

Please note: Nuts and ferrules are not treated unless requested (custom parts). Nuts and ferrules normally are not in contact with sample pathway, and thus do not require coating.



Siltek®/Sulfinert® Treated Valco® Fittings

Fitting Type	Size	Siltek/Sulfinert Treated		
		qty.	cat.#	price
Valco Zero Dead Volume Tee	1/16"	ea.	22534	
	1/8"	ea.	22535	
Valco Zero Dead Volume Union	1/16"	ea.	22532	
	1/8"	ea.	22533	



Swagelok® Brass & Stainless Steel Fitting Kits

Save more than 40% by purchasing a new Restek Swagelok® Fittings Kit, compared to prices for the individual parts!



- Includes the most common assortment of 1/8" and 1/4" brass or stainless steel fittings.
- Parts list makes reordering easy.
- Parts come in sturdy tool box for easy and convenient storage.



40%
savings

**Swagelok Brass Fitting Kit Includes:**

Swagelok #	Description, qty included in kit
B-202-1	1/8" brass nut (20)
B-402-1	1/4" brass nut (20)
B-203-1	1/8" brass front ferrule (20)
B-403-1	1/4" brass front ferrule (20)
B-204-1	1/8" brass back ferrule (20)
B-404-1	1/4" brass back ferrule (20)
B-200-C	1/8" brass cap (6)
B-400-C	1/4" brass cap (6)
B-200-P	1/8" brass plug (6)
B-400-P	1/4" brass plug (6)
B-200-6	1/8" brass union (2)
B-400-6	1/4" brass union (2)
B-400-6-2	1/4" to 1/8" brass reducing union (2)
B-200-3	1/8" brass tee (2)
B-400-3	1/4" brass tee (2)
B-400-R-2	1/8" to 1/4" brass tube end reducer (2)
B-200-R-4	1/4" to 1/8" brass tube end reducer (2)
MS-IG-200	1/8" inspection gauge (1)
MS-IG-400	1/4" inspection gauge (1)

Swagelok Stainless Steel Fitting Kit Includes:

Swagelok #	Description, qty included in kit
SS-202-1	1/8" SS nut (20)
SS-402-1	1/4" SS nut (20)
SS-203-1	1/8" SS front ferrule (20)
SS-403-1	1/4" SS front ferrule (20)
SS-204-1	1/8" SS back ferrule (20)
SS-404-1	1/4" SS back ferrule (20)
SS-200-C	1/8" SS cap (6)
SS-400-C	1/4" SS cap (6)
SS-200-P	1/8" SS plug (6)
SS-400-P	1/4" SS plug (6)
SS-200-6	1/8" SS union (2)
SS-400-6	1/4" SS union (2)
SS-400-6-2	1/4" to 1/8" SS reducing union (2)
SS-200-3	1/8" SS tee (2)
SS-400-3	1/4" SS tee (2)
SS-400-R-2	1/8" to 1/4" SS tube end reducer (2)
SS-200-R-4	1/4" to 1/8" SS tube end reducer (2)
MS-IG-200	1/8" inspection gauge (1)
MS-IG-400	1/4" inspection gauge (1)

Description	qty.	cat.#	price
Swagelok Brass Fitting Kit	kit	23141	

Description	qty.	cat.#	price
Swagelok Stainless Steel Fitting Kit	kit	23197	

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Sign up for our widely acclaimed seminars today!

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Zero-Dead-Volume Valco® Internal Union

Ends of tubing seat squarely at bottoms of fitting details. 300 series stainless steel. For 1/16" OD tubing. Stainless steel ferrules included.

Description	Union Bore	Valco #	qty.	cat.#	price
Internal Union	0.15mm	ZU1XC	ea.	20147	
Internal Union	0.25mm	ZU1C	ea.	20148	
Internal Union	0.75mm	ZU1	ea.	20149	
Internal Union	1/16"	ZUIT	ea.	20150	



Zero-Dead-Volume Valco® Internal Reducing Union

Connect two sizes of tubing, using zero-dead-volume fittings on each end. For 1/8" to 1/16" OD tubing. Stainless steel ferrules included.

Description	Union Bore	Valco #	qty.	cat.#	price
Internal Reducing Union	0.25mm	ZRU21C	ea.	20151	
Internal Reducing Union	0.75mm	ZRU21	ea.	20152	
Internal Reducing Union	1/16"	ZRU21T	ea.	20153	



Zero-Dead-Volume Valco® Internal Tee

Connect three lines. 300 series stainless steel; stainless steel ferrules included. For 1/16" OD tubing.

Description	Union Bore	Valco #	qty.	cat.#	price
Internal Tee	0.25mm	ZT1C	ea.	20154	
Internal Tee	0.75mm	ZT1	ea.	20155	



Zero-Dead-Volume Valco® Internal Cross

Connect four lines. 300 series stainless steel; stainless steel ferrules included. For 1/16" OD tubing.

Description	Union Bore	Valco #	qty.	cat.#	price
Internal Cross	0.25mm	ZX1C	ea.	20156	
Internal Cross	0.75mm	ZX1	ea.	20157	



Male Pipe to Valco® Internal Adapter

Makes a minimum volume connection from a female pipe fitting on a pressure gauge or regulator to a Valco® zero-dead-volume fitting. 300 series stainless steel; stainless steel ferrules included.

Description	Fitting Size	Bore	Valco #	qty.	cat.#	price
1/8" NPT Male						
Internal Adapter	1/16" ZDV	1.0mm	PZA21	ea.	20158	
1/4" NPT Male						
Internal Adapter	1/16" ZDV	1.0mm	PZA41	ea.	20159	



Nuts & Ferrules for Valco® Connectors

Description	Valco #	qty.	cat.#	price
1/16" Stainless Steel Ferrules	ZF1-10	10-pk.	20286	
1/16" Stainless Steel Nuts	ZN1-10	10-pk.	20287	



1/16-Inch Valco® Adaptor Ferrules

Tubing OD	Tubing ID	Valco #	qty.	Valcon Polyimide		Polyimide		
				cat.#	price	qty.	cat.#	price
0.25–0.4mm	0.1–0.25mm	FS1.4-5	5-pk.	20142		2-pk.	21015	
0.4–0.5mm	0.32mm	FS1.5-5	5-pk.	20143		2-pk.	21016	
0.5–0.8mm	0.53mm	FS1.8-5	5-pk.	20144		—	—	—
0.8mm (1/32")	—	FS1.9-5	5-pk.	20145		—	—	—

also available

Treated Fittings!

See pages 237-241 for our Siltek®/Sulfinert® treated and Silcosteel®-CR treated fittings, as well as many more brass and stainless steel fittings from Swagelok® and Parker.



MXT™-Union Connector Kits for Fused Silica Columns

- Low-dead-volume, leak-tight connection.
- Reusable.
- Siltek® treatment ensures maximum inertness.
- Ideal for connecting a guard column or transfer line to an analytical column.
- Use to oven temperatures of 360°C.
- Available in union and “Y” configurations.
- Can also be used for fused silica to metal connections.

These MXT™ connectors can be used with fused silica tubing, because of a Valcon polyimide 1/32-inch one-piece fused silica adaptor. This unique graphite-reinforced composite allows a capillary column to slide into the adaptor and be locked in place simply by loosening and tightening the fitting.

MXT™-Union Connector Kits for Fused Silica Columns

Each kit contains the MXT™ union, two 1/32-inch nuts and two one-piece fused silica adaptors.



Description	qty.	cat.#	price
For 0.25mm ID Fused Silica Columns	kit	21386	
For 0.32mm ID Fused Silica Columns	kit	21385	
For 0.53mm ID Fused Silica Columns	kit	21384	

MXT™ “Y”-Union Connector Kits for Fused Silica Columns

Each kit contains the MXT™ union, three 1/32-inch nuts and three one-piece fused silica adaptors.



Description	qty.	cat.#	price
For 0.25mm ID Fused Silica Columns	kit	21389	
For 0.32mm ID Fused Silica Columns	kit	21388	
For 0.53mm ID Fused Silica Columns	kit	21387	



Valco™ Connectors—One-Piece Valcon Polyimide Adaptor Ferrule for Fused Silica

Fused silica adaptor ferrules are Valcon polyimide, a unique graphite-reinforced composite, specially prepared to maximize mechanical stability at temperatures to 350°C. The determining factor for selecting adaptor ferrule size is the fused silica tubing OD.

1/32-Inch Adaptor Ferrule (Valcon Polyimide)

Tubing OD	Tubing ID	Valco #	qty.	cat.#	price
0.25 ≤ 0.40mm	0.25mm	FS.4-5	5-pk.	20137	
0.40 ≤ 0.50mm	0.32mm	FS.5-5	5-pk.	20140	
0.50 ≤ 0.80mm	0.53mm	ZF.5V-5	5-pk.	20141	
1/32" Replacement Nut			5-pk.	20389	

MXT™ Low-Dead-Volume Connector Kits for Metal Columns

These low-dead-volume connectors are Siltek® treated to make them inert to active compounds, just like our MXT® columns. They can be used at temperatures up to 430°C without degrading the deactivated layer. Purchase the appropriate ferrules for connecting 0.28, 0.32 or 0.53mm ID tubing.

MXT™ Low-Dead-Volume Connector Kits for Metal Columns

- Connect a guard column/transfer line to an MXT® stainless steel column.
- Low thermal mass tracks rapid oven temperature programming.
- Stainless steel ferrules and nuts.
- Available in “Y” and union configurations.
- Siltek® treatment ensures ultimate inertness.



Each kit contains the MXT™ union, two 1/32-inch ferrules and nuts.

Description	qty.	cat.#	price
For 0.28mm ID MXT Columns	kit	20397	
For 0.32mm ID MXT Columns	kit	20536	
For 0.53mm ID MXT Columns	kit	20394	

MXT™ Low-Dead-Volume “Y” Connector Kits for Metal Columns

- Connect two MXT® columns to one inlet or one MXT® column to two detectors.



Each kit contains the MXT™ union, three 1/32-inch ferrules and nuts.

Description	qty.	cat.#	price
For 0.28mm ID MXT Columns	kit	20396	
For 0.32mm ID MXT Columns	kit	20537	
For 0.53mm ID MXT Columns	kit	20395	

1/32-Inch Stainless Steel Replacement Ferrules for MXT™ Connectors



Ferrule ID	Fits Column ID	qty.	cat.#	price
0.59mm	0.28mm	10-pk.	20398	
0.53mm	0.32mm	10-pk.	20535	
0.79mm	0.53mm	10-pk.	20399	



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

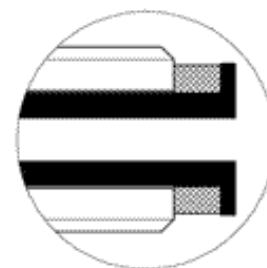
Accessories/miscellaneous

CUSTOMER SUPPORT

Polypropylene Color-Coded Flanged Nuts

- For flanged connections
- Compatible with all 1/4"-28 flat bottom ports
- Fiberglass reinforced polypropylene with polypropylene washers
- Available for 1/16" and 1/8" tubing

A number of chromatography systems still require or prefer flanged connections. When the tubing is flanged, the washer never comes in contact with the mobile phase. Six colors are available.



For forming the flange on the tubing, we recommend our [Easy-Flange kit](#).



1/16" Polypropylene Color-Coded Flanged Nuts

Pressure rating: up to 30 bar (435 psi). Varies with tubing material and ID.

Description	Color	Qty/ pkg	Product No.
Polypropylene 1/4"-28 nut	Black	10	JR-201094BK-10
	White	10	JR-201094WH-10
	Blue	10	JR-202122-10
	Green	10	JR-202123-10
	Yellow	10	JR-202124-10
	Red	10	JR-202125-10
Polypropylene 1/4"-28 nut, 1" long	Black	10	JR-202118-10
	White	10	JR-202118-10

Washer for 1/16" flanged fitting	10	JR-201926-10
----------------------------------	----	--------------

TOP ▲

1/8" Polypropylene Color-Coded Flanged Nuts

Pressure rating: up to 30 bar (435 psi). Varies with tubing material and ID.

Description	Color	Qty/ pkg	Product No.
Polypropylene 1/4"-28 nut	Black	10	JR-201580BK-10
	White	10	JR-201580WH-10
	Blue	10	JR-202142-10
	Green	10	JR-202143-10
	Yellow	10	JR-202144-10
	Red	10	JR-202145-10
Polypropylene 1/4"-28 nut, 1" long	Black	10	JR-202119-10
	White	10	JR-202121WH-10
Washer for 1/8" flanged fitting		10	JR-201928-10

TOP ▲



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

Polyacetal Color-Coded Flangeless Nuts

- Value-for-money alternative to PEEK
- Flange-free – compatible with all 1/4"-28 flat bottom ports
- Excellent chemical resistance
- Available for 1/16" and 1/8" tubing
- Fingertight – no tools required

Polyacetal flangeless nuts in combination with the inverted ferrule make leak-free seals without a flanging tool or a wrench. The inert ETFE ferrule is the only part besides the tubing which contacts the fluid – the nut itself does not contact the fluid stream. (See illustration) Six colors are available.



1/16" Polyacetal Color-Coded Flangeless Nuts

Pressure rating: up to 70 bar (1000 psi). Varies with tubing material and ID.

Description	Color	Qty/ pkg	Product No.
Polyacetal 1/4"-28 flangeless nut	Green	10	JR-040GR-10
	Blue	10	JR-040BL-10
	Yellow	10	JR-040YL-10
	Red	10	JR-040RE-10
	White	10	JR-040WH-10
	Black	10	JR-040BK-10
Polyacetal 1/4"-28 flangeless nut, 1" long	White	10	JR-040WL-10

1/16" ETFE ferrule	10	JR-041-10
--------------------	----	-----------

TOP ▲

1/8" Polyacetal Color-Coded Flangeless Nuts

Pressure rating: up to 35 bar (500 psi). Varies with tubing material and ID.

Description	Color	Qty/ pkg	Product No.
Polyacetal 1/4"-28 flangeless nut	Green	10	JR-050GR-10
	Blue	10	JR-050BL-10
	Yellow	10	JR-050YL-10
	Red	10	JR-050RE-10
	White	10	JR-050WH-10
	Black	10	JR-050BK-10
Polyacetal 1/4"-28 flangeless nut, 1" long	White	10	JR-050WL-10
1/8" ETFE ferrule		10	JR-051-10

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VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

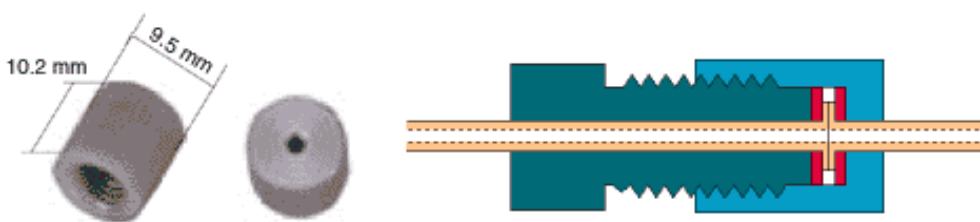
CUSTOMER SUPPORT

Flanged Tubing Connector

- For easy connection of flanged tubing
- Zero dead volume
- Available for 1/16" and 1/8" tubing

With its female 1/4"-28 thread, the VICI flanged tubing connector fits all of our flanged fittings. We recommend this PEEK connector instead of a union to make a zero dead volume connection.

For forming the flange on the tubing, we recommend our [Easy-Flange kit](#).



Flanged Tubing Connector

Pressure rating: up to 30 bar (435 psi). Varies with tubing material and ID.

Description	Product No.
For 1/16" tubing	JR-CEN1PK
For 1/8" tubing	JR-CEN2PK

VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

Low Pressure Bulkhead Unions

- Panel mounting
- Easy connection of low pressure solvent lines
- Low dead volume
- Completely inert and biocompatible



Low Pressure Bulkhead Unions

Pressure rating: up to 105 bar (1500 psi) for 1/16", 35 bar (500 psi) for 1/8"

Description	Product No.
PEEK, 0.75 mm bore, with ETFE ferrules and PPS flangeless nuts for 1/16" tubing	JR- CBUMPK
PEEK, 1.50 mm bore, with ETFE ferrules and PPS flangeless nuts for 1/8" tubing	JR-CBULPK

Spare Parts

Description	Qty/pkg	Product No.	
Nuts	PPS, flangeless, 1/16", black	10	JR-55070-10
	PPS, flangeless, 1/8", black	10	JR-55071-10
Ferrules	ETFE, 1/16"	10	JR-041-10
	ETFE, 1/8"	10	JR-051-10
Adapters	PP fingertight sleeve, yellow	10	JR-55086-10
	PP fingertight sleeve, blue	10	JR-55090-10



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

- Tubing for chromatography
- High pressure fittings
 - Nanovolume
 - Stainless steel
 - Polymeric
- Low pressure fittings
- Filters & mobile phase filters
- Mobile phase handling systems
- Frits
- PEEK columns & guard columns
- Sample loops
- Accessories/miscellaneous

CUSTOMER SUPPORT

JR-051-10

10

ETFE, 1/8"

Also available: Fingertight adapters in additional colors

PEEK Biocompatible Mixing Tees

- Completely inert and biocompatible
- Mountable
- Two different bore sizes available
- 1/4"-28 ports for 1/16" and 1/8" OD tubing



A unique mixing is the result of the turbulence generated by the introduction angle of the solvents. The streams mix more thoroughly than with a conventional tee.

The 0.75 mm bore tee is supplied with PPS flangeless nuts and ETFE ferrules for 1/16" OD tubing. The 1.50 mm bore version come with PPS flangeless nuts and ETFE ferrules for 1/8" OD tubing. The fingertight sleeves are polypropylene.

Dimensions

Body length: 44.5 mm; thickness: 22.2 mm

PEEK Biocompatible Mixing Tees

Pressure rating: up to 105 bar (1500 psi) for 1/16", 35 bar (500 psi) for 1/8".

Varies with tubing material and ID

Description	Product No.
PEEK mixing tee, 0.75 mm bore, with 1/16" fittings	JR-CM1XPK
PEEK mixing tee, 1.50 mm bore, with 1/8" fittings	JR-CM2XPK

Spare Parts

Description		Qty/pkg	Product No.
Nuts	PPS, flangeless 1/4"-28, 1/16"	10	JR-55070-10
	PPS, flangeless 1/4"-28, 1/8"	10	JR-55071-10
Ferrules	ETFE, 1/16"	10	JR-041-10



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

Low Pressure Polypropylene Adapters

- Adapt 10-32, 1/4"-28, barb, Luer, etc
- Completely inert and biocompatible

Description		Qty/ pkg	Product No.
Male Luer to:	1/16" barbed	10	JR-070211-10
	3/32" barbed	10	JR-070212-10
	1/8" barbed	10	JR-070213-10
	10-32 male	10	JR-070224-10
	14"-28 female	10	JR-070225-10
Female Luer to:	1/16" barbed	10	JR-070111-10
	3/32" barbed	10	JR-070112-10
	1/8" barbed	10	JR-070113-10
	Female Luer	10	JR-070101-10
	10-32 male	10	JR-070124-10
	1/4"-28 male	10	JR-070123-10
1/4"-28 male to:	1/16" barbed	10	JR-071123-10
	1/8" barbed	10	JR-071323-10



JR-071124-10	JR-071324-10	JR-072450-10	JR-072350-10
10	10	10	10
1/16" barbed	1/8" barbed	10-32	1/4"-28
10-32 male to:	Plugs		



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

CUSTOMER SUPPORT

Peristaltic Tubing Adapter Set

- Connects soft tubing to PTFE and PTFE-like tubing
- Works with peristaltic tubing up to 4.50 mm OD
- Biocompatible
- Low dead volume
- For 1/16" and 1/8" OD PTFE and PTFE-like tubing

This "one-piece-fits-all" set consists of everything needed to connect 1/16" and 1/8" OD PTFE and PTFE-like tubing to soft tubing like silicone up to 4.50 mm OD. The adapter comes with three different bushings (for the different soft tubing OD's) and two PPS fittings with inverted ETFE ferrules (one each for 1/16" and 1/8" OD tubing). The body and bushings are PEEK.

Dimensions

Length (without fitting): 28 mm; diameter: 12 mm; bore: 0.50 mm



Peristaltic Tubing Adapter Set

Description	Product No.
PEEK adapter for peristaltic to PTFE tubing connection	JR-PTAS

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VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

[Tubing for chromatography](#)

[High pressure fittings](#)

- [Nanovolume](#)
- [Stainless steel](#)
- [Polymeric](#)

[Low pressure fittings](#)

[Filters & mobile phase filters](#)

[Mobile phase handling systems](#)

[Frits](#)

[PEEK columns & guard columns](#)

[Sample loops](#)

[Accessories/miscellaneous](#)

Flanged Fittings Kit

- A complete kit of flanged fittings and accessories
- All parts biocompatible
- Excellent chemical resistance

The flanged fitting kit contains all the materials that are required to make flanged connections for 1/16" and 1/8" OD tubing: flanged fittings, washers, unions, tubing in four different sizes, our Clean-Cut tubing cutter, and a pair of tweezers.



CUSTOMER SUPPORT

Flanged Fittings Kit

Description	Product No.
Flanged fittings kit	JR-201529

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Index of contents of the Flanged Fitting Kit (Part-No. JR-201529)

Part-No.	Description	Qty
JR-201094Black	Black flanged nut 1/16"	10
JR-201094White	White flanged nut 1/16"	10
JR-201580Black	Black flanged nut 1/8"	10
JR-201580White	White flanged nut 1/8"	10
JR-201928Bushing	1/8" Polypropylene bushing	20
JR-201926Bushing	1/16" Polypropylene bushing	20
JR-060	Union	5
JR-797	Clean-cut tubing cutter	1
JR-4011	1/16" OD x 0.25 mm ID PTFE tubing	3 m
JR-4183	1/16" OD x 0.50 mm ID PTFE tubing	3 m
JR-4036	1/16" OD x 0.75 mm ID PTFE tubing	3 m
JR-6800	1/8" OD x 1.59 mm ID PTFE tubing	3 m
JR-806	Tweezer tool	1



VICI JOUR - Low Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

Flanged Fittings Kit

- A complete kit of flanged fittings and accessories
- All parts biocompatible
- Excellent chemical resistance

The flanged fitting kit contains all the materials that are required to make flanged connections for 1/16" and 1/8" OD tubing: flanged fittings, washers, unions, tubing in four different sizes, our Clean-Cut tubing cutter, and a pair of tweezers.



CUSTOMER SUPPORT

Flanged Fittings Kit

Description	Product No.
Flanged fittings kit	JR-201529

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Index of contents of the Flanged Fitting Kit (Part-No. JR-201529)

Part-No.	Description	Qty
JR-201094Black	Black flanged nut 1/16"	10
JR-201094White	White flanged nut 1/16"	10
JR-201580Black	Black flanged nut 1/8"	10
JR-201580White	White flanged nut 1/8"	10
JR-201928Bushing	1/8" Polypropylene bushing	20
JR-201926Bushing	1/16" Polypropylene bushing	20
JR-060	Union	5
JR-797	Clean-cut tubing cutter	1
JR-4011	1/16" OD x 0.25 mm ID PTFE tubing	3 m
JR-4183	1/16" OD x 0.50 mm ID PTFE tubing	3 m
JR-4036	1/16" OD x 0.75 mm ID PTFE tubing	3 m
JR-6800	1/8" OD x 1.59 mm ID PTFE tubing	3 m
JR-806	Tweezer tool	1



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

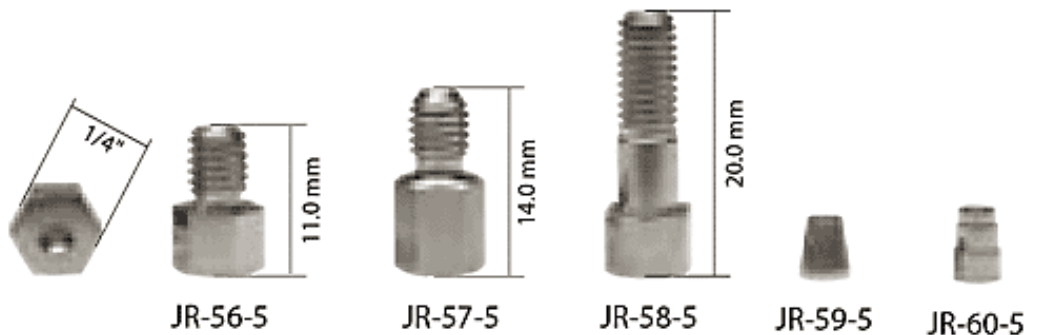
Accessories/miscellaneous

Rheodyne®-Type SS Nuts and Ferrules

- Excellent fit to Rheodyne fitting details
- Different lengths available
- For 1/16" tubing

These nuts and ferrules are for use with metal Rheodyne valves. Three different lengths are available in order to accommodate any possible connecting situation. The standard nut is suitable for easily accessible connections (couplers, detectors, columns, etc.). For very tight and difficult to reach areas, we recommend the long and extra long nut.

Nuts and ferrules are SS316.



Further Reference

[Stainless steel tubing](#)

[ValvTool](#)

[High pressure nanovolume fittings](#)

[High pressure polymeric fittings](#)

Rheodyne-Type SS Nuts and Ferrules

Pressure rating: < 500 bar (7250 psi) Varies with tubing material and ID

With 10-32 threads for use with 1/16" tubing

Type	Qty/ pkg	Product No.
Nuts		
Short	5	JR-56-5

CUSTOMER SUPPORT

JR-57-5	JR-58-5		JR-59-5	JR-60-5
5	5		5	5
Long head	X-long	Ferrules	Standard	2-step

VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

CUSTOMER SUPPORT

VICI SS Unions

- Easy connection of solvent lines
- Low dead volume
- Different bores available
- For 1/16" and 1/8" OD tubing



VICI Stainless Steel Unions are made for joining two pieces of 1/16" OD tubing, or an 1/8" tube to a 1/16" tube.

They are precision machined with a focus on the concentricity of the bore as well as on the finish of the surfaces to give an absolute leak-free connection. VICI SS Unions have internal threads, which we recommend for most applications.

Internal threads make stronger connections and internal fitting details provide the lowest dead volume for high performance instrumentation.

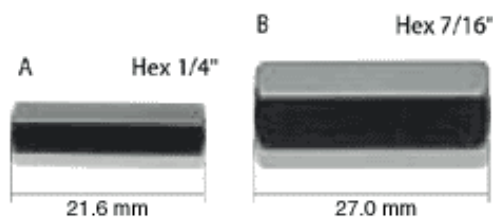
Unions are sold complete with all the necessary fittings. Nuts are SS303; ferrules are SS316; body is SS316.

Further Reference

[Stainless steel tubing](#)

[ValvTool](#)

[Stainless steel nuts and ferrules](#)



Stainless Steel Unions

Pressure rating: < 500 bar (7250 psi) Varies with tubing material and ID

Description	Bore	Drawing	Product No.
1/16" to 1/16" union (10-32 threads)	0.15 mm	A	JR-ZU1XCS6
	0.25 mm	A	JR-ZU1CS6

	0.50 mm	A	JR-ZU1MS6
	0.75 mm	A	JR-ZU1S6
1/8" to 1/16" union (5/16"-24 to 10-32 threads)	0.75 mm	B	JR-ZRU21
Replacement 1/16" nut, pkg. of 5			JR-ZN1-5
Replacement 1/16" ferrule, pkg. of 5			JR-ZF1S6-5
Replacement 1/8" nut, pkg. of 5			JR-ZN2-5
Replacement 1/8" ferrule, pkg. of 5			JR-ZF2S6-5

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VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

VICI SS Tees and Crosses

- Easy connection of solvent lines
- Low dead volume
- Different bores available
- For 1/16" tubing



VICI stainless steel tees & crosses are made for joining solvent lines of tubing. They are precision machined with a focus on the concentricity of the bore as well as on the finish of the surfaces to give an absolute leak free connection. VICI SS tees & crosses have internal threads, which we recommend for most applications. Internal threads make stronger connections and internal fitting details provide the lowest dead volume for high performance instrumentation.

Tees and crosses are sold complete with all the necessary fittings. Nuts are SS303; ferrules are SS316; body is SS316.

Further Reference

- [Stainless steel tubing](#)
- [ValvTool](#)
- [Stainless steel nuts and ferrules](#)

Stainless Steel Tees and Crosses

Pressure rating: < 500 bar (7250 psi) Varies with tubing material and ID

Body dimensions: 23.4 mm dia. x 12.7 mm thick

Description	Bore	Product No.
1/16" tee (10-32 threads)	0.25 mm	JR-ZT1C
	0.50 mm	JR-ZT1M
	0.75 mm	JR-ZT1
1/16" cross (10-32 threads)	0.25 mm	JR-ZX1C
	0.50 mm	JR-ZX1M
	0.75 mm	JR-ZX1

JR-ZN1-5	JR-ZF1S6-5
Replacement 1/16" nut, pkg of 5	Replacement 1/16" ferrule, pkg of 5

CUSTOMER SUPPORT



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

CUSTOMER SUPPORT

VICI SS Plugs and Caps

- Plug a port or cap a solvent line
- For 1/16" OD or 1/8" OD tubing

Caps are made of SS303, as is the 1/8" plug; the 1/16" plug is SS316. All 1/16" threads are 10-32; 1/8" threads are 5/16"-24.



Further Reference

[Stainless steel tubing](#)

[ValvTool](#)

[Stainless steel nuts and ferrules](#)

Stainless Steel Plugs and Caps

Description	Product No.
1/16" plug	JR-ZP1
1/8" plug	JR-ZC1
1/16" cap	JR-ZC1
1/8" cap	JR-ZC2

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VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

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PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

Stainless Steel Starter Kit

- Ideal kit for HPLC users
- For high pressure applications

The Kit consists of fittings, ferrules, tubing, solvent filters, a union, our stainless steel tubing cutter, and other useful tools like our ValvTool, all together in a handy box at a very competitive price!



Stainless Steel Starter Kit

Description	Product No.
SS starter kit	JR-35S

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Index of contents of the SS Starter Kit (Part-No. JR-35S)

Part No.	Description	Qty
JR-3675-2	Filter, SS, mobile phase 2 um, 1/8" pipe OD	1
JR-68230-5	Filter, SS, In-Line ID 0.25 mm, complete, frit SS 5 um	1
JR-792	Tool, Tubing Cutter for metal tubing	1
JR-800	Tool, ValvTool 1/4" and 5/16" open wrench	1
JR-804	Tool, wrench 1/4" x 5/16"	1
JR-806	Tool, Tweezers, Polypropylen, Pinzette	1
JR-9000-0532	Filter, SS, Last Drop 10 um, tripod tubing connector	1
JR-LZN1	Nut, SS, X-long, Valco type, 10-32	10
JR-T-625-10-M3	Tubing, SS, 1/16" OD x 0.25 mm ID, 3 m/pkg	1
JR-T-625-20-M3	Tubing, SS, 1/16" OD x 0.50 mm ID, 3 m/pkg	1
JR-T-97030	Tubing, SS, precut 1/16" OD x 0.18 mm ID, length 100 mm	2
JR-T-97060	Tubing, SS, precut 1/16" OD x 0.25 mm ID, length 200 mm	2
JR-ZF1S6	Ferrule, SS, Valco type, 1/16"	20
JR-ZN1	Nut, SS, Valco type, 1/16", 10-32	10
JR-ZU1CS6	Union, SS, bore 0.25 mm, 1/16", 10-32, complete	1

Updated April 2005

VICI reserves the right to correct errors and change prices, designs, or specifications without notice or liability. The information on this sheet is correct to the best of our knowledge but is not guaranteed to be so. VICI assumes no responsibility with respect thereto.



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

- [Tubing for chromatography](#)
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 - Nanovolume
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- [Sample loops](#)
- [Accessories/miscellaneous](#)

CUSTOMER SUPPORT

ChromBox Kit

- For startup and standard use in all HPLC systems

The ChromBox is an all-purpose analytical spare parts kit for all our customers using HPLC. It contains the most often used spare parts made of high quality SS 316L, PEEK, and PTFE. All together for a very competitive price!



ChromBox Kit

Description	Product No.
ChromBox kit	JR-34N

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Index of contents of the Chrombox Kit (Part-No. JR-34N)

Part-No.	Description	Qty
JR-061	Union, PEEK, 0.25 mm bore, body only	1
JR-357090	Tubing Elbow 90°	1
JR-357180	Tubing Elbow 180°	1
JR-5004	Ferrule, PEEK, double 1/16"	10
JR-55020-1	Fitting, PEEK, one-piece natural, 10-32	5
JR-5510	Nut, PEEK, hex-head long, 10-32	5
JR-5580	Nut, PEEK, hand-tight, 10-32	5
JR-68250	Filter, PEEK, In-Line, complete, frit PAT PEEK-encased 5 um	1
JR-796	Tool, Tubing Plier for metal tubing	1
JR-797	Tool, Clean-Cut Tubing Cutter	1
JR-800	Tool, ValvTool 1/4" and 5/16" open wrench	1
JR-802	Tool, file	1
JR-804	Tool, wrench 1/4" x 5/16"	2
JR-806	Tool, Tweezers, Polypropylen, Pinzette	1
JR-9000-0530	Filter, SS, Last Drop 2 um	1
JR-9001	Tubing Clip	2
JR-LZN1	Nut, SS, X-long, Valco type, 10-32	5
JR-MZN1	Nut, SS, 1/16" Medium, 10-32	5
JR-T-6001-M3	Tubing, PEEK, 1/16" OD X 0.25 mm ID, blue striped, 3 m/pkg	1
JR-T-6002-M3	Tubing, PEEK, 1/16" OD X 0.50 mm ID, orange striped, 3 m/pkg	1
JR-T-625-10-M3	Tubing, SS, 1/16" OD x 0.25 mm ID, 3 m/pkg	1
JR-T-625-20-M3	Tubing, SS, 1/16" OD x 0.50 mm ID, 3 m/pkg	1
JR-T-6800-M3	Tubing, PTFE, 1/8" OD x 1.59 mm ID, 3 m/pkg	1
JR-ZF1S6	Ferrule, SS, Valco type, 1/16"	10
JR-ZU1MS6	Union, SS, bore 0.50 mm, 1/16", 10-32, complete	1

Updated April 2005

VICI reserves the right to correct errors and change prices, designs, or specifications without notice or liability. The information on this sheet is correct to the best of our knowledge but is not guaranteed to be so. VICI assumes no responsibility with respect thereto.



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

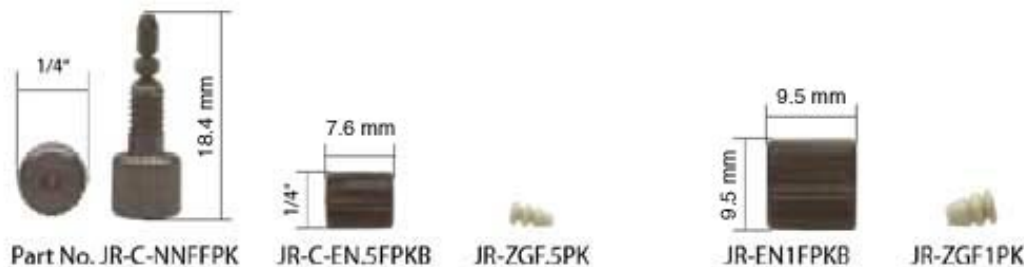
Sample loops

Accessories/miscellaneous

Nanovolume® Nuts and Ferrules

- PEEK - completely biocompatible
- For PEEK, PEEKclad-FST™, and electroformed nickel tubing

VICI nanovolume fittings are designed for capillary LC used in HTS techniques, proteomics, genomics, and other newer developments in industrial routine research. Small sample size, reduction of analysis time, and higher expectations on instrumentation as well as on accessories are required. VICI nanovolume connectors include our new one-piece fingertight fittings for 1/32" OD tubing with a patented* collapsible ferrule. VICI nanovolume fittings are as easy to handle as our standard analytical fittings and unions. The only difference is their size.



PEEK Nanovolume® Nuts and Ferrules

Pressure rating: <350 bar (5000 psi) Varies with tubing material and ID

Threads: Nuts: 6-40; External nuts: 10-32 for 1/16", 8-36 for 1/32"

Description	Product No.
One-piece 1/32" fitting with grooved ferrule	JR-C-NNFFPK
1/32" external nut	JR-C-EN.5FPKB
1/32" grooved ferrule	JR-ZGF.5PK
1/32" plug	JR-C-NPFPK
1/16" external nut	JR-EN1FPKB
1/16" grooved ferrule	JR-ZGF1PK

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Nanovolume® Unions and Reducing Unions

- 100 and 150 micron bores available
- PEEK - completely biocompatible
- For PEEK, PEEKclad-FST™, and electroformed nickel tubing



VICI nanovolume unions and reducing unions are designed for capillary LC used in HTS techniques, proteomics, genomics, and other newer developments in industrial routine research. Small sample size, reduction of analysis time, and higher expectations on instrumentation as well as on accessories are required.

VICI nanovolume unions have one internal and one external 1/32" zero dead volume fitting. The reducing union has an external 1/16" fitting and an internal 1/32" fitting. Both are shipped complete with the proper nuts and ferrules, including our new one-piece fingertight fitting for 1/32" OD tubing where appropriate.

PEEK Nanovolume® Unions and Reducing Unions

Pressure rating: <350 bar (5000 psi) Varies with tubing material and ID

Threads: Nuts: 6-40; External nuts: 10-32 for 1/16", 8-36 for 1/32"

Description	Product No.
100 µm bore union, 1/32" external to 1/32" internal	JR-C-NEU.5XFPK
150 µm bore union, 1/32" external to 1/32" internal	JR-C-NEU.5FPK
150 µm bore reducing union, 1/16" external to 1/32" internal	JR-C-NERU1FPK

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Nanovolume® Tees, Crosses, and Y's

- 100 and 150 micron bores available
- PEEK - completely biocompatible
- For PEEK, PEEKclad-FST™, and electroformed nickel tubing



VICI nanovolume connectors are designed for capillary

LC used in HTS techniques, proteomics, genomics,

and other newer developments in industrial routine research. Small sample size, reduction of analysis time, and higher expectations on instrumentation as well as on accessories are required.

VICI nanovolume connectors are shipped complete with our new one-piece fingertight fitting for 1/32" OD tubing.

PEEK Nanovolume® Tees, Crosses, and Y's

Pressure rating: <350 bar (5000 psi) Varies with tubing material and ID

Threads: 6-40

Type	Bore	Product No.
Tee	100 µm	JR-C-NTXFPK
	150 µm	JR-C-NTFPK
Cross	100 µm	JR-C-NXXFPK
	150 µm	JR-C-NXFPK
Y	100 µm	JR-C-NYXFPK
	150 µm	JR-C-NYFPK

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PEEK Liners for Nanovolume® Fittings

- Work with the most common FS tubing sizes
- Two lengths for different fitting styles
- Available with embedded 1 µm screen for FS column closure

Use these 1/32" OD natural PEEK liners with nanovolume connectors to adapt to the most common sizes of fused silica tubing. Typically, the shorter liner is used with an external nut, and the longer with a one-piece internal fitting. The liner with an embedded 1 µm screen (SS316L) provides an ideal closure for a fused silica column.

CUSTOMER SUPPORT

1/32" OD PEEK Liners



for FS OD	Length	Qty/ pkg	Product No.
125-175 µm	27	5	JR-C-NL.15L-5
	10	5	JR-C-NL.15S-5
175-225 µm	27	5	JR-C-NL.20L-5
	10	5	JR-C-NL.20S-5
225-275 µm	27	5	JR-C-NL.25L-5
	10	5	JR-C-NL.25S-5
275-325 µm	27	5	JR-C-NL.30L-5
	10	5	JR-C-NL.30S-5
325-375 µm	27	5	JR-C-NL.35L-5
	10	5	JR-C-NL.35S-5



JR-C-NLS1.15-5	JR-C-NLS1.20-5	JR-C-NLS1.25-5	JR-C-NLS1.30-5	JR-C-NLS1.35-5
5	5	5	5	5
28	28	28	28	28
125-175 µm	175-225 µm	225-275 µm	275-325 µm	325-375 µm

1/32" PEEK Liners with Embedded 1µm Screen

for FS OD	Length	Qty/ pkg	Product No.
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CUSTOMER SUPPORT

PPS One-Piece Hex Head/Fingertight Fittings

- Economically priced alternative to PEEK
- Excellent chemical resistance
- One-piece – no ferrule required
- Slim design – fingertight with adapter
- 10-32 threads, for 1/16" tubing



The new VICI Jour PPS one-piece hex-head/fingertight fitting offers excellent chemical and pressure resistance. The Color-Sleeve adapter, available in twelve colors for color-coding, converts the hex head nut into a fingertight fitting in an instant.



[Jump to product numbers](#)

Chemical Resistance

Acids, organic	A
Acids, inorganic	A/C*
Aldehydes	A
Alcohols	A
Bases	A/B
Esters	A
Halogenated	
org.	A/B

* conc. Halogen acids

A = Suitable

B = Marginal; dependent on application

C = Not recommended

Hydrocarbons	A
Ketones	A

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Further Reference

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[One-piece hex-head fittings, natural PEEK](#)

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PPS One-Piece Hex-Head/Fingertight Fitting

Pressure rating: <350 bar (5000 psi) Varies with tubing material and ID

Material: PolyPhenylene Sulfide nut, Polypropylene adapter

JR-5508X- 12
12
2 blue 2 red 2 green 2 yellow 2 black 2 white

Description	Color	Qty/ pkg	Product No.	
PPS one-piece fitting, hex-head	Black	5	JR-58000-5	
Color-Sleeve fingertight adapters	Natural	5	JR-55080-5	
	White	5	JR-55081-5	
	Dark grey	5	JR-55082-5	
	Black	5	JR-55083-5	
	Lavender	5	JR-55084-5	
	Red	5	JR-55085-5	
	Yellow	5	JR-55086-5	
	Orange	5	JR-55087-5	
	Brown	5	JR-55088-5	
	Green	5	JR-55089-5	
	Blue	5	JR-55090-5	
	Purple	5	JR-55091-5	
	2 each		24	JR-5508X- 24



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PEEK Color-Coded One-Piece Fingertight Fittings

- Fingertight up to 350 bar (5000 psi)
- Excellent chemical resistance
- One-piece – no ferrule required
- Biocompatible
- 10-32 threads, for 1/16" tubing

To identify various tubing lines the PEEK fingertight fittings are available in six colors. The coloration pigments are carefully chosen to contain no heavy metals or hazardous chemicals.



PEEK fingertight fittings are rated to 350 bar (5000 psi) and can be used in virtually any type of HPLC fitting detail on the market with 10-32 thread.

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[One-piece fingertight fittings, natural PEEK](#)

[One-piece hex-head fittings, natural PEEK](#)

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PEEK Color-Coded One-Piece Fingertight Fittings, Molded

JR-55024-5	JR-55025-5
5	5
Blue	Green

Color	Qty/ pkg	Product No.
Natural	5	JR-55020-5
Black	5	JR-55021-5
Red	5	JR-55022-5
Yellow	5	JR-55023-5



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 One-piece fingertight fittings, PPS
 One-piece fingertight fittings, color-coded PEEK
 One-piece hex-head fittings, natural PEEK

Natural PEEK One-Piece Fingertight Fittings

- Fingertight up to 350 bar (5000 psi)
- Excellent chemical resistance
- Machined, not molded
- One-piece – no ferrule required
- Biocompatible
- 10-32 threads, for 1/16" tubing

JR-5502-5



12.0 mm



22.0 mm

JR-5504-5



12.0 mm



17.1 mm



12.0 mm

JR-5507-5



25.1 mm



1/4"

JR-5508-5



28.1 mm

Natural PEEK One-Piece Fingertight Fittings, Machined

Description	Qty/ pkg	Product No.
One-piece 10-32 PEEK fitting	5	JR-5502-5
One-piece 10-32 PEEK fitting, short head	5	JR-5504-5
One-piece 10-32 PEEK fitting, long	5	JR-5507-5
One-piece 10-32 PEEK fitting, narrow hex head	5	JR-5508-5

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CUSTOMER SUPPORT

Natural PEEK One-Piece Hex-Head Fittings

- Ideal for use with PEEK tubing
- Withstand pressures up to 350 bar (5000 psi)
- For any high pressure fittings

PEEK one-piece hex-head fittings with their integrated ferrule are easy to use with the Valv-Tool and the Color-It color-coded fingertight adapters. The 10-32 thread will fit virtually all standard high-pressure female connections. Connections with the reusable PEEK one-piece hex-head will withstand pressures of up to 350 bar (5000 psi). PEEK one-piece hex-head fittings are available in short and long versions.



Natural PEEK One-Piece Hex-Head Fittings, Machined

Description	Qty/ pkg	Product No.
One-piece 10-32 hex-head PEEK fitting, short	5	JR-55100-5
One-piece 10-32 hex-head PEEK fitting, long	5	JR-55110-5

Further Reference

- Tubing
- ValvTool
- Color-It snap-on fingertight adapters
- High pressure nanovolume fittings
- High pressure stainless steel fittings
- One-piece fingertight fittings, PPS
- One-piece fingertight fittings, color-coded PEEK
- One-piece hex-head fittings, natural PEEK

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CUSTOMER SUPPORT

Color-It Fingertight Adapters

- Easy solvent line identification
- Fit all PEEK and SS stainless hex fittings for 1/16" tubing
- Six different colors available

We recommend the Color-It snap-on fingertight extensions for color coding our 1/4" hex-head nuts. Color-It adapters are useful for color coding different solvent lines, plus they turn your hex-head nuts into fingertight fittings in an instant. Color-It adapters are available in six different colors (blue, yellow, green, black, white, and red). They can be used with our PEEK and stainless steel hex-head nuts for 1/16" OD tubing.



Color-It Fingertight Adapters

Color	Qty/ pkg	Product No.
Blue	5	JR-55010-5
Yellow	5	JR-55011-5
Green	5	JR-55012-5
Black	5	JR-55013-5
White	5	JR-55014-5
Red	5	JR-55015-5

JR-55016-12

12

2 each
color

Further Reference

Tubing

PEEK nuts for use with double ferrule

One-piece hex-head fittings, natural PEEK

High pressure stainless steel fittings



VICI JOUR - High Pressure Fittings

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Further Reference

- Tubing
- ValvTool
- PEEK nuts for use with single ferrule
- One-piece fingertight fittings, PPS
- One-piece fingertight fittings, color-coded PEEK
- One-piece hex-head fittings, natural PEEK
- High pressure nanovolume fittings
- High pressure stainless steel fittings

PEEK Nuts for Use With VICI Jour Double Ferrule

- High pressure rating – up to 420 bar (6000 psi)
- Ideal for use with 1/16" PEEK tubing
- Fits any 10-32 female fitting

These hex-head nuts are for use with VICI Jour double ferrules. The fingertight version may be hand-tightened for operation at up to 420 bar (6000 psi). The hex-head version can be used for connections that are difficult to reach or closely spaced. These fittings fit virtually any female 1/16" fitting, and are ideal for use with PEEK tubing.



PEEK Nuts for Use With Double Ferrule

Tolerances: ± 0.05 mm (.002")

Description	Qty/ pkg	Product No.
PEEK 10-32 hex-head nut for double ferrule, short	5	JR-5511-5
PEEK 10-32 hex-head nut for double ferrule, long	5	JR-5510-5
PEEK 10-32 fingertight nut for double ferrule	5	JR-5580-5
PEEK 10-32 universal fingertight nut for double ferrule	5	JR-5503-5
1/16" PEEK double ferrule	5	JR-5004-5



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CUSTOMER SUPPORT

PEEK Nuts for Use With VICI Jour Single Ferrule

- Reuseable nut, replaceable ferrule
- For 1/16" or 1/8" tubing
- Suitable for high pressure 10-32 and 5/16"-24 ports

Fingertight nuts have a knurled surface designed to allow sufficient sealing force to be applied to the ferrule without wrenches. Hex style nuts allow wrench tightening; however, since they are polymeric, they can break and are recommended for use only when space is limited and fingers will not fit.



PEEK Nuts for Use With Single Ferrule

Pressure rating: < 280 bar (4000 psi). Varies with tubing material and ID.

Description	Qty/ pkg	Product No.
1/16" PEEK fingertight nut for use with single ferrule	5	JR-5570-5
1/16" PEEK single ferrule	5	JR-5503-5
1/8" PEEK fingertight nut for use with single ferrule	5	JR-ZN2PK-5
1/8" PEEK single ferrule	5	JR-ZF2PK-5

Further Reference

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[PEEK nuts for use with double ferrule](#)

[One-piece fingertight fittings, PPS](#)

[One-piece fingertight fittings, color-coded PEEK](#)

[One-piece hex-head fittings, natural PEEK](#)

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CUSTOMER SUPPORT

PEEK Unions

- Easy connection of transfer/solvent lines
- Low dead volume
- Completely inert and biocompatible

VICI Jour PEEK unions are usable with most common HPLC solvents (organic and inorganic) without the risk of corrosion, metal contamination, or protein degradation that might occur with stainless steel. Small diameter bores ensure low dead volume connections. Connections to these PEEK unions can be made with any 10-32 fitting that uses a polymeric ferrule. The unions use the standardized Valco fitting details with smooth transition of the taper into the threaded part.

Unions are available complete with our PEEK one-piece fingertight fittings ready to connect to any 1/16" OD tubing (PEEK, stainless steel, PTFE, ETFE, etc.), or in a "body only" version. The body only version allows you to use **color-coded PEEK one-piece fittings** for easy solvent line identification.



Part No. JR-1061



Part No. JR-ZBU1FPK



Part No. JR-ZRU21FPK

Jump to product numbers for:

- [PEEK unions](#)
- [PEEK bulkhead unions](#)
- [PEEK reducing union](#)
- [Spare parts](#)

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PEEK Unions

Pressure rating: < 350 bar (5000 psi)

Description		Product No.
0.25 mm bore	With PEEK one-piece fittings	JR-1061

	Body only	JR-061
0.50 mm bore	With PEEK one-piece fittings	JR-1066
	Body only	JR-066
0.75 mm bore	With PEEK one-piece fittings	JR-1067
	Body only	JR-067

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PEEK Bulkhead Unions

Pressure rating: < 350 bar (5000 psi)

Mounting requires a 10 mm panel hole.

Description	Product No.
0.25 mm bore, with PEEK one-piece fittings	JR-ZBU1CFPK
0.50 mm bore, with PEEK one-piece fittings	JR-ZBU1MFPK
0.75 mm bore, with PEEK one-piece fittings	JR-ZBU1FPK

PEEK Reducing Union

Pressure rating: < 350 bar (5000 psi)

Description	Product No.
1/8" to 1/16", 0.75 mm bore, with PEEK one-piece fittings	JR-ZRU21FPK

PEEK Union Spare Parts

Description	Qty/pkg	Product No.
PEEK one-piece fitting, black, 10-32; Fits all JR-106X unions	5	JR-55021-5
PEEK hex-head 1/8" nut, 5/16"-24; For JR-ZRU21FPK reducing union	5	JR-ZN2PK-5
PEEK 1/8" ferrule; For JR-ZRU21FPK reducing union	5	JR-ZF2PK-5

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CUSTOMER SUPPORT

PEEK Tees, Crosses, and Manifolds

- Easy connection of transfer/solvent lines
- Low dead volume
- Completely inert and biocompatible

VICI Jour PEEK tees, crosses, and manifolds are usable with most common HPLC solvents (organic and inorganic) without the risk of corrosion, metal contamination, or protein degradation that might occur with stainless steel. Small diameter bores ensure low dead volume connections. Connections to tees, crosses, and manifolds can be made with any 10-32 fitting that uses a polymeric ferrule. All use the standardized Valco fitting details with smooth transition of the taper into the threaded part.

Tees, crosses, and manifolds are available complete with our PEEK one-piece fingertight fittings ready to connect to any 1/16" OD tubing (PEEK, stainless steel, PTFE, ETFE, etc.), or in a "body only" version. The body only version allows you to use [color-coded PEEK one-piece fittings](#) for easy solvent line identification.



Jump to product numbers for:

[PEEK tees](#)

[PEEK crosses](#)

[PEEK manifolds](#)

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PEEK Tees, High Pressure

Pressure rating: < 350 bar (5000 psi)

Body dimensions: 25.0 mm diameter x 12.0 mm thick

JR-B-Z6M1PK	JR-55021-5
6 inlets to 1 outlet manifold, body only	One-piece PEEK 10-32 fitting, black, pkg of 5

Description		Product No.
0.25 mm bore	With PEEK one-piece fittings	JR-1030
	Body only	JR-2030
0.50 mm bore	With PEEK one-piece fittings	JR-1032
	Body only	JR-2032
0.75 mm bore	With PEEK one-piece fittings	JR-1033
	Body only	JR-2033
One-piece PEEK 10-32 fitting, black, pkg of 5		JR-55021-5

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PEEK Crosses, High Pressure

Pressure rating: < 350 bar (5000 psi)

Body dimensions: 25.0 mm diameter x 12.0 mm thick

Description		Product No.
0.25 mm bore	With PEEK one-piece fittings	JR-1040
	Body only	JR-2040
0.50 mm bore	With PEEK one-piece fittings	JR-1042
	Body only	JR-2042
0.75 mm bore	With PEEK one-piece fittings	JR-1043
	Body only	JR-2043
One-piece PEEK 10-32 fitting, black, pkg of 5		JR-55021-5

PEEK Manifolds, High Pressure

Pressure rating: < 350 bar (5000 psi)

Body dimensions: 25.4 mm diameter x 22.9 mm thick

Description	Product No.
6 inlets to 1 outlet manifold, with PEEK one-piece fittings	JR-Z6M1PK



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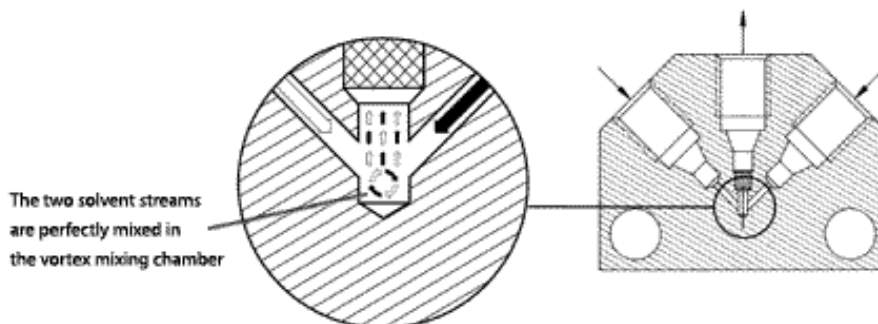
Main VICI site

Biocompatible PEEK Mixing Tee

- High pressure gradient mixing
- Post column reactions
- 350 bar (5000 psi)
- Completely biocompatible



A unique mixing is the result of the turbulence generated by the introduction angle of the solvents as well as the flow through our 5 µm protein-friendly PAT filter element. The two solvent streams mix more thoroughly than with a conventional tee. This biocompatible tee can be used for high-pressure gradient mixing as well as for post column reactions. Comes complete with one-piece fittings for 1/16" tubing.



PEEK Mixing Tee

Tolerances: ± 0.05 mm (.002")

Body dimensions: 25.4 mm x 9.5 mm thick

Internal volume including frit: 4 µl

Description	Product No.
PEEK mixing tee, complete with one-piece fittings	JR-9000-0665

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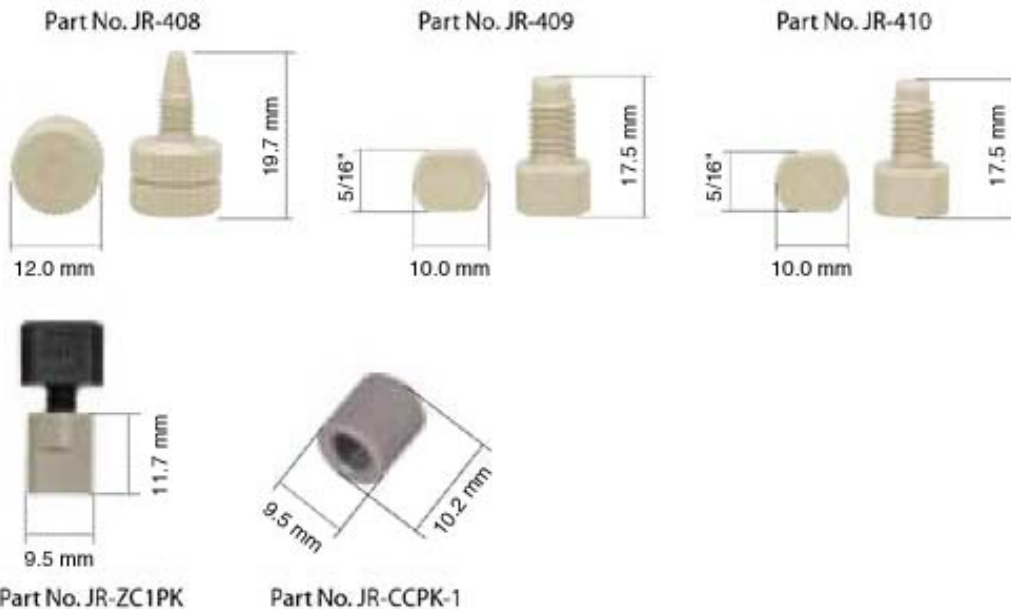
Technical info

Physical data

Main VICI site

PEEK Plugs and Caps

- Plug a port or cap a solvent line
- All common thread sizes available



PEEK Plugs and Caps

Pressure rating: < 350 bar (5000 psi)

Description	Product No.
PEEK plug, 10-32	JR-408
PEEK plug, 1/4"-28	JR-409
PEEK plug, M6	JR-410
PEEK cap, female 10-32	JR-ZC1PK
PEEK cap, female 1/4"-28	JR-CCPK-1

TOP ▲

VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

High pressure fittings

- Nanovolume
- Stainless steel
- Polymeric

Low pressure fittings

Filters & mobile phase filters

Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

CUSTOMER SUPPORT

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PEEK Adapters

- Go from 10-32 to 1/4"-28 or M6 threads
- Easy connection of solvent lines
- Low dead volume
- Completely inert and biocompatible



PEEK Adapters

Description	Product No.
PEEK adapter, 10-32 to 1/4"-28	JR-062
Pharmacia adapter, M6 to 10-32	JR-5595
PEEK adapter, M6 to 10-32	JR-5505

TOP ▲



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

Tubing for chromatography

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Low pressure fittings

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Mobile phase handling systems

Frits

PEEK columns & guard columns

Sample loops

Accessories/miscellaneous

PEEK Port and Luer Adapters

- Go from 10-32 to 1/4"-28 or M6 threads
- Easy connection of solvent lines
- Low dead volume
- Completely inert and biocompatible

PEEK port adapters connect standard LC fittings to standard LC ports. They are available with 1/4"-28, M6, or 10-32 threads (configured for Valco). Male and female Luer adapters connect Luer fittings, 10-32, 1/4"-28, and M6 threaded fittings. All have a 0.40 mm through-hole.

PEEK Port and Luer Adapters

Pressure rating: M6 and 1/4"-28: < 70 bar (1000 psi); Luer: <3.5 bar (50 psi)

	Inlet	Outlet	Product No.
	Waters female	10-32 male	JR-0611
	1/4"-28 female	10-32 male	JR-0612
	1/4"-28 female	M6 male	JR-0622
	1/4"-28 female	Female Luer	JR-0625
	1/4"-28 female	Male Luer	JR-0626
	M6 female	10-32 Male	JR-0613
	M6 female	1/4"-28 Male	JR-0619
	10-32 female	1/4"-28 Male	JR-0617
	10-32 female	Female Luer	JR-0623



VICI JOUR - High Pressure Fittings

VICI JOUR PRODUCTS

[Tubing for chromatography](#)

[High pressure fittings](#)

- [Nanovolume](#)
- [Stainless steel](#)
- [Polymeric](#)

[Low pressure fittings](#)

[Filters & mobile phase filters](#)

[Mobile phase handling systems](#)

[Frits](#)

[PEEK columns & guard columns](#)

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PEEK Starter Kit

- All parts are biocompatible
- Ideal for all HPLC users

For a number of interesting LC applications involving proteins, peptides, nucleic acids, or other samples of biological origin, metal systems may interact with samples or release transition metals that will deactivate columns. By replacing stainless steel parts such as tubing, fittings, ferrules, mobile phase filters, in-line filters, etc. a biocompatible, metal-free environment is created for samples and mobile phase.



The PEEK Starter Kit is ideal for everybody working in the field of biochromatography. The kit consists of fittings, ferrules, tubing, solvent filters, a union, our Clean-Cut tubing cutter, and other useful accessories like our tubing elbows, all together in a handy box at a very competitive price!

PEEK Starter Kit

Description	Product No.
PEEK starter kit	JR-35P

[Complete list of contents \(pdf\)](#)

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Index of contents of the PEEK Starter Kit (Part-No. JR-35P)

Part-No.	Description	Qty
JR-061	Union, PEEK, 0.25 mm bore, body only	1
JR-357090	Tubing Elbow 90°	2
JR-357180	Tubing Elbow 180°	2
JR-5004	Ferrule, PEEK, double 1/16"	20
JR-55020-1	Fitting, PEEK, one-piece natural, 10-32	10
JR-5510	Nut, PEEK, hex-head long, 10-32	5
JR-5580	Nut, PEEK, hand-tight, 10-32	5
JR-68250	Filter, PEEK, In-Line, complete, frit PAT PEEK-encased 5 um	1
JR-797	Tool, Clean-Cut Tubing Cutter	1
JR-806	Tool, Tweezers, Polypropylen, Pinzette	1
JR-9000-0521	Filter, PTFE, Last Drop 5 um, tripod tubing connector	1
JR-T-6002-M3	Tubing, PEEK, 1/16" OD X 0.50 mm ID, orange striped, 3 m/pkg	1
JR-TP-6001-M3	Tubing, Premium, PEEK, 1/16" OD X 0.25 mm ID, blue, dash-stripe, 3 m/pkg	1

Updated April 2005

VICI reserves the right to correct errors and change prices, designs, or specifications without notice or liability. The information on this sheet is correct to the best of our knowledge but is not guaranteed to be so. VICI assumes no responsibility with respect thereto.



Manual Valves



Inside.....

- Small high pressure rotary valves 2
- Small rotary valves with 'Omnifit Cap' connections 2
- Distribution and Loop Injection Valves 3
- Stacked distribution valves... 3
- Sample injection valve 4
- Application and set up notes 4

A range of large and small manual valves offering a variety of flow paths and connection options

- Low and high pressure versions
- Excellent chemical resistance
- Accept 1/4"-28 UNF fittings
- Custom designs available for OEM applications

Small High Pressure Rotary Valves

These manual rotary valves are constructed from PTFE with a Kel-F® rotor and have a 0.8mm bore size, making them suitable for pressure applications up to 500 psi (33 bar). They are available in 4 and 5 port versions. All ports are 1/4"-28 UNF flat-bottom and will accept any 1/4"-28 UNF male fitting. Omnifit's 1000 psi (68 bar) pressure rated Gripper fittings or Omni-Lok™ fittings are ideal for use with these valves. These valves are bulkhead mountable.

Small Rotary Valves with 'Omnifit Cap' connections

Omnifit's small manual rotary valves use the 'Omnifit-Cap' connection system and can be used for sampling, flow-splitting, mixing and fluid line interconnection. They have a 1.5mm bore size and accept tubing sizes between 0.5 and 4mm OD. They are pressure rated to 50 psi (3.3 bar).

Distribution and Loop Injection Valves

These manual valves have a click-stop mechanism to ensure correct flow path alignment. Each valve consists of a glass filled PTFE body with a Kel-F® rotor and a PEEK™ casing. These valves are rated to 500 psi (34 bar).

Sample Injection Valve

Designed for low to medium pressure chromatography systems, this injection valve system is supplied with 0.5ml, 1.0ml and 2.5ml loops and a 5ml syringe. Other loops can be supplied on request. Pressure rating is 500 psi (34 bar).

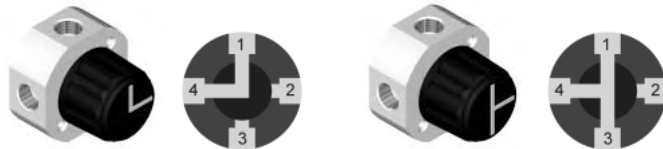
Stacked Distribution Valves

Omnifit's manual stacked distribution valves are constructed using PTFE bodies with a Kel-F® rotor giving excellent chemical compatibility. The valves have a 1.5mm bore size and are available in 2, 3 and 4 tiers to switch 2, 3 or 4 flow lines simultaneously. 1/4"-28 UNF ports are compatible with all Omnifit 1/4"-28 male fittings. A mechanical stop provides positive flow path alignment.

Small High Pressure Rotary Valves

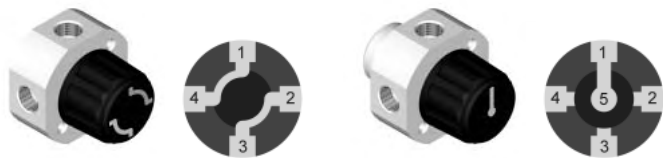
- Pressure rated to 500 psi (33 bar)
- Accepts 1/4"-28 UNF fittings
- M3 holes for mounting
- Flow paths indicated by control knob

These manual rotary valves are constructed from PTFE with a Kel-F® rotor and have a 0.8mm bore size, making them suitable for high pressure applications up to 500 psi (33 bar). They are available in 4 and 5 port versions and any spare ports can be sealed with a plug (part number 2320) for maximum flexibility. All ports are 1/4"-28 UNF flat-bottom and will accept any 1/4"-28 UNF male fitting. These valves are bulkhead mountable with pre-drilled M3 threaded holes for easy mounting.



1120

1121



1122

1126

4-port valves

4-port valves allow flow across selected ports, from either one or two inlets to a combination of the remaining ports.

5-port valve

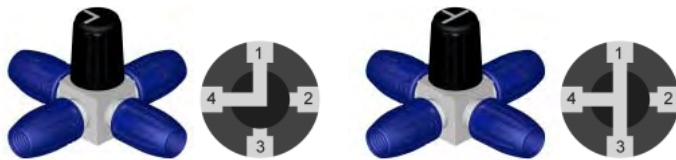
The 5-port valve utilizes the common port as the inlet and allows flow to a combination of the remaining 4 ports.

Part Number	Ports	Pack Size
1120	4	1
1121	4	1
1122	4	1
1126	5	1

Small Rotary Valves with 'Omnifit-Cap' connectors

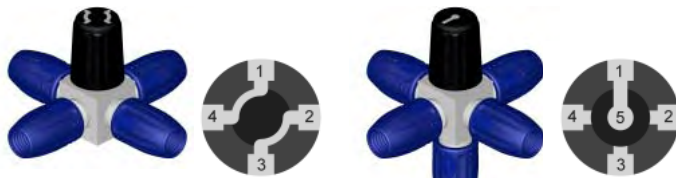
- Range of flow path options
- PTFE body
- Kel-F® rotor
- Flow paths indicated by control knob

Omnifit's small manual rotary valves use the 'Omnifit Cap' connection system and can be used for sampling, flow-splitting, mixing and fluid line interconnection. They have a 1.5mm bore size and accept tubing sizes between 0.5 and 4mm OD. They are pressure rated to 50 psi (3.3 bar). The valves are available in 4 and 5 port versions and any spare ports can be sealed with a plug (part number 2320) or by using a PTFE cone blank (part number 1514) for maximum flexibility.



1112

1113



1114

1118

4-port valves

4-port valves allow flow across selected ports, from either one or two inlets to a combination of the remaining ports.

5-port valve

The 5-port valve utilizes the common port as the inlet and allows flow to a combination of the remaining 4 ports.

See the connectors spec sheet for information on the 'Omnifit Cap' connection system.



Part Number	Ports	Pack Size
1112	4	1
1113	4	1
1114	4	1
1118	5	1



Distribution and Loop Injection Valves

- 500 psi (33 bar) pressure rating
- Click-stop for port identification & alignment
- Ready for mounting on a flat surface
- PEEK™ casing
- Glass filled PTFE Body
- Kel-F® rotor



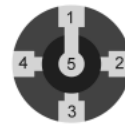
1127-6LI



1127-10LI



1127-4D



Distribution valve

Omnifit's click-stop distribution valve is available in a 5-port option. This enables it to be used as a 4-way distribution valve, by using one port as the inlet and selecting flow to any of the other available ports for outlet. This distribution valve can be used for sample collection and stream selection.

Loop injection valves

Omnifit's click-stop loop injection valves are available in 6 or 10-port options.

See back page for application notes.

Part Number	Valve Type	Ports	Pack Size
1127-6LI	Loop injection	6	1
1127-10LI	Loop injection	10	1
1127-4D	Distribution	5	1

Stacked Distribution Valves

- Pressure rated to 500 psi (33 bar)
- Minimal dead volumes
- 2, 3 or 4 tier configurations
- Positive switch stops

Omnifit's manual stacked distribution valves are constructed using PTFE bodies with a Kel-F® rotor giving excellent chemical compatibility. The valves have a 1.5mm bore size and are available in 2, 3 and 4 tiers to accept 2, 3 or 4 flow lines. The 1/4"-28 UNF ports are compatible with all Omnifit 1/4"-28 male fittings.

Valves are available in three flow configurations and have the same configuration on each tier.



1142



1143



1144



1152



1153



1154



1162



1163



1164

Part Number	Description	Pressure rating	Pack Size
1142	2-tier valve allowing flow between two ports at 90°	500 psi	1
1152	3-tier valve allowing flow between two ports at 90°	100 psi	1
1162	4-tier valve allowing flow between two ports at 90°	100 psi	1
1143	2-tier valve allowing flow between 3 ports in a 'T' formation	500 psi	1
1153	3-tier valve allowing flow between 3 ports in a 'T' formation	100 psi	1
1163	4-tier valve allowing flow between 3 ports in a 'T' formation	100 psi	1
1144	2-tier valve allowing flow between pairs of adjacent ports	500 ps	1
1154	3-tier valve allowing flow between pairs of adjacent ports	100 psi	1
1164	4-tier valve allowing flow between pairs of adjacent ports	100 psi	1

Complete Fluid System Solutions™ 3

Sample Injection Valve

- Allows introduction of reproducible sample volumes
- 0.5ml, 1.0ml and 2.5ml sample loops included



1106

Designed for low pressure chromatography systems, this loop injection valve system is supplied with 0.5ml, 1.0ml and 2.5ml loops and a 5ml syringe. Other loops can be supplied on request. A clamp for easy mounting to a retort stand is included.

See application notes below.

Part Number	Description	Pack Size
1106	Manual sample injection valve	1
1106.5	Spare sample loop for use with 1106 0.5ml	1
1106-1	Spare sample loop for use with 1106 1ml	1
1106-2	Spare sample loop for use with 1106 2.5ml	1
1106-5	Spare sample loop for use with 1106 5ml	1

Application and set up notes.

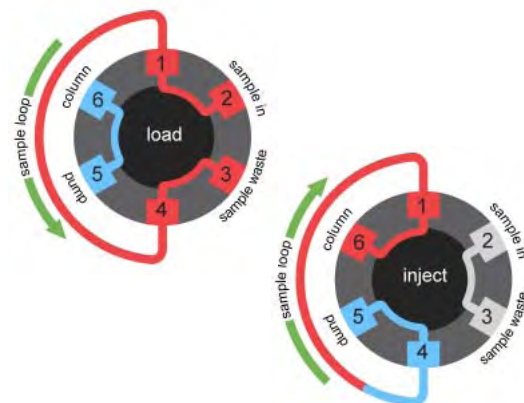
The images below show Omnifit loop inject valves in use as sample injection devices in a chromatography system. These are the most common applications but the use of the valves is not limited to these.

6 port loop inject valve used as a sample injector

With the valve in the load position the sample can be injected into the sample loop while the mobile phase is pumped directly through to the column.

When the valve is switched to the inject position, the pump is then connected to the sample loop and the sample is carried onto and through the column. The 'sample in' and 'waste' ports are joined but isolated from the loop.

It is suggested that ports are connected to the corresponding lines as shown. This ensures that the flow of the mobile phase is in opposite directions during the load and inject operations.

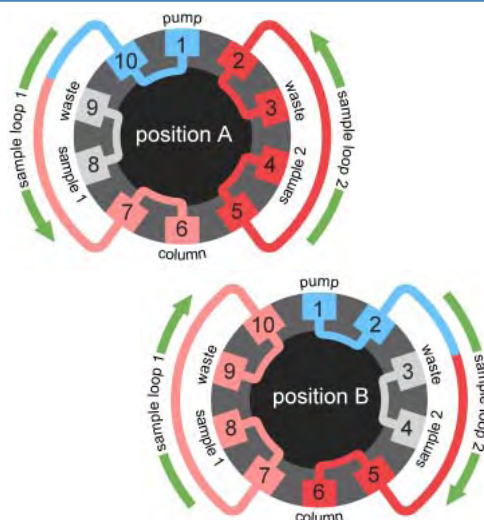


10 port loop inject valve used as a sample injector

This valve allows alternate injection from two different sample loops, either identical or of different sizes. This application can alternatively be satisfied with a 4 port switching valve and a 6 port loop inject valve.

With the valve in position A, sample 2 can be loaded into sample loop 2 while the mobile phase is pumped through sample loop 1 and carries sample 1 onto the column. The 'sample 1 in' and 'waste' ports are connected but isolated from the loop.

When the valve is switched to position B, the pump is connected to sample loop 2 and sample 2 is carried onto and through the column. The 'sample 2 in' and 'waste' ports are connected but isolated from the loop. Whilst sample 2 is pumped onto the column, sample loop 1 can be re-loaded.



Trademarks:

Kel-F® is a registered trademark of the 3M Company

PEEK™ is a trademark of Victrex plc

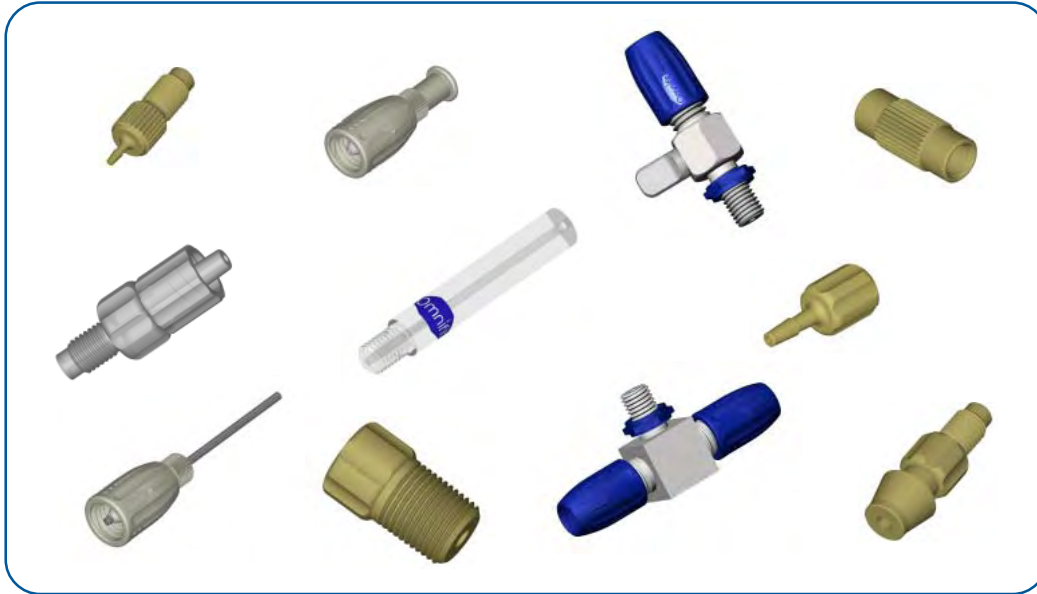
Rev. 0205



Adaptors & Couplings

Inside.....

- Barbed Adaptors..... 2*
 - Male 2*
 - Female 2*
- 1/4"-28 Adaptors 3*
- 'Omnifit Cap' Adaptors 3*
- Variable Bore Adaptors 4*
- Couplings 4*



Chemically inert adaptors and couplings for a variety of thread sizes and tubing types

- Luer, 1/4"-28, barbed and 'Omnifit Cap' connection types
- Excellent chemical resistance
- Versions for hardwall and softwall tubing
- Custom designs available for OEM applications

Barbed Adaptors

Omnifit barbed adaptors are designed for use with soft wall tubing. They are machined rather than moulded and this gives a superior barb to retain soft wall tubing.

1/4"-28 Adaptors

These 1/4"-28 UNF male thread adaptors fit into any 1/4"-28 UNF flat bottom port, as used in most Omnifit valves and connectors, giving quick, push-on connections for softwall tubing. Glass adaptors and adaptors to male and female luer are also available. The glass 1/4"-28 UNF adaptor can be fused to other laboratory glassware to give a convenient threaded connection.

'Omnifit Cap' Adaptors

Cap adaptors replace the coloured cap on any of Omnifit's small variable bore connectors and valves to give either quick push-on connections for softwall tubing or luer connections.

Variable Bore Adaptors

Adaptors to fit 1/4"-28 female ports and adapt to 'Omnifit Cap' connections.

Couplings

Omnifit threaded couplings are a useful range of 'problem solving' parts that enable you to convert thread sizes quickly and easily. Omnifit couplings are available that accept a 1/4"-28 UNF male fitting at one end and convert this to a range of male and female thread types: 1/4"-28 UNF female, 10-32 female, 3/8" NPT male, 1/8" NPT male, M6, or 1/8" BSPT male.



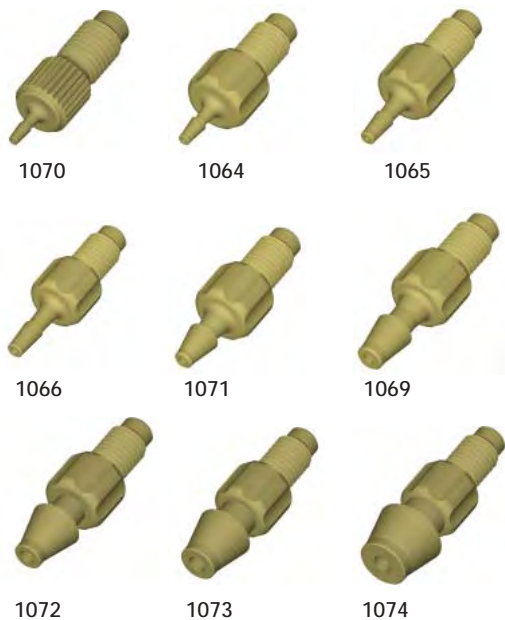
Barbed Adaptors

1/4"-28 Male to Barb Adaptors

- PEEK™ material
- Excellent chemical resistance
- Extra sharp machined barbs for resilient connections

These male 1/4"-28 to barb adaptors will connect softwall tubing to any female 1/4"-28 port.

Omnifit barbed adaptors are designed for use with softwall tubing. They are machined rather than moulded and this gives a superior barb to retain soft wall tubing.



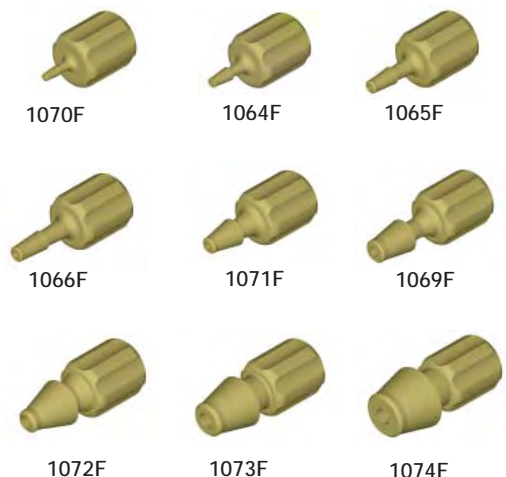
Part Number	Compatible Tubing I.D.	Pack Size
1070	1.0mm	1
1064	1.5mm	1
1065	2.0mm	1
1066	2.5mm	1
1071	3.0mm	1
1069	3.2mm	1
1072	4.0mm	1
1073	6.0mm	1
1074	8.0mm	1

1/4"-28 Female to Barb Adaptors

- PEEK™ material
- Excellent chemical resistance
- Extra sharp machined barbs for resilient connections

These female 1/4"-28 to barb adaptors will connect softwall tubing to any male 1/4"-28 thread.

Omnifit barbed adaptors are designed for use with softwall tubing. They are machined rather than moulded and this gives a superior barb to retain softwall tubing.

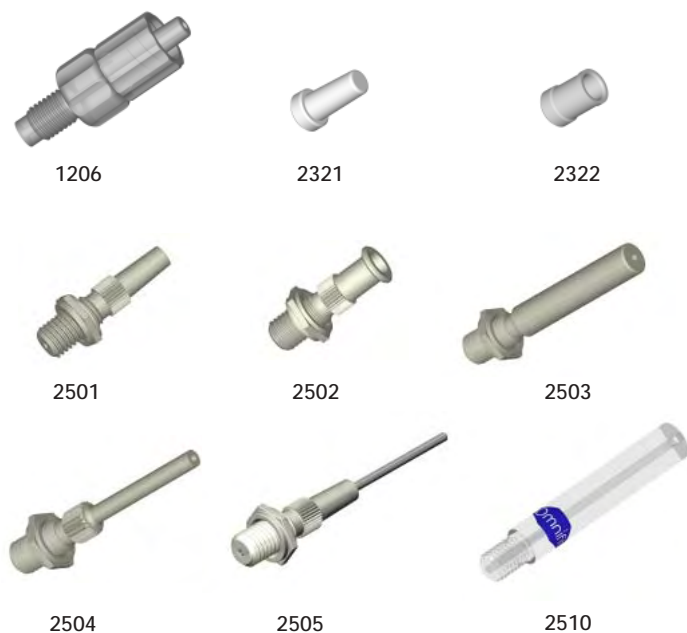


Part Number	Compatible Tubing I.D.	Pack Size
1070F	1.0mm	1
1064F	1.5mm	1
1065F	2.0mm	1
1066F	2.5mm	1
1071F	3.0mm	1
1069F	3.2mm	1
1072F	4.0mm	1
1073F	6.0mm	1
1074F	8.0mm	1



1/4"-28 Adaptors

- Inert Tefzel® or glass
- Autoclavable (Tefzel® only)
- Fit any 1/4"-28 UNF flat bottom ports



These adaptors will fit into 1/4"-28 UNF flat bottom ports in most Omnifit connectors and valves. The Tefzel® 1/4"-28 UNF male thread adaptors provide a quick, push-on connection for softwall tubing or luer. Adaptors to male and female Luer are available. The 1/4"-28 UNF male thread glass adaptors fit into any 1/4"-28 UNF flat bottom ports and are suitable for flame fusing onto other glassware.

Part Number	Description	Pack Size
1206	Tefzel® Luer lock fitting with Polypropylene lock-ring	1
2321	PTFE plug for female luer	2
2322	PTFE plug for male luer	2
2501	Tefzel® male luer fitting	1
2502	Tefzel® female luer fitting	1
2503	Tefzel® 1/4" O.D. pipe connector	1
2504	Tefzel® 1/8" O.D. pipe connector	1
2505	Tefzel® 1/16" O.D. pipe connector with stainless steel tube	1
2510	1/4" glass tubing with 1.5mm bore	1

'Omnifit Cap' Adaptors

- Replaces the colored cap on any 'Omnifit Cap' connector or valve
- Push-on connection for softwall tubing
- Adaptors with luer fittings
- Autoclavable



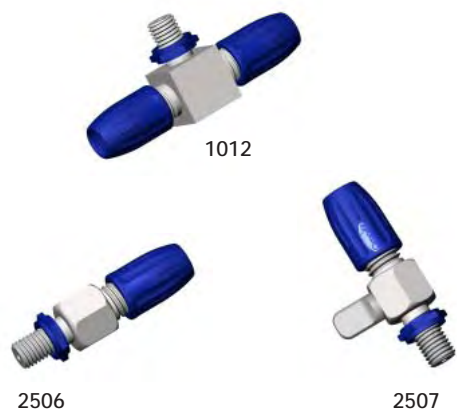
These adaptors can replace the Omnifit cap on any 'Omnifit Cap' connector or valve to give either quick push-on connections for softwall tubing or luer connections. Cap-to-luer adaptors are available with male or female luer connections. Cap-to-pipe adaptors are available in Tefzel® or stainless steel to accept softwall tubing with the following internal diameters: 1/16", 1/8" and 1/4".

Part Number	Description	Pack Size
1201	Tefzel® male luer fitting	1
1202	Tefzel® female luer fitting	1
1203	Tefzel® 1/4" O.D. pipe connector	1
1204	Tefzel® 1/8" O.D. pipe connector	1
1205	Tefzel® 1/16" O.D. pipe connector with a stainless steel tube	1

Variable Bore Adaptors

- 50 psi pressure rating
- 1.5mm (.062") bore size
- Chemically inert all-PTFE body
- Polypropylene caps

Omnifit variable bore adaptors allow any size of tubing between 0.5 and 4mm O.D. to be connected to a 1/4"-28 UNF port via the 'Omnifit Cap'. The valved version has a Tefzel® rotor. Each adaptor has a male 1/4"-28 UNF thread that will fit any female 1/4"-28 UNF threaded port.



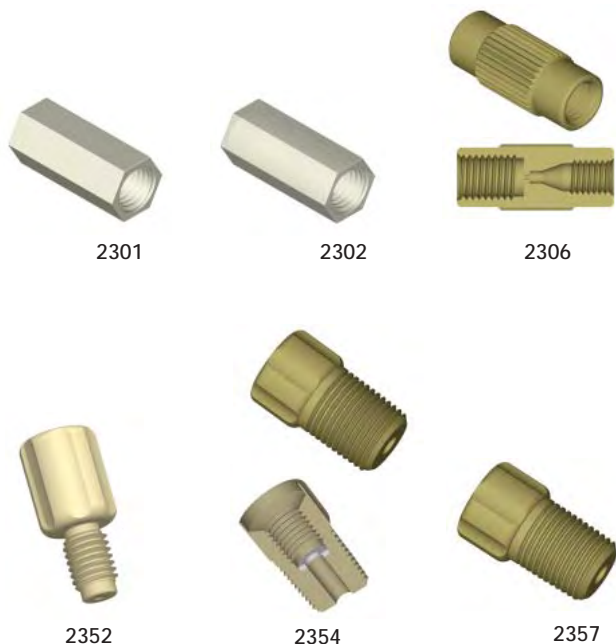
Part Number	Description	Pack Size
1012	3-way 'T' variable bore connector to male 1/4"-28	1
2506	1/4"-28 to variable bore	1
2507	1/4"-28 to variable bore with valve	1

Couplings

- Excellent chemical resistance
- Polypropylene, PEEK™ or Tefzel®
- Convert different thread sizes

Omnifit threaded couplings are a useful range of 'problem solving' parts that enable you to convert thread sizes quickly and easily.

Omnifit couplings are available that accept a 1/4"-28 UNF male fitting at one end and convert this to a range of male and female thread types including: 1/4"-28 UNF female, 10-32 female, 3/8" NPT male, 1/8" NPT male, 1/8" BSPT male and M6.



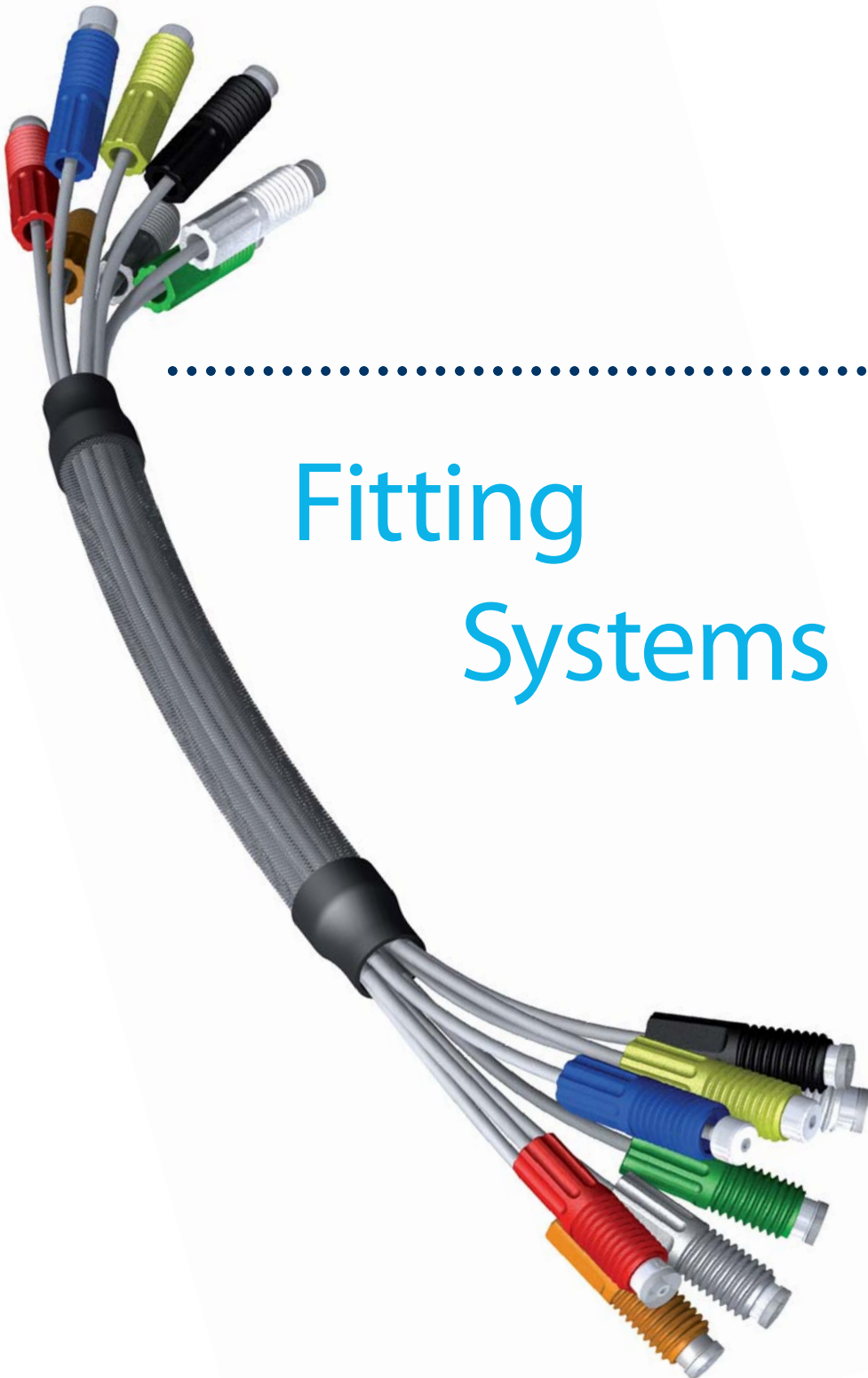
Part Number	Description	Pack Size
2301	Polypropylene two-way coupling	1
2302	Tefzel® two-way coupling	1
2306	PEEK™, 1/4"-28 Female to 10-32 Female	1
2352	PEEK™, 1/4"-28 Female to M6 Male	1
2354	PEEK™, 1/4"-28 Female to 1/8" NPT Male	1
2356	PEEK™, 1/4"-28 Female to 3/8" NPT Male	1
2357	PEEK™, 1/4"-28 Female to 1/8" BSPT Male	1

Trademarks:

PEEK™ is a trademark of Victrex plc
Tefzel® is a registered trademark of E.I. du Pont de Nemours and Company

Rev. 0205

— A —



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Fitting Systems



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Page 21	BUBBLE TRAP Effective, in-line removal of bubbles.	
Page 21	IN-LINE FILTERS Inert, micro-porous filters to remove particulates and protect sensitive instrumentation.	
Page 22	IN-LINE CHECK VALVES Low-pressure check valves with ¼”-28 UNF threads or Omnifit® “cap-type” connections	

Plastics

ETFE = ethylene tetrafluoroethylene
 PTFE = polytetrafluoroethylene
 PEEK™ = polyetheretherketone
 PP = polypropylene
 PC = polycarbonate

Trademarks

PEEK™ is a registered trademark of Victrex plc.
 Omnifit®, Omni-Lok™ are trademarks of Bio-Chem Fluidics Ltd.
 Bio-Chem Valve™, Bio-Chek™ are trademarks of Bio-Chem Fluidics Inc.
 Click-N-Seal™ is a trademark of Diba Industries Inc.

Fitting Systems Selection Guide

In the table below:

1. Locate the outer diameter (OD) of the tubing you wish to connect;
2. Choose the maximum pressure rating you require;
3. Locate the type of threads your port has;
4. Turn to the pages indicated to see full details and ordering information for each system.

Tubing OD	Max pressure		Port threads		
	psi	bar	¼"-28 UNF	M6	⅝"-24 UNF
⅛"	250	17	Omni-Lok™ Inverted Cone (p8)	Omni-Lok™ Inverted Cone (p8)	
			Click-N-Seal™ Inverted Cone (p15)	Click-N-Seal™ Inverted Cone (p15)	
			Omni-Lok™ Flanged (p10)		
	500	34	Omni-Lok™ Type S (p6)	Omni-Lok™ Type S (p6)	
			Click-N-Seal™ Type S (p15)	Click-N-Seal™ Type S (p15)	
	1000	69	Omni-Lok™ Type P (p4)	Omni-Lok™ Type P (p4)	
			Gripper (p12)	Click-N-Seal™ Type P (p15)	
			Click-N-Seal™ Type P (p15)		
	2.0mm	250	17	Omni-Lok™ Inverted Cone (p8)	Click-N-Seal™ Inverted Cone (p15)
Click-N-Seal™ Inverted Cone (p15)					
2.5mm	250	17	Omni-Lok™ Inverted Cone (p8)	Click-N-Seal™ Inverted Cone (p15)	
			Click-N-Seal™ Inverted Cone (p15)		
3.0mm	250	17	Omni-Lok™ Inverted Cone (p8)	Click-N-Seal™ Inverted Cone (p15)	
			Click-N-Seal™ Inverted Cone (p15)		
⅜"	250	17	Omni-Lok™ Inverted Cone (p8)	Click-N-Seal™ Inverted Cone (p15)	
			High Temp Inverted Cone (p9)		
			Omni-Lok™ Flanged (p10)		
			Click-N-Seal™ Inverted Cone (p15)		
	500	34	Omni-Lok™ Type S (p6)	Omni-Lok™ Type S (p6)	
			Click-N-Seal™ Type S (p15)	Click-N-Seal™ Type S (p15)	
	1000	69	Omni-Lok™ Type P (p4)	Omni-Lok™ Type P (p4)	
			Gripper (p12)	High Temp Gripper (p13)	
			High Temp Gripper (p13)	Click-N-Seal™ Type P (p15)	
Click-N-Seal™ Type P (p15)					
⅝"	30	2			Omni-Lok™ Inverted Cone (p8)
	120	8			Omni-Lok™ Type S (ETFE) (p6)
	200	14			Omni-Lok™ Type S (PEEK™) (p6)
					Omni-Lok™ Type P (p4)

OMNI-LOK™ TYPE P

Chemically inert flangeless fitting with permanently attached PTFE ferrule ideal for repeat connect/disconnect

- Pressure rated up to 1000psi (69 bar)
- For 1/16", 1/8" or 3/16" OD semi-rigid tubing e.g. PTFE, ETFE, FEP
- For flat-bottom 1/4"-28 UNF, M6 or 5/16"-24 UNF ports

The Omni-Lok™ Type P fitting system uses a one-piece ferrule which fits permanently onto the outside of semi-rigid tubing. Ferrules have an inner PTFE sealing face ensuring that only PTFE is in the fluid path.

The fitting nut can spin freely, eliminating tubing twist. A recess in the fitting houses the ferrule, allowing maximum thread engagement with the port. This ensures the system stays sealed up to 1000psi (69 bar) pressure, even in shallow PTFE ports. Note: Omni-Lok™ Type P for 3/16" OD tubing and 5/16"-24 UNF flat-bottom ports is pressure rated up to 200 psi (14 bar).

Compact head fitting nuts, in glass-filled polypropylene, are available in a range of different colors for easy line identification. Other options are a longer length nut for applications where accessibility is an issue (1/8" OD tubing only) and standard head nuts in PEEK™ for higher temperatures.

Assembly of Omni-Lok™ type P fittings onto tubing requires the use of simple tooling. See the assembly instructions on our website for full details.

For 1/16" OD Tubing

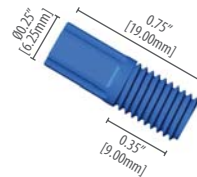
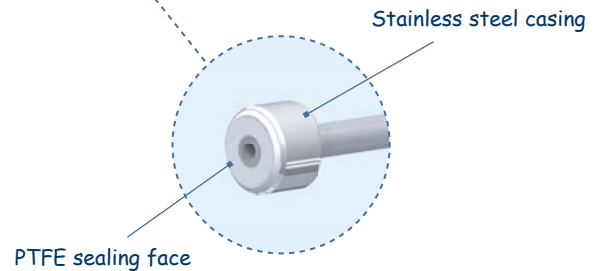
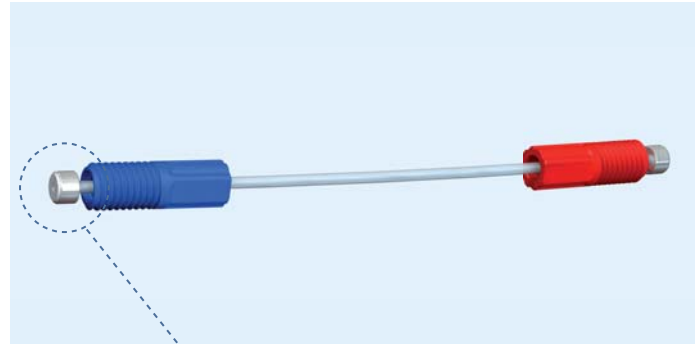
FERRULES FOR 1/16" OD TUBING

PART NUMBER	DESCRIPTION	QTY
008FT16	One piece PTFE ferrule for 1/4•28 and M6 nuts	10pk

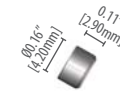
NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF16-YC5B	PP	Black	1/4•28	10pk
008NF16-YC5U	PP	Blue	1/4•28	10pk
008NF16-YC5A	PP	Gray	1/4•28	10pk
008NF16-YC5G	PP	Green	1/4•28	10pk
008NF16-YC5N	PP	Orange	1/4•28	10pk
008NF16-YC5R	PP	Red	1/4•28	10pk
008NF16-YC5H	PP	White	1/4•28	10pk
008NF16-YC5Y	PP	Yellow	1/4•28	10pk
008NF16-YC6B	PP	Black	M6	10pk
002122S	PEEK™	Natural	1/4•28	ea

SPECIFICATIONS



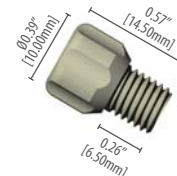
008NF16-YC5U
Nut for 1/16" OD tubing
1/4•28, blue



008FT16
Type P ferrule
for 1/16" OD tubing



008NF16-YC6B
Nut for 1/16" OD tubing
M6, black



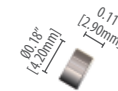
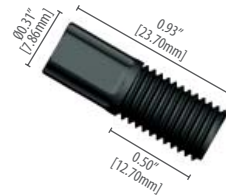
002122S
PEEK™ nut
for 1/16" OD tubing, 1/4•28

For 1/8" OD Tubing

FERRULES FOR 1/8" OD TUBING					
PART NUMBER	DESCRIPTION				
008FT32	One piece PTFE ferrule for 1/4•28 and M6 nuts				10pk
NUTS FOR 1/8" OD TUBING					
PART NUMBER	MATERIAL	COLOR	THREAD	QTY	
008NF32-YC5B	PP	Black	1/4•28	10pk	
008NF32-YC5U	PP	Blue	1/4•28	10pk	
008NF32-YC5A	PP	Gray	1/4•28	10pk	
008NF32-YC5G	PP	Green	1/4•28	10pk	
008NF32-YC5N	PP	Orange	1/4•28	10pk	
008NF32-YC5R	PP	Red	1/4•28	10pk	
008NF32-YC5H	PP	White	1/4•28	10pk	
008NF32-YC5Y	PP	Yellow	1/4•28	10pk	
008NF32-YL5B	PP	Black	1/4•28	10pk	
008NF32-YC6B	PP	Black	M6	10pk	
002222S	PEEK™	Natural	1/4•28	ea	

For 3/16" OD Tubing

FERRULES FOR 3/16" OD TUBING					
PART NUMBER	DESCRIPTION				
008FT47	One piece PTFE ferrule for 5/16•24 nuts				10pk
NUTS FOR 3/16" OD TUBING					
PART NUMBER	MATERIAL	COLOR	THREAD	QTY	
008NF47-YC7B	PP	Black	5/16•24	10pk	



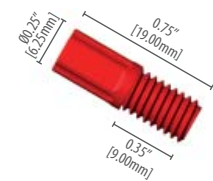
008NF47-YC7B
Nut for 3/16" OD tubing
5/16•24, black

008FT47
Type P ferrule
for 3/16" OD tubing

Blanking Plugs

ETFE nut with PTFE sealing face designed to seal unused ports. These blanking plugs can be used in any flat-bottom 1/4"-28 UNF port.

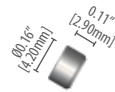
BLANKING PLUG FOR 1/4•28 FLAT-BOTTOM PORTS				
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
002320	ETFE	Natural	1/4•28	2pk



008NF32-YC5R
Nut for 1/8" OD tubing
1/4•28, red



008NF32-YC6B
Nut for 1/8" OD tubing
M6, black



008FT32
Type P ferrule
for 1/8" OD tubing



008NF32-YL5B
Long nut for 1/8" OD tubing,
1/4•28, black



002222S
PEEK™ nut
for 1/8" OD tubing, 1/4•28



002320
ETFE plug
for 1/4•28 ports

TECH TIP:

Problems with shallow or PTFE ports?

Some shallow ports, especially those found in solenoid valves, may offer limited thread engagement for most standard fittings. Ports machined from PTFE can also be slippery and difficult to seal, with fittings becoming loose and "backing out". With glass-filled polypropylene and a recessed ferrule, Omni-Lok™ fittings are specifically designed for use in shallow and PTFE ports to ensure maximum security and a leak-free seal.

OMNI-LOK™ TYPE S

Chemically inert flangeless fitting with permanently attached PEEK™ or ETFE ferrules, ideal for repeated connect/disconnect

- Pressure rated up to 500psi (34 bar)
- For 1/16", 1/8" or 3/16" OD semi-rigid tubing e.g. PTFE, ETFE, FEP
- For flat-bottom 1/4"-28 UNF, M6 or 5/16"-24 UNF ports
- PEEK™ ferrules can be used with rigid tubing, e.g. PEEK™

The Omni-Lok™ Type S fitting system uses a two-piece ferrule which fits permanently to the outside of the tubing. Two-part ferrules consist of an inner PEEK™ or ETFE sealing surface surrounded by a stainless steel lock ring with only the inner portion in the fluid path.

The fitting nut can spin freely against the ferrule, eliminating tubing twist and subsequent loosening of the nut. A recess in the fitting houses the ferrule, allowing maximum thread engagement with the port ensuring the system stays sealed up to 500psi (34 bar) pressure even in shallow PTFE ports. Note: The Omni-Lok™ Type S for 3/16" OD tubing and 5/16"-24 UNF flat-bottom ports is pressure rated up to 200 psi (14 bar).

Compact head fitting nuts in glass-filled polypropylene, are available in a range of different colors for easy line identification. Other options are a longer length nut for applications where accessibility is an issue (1/8" OD tubing only) and standard head nuts in PEEK™ for higher temperatures. The Type S PEEK™ ferrule can be used with rigid PEEK™ tubing and a PEEK™ fitting nut to create a robust, high temperature assembly.

For 1/16" OD Tubing

FERRULES FOR 1/16" OD TUBING

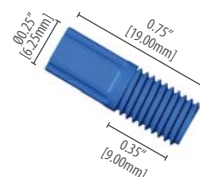
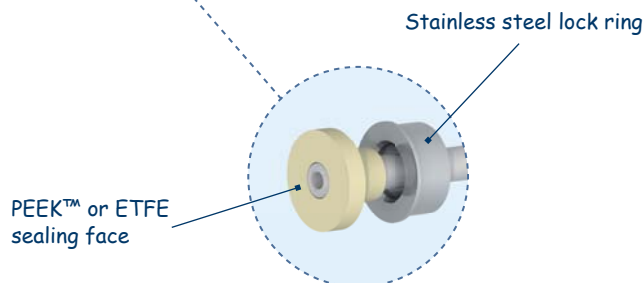
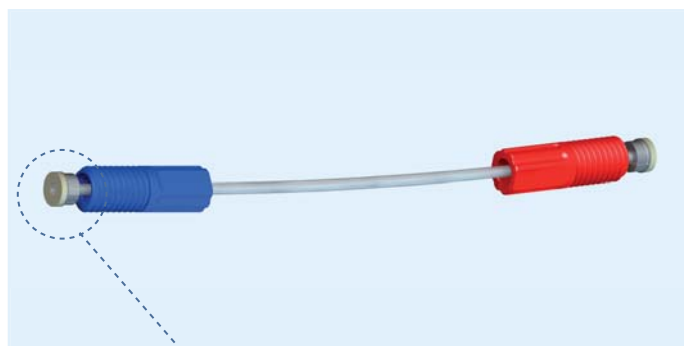
PART NUMBER	DESCRIPTION	QTY
008FK16	PEEK™ ferrule and SS lock ring	10pk
008FZ16	ETFE ferrule and SS lock ring	10pk

008FK16 & 008FZ16 ferrules can be used with all nuts listed and either 1/4"-28 and M6 flat-bottom ports.

NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF16-YC5B	PP	Black	1/4"•28	10pk
008NF16-YC5U	PP	Blue	1/4"•28	10pk
008NF16-YC5A	PP	Gray	1/4"•28	10pk
008NF16-YC5G	PP	Green	1/4"•28	10pk
008NF16-YC5N	PP	Orange	1/4"•28	10pk
008NF16-YC5R	PP	Red	1/4"•28	10pk
008NF16-YC5H	PP	White	1/4"•28	10pk
008NF16-YC5Y	PP	Yellow	1/4"•28	10pk
008NF16-YC6B	PP	Black	M6	10pk
002122S	PEEK™	Natural	1/4"•28	ea

SPECIFICATIONS



008NF16-YC5U

Nut for 1/16" OD tubing,
1/4"•28, blue



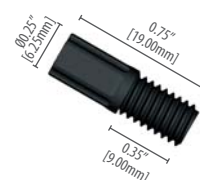
008FK16

Two-part ferrule, PEEK™



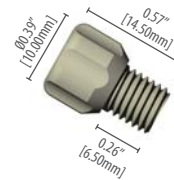
008FZ16

Two-part ferrule, ETFE



008NF16-YC6B

Nut for 1/16" OD tubing
M6, black



002122S

PEEK™ nut for 1/16" OD tubing
1/4"•28, natural

TECH TIP:

Need a completely PEEK™ connection?

An all-PEEK™ fitting and tubing system can be obtained using the Omni-Lok™ Type S ferrule in PEEK™, with PEEK™ tubing and the PEEK™ fitting nuts shown. Perfect for higher temperature applications or harsh environments.

For 1/8" OD Tubing

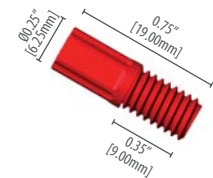
FERRULES FOR 1/8" OD TUBING

PART NUMBER	DESCRIPTION	QTY
008FK32	PEEK™ ferrule and SS lock ring	10pk
008FZ32	ETFE ferrule and SS lock ring	10pk

008FK32 & 008FZ32 ferrules can be used with all nuts listed and either 1/4•28 and M6 flat-bottom ports.

NUTS FOR 1/8" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF32-YC5B	PP	Black	1/4•28	10pk
008NF32-YC5U	PP	Blue	1/4•28	10pk
008NF32-YC5A	PP	Gray	1/4•28	10pk
008NF32-YC5G	PP	Green	1/4•28	10pk
008NF32-YC5N	PP	Orange	1/4•28	10pk
008NF32-YC5R	PP	Red	1/4•28	10pk
008NF32-YC5H	PP	White	1/4•28	10pk
008NF32-YC5Y	PP	Yellow	1/4•28	10pk
008NF32-YL5B	PP	Black	1/4•28	10pk
008NF32-YC6B	PP	Black	M6	10pk
002222S	PEEK™	Natural	1/4•28	ea



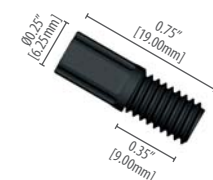
008NF32-YC5R
Nut for 1/8" OD tubing
1/4•28, red



008FK32
Two-part ferrule, PEEK™



008FZ32
Two-part ferrule, ETFE



008NF32-YC6B
Nut for 1/8" OD tubing
M6, black



002222S
PEEK™ nut
for 1/8" OD tubing, 1/4•28



008NF32-YL5B
Long nut for 1/8" OD tubing,
1/4•28, black

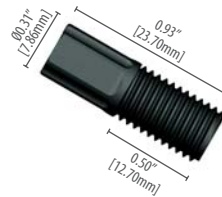
For 3/16" OD Tubing

FERRULES FOR 3/16" OD TUBING

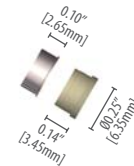
PART NUMBER	DESCRIPTION	QTY
008FK47	PEEK™ ferrule and SS lock ring	10pk
008FZ47	ETFE ferrule and SS lock ring	10pk

NUTS FOR 3/16" OD TUBING

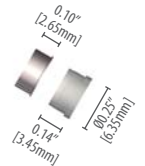
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF47-YC7B	PP	Black	5/16•24	10pk



008NF47-YC7B
Nut for 3/16" OD tubing
5/16•24, black



008FK47
Two-part ferrule, PEEK™



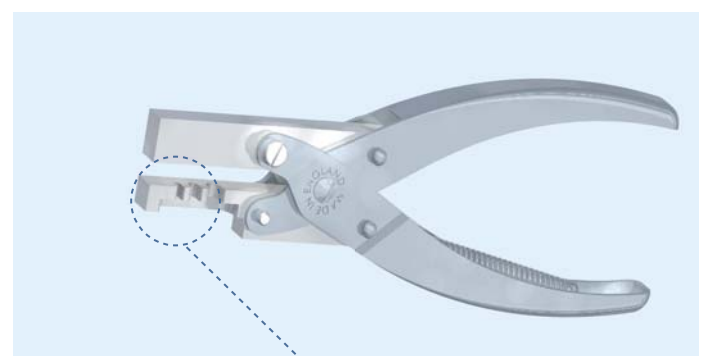
008FZ47
Two-part ferrule, ETFE

Omni-Lok™ Type S Assembly Tool

The Omni-Lok™ Type S two-piece ferrule is easily assembled onto tubing using this tool. Simply cut the tube end square, then fit the Omni-Lok™ ferrule and lock ring onto the squarely cut tube end, load into the assembly tool and squeeze the tool handles together to press the lock ring onto the ferrule. Full instructions are provided with the tool and on our website.

OMNI-LOK™ TYPE S ASSEMBLY TOOL

PART NUMBER	DESCRIPTION	QTY
008AT	Assembly tool	ea



OMNI-LOK™ INVERTED CONE FITTINGS

Removable and reusable system for quick and convenient low-pressure connections

- Pressure rated up to 250psi (17 bar)
- For 1/16", 1/8" or 3/16" OD and metric sizes 2.0, 2.5 or 3.0mm OD semi-rigid tubing e.g. PTFE, ETFE, FEP
- For flat-bottom 1/4"-28 UNF, M6 or 5/16"-24 UNF ports

Omni-Lok™ inverted cone fittings provide a simple, easy to use low-pressure connection. Only the ETFE cone is in the fluid path.

No tools are required to assemble a flangeless fitting quickly and economically - just slip the fitting nut and the ETFE cone over the tubing and screw into the port. None of the parts are permanently attached to the tubing, so both fittings and inverted cones can easily be removed and re-used. A recess in the fitting houses the inverted cone, allowing maximum thread engagement with the port ensuring the system stays sealed up to 250psi (17 bar) pressure even in shallow PTFE ports. Note: The Omni-Lok™ inverted cone and fitting nut for 3/16" OD tubing and 5/16"-24 UNF flat-bottom ports is pressure rated up to 30 psi (2 bar).

Fitting nuts in robust, glass-filled polypropylene are available in a range of different colors for easy line identification. Nuts are also available in PEEK™ with standard and compact head designs or with shorter thread length for shallow ports.

For 1/16" OD Tubing

INVERTED CONES FOR 1/16" OD TUBING

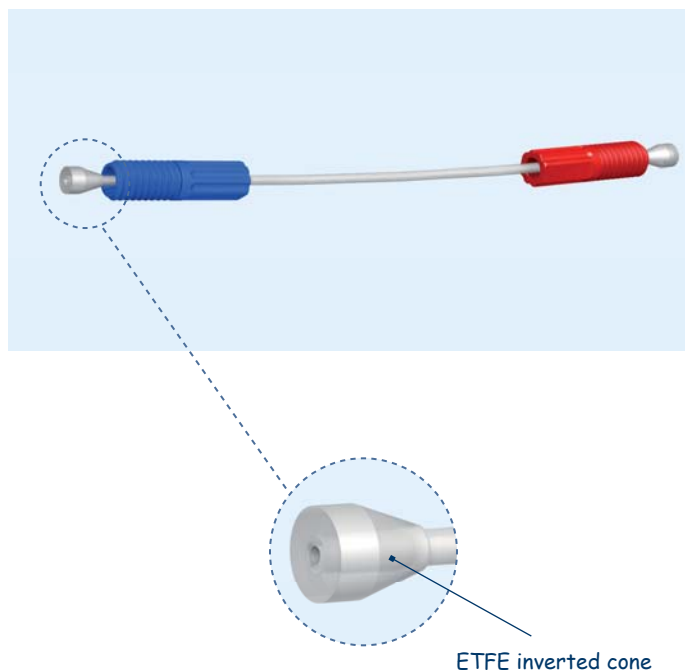
PART NUMBER	DESCRIPTION	QTY
008CZ16	ETFE inverted cone	10pk

008CZ16 inverted cones can be used with all nuts listed below.

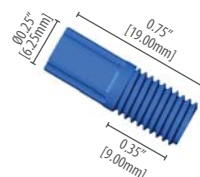
NUTS FOR 1/16" OD TUBING

PART NUMBER	Material	Color	Thread	QTY
008NC16-YC5U	PP	Blue	1/4•28	10pk
008NC16-YC5G	PP	Green	1/4•28	10pk
008NC16-YC6U	PP	Blue	M6	10pk
002144	PEEK™	Natural	1/4•28	ea
002144S	PEEK™	Natural	1/4•28	ea
002145	PEEK™	Natural	1/4•28	ea

SPECIFICATIONS

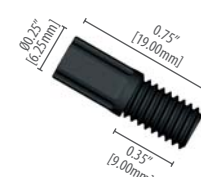


ETFE inverted cone



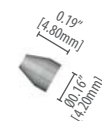
008NC16-YC5U

Nut for 1/16" OD tubing
1/4•28, blue



008NC16-YC6B

Nut for 1/16" OD tubing
M6, black



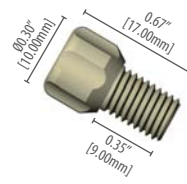
008CZ16

Omni-Lok™ inverted
cone for 1/16" OD tubing



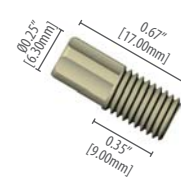
002144S

PEEK™ nut for 1/16" OD tubing,
1/4•28



002144

PEEK™ nut for 1/16" OD tubing,
1/4•28



002145

Compact PEEK™ nut for 1/16"
OD tubing, 1/4•28

For 1/8" OD Tubing

INVERTED CONES FOR 1/8" OD TUBING

PART NUMBER	DESCRIPTION	QTY
001545	ETFE inverted cone	10pk

PEEK™ NUTS FOR 1/8" OD TUBING

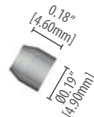
PART NUMBER	HEAD	LENGTH	MATERIAL	COLOR	THREAD	QTY
002244	Standard	Standard	PEEK™	Natural	1/4•28	ea
002244S	Standard	Short	PEEK™	Natural	1/4•28	ea
002245	Compact	Standard	PEEK™	Natural	1/4•28	ea



002244
PEEK™ nut for 1/8" OD tubing
1/4•28, natural



002245
Compact PEEK™ nut
for 1/8" OD tubing, 1/4•28



001545
ETFE inverted cone
for 1/8" OD tubing



002244S
Shorter thread PEEK™ nut
for 1/8" OD tubing, 1/4•28

For 1/8", 2.0, 2.5 and 3.0mm OD Tubing

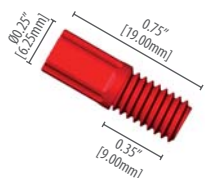
INVERTED CONES FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING

PART NUMBER	MATERIAL	TO FIT TUBE OD	QTY
008CZ19	ETFE	1.8 - 2.0mm	10pk
008CZ25	ETFE	2.5mm	10pk
008CZ30	ETFE	3.0mm	10pk
008CZ32	ETFE	1/8" (3.2mm)	10pk

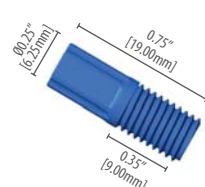
NUTS FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC32-YC5U	PP	Blue	1/4•28	10pk
008NC32-YC5G	PP	Green	1/4•28	10pk
008NC32-YC5N	PP	Orange	1/4•28	10pk
008NC32-YC5R	PP	Red	1/4•28	10pk
008NC32-YC5Y	PP	Yellow	1/4•28	10pk
008NC32-YC6U	PP	Blue	M6	10pk

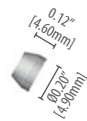
The 008NC32 nuts can be used with all tube sizes and inverted cones listed above



008NC32-YC5R
Nut for 1/8" OD tubing
1/4•28, red



008NC32-YC6U
Nut for 1/8" OD tubing
M6, blue



008CZ-32
Omni-Lok™ inverted
cone for 1/8" OD tubing

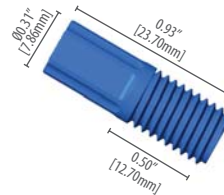
For 3/16" OD Tubing

INVERTED CONE FOR 3/16" OD TUBING

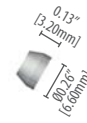
PART NUMBER	DESCRIPTION	QTY
008CZ47	ETFE inverted cone	10pk

NUTS FOR 3/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC47-YC7U	PP	Blue	5/16•24	10pk



008NC47-YC7U
Nut for 3/16" OD tubing
5/16•24, blue



008CZ47
Omni-Lok™ inverted cone
for 3/16" OD tubing

TECH TIP:

Frequent connection / disconnection?

For applications needing repeated connect / disconnect we recommend a permanently attached ferrule with stainless steel collar. Choose from our Omni-Lok™ Type P and S, or Gripper ranges.

OMNI-LOK™ FLANGED

Flanged (flared) tubing system for economical low-pressure connections

- Pressure rated up to 250psi (17 bar)
- For 1/16", 1/8" or 3/16" OD semi-rigid tubing, e.g. PTFE
- For flat-bottom 1/4"-28 UNF ports
- Removeable and reusable

Omni-Lok™ flanged fittings require the end of hardwall tubing to be formed into a flange (flare). A flanging washer is placed between the flange and the fitting nut. When screwed into a flat-bottom, the flange is compressed against the bottom of the port to produce a seal. Only the tubing is in the fluid path.

Omni-Lok™ flanged fitting nuts and washers permit maximum thread engagement between the port and the robust, glass-filled polypropylene fitting nuts. This ensures that the system stays sealed up to 250psi (17 bar) pressure, even in shallow PTFE ports.

PEEK™ flanging washers and nuts are designed to provide a simple, easy to use low-pressure connection for use in environments where harsh chemicals or higher temperature preclude the use of a polypropylene fitting.

Omni-Lok™ Flanged Fittings requires tubing to be flanged prior to use. We recommend our Flanging Kit for quick and easy heat-free flange forming - see page 11.

For 1/16" OD Tubing

FLANGING WASHER FOR 1/16" OD TUBING

PART NUMBER	DESCRIPTION	QTY
008FW16	PP flanging washer	10 pk

The 008FW16 flanging washer can be used with all nuts listed and either 1/4•28 or M6 flat-bottom ports.

NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF16-YC5B	PP	Black	1/4•28	10pk
008NF16-YC5U	PP	Blue	1/4•28	10pk
008NF16-YC5A	PP	Gray	1/4•28	10pk
008NF16-YC5G	PP	Green	1/4•28	10pk
008NF16-YC5N	PP	Orange	1/4•28	10pk
008NF16-YC5R	PP	Red	1/4•28	10pk
008NF16-YC5H	PP	White	1/4•28	10pk
008NF16-YC5Y	PP	Yellow	1/4•28	10pk
008NF16-YC6B	PP	Black	M6	10pk

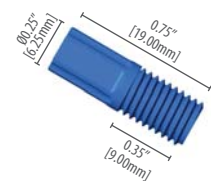
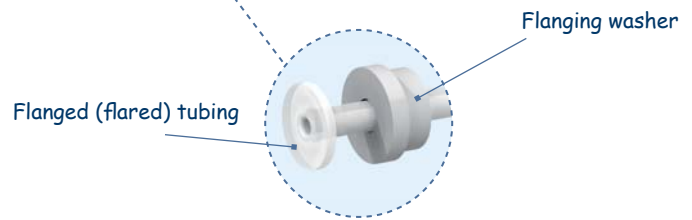
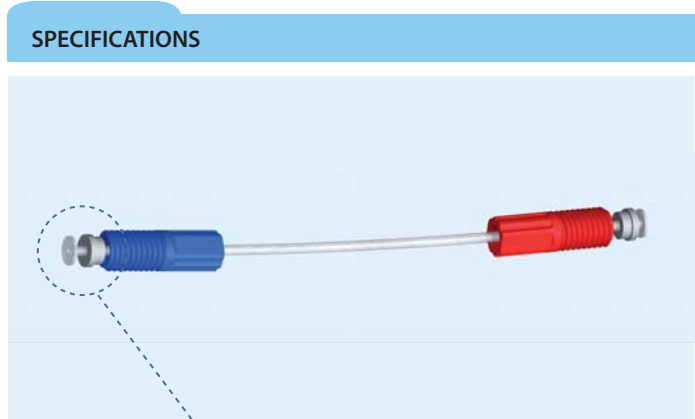
For 1/16" OD Tubing

FLANGING WASHER FOR 1/16" OD TUBING

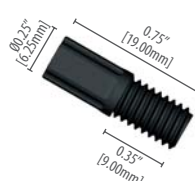
PART NUMBER	DESCRIPTION	QTY
002123FN	PEEK™ flanging washer	10pk

NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
002123	PEEK™	Natural	1/4•28	10pk
002124	PEEK™	Natural	1/4•28	10pk



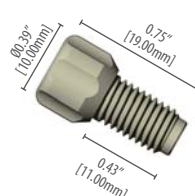
008NF16-YC5U
Nut for 1/16" OD tubing
1/4•28, blue



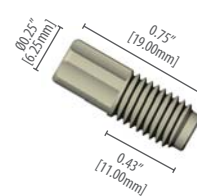
008NF16-YC6B
Nut for 1/16" OD tubing
M6, black



008FW16
Flanging washer
for 1/16" OD tubing



002123
PEEK™ nut for 1/16" OD tubing
1/4•28, natural



002124
Compact PEEK™ nut
for 1/16" OD tubing, 1/4•28



002123FN
PEEK™ flanging washer
for 1/16" OD tubing

For 1/8" OD Tubing

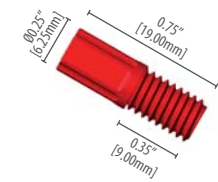
FLANGING WASHER FOR 1/8" OD TUBING

PART NUMBER	DESCRIPTION	QTY
008FW32	PP flanging washer	10pk

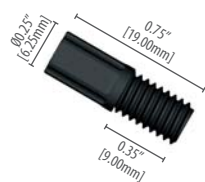
The 008FW32 flanging washer can be used with all nuts listed and either 1/4"28 or M6 flat-bottom ports.

NUTS FOR 1/8" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF32-YC5B	PP	Black	1/4"28	10pk
008NF32-YC5U	PP	Blue	1/4"28	10pk
008NF32-YC5A	PP	Gray	1/4"28	10pk
008NF32-YC5G	PP	Green	1/4"28	10pk
008NF32-YC5N	PP	Orange	1/4"28	10pk
008NF32-YC5R	PP	Red	1/4"28	10pk
008NF32-YC5H	PP	White	1/4"28	10pk
008NF32-YC5Y	PP	Yellow	1/4"28	10pk
008NF32-YL5B	PP	Black	1/4"28	10pk
008NF32-YC6B	PP	Black	M6	10pk



008NF32-YC5R
Nut for 1/8" OD tubing
1/4"28, red



008NF32-YC6B
Nut for 1/8" OD tubing
M6, black



008FW32
Flanging washer
for 1/8" OD tubing



008NF32-YL5B
Long nut for 1/8" OD tubing,
1/4"28, black

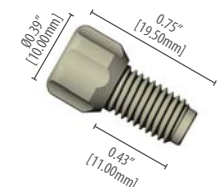
For 1/8" OD Tubing

FLANGING WASHER FOR 1/8" OD TUBING

PART NUMBER	DESCRIPTION	QTY
002223FN	PEEK flanging washer	10pk

NUTS FOR 1/8" OD TUBING

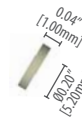
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
002223	PEEK	Natural	1/4"28	10pk
002224	PEEK	Natural	1/4"28	10pk



002223
PEEK™ nut for 1/8" OD tubing
1/4"28, natural



002224
Compact PEEK™ nut
for 1/8" OD tubing, 1/4"28



002223FN
PEEK™ flanging washer
for 1/8" OD tubing

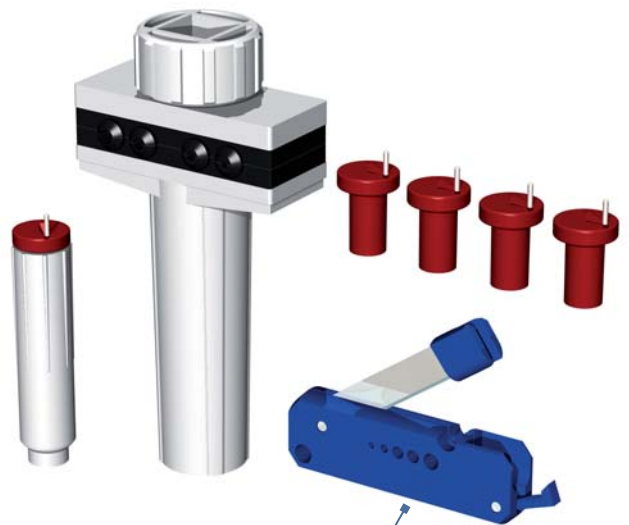
FLANGING KIT

- Quick and easy production of perfect flanges every time

The flanging kit includes the flanging tool and tips for 0.5mm, 0.8mm and 1.3mm ID tubing. The flanging tool creates a perfect flange by mechanically forming the flange without heat stressing the tube material. The flanging tool is safe to use being non-electrical and not heated, especially important with organic solvents around. Full instructions are provided with the kit.

FLANGING KIT

PART NUMBER	DESCRIPTION	QTY
007003	Flanging kit	ea
007-201536	Flanging disc with 1.3mm polymer pin	ea
007-201537	Flanging disc with 1.3mm titanium pin	ea
007-201541	Flanging disc with 0.8mm polymer pin	ea
007-201554	Flanging disc with 0.8mm titanium pin	ea
007-202235	Flanging disc with 0.5mm SS pin	ea



Tubing Cutter p/n 003062 available separately (see page 14)

TECH TIP:

Frequent connection / disconnection?

Flanges can distort over time after prolonged use or repeated connect / disconnect. This can cause leaking and may increase dead volume. Omni-Lok™ Type P and Type S offer a robust alternative to flanging with simple assembly and leak-free seals for repeated use.

OMNIFIT® GRIPPER

Chemically inert flangeless fitting with permanently attached PTFE ferrule ideal for repeat connect/disconnect

- Pressure rated up to 1000psi (69 bar)
- For 1/16" or 1/8" OD semi-rigid tubing
- For 1/4"-28 UNF or M6 flat-bottom ports

The Omnifit® Gripper fitting system uses a one-piece ferrule which fits permanently onto the outside of semi-rigid tubing. Ferrules have an inner PTFE sealing face ensuring that only PTFE is in the fluid path. The fitting nut can spin freely, eliminating tubing twist and allowing easy repeat connect/disconnect. The system is pressure rated up to 1000psi (69 bar).

A range of different colored polypropylene nuts are available to connect 1/16" or 1/8" OD tubing into 1/4"-28 UNF flat-bottom ports. Mixed color packs include all 10 colors for easy line identification. PEEK™ fitting nuts for use in higher temperatures are available in standard or compact head styles and with 1/4"-28 UNF or M6 threads.

Assembly of the Omnifit® Gripper onto tubing requires the use of simple tooling. See the assembly instructions on our website for full details.

For 1/16" OD Tubing

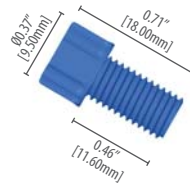
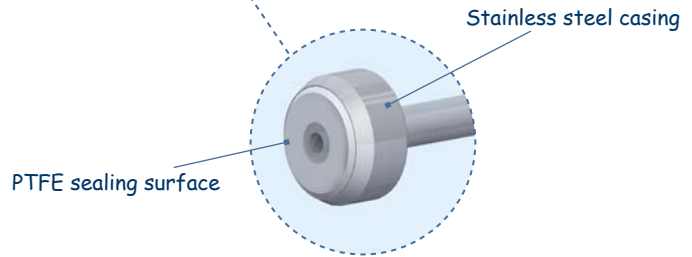
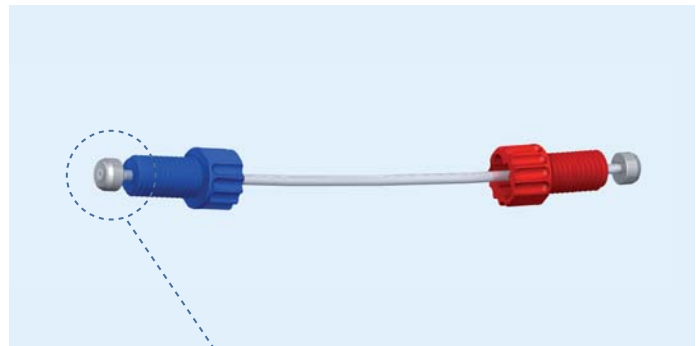
GRIPPERS FOR 1/16" OD TUBING

PART NUMBER	DESCRIPTION	QTY
002310	One piece PTFE ferrule for 1/4•28 nuts	10pk
002313	One piece PTFE ferrule for M6 fitting nuts	10pk

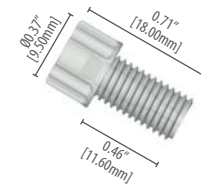
NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
002100	PP	Black	1/4•28	10pk
002101	PP	Brown	1/4•28	10pk
002102	PP	Red	1/4•28	10pk
002103	PP	Orange	1/4•28	10pk
002104	PP	Yellow	1/4•28	10pk
002105	PP	Green	1/4•28	10pk
002106	PP	Blue	1/4•28	10pk
002107	PP	Violet	1/4•28	10pk
002108	PP	Gray	1/4•28	10pk
002109	PP	White	1/4•28	10pk
002110	PP	Mixed	1/4•28	10pk
002130	ETFE	Natural	1/4•28	10pk
002119	PEEK™	Natural	1/4•28	ea
002122	PEEK™	Natural	1/4•28	ea
002135	PEEK™	Natural	M6	ea

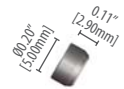
SPECIFICATIONS



002106
Nut for 1/16" OD tubing
1/4•28, blue



002130
ETFE nut for 1/16" OD tubing
1/4•28, natural



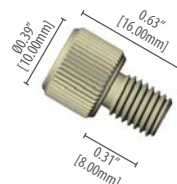
002310
Gripper ferrule
for 1/16" OD tubing



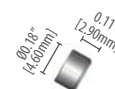
002119
Compact PEEK™ nut
for 1/16" OD tubing, 1/4•28



002122
PEEK™ nut
for 1/16" OD tubing, 1/4•28



002135
PEEK™ nut
for 1/16" OD tubing, M6



002313
Gripper ferrule
for 1/16" OD tubing, M6

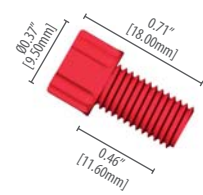
For 1/8" OD Tubing

GRIPPERS FOR 1/8" OD TUBING

PART NUMBER	DESCRIPTION	QTY
002312	One piece PTFE ferrule for 1/4•28 fitting nuts	10pk
002314	One piece PTFE ferrule for M6 fitting nuts	10pk

NUTS FOR 1/8" OD TUBING

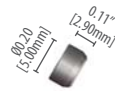
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
002200	PP	Black	1/4•28	10pk
002201	PP	Brown	1/4•28	10pk
002202	PP	Red	1/4•28	10pk
002203	PP	Orange	1/4•28	10pk
002204	PP	Yellow	1/4•28	10pk
002205	PP	Green	1/4•28	10pk
002206	PP	Blue	1/4•28	10pk
002207	PP	Violet	1/4•28	10pk
002208	PP	Gray	1/4•28	10pk
002209	PP	White	1/4•28	10pk
002210	PP	Mixed	1/4•28	10pk
002230	ETFE	Natural	1/4•28	10pk
002219	PEEK™	Natural	1/4•28	ea
002222	PEEK™	Natural	1/4•28	ea



002202
Nut for 1/8" OD tubing
1/4•28, red



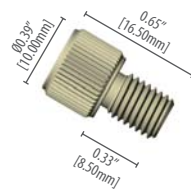
002230
ETFE nut for 1/8" OD tubing
1/4•28, natural



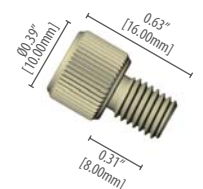
002312
Gripper ferrule
for 1/8" OD tubing



002219
Compact PEEK™ nut
for 1/8" OD tubing, 1/4•28



002222
PEEK™ nut
for 1/8" OD tubing, 1/4•28



002235
PEEK™ nut
for 1/8" OD tubing, M6



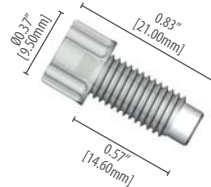
002314
Gripper ferrule
for 1/8" OD tubing, M6

Blanking Plugs

This ETFE nut has a PTFE sealing face designed to seal unused ports. These blanking plugs can be used in any flat-bottom 1/4"-28 UNF port.

BLANKING PLUG FOR 1/4•28 FLAT-BOTTOM PORTS

PART NUMBER	HEAD STYLE	MATERIAL	COLOR	THREAD	QTY
002320	Standard	ETFE	Natural	1/4•28	2pk



002320
ETFE plug
for 1/4•28 ports

In-line connectors

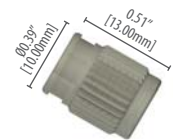
Compact in-line connectors using the Omnifit™ Gripper are ideal when space is limited. A tubing line is secured into the connector using an Omnifit® Gripper ferrule. The connector then effectively becomes a 1/4"-28 UNF threaded female port that accepts a standard threaded fitting from a second fluid line.

IN-LINE CONNECTORS

PART NUMBER	MATERIAL	COLOR	TUBE OD	THREAD	QTY
002333	PEEK™	Natural	1/16"	1/4•28 F	ea
002334	PEEK™	Natural	1/8"	1/4•28 F	ea



002333
PEEK™ in-line connector for
1/4•28 F threads, 1/16" OD tube



002334
PEEK™ in-line connector for
1/4•28 F threads, 1/8" OD tube

TECH TIP:

Problems with shallow or PTFE ports?

Some shallow ports, especially those found in solenoid valves, may lack sufficient threading to allow effective use of the Gripper fitting. Ports machined from PTFE can also be slippery and difficult to seal. We recommend Omni-Lok™ fittings for use in shallow and PTFE ports to ensure maximum security and a leak-free seal.

OMNIFIT® FITTING TOOL

Quick, convenient access to your Omnifit® fittings wherever they're located

- Fitting extension to reach nuts in remote locations
- Accessibility for closely packed fittings

The Omnifit® fitting tool gives instant accessibility to large and compact headed nuts, wherever they are located. The tool provides an extension to the fitting, enabling nuts to be hand-tightened remotely. The tool is also ideal for accessing individual nuts when close packing means they are difficult to handle.

Tools are available to fit standard head sizes, such as the Omnifit® Gripper and compact head Omni-Lok™ fittings.

OMNIFIT® TORQUE TOOL

Ensure your Omni-Lok fittings are connected at the correct torque every time for a reliable, leak-free seal

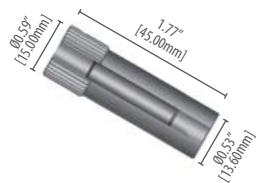
- Accessibility for remote or closely packed fittings
- Torque control to ensure nuts are not over-tightened

The Omnifit® Torque Tool provides quick and easy connection of fittings to exactly the right torque required for a leak-free seal. Using a clutch-based mechanism, the tool ensures that connections are leak-free, but not over-tightened.

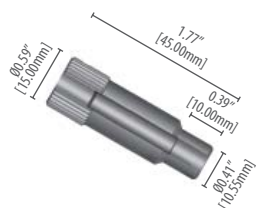
Tools are available to fit compact or standard head fittings and with torque ratings suitable for PTFE or non-PTFE ports.

FITTING TOOLS			
PART NUMBER	TO SUIT FITTINGS:		
	FITTING TYPE	THREAD	QTY
008FTL-5M	Gripper	¼•28	ea
008FTC-56M	Omni-Lok™	¼•28 or M6	ea
008FTC-7M	Omni-Lok™	⅝•24	ea

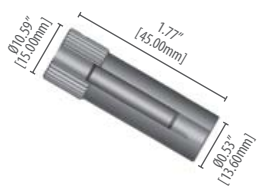
TORQUE TOOLS				
PART NUMBER	FITTING TYPE	THREAD	TO SUIT FITTINGS AND PORTS:	
			PORT MATERIAL	QTY
008TTL-5MP	Gripper	¼•28	PTFE	ea
008TTL-5M	Gripper	¼•28	Non-PTFE	ea
008TTL-56MP	Omni-Lok™	¼•28 or M6	PTFE	ea
008TTL-56M	Omni-Lok™	¼•28 or M6	Non-PTFE	ea
008TTL-7MP	Omni-Lok™	⅝•24	PTFE	ea
008TTL-7M	Omni-Lok™	⅝•24	Non-PTFE	ea



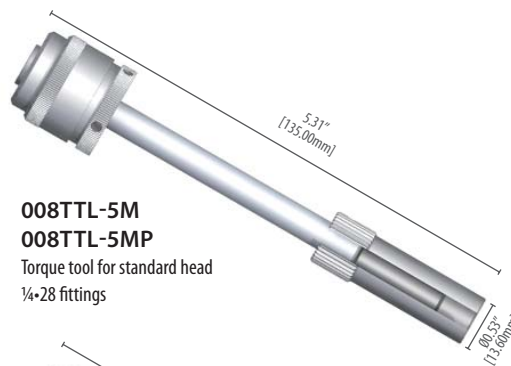
008FTL-5M
Fitting tool for standard head
¼•28 fittings



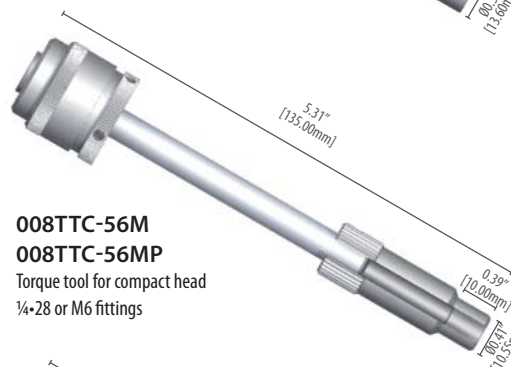
008FTC-56M
Fitting tool for compact head
¼•28 or M6 fittings



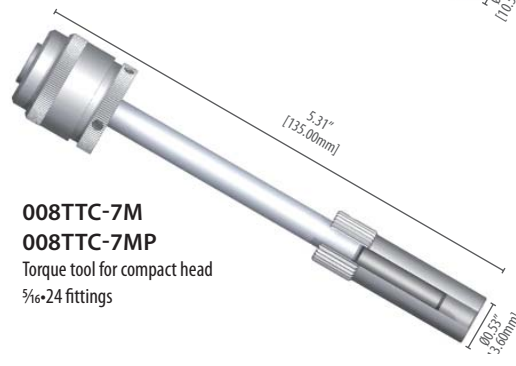
008FTC-7M
Fitting tool for compact head
⅝•24 fittings



008TTL-5M
008TTL-5MP
Torque tool for standard head
¼•28 fittings



008TTC-56M
008TTC-56MP
Torque tool for compact head
¼•28 or M6 fittings



008TTC-7M
008TTC-7MP
Torque tool for compact head
⅝•24 fittings

NB. All drawings on this page are 1:2 scale

CLICK-N-SEAL™

Hand-tight fittings without the guesswork

- For Omni-Lok™ Type P & Type S ferrules or inverted cones
- For 1/16" or 1/8" OD semi-rigid tubing
- Feel and hear when the fitting is properly installed

Click-N-Seal™ offers a unique system for hand-tight fittings. As the fitting is tightened, the resistance of the cap increases until the correct torque is reached; at which point, the cap clicks. The user is able to hand-tighten the fittings without tools or guesswork and be confident that the fitting is properly seated, creating a secure seal. The fitting can be unscrewed and reused.

Click-N-Seal™ Fittings for Omni-Lok™ Type P & Type S For 1/16" OD Tubing

FERRULES FOR 1/16" OD TUBING				
PART NUMBER	DESCRIPTION			QTY
008FT16	Omni-Lok™ Type P ferrule			10pk
008FK16	Omni-Lok™ Type S ferrule, PEEK™			10pk
008FZ16	Omni-Lok™ Type S ferrule, ETFE			10pk

CLICK-N-SEAL™ FITTINGS FOR 1/16" OD TUBING				
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF16-CS5R	PC	Red	1/4•28	ea
008NF16-CS6R	PC	Red	M6	ea

For 1/8" OD Tubing

FERRULES FOR 1/8" OD TUBING				
PART NUMBER	DESCRIPTION			QTY
008FT32	Omni-Lok™ Type P ferrule			10pk
008FK32	Omni-Lok™ Type S ferrule, PEEK™			10pk
008FZ32	Omni-Lok™ Type S ferrule, ETFE			10pk

CLICK-N-SEAL™ FITTINGS FOR 1/8" OD TUBING				
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NF32-CS5R	PC	Red	1/4•28	ea
008NF32-CS6R	PC	Red	M6	ea

008FT-16
Type P ferrule
for 1/16" OD tubing

008FK16
Type S ferrule PEEK™
for 1/16" OD tubing

008FZ16
Type S ferrule ETFE
for 1/16" OD tubing

008NF16-CS5R
Click-N-Seal™ Nut
for 1/16" OD tubing, 1/4•28, red

008FT-32
Type P ferrule
for 1/8" OD tubing

008FK32
Type S ferrule, PEEK™

008NF32-CS5R
Click-N-Seal™ Nut
for 1/8" OD tubing, 1/4•28, red

008FZ32
Type S ferrule, ETFE

Click-N-Seal™ fittings for Omni-Lok™ Inverted Cones For 1/16" OD Tubing

INVERTED CONES FOR 1/16" OD TUBING				
PART NUMBER	DESCRIPTION			QTY
008CZ16	ETFE inverted cone			10pk

CLICK-N-SEAL™ FITTINGS FOR 1/16" OD TUBING				
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC16-CS5R	PC	Red	1/4•28	ea
008NC16-CS6R	PC	Red	M6	ea

For 1/8", 2.0, 2.5 & 3.0mm OD Tubing

INVERTED CONES FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING				
PART NUMBER	MATERIAL	TO FIT TUBE OD		QTY
008CZ19	ETFE	1.8 - 2.0mm		10pk
008CZ25	ETFE	2.5mm		10pk
008CZ30	ETFE	3.0mm		10pk
008CZ32	ETFE	1/8" (3.2mm)		10pk

CLICK-N-SEAL™ FITTINGS FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING				
PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC32-CS5R	PC	Red	1/4•28	ea
008NC32-CS6R	PC	Red	M6	ea

The 008NC32 Click-N-Seal™ nuts can be used with all tube sizes and inverted cones listed above

008NC16-CS5R
Click-N-Seal™ Nut
for 1/16" OD tubing, 1/4•28, red

008CZ-16
Omni-Lok™ inverted cone
for 1/16" OD tubing

008CZ-32
Omni-Lok™ inverted cone
for 1/8" OD tubing

FACTORY ASSEMBLED CUSTOM TUBING SETS

Save time and assembly costs and simplify your purchasing and inventory management by choosing pre-assembled tubing sets to your exact specifications

- Assembled with any of our chemically-resistant PTFE, PEEK™ or ETFE Omni-Lok™ ferrules, partnered with our robust Omni-Lok™ nuts
- Kits to plumb complete instruments can be supplied loose or mesh-wrapped in bundles

Omni-Lok™ pre-assembled tubing sets are designed to provide significant improvements over assembly of your own fittings. Our tubing sets are assembled to your specifications by our skilled production staff, ensuring a perfect, leak-free connection every time. You simply specify your choices of fitting nut, ferrule and tubing and whether you require fittings at one or both ends of the tube and we do the rest. With a wide range of ferrule types, fitting nut designs and colors, thread types, tubing sizes and materials, we can deliver an Omni-Lok™ tubing set to suit any application. The options are endless!

Options available:**Ferrule types**

Our Omni-Lok™ ferrule options give you a choice of permanently attached ferrules, depending on your requirements for pressure rating and chemical compatibility.

Nuts

Our standard head fitting nut is suitable for most applications, or choose a compact or low profile head for restricted spaces, all in tough glass-filled polypropylene.

Thread types

Fitting nuts are available in ¼"-28 UNF, M6 or ⅝"-24 UNF thread types, all designed for flat-bottom ports.

Color

Fitting nuts are available in a range of colors so you can color-code your tubing sets for easy line identification.

Tubing

We offer tubing in PTFE and FEP, with ¼", ⅜" or ⅝" outer diameters and a range of inner bores.

Multi-tube bundles

We can supply single tubes or sets of multiple tubes bundled and mesh-wrapped to provide a neatly packaged one-piece assembly. This eliminates unmanageable and untidy loose tubing within an instrument making manufacture and servicing easier. We will allocate a single part number to your assembly, simplifying ordering and inventory management.

Bundled tubing sets can be specified with any combination of colored fitting nuts, tubing and ferrule types, specific to your needs.

SPECIFICATIONS

Choose single tubing sets with fittings on one or both ends, or bundle a number of sets together to completely plumb an instrument

- Choose different colored fitting nuts for easy line identification
- Mix tubing sizes and ferrule types to custom configure your ideal tubing connections
- Mesh wrapping simplifies tubing management within an instrument

How to Order

With so many variations possible, we need to quote your tubing sets specifically for you. Please contact the factory to discuss your options with one of our engineers.

For North America, Canada and S.E. Asia contact our US office:

Call: (973) 263 3001 or email: sales.us@biochemfluidics.com

For Europe and all other locations contact our UK office:

Call: +44 (0) 1223 416 612 or email: sales.eu@biochemfluidics.com

TECH TIP:**Not quite what you need?**

For other ferrule or nut types offered outside our Omni-Lok™ range, call the factory. We can custom assemble any of our fittings into a tubing set for your needs. For high temperature or aggressive environments, we can make up tubing sets using our PEEK™ nuts and Gripper fittings.

BARBED ADAPTORS

Thread to barb adaptors to connect softwall tubing to threaded ports or to semi-rigid tubing

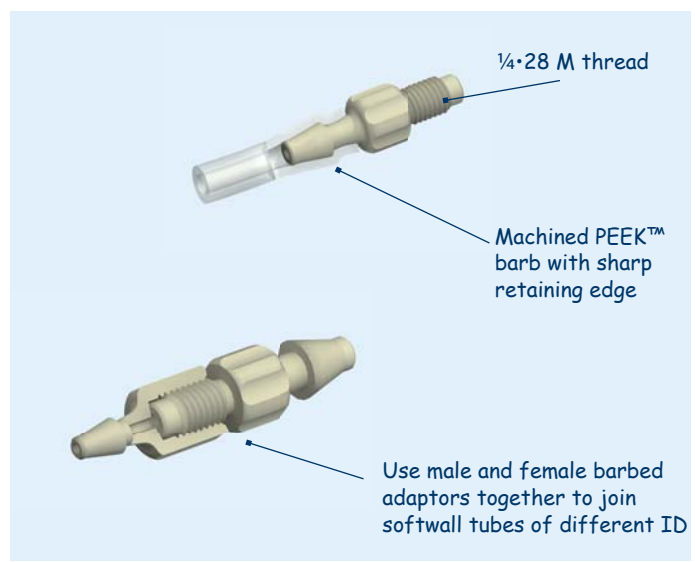
Omnifit® barbed adaptors are designed for use with soft-wall tubing. Machined from chemically resistant PEEK™ they have a superior barb with a crisp edge that retains soft wall tubing more securely than molded adaptors.

To connect softwall tubing into any female 1/4"-28 UNF port, use a male 1/4"-28 UNF to barb adaptor. The male thread screws into the port and tubing can then be pushed over the barb.

To connect softwall tubing to any male 1/4"-28 UNF thread, use a female 1/4"-28 UNF to barb adaptor. The barb is inserted into the softwall tubing and the female 1/4"-28 UNF port is available to receive any 1/4"-28 UNF threaded fitting.

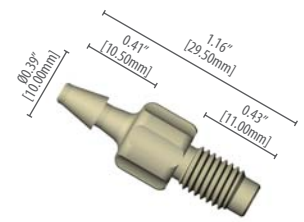
A tight, leak-free connection can be ensured by matching the ID of your tubing to the barb size of the adaptor. If there is not an exact match, always choose the barb size that is just larger than your tubing ID.

SPECIFICATIONS

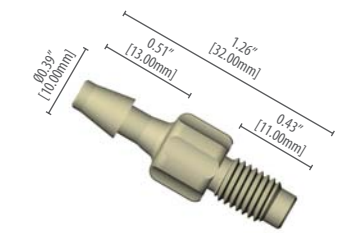


MALE 1/4"-28 UNF TO BARB ADAPTOR

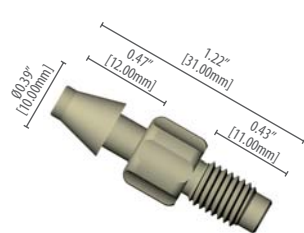
PART NUMBER	MATERIAL	COLOR	THREAD	TUBE ID	QTY
001070	PEEK™	Natural	1/4•28 M	1.0 mm	ea
001064	PEEK™	Natural	1/4•28 M	1.5 mm	ea
001065	PEEK™	Natural	1/4•28 M	2.0 mm	ea
001066	PEEK™	Natural	1/4•28 M	2.5 mm	ea
001071	PEEK™	Natural	1/4•28 M	3.0 mm	ea
001069	PEEK™	Natural	1/4•28 M	3.2 mm	ea
001072	PEEK™	Natural	1/4•28 M	4.0 mm	ea
001073	PEEK™	Natural	1/4•28 M	6.0 mm	ea
001074	PEEK™	Natural	1/4•28 M	8.0 mm	ea



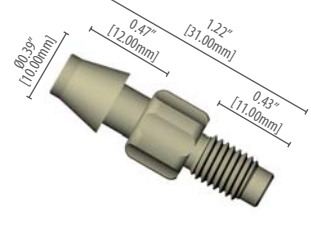
001071
1/4•28 M to 3.0 mm barb



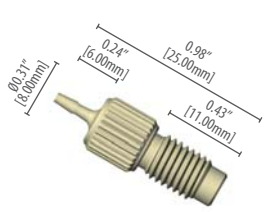
001069
1/4•28 M to 3.2 mm barb



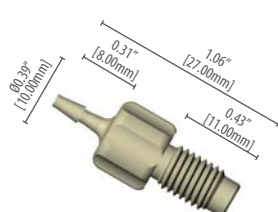
001072
1/4•28 M to 4.0 mm barb



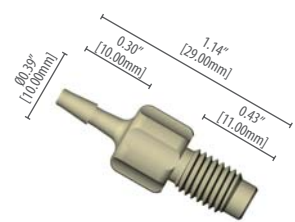
001073
1/4•28 M to 6.0 mm barb



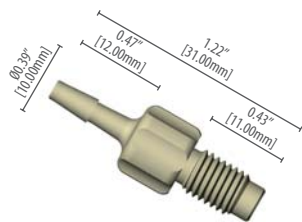
001070
1/4•28 M to 1.0 mm barb



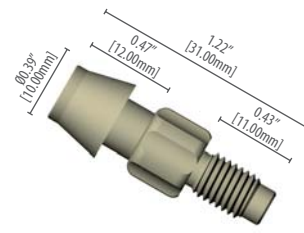
001064
1/4•28 M to 1.5 mm barb



001065
1/4•28 M to 2.0 mm barb



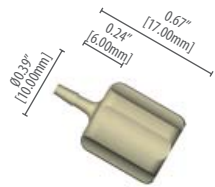
001066
1/4•28 M to 2.5 mm barb



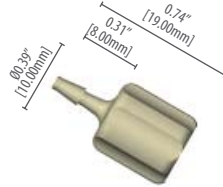
001074
1/4•28 M to 8.0 mm barb

FEMALE 1/4"-28 UNF TO BARB ADAPTOR

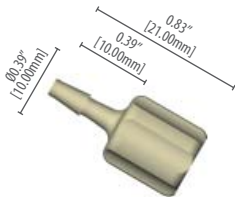
PART NUMBER	MATERIAL	COLOR	THREAD	TUBE ID	QTY
001070F	PEEK™	Natural	1/4•28 F	1.0 mm	ea
0001064F	PEEK™	Natural	1/4•28 F	1.5 mm	ea
001065F	PEEK™	Natural	1/4•28 F	2.0 mm	ea
001066F	PEEK™	Natural	1/4•28 F	2.5 mm	ea
001071F	PEEK™	Natural	1/4•28 F	3.0 mm	ea
001069F	PEEK™	Natural	1/4•28 F	3.2 mm	ea



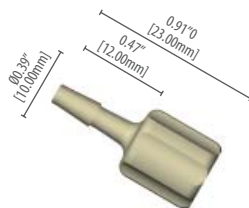
001070F
1/4•28 F to 1.0 mm barb



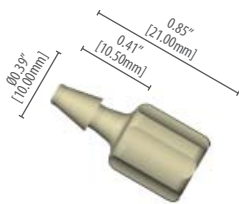
001064F
1/4•28 F to 1.5 mm barb



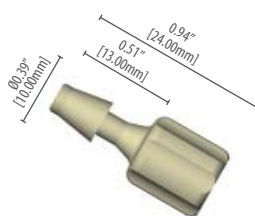
001065F
1/4•28 F to 2.0 mm barb



001066F
1/4•28 F to 2.5 mm barb



001071F
1/4•28 F to 3.0 mm barb



001069F
1/4•28 F to 3.2 mm barb

CLICK-N-SEAL™ BARBED ADAPTORS

Thread to barb connections that can't be overtightened!

- For 1/16, 1/8 or 5/32" ID softwall tubing
- For 1/4"-28 UNF or M6 threaded ports
- Re-useable and reliable

Click-N-Seal™ allows you to feel and hear when the fitting is properly installed, giving an audible click when the correct torque is reached. This thread to barb adaptor version enables connection of softwall tubing to a threaded port.

CLICK-N-SEAL™ MALE 1/4"-28 UNF TO BARB ADAPTOR

PART NUMBER	MATERIAL	COLOR	THREAD	TUBE ID	QTY
008NB16-CS5R	PC	Red	1/4•28 M	1/16" (1.57mm)	ea
008NB16-CS6R	PC	Red	M6 M	1/16" (1.57mm)	ea
008NB32-CS5R	PC	Red	1/4•28 M	1/8" (3.18mm)	ea
008NB32-CS6R	PC	Red	M6 M	1/8" (3.18mm)	ea
008NB40-CS5R	PC	Red	1/4•28 M	5/32" (3.96mm)	ea
008NB40-CS6R	PC	Red	M6 M	5/32" (3.96mm)	ea



008NB16-CS5R
Click-N-Seal™ Thread to Barb
for 1/16" ID tubing, 1/4•28, red

Note: Overall dimensions are the same for all part numbers listed. Only barb sizes vary.

Click-N-Seal™ is a trademark of Diba Industries Inc.

TECH TIP:

Can't find a barb to fit your tubing?

To ensure a tight, leak-free connection, match the ID of your tubing to the barb size of the adaptor. If there is not an exact match, always choose the barb size that is just larger than your tubing ID. Most tubing is flexible enough to be pushed over a barb that is larger than the tube ID.

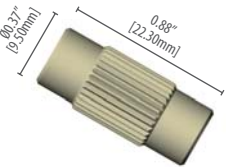
THREADED ADAPTORS

A useful range of "problem-solving" parts to convert thread sizes quickly and easily

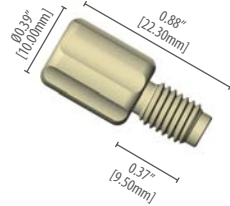
Omnifit® threaded adaptors are a useful range of 'problem solving' parts that enable you to convert thread sizes quickly and easily, accepting a 1/4"-28 UNF male fitting at one end and a range of male and female thread types at the other.

TWO-WAY ADAPTORS, PEEK™

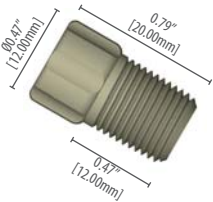
PART NUMBER	MATERIAL	COLOR	THREAD 1	THREAD 2	QTY
002306	PEEK™	Natural	1/4•28 F	10-32 F	ea
002352	PEEK™	Natural	1/4•28 F	M6 M	ea
002354	PEEK™	Natural	1/4•28 F	1/8" NPT M	ea
002356	PEEK™	Natural	1/4•28 F	3/8" NPT M	ea
002357	PEEK™	Natural	1/4•28 F	1/8" BSPT M	ea



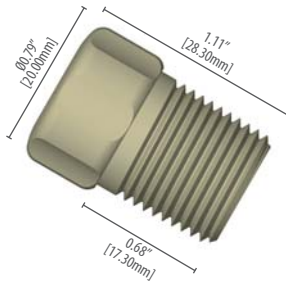
002306
PEEK™ adaptor for 1/4•28 M and 10-32 M threads



002352
PEEK™ adaptor for 1/4•28 F to M6 M threads



002354
PEEK™ adaptor for 1/4•28 F to 1/8" NPT M threads



002356
PEEK™ coupling for 1/4•28 F to 3/8" NPT M threads



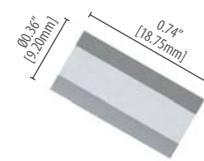
002357
PEEK™ coupling for 1/4•28 F to 1/8" BSPT M threads

COUPLINGS & CONNECTORS

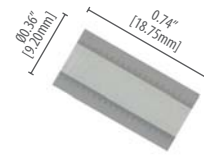
Couplings to connect two or three fitting lines using the same thread type

TWO-WAY COUPLINGS

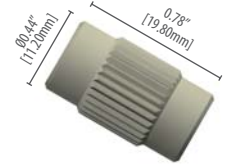
PART NUMBER	MATERIAL	COLOR	THREAD 1	THREAD 2	QTY
002301	PP	White	1/4•28 F	1/4•28 F	ea
002302	ETFE	Natural	1/4•28 F	1/4•28 F	ea
002307	PEEK™	Natural	1/4•28 F	1/4•28 F	ea



002301
PP coupling for 1/4•28 M threads



002302
ETFE coupling for 1/4•28 M threads



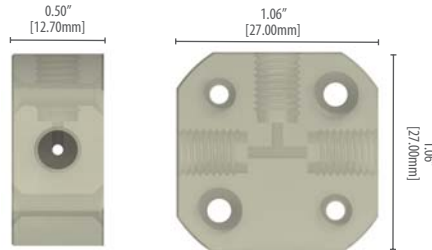
002307
PEEK™ coupling for 1/4•28 M threads

Mountable block connectors

The 3-way and 4-way block connectors have an internal bore of 1.5mm. They are mountable and when used with Omnifit Gripper fittings or Omni-Lok Type P or S fittings, provide an inert fluid path with zero dead volume.

THREE-WAY & FOUR-WAY BLOCK CONNECTORS

PART NUMBER	MATERIAL	COLOR	CONFIGURATION	THREADS	QTY
001057	PEEK™	Natural	3-way	1/4•28 F	ea
001058	PEEK™	Natural	4-way	1/4•28 F	ea



001057
3-way PEEK™ block connector for 1/4•28 F threads

In-line connectors ideal for where space is limited

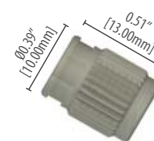
A tubing line is connected into the connector using an Omnifit® Gripper ferrule. The connector then effectively becomes a 1/4"-28 UNF threaded female port that accepts a standard threaded fitting from a second fluid line.

IN-LINE CONNECTORS

PART NUMBER	MATERIAL	COLOR	TUBE OD	THREAD	QTY
002333	PEEK™	Natural	1/16"	1/4•28 F	ea
002334	PEEK™	Natural	1/8"	1/4•28 F	ea



002333
PEEK™ in-line connector for 1/4•28 F threads, 1/16" OD tube



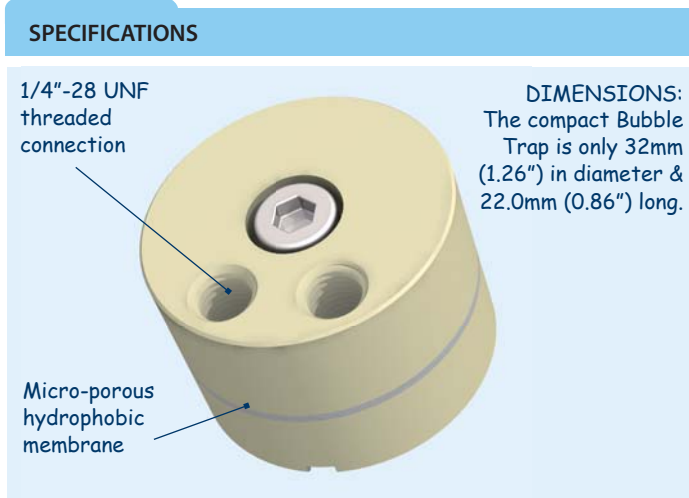
002334
PEEK™ in-line connector for 1/4•28 F threads, 1/8" OD tube

BUBBLE TRAP

Effective, in-line removal of bubbles

- Pressure rated up to 30 psi
- Effective de-bubbling of aqueous solutions

The Omnifit® Bubble Trap effectively removes bubbles from aqueous solutions. The unit is quickly and easily connected in-line using the 1/4"-28 UNF female threaded ports and fittings such as Omni-Lok™. Spare membranes are available.



Operation

When a fluid containing bubbles flows through the unit, the bubbles are forced through a micro-porous, hydrophobic membrane whilst aqueous fluid is retained within the Trap. Because the membrane function depends on its hydrophobicity, the Trap is only suitable for use with aqueous systems and NOT with organic solvents.

Flow

Maximum flow rate is dependent upon the amount of bubbles in the liquid. Typical operating range is 0.5 - 2.0ml/min, but up to 6ml/min can be achieved if few bubbles are present in the liquid.

Pressure

The unit is pressure rated up to 30psi. De-bubbling is effected under positive pressure. It is not possible to pull liquid through the unit under vacuum as this would introduce bubbles into the fluid. If the system back-pressure is insufficient for the unit to function, a length of tube can be fitted on the outlet side to create more back-pressure.

Maintenance

The lifetime of the membranes strongly depends on the kind of fluid being used. For pure water, the lifetime may be several months or years. If buffer solutions are used, the life will be reduced and it is advisable to flush the unit with de-ionized/distilled water after use to prevent salt crystals forming.

INLINE BUBBLE TRAP					
PART NUMBER	FILTER MATERIAL	POROSITY	CONNECTION 1	CONNECTION 2	QTY
006BT	PTFE	25 µm	1/4•28 M	1/4•28 F	ea

REPLACEMENT FILTER ELEMENTS			
PART NUMBER	FILTER MATERIAL	POROSITY	QTY
006BTF	PTFE	25 µm	ea

IN-LINE FILTERS

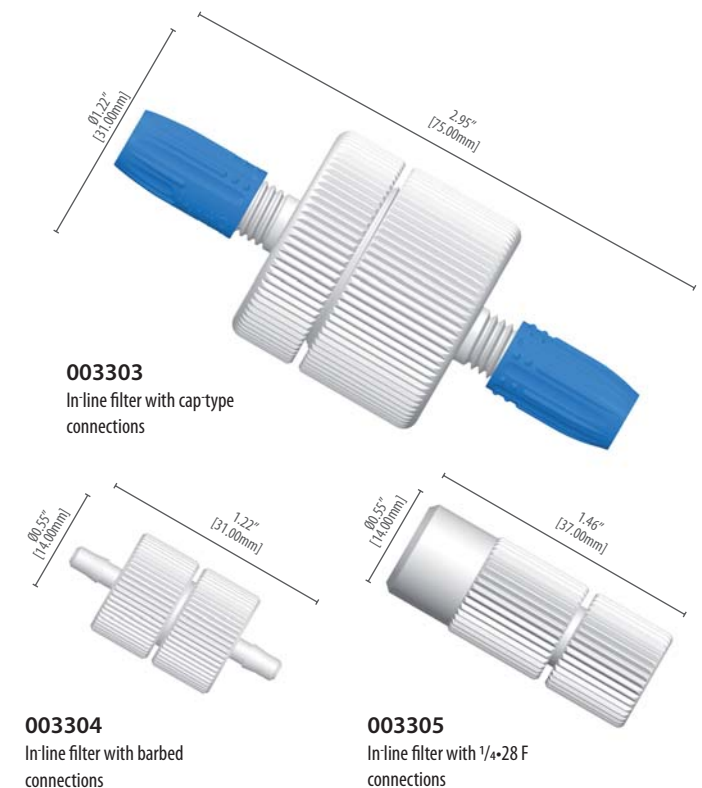
Inert microporous filters remove particulates and protect solenoid valves and sensitive instruments

- Inert flow path with all PTFE wetted parts
- Simple filter replacement
- Fluid distribution pattern for optimum filtration
- Easy installation in-line

These all-PTFE in-line filter units offer a highly inert flow path suitable to applications involving aggressive and high-purity fluids. The filters ensure that particulates are removed from the medium, protecting downstream instrumentation from particulate damage. PTFE solenoid valves for example, are inherently susceptible to damage from particulates.

Each filter unit comprises an all PTFE housing which holds a removable 100µm PTFE filter. The filter element can be easily and economically replaced, making the filters an excellent investment to ensure the long-term functioning of your solenoid valves and analytical instruments. A distribution pattern machined into the filter housing ensures that liquid is spread across the entire filter surface, giving maximum usage of the filter area. This distribution pattern is present on both sides of the filter housing, meaning that the filters are bi-directional with either port able to act as the inlet. However, once installed, flow direction should not be reversed, as contamination may result.

INLINE FILTERS					
PART NUMBER	FILTER MATERIAL	POROSITY	CONNECTION 1	CONNECTION 2	QTY
003303	PTFE	100µm	Omnifit® cap	Omnifit® cap	ea
003304	PTFE	25µm	Barb	Barb	ea
003305	PTFE	25µm	1/4•28 F	1/4•28 F	ea



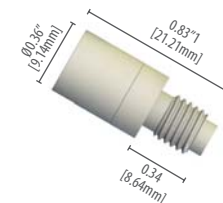
BIO-CHEK™ IN-LINE CHECK VALVES

Inert, low pressure check valves with 1/4"-28 UNF threads for quick, easy connection in-line

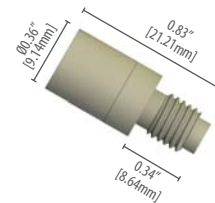
- Operating pressure up to 50psi
- Backpressure up to 100psi
- Cracking pressures ≤ 1psi
- Inert flow path with no metal parts

Bio-Chek™ self-sealing in-line check valves offer an inert flow path, no metal components and zero maintenance, ideal for high-purity, low-pressure applications. Unlike spring-actuated check valves that can restrict or impede the flow path causing content (product) damage, the Bio-Chek™ in-line check valve has a smooth flow path to minimize shear and turbulence.

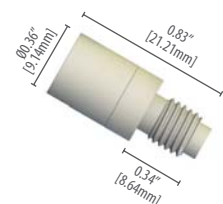
The Bio-Chek™ valve provides a flow rate equivalent to a 0.030" orifice, a cracking pressure of 1psi or less and can check against back flow pressure up to 100psi. A choice of housing and check element materials and several flow configurations are available, all offering standard 1/4"-28 UNF connections.



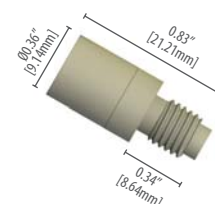
CI-4 BIO-CHEK™ inlet type check valve, PPS



CI-5 BIO-CHEK™ inlet type check valve, PEEK™



CO-4 BIO-CHEK™ outlet type check valve, PPS



CO-5 BIO-CHEK™ outlet type check valve, PEEK™

OMNIFIT® VARIBORE CHECK VALVES

Low pressure check valves with versatile "cap" connections for tubing sizes up to 4mm OD

- All PTFE body
- For use with rigid and semi-rigid tubing
- Cracking pressures up to 10psi

Omnifit® in-line check valves offer a versatile connection method for many tubing sizes and materials, including stainless steel. Integral FKM O-rings, or PTFE cones (available separately) can be used to make a simple compression fitting direct to the OD of the tubing. Alternatively, the internal thread of the colored cap is a standard 1/4"-28 UNF female, enabling connection using any standard 1/4"-28 UNF threaded fitting, such as Omni-Lok™ or Grippers.

OMNIFIT® VARIBORE CHECK VALVE

PART NUMBER	BODY	CHECK ELEMENT	CRACKING PRESSURE	QTY
0011340	PTFE	FKM	0.1psi	2
0011341	PTFE	FKM	0.5psi	2
0011342	PTFE	FKM	1.5psi	2
0011343	PTFE	FKM	3.0psi	2
0011344	PTFE	FKM	10.0psi	2

DUAL FEMALE BIO-CHEK™ CHECK VALVE

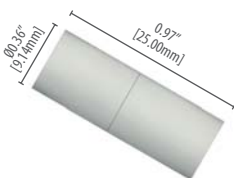
PART NUMBER	HOUSING	CHECK ELEMENT	INLET	OUTLET	CRACKING PRESSURE	INTERNAL VOLUME	QTY
CF-4C	PPS	FFKM	1/4•28 F	1/4•28 F	0.3psi	49µl	ea
CF-4E	PPS	EPDM	1/4•28 F	1/4•28 F	1.0psi	49µl	ea
CF-4V	PPS	FKM	1/4•28 F	1/4•28 F	0.8psi	49µl	ea
CF-5C	PEEK™	FFKM	1/4•28 F	1/4•28 F	0.3psi	49µl	ea
CF-5E	PEEK™	EPDM	1/4•28 F	1/4•28 F	1.0psi	49µl	ea
CF-5V	PEEK™	FKM	1/4•28 F	1/4•28 F	0.8psi	49µl	ea

INLET TYPE BIO-CHEK™ CHECK VALVE

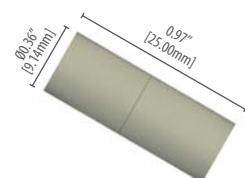
CI-4C	PPS	FFKM	1/4•28 F	1/4•28 M	0.3psi	60µl	ea
CI-4E	PPS	EPDM	1/4•28 F	1/4•28 M	1.0psi	60µl	ea
CI-4V	PPS	FKM	1/4•28 F	1/4•28 M	0.8psi	60µl	ea
CI-5C	PEEK™	FFKM	1/4•28 F	1/4•28 M	0.3psi	60µl	ea
CI-5E	PEEK™	EPDM	1/4•28 F	1/4•28 M	1.0psi	60µl	ea
CI-5V	PEEK™	FKM	1/4•28 F	1/4•28 M	0.8psi	60µl	ea

OUTLET TYPE BIO-CHEK™ CHECK VALVE

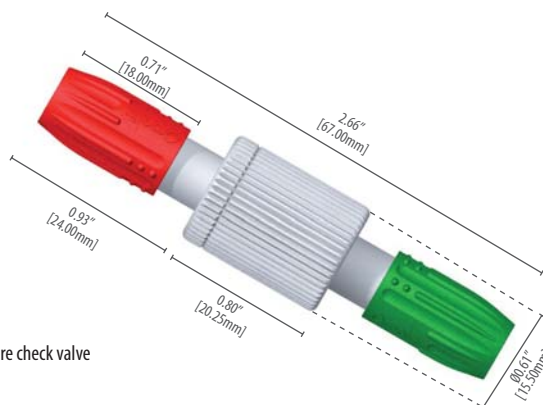
CO-4C	PPS	FFKM	1/4•28 M	1/4•28 F	0.3psi	68µl	ea
CO-4E	PPS	EPDM	1/4•28 M	1/4•28 F	1.0psi	68µl	ea
CO-4V	PPS	FKM	1/4•28 M	1/4•28 F	0.8psi	68µl	ea
CO-5C	PEEK™	FFKM	1/4•28 M	1/4•28 F	0.3psi	68µl	ea
CO-5E	PEEK™	EPDM	1/4•28 M	1/4•28 F	1.0psi	68µl	ea
CO-5V	PEEK™	FKM	1/4•28 M	1/4•28 F	0.8psi	68µl	ea



CF-4 BIO-CHEK™ dual female check valve, PPS



CF-5 BIO-CHEK™ dual female check valve, PEEK™



- 0011340
- 0011341
- 0011342
- 0011343
- 0011344

Omnifit® varibore check valve



Bubble Trap



In-line trap eliminates solvent line gas bubbles upstream of sensitive

- Effective removal of gas bubbles
- Prevents system running dry
- Inert materials (PTFE and PEEK™)
- Zero dead volume
- Pressure rated to 30psi (2 bar)
- Easy-change membranes
- 1/4"-28 UNF threaded ports

Problem solving

Gas bubbles moving through a system can damage equipment and cause signal errors. The Omnifit Bubble Trap connects in-line to provide an effective, time-saving and cost-efficient method of bubble removal upstream of sensitive detectors. If gas bubbles are formed in-line, or your pump delivers air instead of liquid, the resulting bubbles will be removed completely by the Trap, the outlet flow will stop and your device remain protected.

Simple to use

The Omnifit Bubble Trap requires no intervention to operate after it has been installed. The unit is quickly and easily connected in-line using the 1/4"-28 UNF female threaded ports and fittings such as Omni-Lok™. Spare membranes are available and can be replaced quickly and easily.

Many applications

The Trap is ideal for use in any fluid handling application where the presence of bubbles would negatively impact results or damage sensitive detectors, specifically flow analysis systems, flow-through biosensors or enzyme reactors. The Trap can be used as a guard



Assembled 006BT with
Omni-Lok™ fittings

Operation

The Trap uses a micro-porous, hydrophobic membrane held between two PEEK™ plates. When a fluid containing bubbles flows through the unit, the bubbles are forced through the membrane as the pressure within the system is higher than atmospheric pressure outside. The hydrophobic properties of the membrane retain the aqueous fluid within the Trap. Because the membrane function depends on its hydrophobicity, the Trap is only suitable for use with aqueous systems and NOT with organic solvents.

Maintenance

If salts are present in the fluid, it is advisable to flush the Trap with de-ionized/distilled water after use to prevent any salt crystals forming on or in the membrane. The lifetime of the membranes strongly depends on the kind of fluid being used. If pure water is to be de-bubbled, the lifetime may be several months or years. If buffer solutions are used, the life will be reduced.

Technical Specifications

Pressure

- Omnifit Bubble Traps are pressure rated to 30psi.
- It is possible to de-bubble a fluid even if only a small system pressure is available, but positive pressure only must be applied to the Trap. It is not possible to apply a vacuum and pull liquid through the Trap as this would introduce bubbles into the fluid.
- If the system back-pressure is insufficient to enable the Trap to function, a 1m length of 0.5mm bore tube can be fitted on the outlet side of the Trap to create more back-pressure.

Flow

- The maximum flow rate is dependent upon the amount of bubbles in the liquid. Typically the Bubble Trap is used in the range of 0.5 - 2.0 ml/min, but 6ml/min can be achieved if few bubbles are present in the liquid.

Media

- The Trap must be used with aqueous fluids, if any other liquids are used, they will break through the membrane.

Materials

Body front - PEEK™

Body back - PEEK™

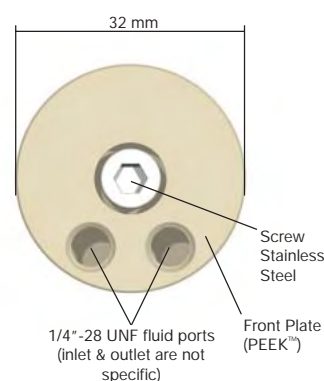
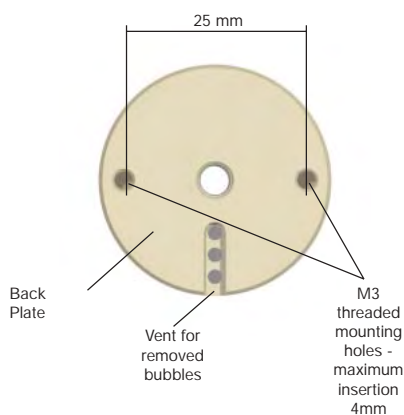
Membrane - PTFE

Retaining screw - 316 Stainless steel (not wetted)

Installation Information

For best results this face should be vertical, with the fluid ports at the lowest position.

The 006BT Bubble Trap is supplied with two spare membranes, mounting screws not supplied.



Ordering Information

Part Number	Description	Pack Size
006BT	Bubble Trap	1
006BTM	Spare membrane	5

Trademarks:

Omnifit™ is a trademark of Omnifit Ltd.

PEEK™ is a trademark of Victrex plc

Rev. 0206

Index

- Page 4 Q-SERIES BOTTLE CAPS**
 ¼"-28 UNF ports with optional on-off valves. A screw-in check valve and filter is available for a completely closed solvent supply or waste system.
- Page 6 BARBED ADAPTORS**
 Thread to barb adaptors to connect softwall tubing to ¼"-28 UNF ports.
- Page 7 SOFTWALL TUBING**
 Chemically-resistant softwall Silicone Select™ and C-Flex® tubing for demanding applications. Ideal for use with barbed adaptors to connect into Q and T-series caps.
- Page 8 T-SERIES BOTTLE CAPS**
 Luer ports combined with straight-through tubing connections, plus optional check valve and filter for a completely closed system.
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 A range of Luer accessories for quick and easy connection of different tubing types and sizes to T-series caps.
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 A solvent vapor trap with Luer connection for use with T-series caps in both solvent supply or waste collection applications.
- Page 11 OMNI-LOK™ INVERTED CONE FITTINGS**
 Removable and reusable inverted cone fitting system for quick and convenient low-pressure connections, using semi-rigid tubing e.g. PTFE.
- Page 11 SEMI-RIGID PTFE TUBING**
 Chemically inert PTFE tubing.
- Page 12 FILTERS AND BUBBLERS**
 Bottom-of-bottle filters and spargers (bubblers) for simple, effective solvent filtration.
- Page 12 BUBBLE TRAP**
 Effective in-line removal of bubbles.
- Page 13 PRESSURE-RATED GLASS BOTTLES**
 Pressure-rated clear glass bottles.
- Page 13 S40 THREAD ADAPTOR**
 Converts S40 bottle threads to accept T and Q-series GL45 bottle caps.
- Page 14 TECHNICAL DATA**



Plastics

ETFE = ethylene tetrafluoroethylene
 PTFE = polytetrafluoroethylene
 PEEK™ = polyetheretherketone
 PP = polypropylene
 PC = polycarbonate
 PCTFE = polychlorotrifluoroethylene

Trademarks

PEEK™ is a registered trademark of Victrex plc.
 Omnifit®, Omni-Lok™ are trademarks of Bio-Chem Fluidics Ltd.
 Bio-Chem Valve™ is a trademarks of Bio-Chem Fluidics Inc.

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Bottle Caps Selection Guide

In the table below:

1. Choose the connection type you require for your fluid lines;
2. Locate the thread type of the bottle you wish to connect to;
3. Turn to the pages indicated to see full details and ordering information for each system.

Bottle Thread	Fluid Line Connection	
	Threaded fittings + optional on-off valves on each line	Straight-through tubes
GL32	00932Q (Page 4)	00932T (Page 8)
GL45	00945Q (Page 4)	00945T (Page 8)
38-430 (Glass)	00938Q (Page 4)	00938T (Page 8)
38-430 (Plastic)	00938PQ (Page 4)	00938PT (Page 8)
S40	00945Q (Page 4) + S40 thread adaptor (Page 13)	00945T (Page 8) + S40 thread adaptor (Page 13)

Guide to thread types:

GL32	GL45	38-430	S40
1.26" [32.0mm]	1.77" [45.0mm]	1.50" [38.0mm]	1.57" [40.0mm]
			

Q-SERIES BOTTLE CAPS

¼"-28 UNF ports with optional on-off valves

- Accept standard male ¼"-28 UNF fittings
- Anti-twist design
- Optional on-off valves to control individual fluid lines

The Omnifit® Q-series provides a versatile range of caps with the security of threaded fitting nuts to ensure a leak-free, vapor-tight seal - ideal for repeated connect / disconnect.

Anti-twist design

The anti-twist design allows the PTFE body to spin freely within the outer blue cap. This means no more twisted tubes when the cap is fitted or removed and no need to disconnect fluid lines before unscrewing the cap. See more details in Technical Data (page 14).

Tubing connections

Q-series caps offer a secure way to connect tubing using ¼"-28 UNF fitting nuts. Each port has a robust stainless steel thread insert to enable repeated connect/disconnect.

- Semi-rigid tubing can be connected using standard ¼"-28 UNF threaded fittings. We recommend Omni-Lok™ fittings (see p11).
- Fluid lines can be color-coded for easy identification using colored fitting nuts.
- Softwall tube, such as silicone, can be connected using Omnifit® PEEK™ thread to barb adaptors (see p6).
- A length of ⅛" OD PTFE tubing is supplied fitted inside the cap and extending into the bottle. This can be cut to fit, or easily replaced if a longer length is required.
- Non-valved caps have Ø1.8mm (0.07") through-holes enable ⅙" OD semi-rigid tubing to be passed straight through into the bottle. Tube can be secured at the required height using an Omni-Lok™ inverted cone fitting.

On-off valves

On-off valves enable easy control of liquid flow into and out of the bottle, as each fluid line can be switched on or off independently. Changing bottles is easy - simply close off the fluid lines and switch the cap onto a new reservoir without leaks. Caps without valves have a compact design ideal when head space is limited.

Materials

The solid PTFE inner body provides the highest chemical inertness. The PTFE creates a reliable seal to the glass bottle with no need for extra seals or O-rings. In normal use, the outer cap is not wetted.

Component	Material
Outer cap	Glass-filled PP
Body	PTFE
Valve internal rotor (for caps with on-off valves)	PCTFE

Pressure & temperature ratings

Q-series caps (except 00938PQ*) can be used under vacuum or positive pressure. All caps are rated for continuous use at 50°C and can be autoclaved.

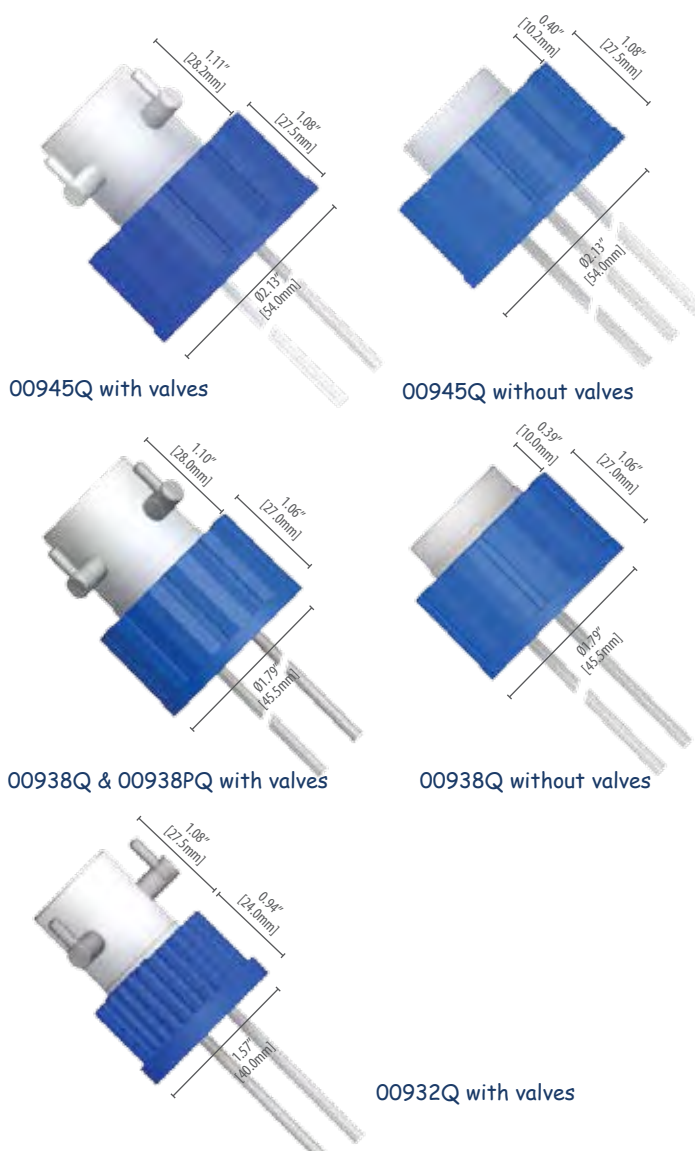
Type	Vacuum	+ve pressure
Q-series (except 00938PQ*)	-10 psi	20 psi

CAUTION! Use only vacuum or pressure-rated bottles

SPECIFICATIONS



Dimensions



Ordering information:

Q-series caps with on-off valves

GL45 THREAD

PART NUMBER	BOTTLE THREAD	PORTS	ON-OFF VALVES	QTY
00945Q-2V	GL45	2 x 1/4"28	YES	ea
00945Q-3V	GL45	3 x 1/4"28	YES	ea
00945Q-4V	GL45	4 x 1/4"28	YES	ea

38-430 (GL38) GLASS BOTTLE THREAD

00938Q-2V	38-430	2 x 1/4"28	YES	ea
00938Q-3V	38-430	3 x 1/4"28	YES	ea
00938Q-4V	38-430	4 x 1/4"28	YES	ea

38-430 (GL38) PLASTIC BOTTLE THREAD

00938PQ-2V	38-430	2 x 1/4"28	YES	ea
00938PQ-3V	38-430	3 x 1/4"28	YES	ea

GL32 THREAD

00932Q-3V	GL32	3 x 1/4"28	YES	ea
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*00938PQ caps are designed to fit plastic bottles which are unsuitable for vacuum or pressurized applications. Therefore, 00938PQ caps are not pressure-rated.

Q-series caps without on-off valves

GL45 THREAD

PART NUMBER	BOTTLE THREAD	PORTS	ON-OFF VALVES	QTY
00945Q-2	GL45	2 x 1/4"28	NO	ea
00945Q-3	GL45	3 x 1/4"28	NO	ea
00945Q-4	GL45	4 x 1/4"28	NO	ea

38-430 (GL38) GLASS BOTTLE THREAD

00938Q-2	38-430	2 x 1/4"28	NO	ea
00938Q-3	38-430	3 x 1/4"28	NO	ea
00938Q-4	38-430	4 x 1/4"28	NO	ea



Closed systems

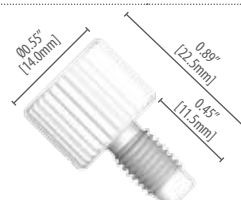
To fully close a solvent system, a screw-in check valve and filter can be used in any spare port. These units allow pressure to be equalized while preventing particulate contamination.

The inlet version (Part# 009VF) is recommended for solvent supply. Vapor is completely contained within the bottle by the one-way check valve. When liquid is withdrawn, air is allowed into the bottle, equalizing pressure.

The outlet version (Part# 009VF-W) allows air to escape from the bottle as liquid is pumped in and is recommended for solvent waste collection. NOTE: when using the outlet check valve, appropriate precautions for vapor containment should be made, for example placing in a fume hood.

SCREW-IN CHECK VALVE AND FILTER

PART NUMBER	DESCRIPTION	QTY
009VF	Inlet check valve & filter, 1/4"28 thread	ea
009VF-W	Outlet check valve & filter, 1/4"28 thread	ea



009VF & 009VF-W
Inlet or outlet check valve & filter, 1/4"28 thread

T-SERIES BOTTLE CAPS

Luer ports combined with straight-through tubing connections plus optional check valve and filter

- Straight-through connection for 1/8" OD semi-rigid tube e.g. PTFE, ETFE, FEP.
- Other sizes and types of tube can be connected using Luer adaptors.
- Optional check valve and filter allows pressure equalization and prevents particulate contamination
- Ideal for vacuum applications

The Omnifit® T-series is a very easy to use and versatile range of caps that require no additional fittings to connect 1/8" OD semi-rigid tubing. Tubing pushes straight through the port creating a liquid and vapor-tight seal.

Anti-twist design

The anti-twist design allows the PTFE body to spin freely within the outer blue cap. This means no more twisted tubes when the cap is fitted or removed and no need to disconnect fluid lines before unscrewing the cap. See more details in Technical Data (page 14).

Tubing connections

- 1/8" OD semi-rigid tubing pushes straight through the port creating a liquid and vapor-tight seal.
- 1/16" OD semi-rigid tubing can be connected using a Luer adaptor part #009LA (page 10).
- Softwall tubing such as peristaltic pump tubing can be connected using one of a range of Luer to barb adaptors available separately (see page 10).
- Luer ports also mean you can easily and securely remove liquid using a syringe - no septum to pierce, just fit the male luer of the syringe into a port.

Integral check valve and filter

The optional check valve and filter offers many advantages for the laboratory user. The one-way check valve:

- Allows pressure equalization - as liquid is drawn out of the bottle under vacuum, air is allowed in preventing dangerous negative pressurization of the bottle.
- Prevents vapor escape - helping protect the laboratory environment and personnel from dangerous chemical vapor.
- Helps conserve valuable contents from evaporation - minimizing the loss of valuable chemicals and risk of concentrations and mixtures changing ratio.
- The air inlet is covered by a 10µm filter to prevent particulate contamination.

Materials

The solid PTFE inner body provides the highest chemical inertness. The PTFE creates a reliable seal to the glass bottle with no need for extra seals or O-rings. In normal use, the outer cap is not wetted.

Component	Material
Outer cap	Glass-filled PP
Inner sealing face	PTFE
Check valve	Fluorocarbon
Filter	10µm PTFE

SPECIFICATIONS



Pressure & temperature ratings

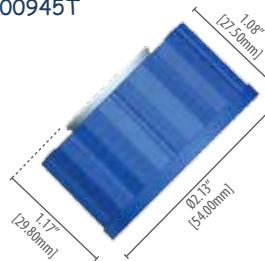
T-series caps are ideal for use in vacuum applications. T-series caps without an integral check valve and filter can also be used in positive pressure applications but only when 1/8" OD through tubes are used. T-series caps with male Luers fitted are not recommended for positive pressure applications. All caps are rated for continuous use at 50°C and can be autoclaved.

Type	Vacuum	+Ve pressure
T-series without valve*; with 1/8" OD through tubes	-10 psi	20 psi
T-series without valve*; with male Luers	-10 psi	Not recommended
T-series with valve*	-10 psi	Not recommended

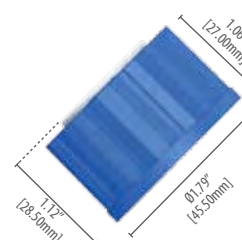
CAUTION! Use only vacuum or pressure-rated bottles

Dimensions

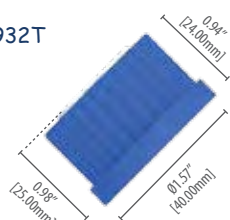
00945T



00938T & 00938PT



00932T



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Ordering information

T-series caps with integral check valve and filter

GL45 THREAD				
PART NUMBER	BOTTLE THREAD	PORTS	CHECK VALVE & FILTER	QTY
00945T-2F	GL45	2 x Luer	YES	ea
00945T-3F	GL45	3 x Luer	YES	ea
00945T-4F	GL45	4 x Luer	YES	ea
38-430 (GL38) GLASS BOTTLE THREAD				
00938T-2F	38-430	2 x Luer	YES	ea
00938T-3F	38-430	3 x Luer	YES	ea
00938T-4F	38-430	4 x Luer	YES	ea
38-430 (GL38) PLASTIC BOTTLE THREAD				
00938PT-2F	38-430	2 x Luer	YES	ea

T-series caps without integral check valve and filter

GL32 THREAD				
PART NUMBER	BOTTLE THREAD	PORTS	CHECK VALVE & FILTER	QTY
00932T-2	GL32	2 x Luer	NO	ea
GL45 THREAD				
00945T-2	GL45	2 x Luer	NO	ea
00945T-3	GL45	3 x Luer	NO	ea
00945T-4	GL45	4 x Luer	NO	ea
38-430 (GL38) GLASS BOTTLE THREAD				
00938T-2	38-430	2 x Luer	NO	ea
00938T-3	38-430	3 x Luer	NO	ea
00938T-4	38-430	4 x Luer	NO	ea
38-430 (GL38) PLASTIC BOTTLE THREAD				
00938PT-2	38-430	2 x Luer	NO	ea



00945T-2F
GL45, 2 port, check valve/filter



00945T-3F
GL45, 3 port, check valve/filter



00945T-4F
GL45, 4 port, check valve/filter



00945T-2
GL45 cap, 2 port



00945T-3
GL45 cap, 3 port



00945T-4
GL45 cap, 4 port



00938T-2F
38-430, 2 port, check valve/filter for glass bottles



00938T-3F
38-430, 3 port, check valve/filter for glass bottles



00938T-4F
38-430, 4 port, check valve/filter for glass bottles



00938T-2
38-430, 2 port for glass bottles



00938T-3
38-430, 3 port for glass bottles



00938T-4
38-430, 4 port for glass bottles



00938PT-2F
38-430, 2 port, check valve/filter for plastic bottles



00938PT-2
38-430, 2 port for plastic bottles



00932T-2
GL32 cap, 2 port



* Except 00938PT caps. These caps are designed to fit plastic bottles which are unsuitable for vacuum or pressurized applications. Therefore, 00938PQ caps are not pressure-rated.

10 T-SERIES CAPS AND ACCESSORIES

T-SERIES LUER ADAPTORS

A range of Luer accessories for quick and easy connection of different tubing types and sizes to T-series caps

Simply connect the tube onto the appropriate adaptor and then push the male Luer into any T-series cap port. A Luer plug is also available to seal unused ports.

Ordering information

LUER ADAPTORS FOR SEMI-RIGID TUBING

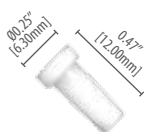
PART NUMBER	DESCRIPTION	QTY
009LA2	Adaptor to connect 1/16" OD semi-rigid tubing	2pk

LUER ADAPTORS FOR SOFT TUBING

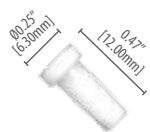
009BA-16	Barbed adaptor for 1/16" ID softwall tubing	2pk
009BA-32	Barbed adaptor for 1/8" ID softwall tubing	2pk
009BA-63	Barbed adaptor for 1/4" ID softwall tubing	2pk

LUER PLUG

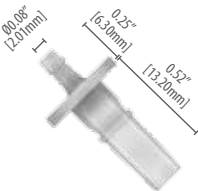
009LP	Luer plug to close unused ports	2pk
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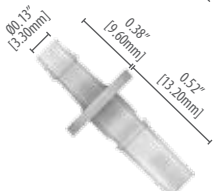
009LA
Luer adaptor,
1/16" OD tube



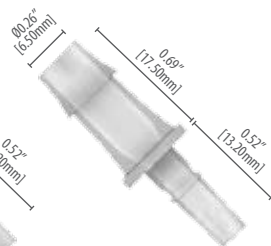
009LP
Luer plug



009BA-16
Luer to barb adaptor,
1/16" ID tube



009BA-32
Luer to barb adaptor,
1/8" ID tube



009BA-63
Luer to barb adaptor,
1/4" ID tube

Recommended barbed adaptor / tube combinations

The fit of softwall tubing to a barb connector or adaptor depends on several factors, so there is no fixed pairing of tube ID and barb size. However, we are able to recommend certain part numbers from our range of barbed adaptors to fit specific tubing supplied by Bio-Chem Fluidics. Tubing from other manufacturers must be tested by the customer to find the barbed adaptor that gives the best fit.

Barbed Adaptor Part #	BIO-CHEM FLUIDICS SOFTWALL TUBING SIZE AND TYPE													
	50S	01S	01B	02S	02B	03S	03B	04S	05S	05B	06S	06B	07S	07B
009BA-16														
009BA-32														
009BA-63													*	*

* This tube / barb combination is only suitable for very low pressure systems, due to the very low interference fit between the tube and the barb.

ACTIVATED CARBON VAPOR TRAP

A solvent vapor trap with Luer connection for use with T-series caps in solvent supply or waste collection applications

- Simple, male Luer connection fits all T-series bottle caps
- Controls solvent vapor escape from reservoirs
- Traps solvent vapor and equalizes pressure when solvent is pumped into the bottle
- Enables T-series caps to be used for waste collection

This simple to use solvent vapor trap push-fits into a spare Luer port on any T-series cap. For waste collection, as liquid is pumped into the bottle, vapor can pass out through the filter port, thereby equalizing pressure. Dangerous solvent vapors are absorbed by the activated carbon contained in the unit. It is important that any other unused ports are sealed using a Luer plug (part # 009LP) to prevent solvent vapor escaping directly into the environment.

Note: The push-fit nature of the vapor trap and Luer plugs mean that only low positive pressure should be applied to prevent Luer connections being loosened.

The trap can also be used for solvent (mobile phase) reservoir bottles. If a T-series bottle cap without check valve and filter is selected, the vapor trap can be used in any spare port to ensure that vapor escape into the environment, for example, as a result of temperature changes, is controlled.

SPECIFICATIONS



Usage

The unit contains approx. 25ml charcoal. The frequency of exchange of the unit depends on local conditions and type of solvent used. Users must determine the saturation rate of the activated carbon for their own specific solvents, concentrations and flow rates and change the unit accordingly to ensure that vapor break-through is minimized. As a guide, the capacity of the unit for methanol is approximately 1.6g and for other solvents approx. 2.5g.

Ordering information www.biochemfluidics.com

ACTIVATED CARBON VAPOR TRAP

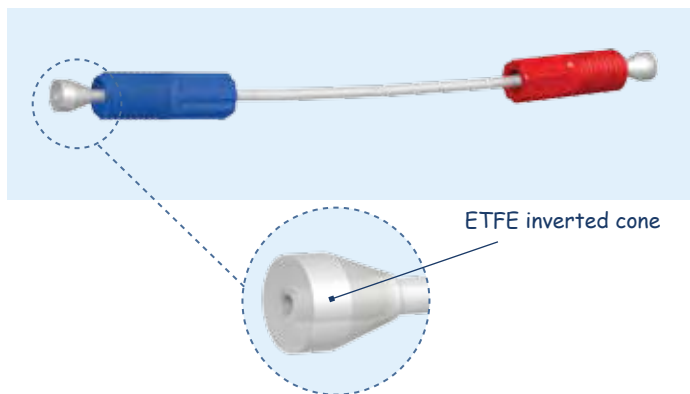
PART NUMBER	DESCRIPTION	QTY
009CF-T	Activated carbon vapor trap for T-series caps	ea

OMNI-LOK™ INVERTED CONE FITTINGS

Removable and reusable system for quick and convenient low-pressure connections

- Pressure rated up to 250psi (17 bar)
- For 1/16", 1/8" and metric sizes 2.0, 2.5 or 3.0mm OD semi-rigid PTFE tubing
- For flat-bottom 1/4"-28 UNF ports

SPECIFICATIONS



Omni-Lok™ inverted cone fittings provide a simple, easy to use low-pressure connection. Only the ETFE cone is in the fluid path.

No tools are required to assemble these flangeless fitting quickly and economically - just slip the fitting nut and the ETFE cone over the tubing and screw into the port. None of the parts are permanently attached to the tubing, so both fittings and inverted cones can easily be removed and re-used. A recess in the fitting houses the inverted cone, allowing maximum thread engagement with the port ensuring the system stays sealed up to 250psi (17 bar) pressure even in shallow PTFE ports.

The fitting nuts in robust, glass-filled polypropylene are available in a range of different colors for easy line identification. Nuts are also available in PEEK™ with standard and compact head designs (see the Omnifit® Fitting Systems Brochure for our full range).

For 1/16" OD tubing

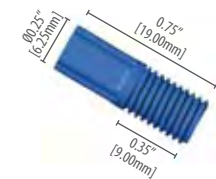
INVERTED CONES FOR 1/16" OD TUBING

PART NUMBER	DESCRIPTION	QTY
008CZ16	ETFE inverted cone	10pk

008CZ16 inverted cones can be used with all nuts listed below.

NUTS FOR 1/16" OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC16-YC5U	PP	Blue	1/4•28	10pk
008NC16-YC5G	PP	Green	1/4•28	10pk



008NC16-YC5U
Nut for 1/16" OD tubing 1/4•28, blue



008CZ16
Omni-Lok™ inverted cone for 1/16" OD tubing

For 1/8", 2.0, 2.5 and 3.0mm OD tubing

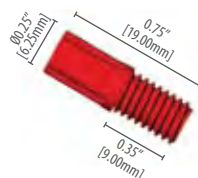
INVERTED CONES FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING

PART NUMBER	MATERIAL	TO FIT TUBE OD	QTY
008CZ19	ETFE	1.8 - 2.0mm	10pk
008CZ25	ETFE	2.5mm	10pk
008CZ30	ETFE	3.0mm	10pk
008CZ32	ETFE	1/8" (3.2mm)	10pk

NUTS FOR 1/8", 2.0, 2.5 & 3.0MM OD TUBING

PART NUMBER	MATERIAL	COLOR	THREAD	QTY
008NC32-YC5U	PP	Blue	1/4•28	10pk
008NC32-YC5G	PP	Green	1/4•28	10pk
008NC32-YC5N	PP	Orange	1/4•28	10pk
008NC32-YC5R	PP	Red	1/4•28	10pk
008NC32-YC5Y	PP	Yellow	1/4•28	10pk

The 008NC32 nuts can be used with all tube sizes and inverted cones listed above.



008NC32-YC5R
Nut for 1/8" OD tubing, 1/4•28, red



008CZ32
Omni-Lok™ inverted cone for 1/8" OD tubing

SEMI-RIGID PTFE TUBING

Almost totally inert, PTFE tubing can be used with virtually all chemicals, solvents and corrosive materials, even at elevated temperatures. It can be sterilised in-line by steam, chemical methods or autoclaving. Recommended for use with Omni-Lok™ inverted cone fittings.

PTFE TUBING

PART NUMBER	OD	ID	LENGTH	QTY
008T16-030-20	1.6mm (1/16")	0.3mm (0.012")	20m	ea
008T16-030-200	1.6mm (1/16")	0.3mm (0.012")	200m	ea
008T16-050-20	1.6mm (1/16")	0.5mm (0.020")	20m	ea
008T16-050-200	1.6mm (1/16")	0.5mm (0.020")	200m	ea
008T16-080-20	1.6mm (1/16")	0.8mm (0.031")	20m	ea
008T16-080-200	1.6mm (1/16")	0.8mm (0.031")	200m	ea
008T16-100-20	1.6mm (1/16")	1.0mm (0.039")	20m	ea
008T16-100-200	1.6mm (1/16")	1.0mm (0.039")	200m	ea
008T32-150-10	3.2mm (1/8")	1.5mm (0.059")	10m	ea
008T32-150-100	3.2mm (1/8")	1.5mm (0.059")	100m	ea

TECH TIP:

Need more connection options?

See the Omnifit® Fitting Systems Brochure for our full range of threaded fittings, connectors and adaptors.

12 FILTERS AND BUBBLE TRAPS

FILTERS AND BUBBLERS

Bottom-of-bottle filters and spargers for simple, effective solvent filtration

- Push-fit onto 1/8" OD tube
- Inert, all-PTFE filter units with 10µm porosity filters
- PTFE or stainless steel bubblers

Bottom-of-bottle filters

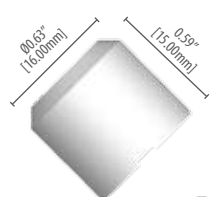
All-PTFE construction enables the filters to be used with the harshest chemicals. The filter units have slots in the body to enable virtually all liquid to be removed from the bottle, minimizing waste. 10µm porosity PTFE filters ensure even the smallest particulates are removed from the solvent supply.

Filter spargers (bubblers)

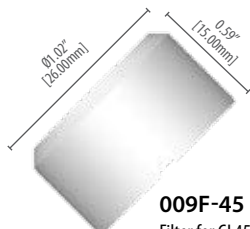
PTFE or stainless steel elements are suitable for filtration or sparging applications.

Materials

Component	Body	Filter
009F-32	PTFE	10µm PTFE
009F-45	PTFE	10µm PTFE
009PFB	PTFE	3µm PTFE
009SFB	PTFE	10µm SS



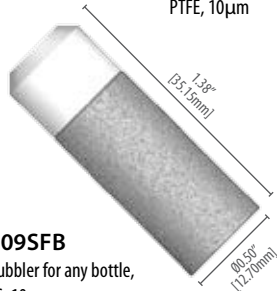
009F-32
Filter for GL32 bottle,
PTFE, 10µm



009F-45
Filter for GL45 bottle,
PTFE, 10µm



009PFB
Bubbler for any bottle,
PTFE, 3µm



009SFB
Bubbler for any bottle,
SS, 10µm

Ordering information

BOTTOM-OF-BOTTLE FILTERS

PART NUMBER	DESCRIPTION	QTY
009F-32	Bottom-of-bottle filter for GL32 /38-430 bottle	ea
009F-45	Bottom-of-bottle filter for GL45 bottle	ea
009FE-32	Replacement filters for 009F-32	20pk
009FE-45	Replacement filters for 009F-45	20pk

FILTER BUBBLERS

009PFB	PTFE filter bubbler	ea
009SFB	Stainless steel filter bubbler	ea

BUBBLE TRAP

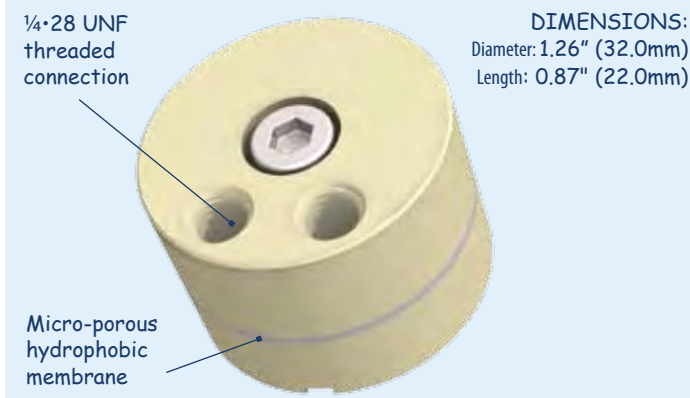
Effective, in-line removal of bubbles

- Pressure rated up to 30 psi
- Effective de-bubbling of aqueous solutions

The Omnifit® Bubble Trap effectively removes bubbles* from aqueous solutions. The unit is quickly and easily connected in-line using the 1/4"-28 UNF female threaded ports and fittings such as Omni-Lok™. Spare membranes are available.

* Note: the bubble trap does not remove dissolved gases

SPECIFICATIONS



Operation

When a fluid containing bubbles flows through the unit, aqueous fluid is retained while bubbles are forced through a micro-porous, hydrophobic membrane. Because the membrane function depends on its hydrophobicity, the Trap is only suitable for use with aqueous systems and NOT with organic solvents.

Flow

Maximum flow rate depends on the amount of bubbles in the liquid. Typical operating range is 0.5 - 2.0ml/min, but up to 6ml/min can be achieved if few bubbles are present in the liquid.

Pressure

The unit is pressure rated up to 30psi. De-bubbling is effected under positive pressure. It is not possible to pull liquid through the unit under vacuum as this would introduce bubbles into the fluid. If the system back-pressure is insufficient for the unit to function, a length of tube can be fitted on the outlet side to create more back-pressure.

Maintenance

Membrane lifetime strongly depends on the kind of fluid being used. For pure water, the lifetime may be several months or years. Buffer solutions reduce lifetime and it is advisable to flush the unit with de-ionized/distilled water after use to prevent salt crystals forming.

INLINE BUBBLE TRAP

PART NUMBER	FILTER MATERIAL	CONNECTION 1	CONNECTION 2	QTY
006BT	PTFE	1/4"28	1/4"28	ea

REPLACEMENT FILTER ELEMENTS

PART NUMBER	FILTER MATERIAL	QTY
006BTF	PTFE	ea

PRESSURE RATED GLASS BOTTLES

Clear 1L glass bottles pressure rated to -1 / + 1.5 bar

- 1L GL45 thread bottles suitable for pressurised applications
- Indelible volumetric markings
- Chemically-resistant borosilicate glass

Bottles are pressure rated to -1 / +1.5 bar, so suitable for either vacuum or positive pressure applications.



Ordering information

GLASS BOTTLES

PART NUMBER	BOTTLE THREAD	VOLUME	QTY
003406	GL45	1L	ea

CAUTION: Only bottles specified as pressure rated are recommended for pressure or vacuum delivery of liquids. Always treat glass bottles with care.

S40 THREAD ADAPTOR

Convert S40 bottle threads to accept any Omnifit® GL45 bottle caps from the T- and Q-series

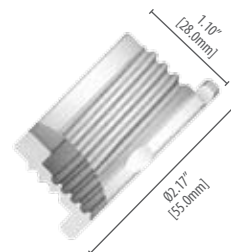
- Fits any S40 threaded bottle
- Accepts any GL45 threaded Q or T-series bottle cap

The S40 thread adaptor provides a simple way to use any Omnifit® GL45 thread cap with S40 thread glass or plastic bottles. Simply screw the adaptor onto the bottle neck to make a GL45 thread connection.

Materials

The S40 thread adaptor is constructed from solid PTFE providing the highest chemical inertness. The PTFE creates a reliable seal to the glass bottle with no need for extra seals or O-rings.

Dimensions



Assembly

Screw the S40 adaptor onto the bottle neck first. Screw any GL45 cap from the Q or T-series onto the adaptor.



Ordering information

S40 to GL45 THREAD ADAPTOR

PART NUMBER	BOTTLE THREAD	CAP THREAD	QTY
00945A-S40	S40	GL45	ea

CLOSED SYSTEMS FOR SOLVENT SAFETY

Open solvent bottles can allow harmful solvent vapor to escape and chemicals to be spilled. Omnifit® bottle caps and accessories help prevent these problems and give you the security of a safe and dependable solvent delivery system. Caps can be used on the supply side to provide closed delivery systems for safe supply of solvents. An optional check valve and filter enables pressure equalization and prevents contamination. Caps can also be used for safe disposal of solvent waste, providing a closed waste system.

What are the benefits of a closed system?

- **Safety** - closed solvent supply systems prevent vapor leakage into the atmosphere, protecting lab staff from exposure to toxic fumes.
- **Contamination control** - prevents ingress of particulates.
- **Protection of mixing ratios** - prevent evaporation of solvent leading to altered concentration of reagents or ratios of mixtures.

Where should you use a closed system?

- **HPLC** - mobile phase handling, both solvent supply and waste collections.
- **Fermentation or culture preparations** - where sterile transfer of culture media or addition of reagents to closed systems is required.
- **All labs working with solvents, reagent supply and waste handling** - where safety and contamination control are paramount in life sciences, analytical chemistry, clinical, and biotech.

What are the key differences between the Omnifit® bottle cap ranges?

Q-series with ¼"-28 UNF threaded ports

- Optional valves offer easy on-off control of individual fluid lines, ideal for selecting flow or for closing off lines prior to removing caps to change or re-fill solvent bottles.
- Robust threaded ports for standard ¼"-28 UNF threaded fitting nuts and adaptors gives a secure connection ideal for repeated connect / disconnect.
- Optional screw-in check valve and filter accessory enables pressure equalization while keeping the system closed and preventing both particulate contamination and evaporation of expensive or harmful chemicals.

T-series with Luer ports

- Simple and easy-to-use with no need for fitting nuts and ferrules (for ⅜" OD semi-rigid tube). Tubing passes straight through the cap for a continuous fluid path.
- Luer ports take standard male Luer components including a range of accessories for different tubing types and sizes.
- Optional integrated check valve and filter enables pressure equalization whilst keeping the system closed and preventing particulate contamination or evaporation of expensive or harmful chemicals.
- A Luer connection solvent vapor trap can be used to contain / control vapor egress into the environment.

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WASTE-SIDE SOLVENT SAFETY

Both the Q and T-series caps can be used for waste collection vessels. Because waste systems require positive pressure to be applied in pumping waste solvent into the bottle, certain accessories are needed to convert "standard" Omnifit® bottle caps to waste collection.

Q-series

Any Q-series cap can be used for waste collection with the following changes:

- An outlet version screw-in check valve and filter (Part # 009VF-W) must be used in one of the ports. This allows air to escape from the bottle as liquid is pumped in, preventing pressure build-up.
- In order to control vapor in the environment released via the check valve, precautions for vapor containment should be made, such as placing the system in a fume hood.

T-series

Any T-series cap can be used for waste collection with the following changes:

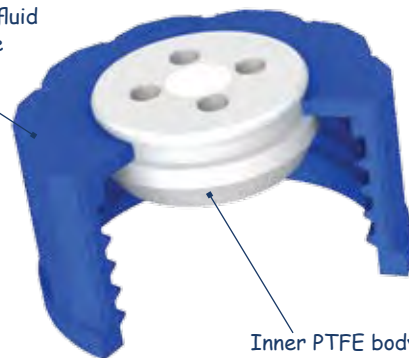
- A solvent trap (Part # 009CF-T) should be push-fitted into a spare Luer port. As liquid is pumped into the bottle, vapor can pass out through the trap, equalizing pressure. Dangerous solvent vapor is neutralized by the activated carbon contained in the unit.
- Any other unused ports must be sealed using a Luer plug (part # 009LP) to prevent solvent vapor escaping directly into the environment. Note: The push-fit nature of the vapor trap and Luer plugs mean that only low positive pressure should be applied to prevent Luer connections being loosened.

ANTI-TWIST DESIGN

All Omnifit® bottle caps have this anti-twist feature, allowing the body to spin freely within the cap. The benefit of this design is that tubes no longer get twisted when the cap is fitted or removed from the bottle and there is no need to disconnect fluid lines before unscrewing the cap.

The inner body of each Omnifit® cap is made from PTFE, providing the highest chemical inertness. PTFE also creates a reliable seal to the glass bottle with no need for extra seals or O-rings.

Outer PP cap is not in contact with the fluid path in normal use



Inner PTFE body rotates within the cap



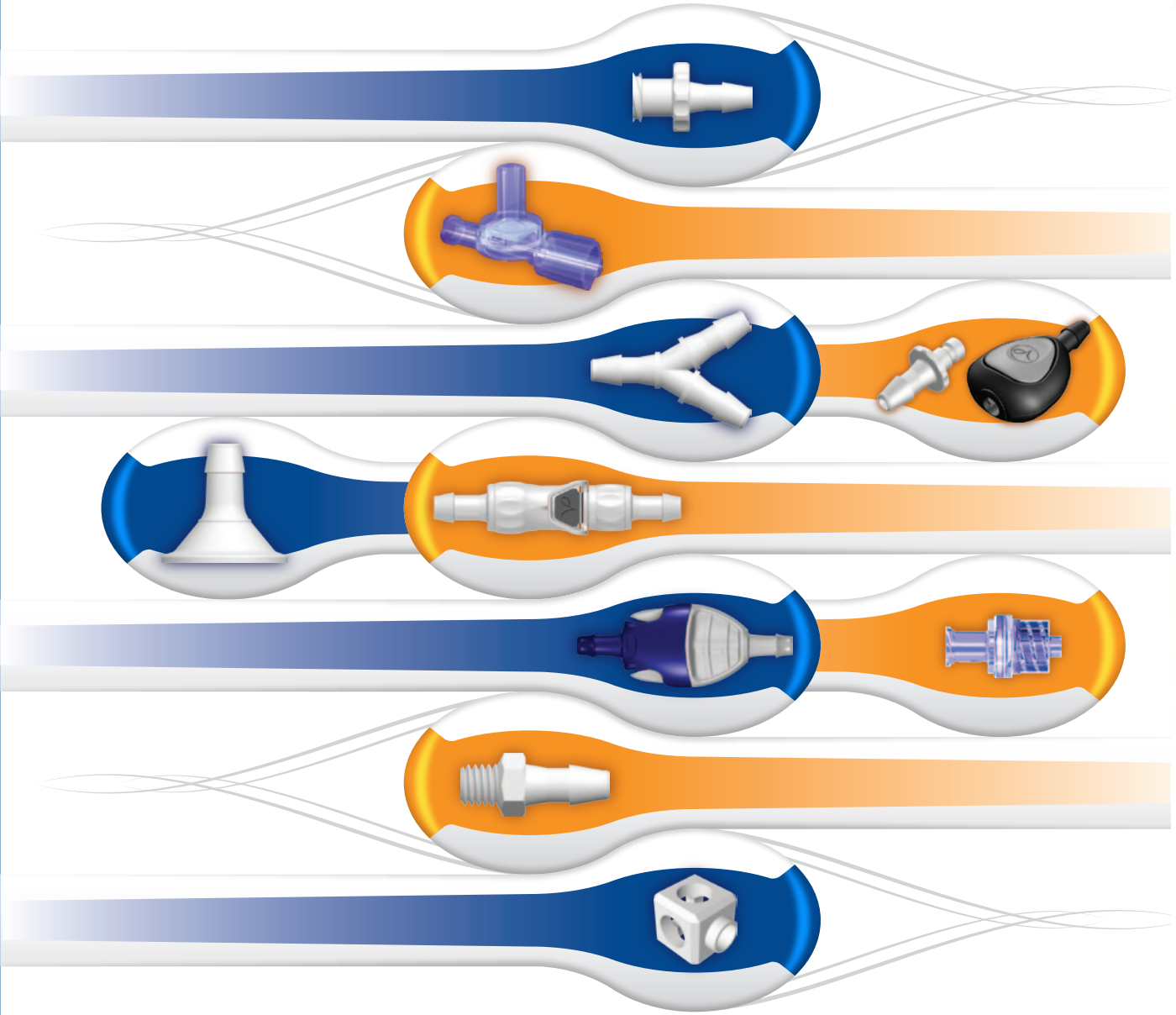
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QUALITY DELIVERY PROVEN PRECISION INNOVATION TRUSTED LEADERSHIP DIRECT SALES CUSTOM PARTS SERVICE
SPECIALISTS IN FLUID CONNECTIONS
FITTINGS SANITARY FITTINGS LUERS TUBE-TO-TUBE BLOOD PRESSURE THREADED TAPERED SEAL
DELIVERY PROVEN PRECISION INNOVATION TRUSTED LEADERSHIP DIRECT SALES CUSTOM PARTS SERVICE
BUILD-A-PART QUICK CONNECT FITTINGS SANITARY FITTINGS LUERS TUBE-TO-TUBE FITTINGS
TRUSTED LEADERSHIP DIRECT SALES CUSTOM PARTS
BLOOD PRESSURE THREADED TAPERED

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Our Single Barb Concept

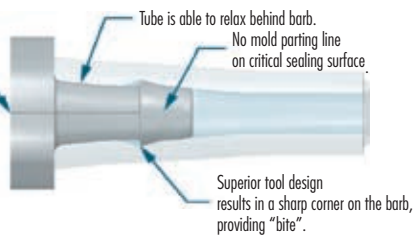
Many designers are not aware of the benefits of using a single barb versus a multi-barb fitting, but the barb design greatly affects the security of your tube connection.

Because of the shape of a barb, it is impossible to injection mold any but the first barb without a parting line. The parting line creates a potential leak path that becomes more pronounced as the tooling wears, increasing the likelihood of failure.

Two other problems exist with multiple barb fittings. First, it is impossible to fabricate tooling that creates a perfectly sharp edge on each barb of a molded multi-barb fitting — a feature critical to the performance of the connection.

SINGLE BARB MOLD PART LINE:

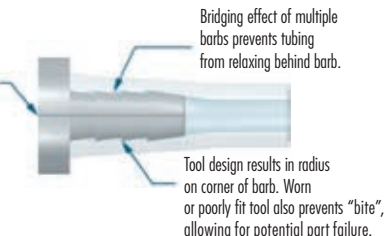
Placed where it can't affect critical sealing surfaces.



Second, multiple barb fittings do not allow the tubing to relax behind the first barb. Because the tubing "bridges" from barb to barb it is not allowed an uninterrupted interface with the fitting. This results in compromised pressure and tensile capacities. Value Plastics® single barb design avoids these shortcomings. Our expert tooling design assures the sharpest edge possible allowing the barb to "bite" into the tubing. Then, the cylindrical surface behind the barb allows the tubing to relax against the fitting. The result is a connection with excellent tensile and pressure performance.

MULTI BARB MOLD PART LINE:

Potential leak path on critical sealing surfaces.



The **CLASSIC SERIES** is characterized by a longer barb that extends the sealing surface of the fitting. Tubing is expanded from 42% to 69% above its nominal ID.



The **200 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded by 50% above its nominal ID, permitting high-pressure capabilities.



The **300 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded by 35% above its nominal ID, permitting high-pressure capabilities in the larger tube sizes.



The **400 Series** provides easy assembly while maintaining excellent pressure and tensile capabilities. Originally created for semi-rigid tubing, this series is preferred for applications where tensile/pressure properties are not highly critical, or when ease of assembly is desired. The 400 Series expands the tubing 25% above its nominal ID.



The **500 SERIES** profile is composed of blended radii, giving it the distinct look. Each barb is designed to accommodate a range of tube sizes and tube types. Consideration should be given to flow restriction, pressure capability, and the force required for assembly of the tube.



The **600 SERIES** barbs are designed for use with silicone, C-Flex® and PVC tubing sizes commonly used in biopharm and other applications. Tubing is expanded from 18% to 34% above its nominal ID to maintain a low profile and ease of assembly, and the straight barb stem facilitates use of recommended cable tie retainers or hose clamps.



The **700 SERIES** barb is designed for use with Value Plastics' XQC Series quick connect fittings. This unique single barb is available in sizes to fit the 1/4" (6.4 mm) and 3/8" (9.5 mm) ID tubing sizes and materials commonly used in disposable and reusable medical equipment. Reinforced PVC, unreinforced PVC and polyurethane tubing materials work well with this barb style.



The **900 SERIES** offers outstanding performance characteristics when used with flexible tubing. Tubing is expanded from 8% to 17% above its nominal ID. This barb provides high flow efficiency and excellent tensile strength. A hose clamp is recommended for this series.

The data presented here is for reference only. It was compiled to provide our customers with a means of comparing the characteristics of components at the time of publication. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by Value Plastics® or other manufacturers. None of the information provided constitutes a recommendation or endorsement of any kind by Value Plastics®.



QUICK CONNECTS



**FEMALE OPEN FLOW STRAIGHT
PG-9**



**MALE OPEN FLOW STRAIGHT
PG-9**



**FEMALE VALVED STRAIGHT
PG-10**



**FEMALE OPEN FLOW STRAIGHT
PG-10**



**FEMALE VALVED
PANEL MOUNT PG-10**



**FEMALE OPEN FLOW
PANEL MOUNT PG-10**



**MALE VALVED STRAIGHT
PG-10**



**MALE OPEN FLOW STRAIGHT
PG-10**



**MALE VALVED
PANEL MOUNT PG-11**



**MALE OPEN FLOW
PANEL MOUNT PG-11**



**MALE VALVED ELBOW
PG-11**



**MALE OPEN FLOW ELBOW
PG-11**

Value Plastics offers two distinct families of quick connect fittings (quick disconnect couplings), the SBL and XQC Series products, for applications covering 1/8" (3.2 mm) through 3/8" (9.5 mm) ID tubing.

THE SBL SERIES

QUICK CONNECT FITTINGS

The SBL Series connector system is so intuitive that users just automatically know how to operate it the minute they pick it up. SBL Series quick connect fittings are cost effective and designed to meet your needs for a reusable component for small-bore applications in all fluid delivery areas. The SBL Series range is available in nylon, in two contrasting colors and fits 1/8" (3.2 mm) and 3/16" (4.8 mm) ID tubing, for in-line applications. Contact us today for free samples and make this exciting new fluid link part of your next design.

THE XQC SERIES

QUICK CONNECT FITTINGS

The XQC Series quick connect fittings available in open flow and with integral shutoff valves, bring performance, convenience and utility to your tubing applications. XQC Series products fit 1/4" (6.4 mm) and 3/8" ID (9.5 mm) tubing and are produced in acetal and polypropylene in five basic configurations — in-line male, in-line female, male panel mount, female panel mount and elbow. For versatility, durable XQC Series couplings interchange with other plastic and metal button-type couplings. Bring performance and service to your tubing applications by specifying XQC Series quick connects.



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Material Suffix Key

-001 Grey Nylon, Buna-N O-ring

-002 Dark Blue Nylon, Buna-N O-ring

-88 Grey Nylon

-CM030 Dark Blue Nylon

SBLF013 (-88)

Side Latch Quick Connect Female 500 Series Barb, 1/8" (3.2 mm) ID Tubing



SBLM013 (-001)

Side Latch Quick Connect Male 500 Series Barb, 1/8" (3.2 mm) ID Tubing, Buna-N O-Ring



SBLF013 (-CM030)

Side Latch Quick Connect Female 500 Series Barb, 1/8" (3.2 mm) ID Tubing



SBLM013 (-002)

Side Latch Quick Connect Male 500 Series Barb, 1/8" (3.2 mm) ID Tubing, Buna-N O-Ring



SBLF035 (-88)

Side Latch Quick Connect Female 500 Series Barb, 3/16" (4.8 mm) ID Tubing



SBLM035 (-001)

Side Latch Quick Connect Male 500 Series Barb, 3/16" (4.8 mm) ID Tubing, Buna-N O-Ring



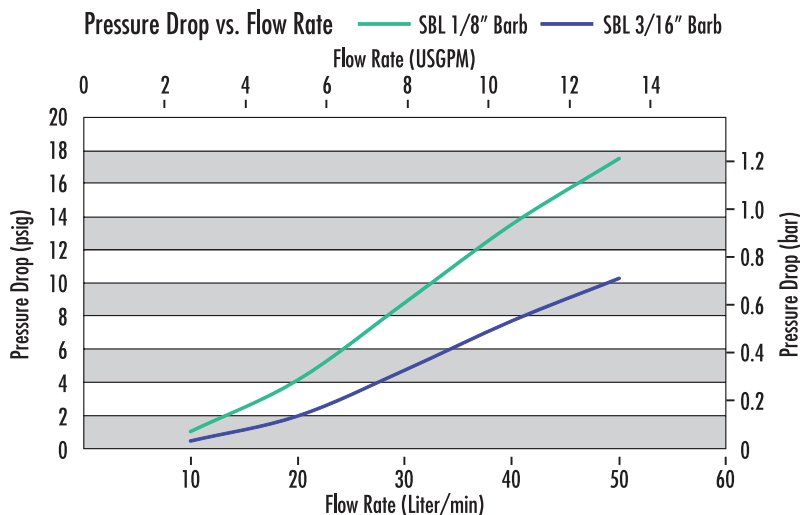
SBLF035 (-CM030)

Side Latch Quick Connect Female 500 Series Barb, 3/16" (4.8 mm) ID Tubing



SBLM035 (-002)

Side Latch Quick Connect Male 500 Series Barb, 3/16" (4.8 mm) ID Tubing, Buna-N O-Ring



The data presented here is for reference only. It was compiled primarily from the resin manufacturers' data to provide our customers with a means of comparing the characteristics of components at the time of publication. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by Value Plastics® or other manufacturers. None of the information provided constitutes a recommendation or endorsement of any kind by Value Plastics®.

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VALUE PLASTICS, INC.



Australian Distributors:
Importers & Manufacturers:

XQC SERIES:
Female Open Flow Straight
XQC SERIES:
Female Valved Panel Mount
Material Suffix Key

-1006 Natural Acetal

-1006-B Natural Acetal, Buna-N O-Ring

-1007 Black Acetal

-1007-B Black Acetal, Buna-N O-Ring

-6006-B White Polypropylene, Buna-N O-Ring

-6006-EP White Polypropylene, EPDM O-Ring

XQCF755 (-1006)

XQC Series Female Open Flow Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing


XQCF770 (-1006 -1007)

XQC Series Female Open Flow Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing


XQC SERIES:
Female Valved Straight
XQCVF755 (-1006-B -1007-B -6006-B -6006-EP)

XQC Series Female Valved Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing


XQCVF770 (-1006-B -1007-B -6006-EP)

XQC Series Female Valved Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing


XQC SERIES:
Female Open Flow Panel Mount
XQCBF755 (-1006)

XQC Series Female Open Flow Panel Mount Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)


XQCBF770 (-1006)

XQC Series Female Open Flow Panel Mount Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)


XQCVBF755 (-1006-B)

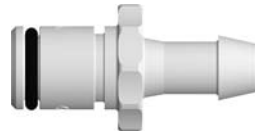
XQC Series Female Valved Panel Mount Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)


XQCVBF770 (-1006-B)

XQC Series Female Valved Panel Mount Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)


XQC SERIES:
Male Open Flow Straight
XQCM755 (-1006-B)

XQC Series Male Open Flow Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing


XQCM770 (-1006-B)

XQC Series Male Open Flow Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing


XQC SERIES:
Male Valved Straight
XQCVM755 (-1006-B -6006-EP)

XQC Series Male Valved Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing


XQCVM765 (-1007-B)

XQC Series Male Valved Connector, 700 Series Barb, 5/16" (7.9 mm) ID Tubing



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 Importers & Manufacturers:

XQC SERIES:
Male Valved Straight

XQC SERIES:
Male Open Flow Elbow

Material Suffix Key

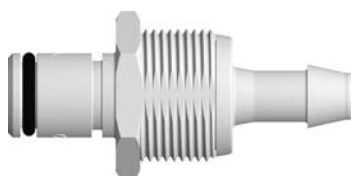
- 1006 Natural Acetal
- 1006-B Natural Acetal, Buna-N O-Ring
- 1007 Black Acetal
- 1007-B Black Acetal, Buna-N O-Ring
- 6006-B White Polypropylene, Buna-N O-Ring
- 6006-EP White Polypropylene, EPDM O-Ring

XQCV770 (-1006-B -1007-B -6006-EP)
XQC Series Male Valved Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing

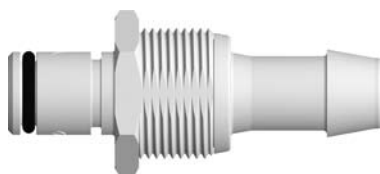


XQC SERIES:
Male Open Flow Panel Mount

XQCBM755 (-1006-B)
XQC Series Male Open Flow Panel Mount Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)



XQCBM770 (-1006-B)
XQC Series Male Open Flow Panel Mount Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)

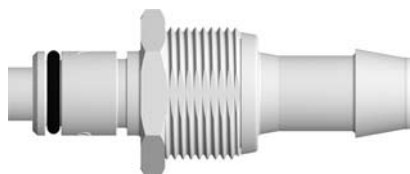


XQC SERIES:
Male Valved Panel Mount

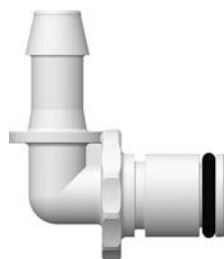
XQCVBM755 (-1006-B)
XQC Series Male Valved Panel Mount Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)



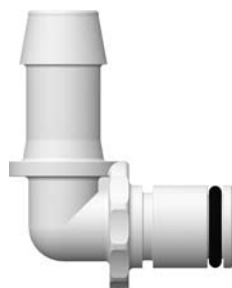
XQCVBM770 (-1006-B)
XQC Series Male Valved Panel Mount Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing, Nickel-Plated Brass Hex Nut (included)



XQCLM755 (-1006-B)
XQC Series Male Open Flow Elbow Connector, 700 Series Barb, 1/4" (6.4 mm) ID Tubing



XQCLM770 (-1006-B)
XQC Series Male Open Flow Elbow Connector, 700 Series Barb, 3/8" (9.5 mm) ID Tubing



XQC SERIES:
Male Valved Elbow

XQCVM755 (-1006-B)
XQC Series Elbow Male Valved Connector, 700 Series Barbs, 1/4" (6.4 mm) ID Tubing



XQC SERIES:
Panel Mount Nut

PM4N (Nickel-Plated Brass)
XQC Series 11/16-24 UNEF Panel Mount Nut



CHECK VALVES



ONE WAY CHECK VALVES
PG-12



ANTI-SIPHON CHECK VALVES
PG-13



**DOUBLE CHECK VALVES,
TUBING POCKET CHIMNEY PORT**
PG-15



**DOUBLE CHECK VALVES,
FEMALE LUER CHIMNEY PORT**
PG-15



THE SCV SERIES

CHECK VALVES

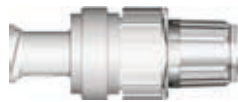
SCV Series products are available in anti-siphon or one-way check valve configurations in a variety of materials and end fittings. The valves feature low priming volume, ease of removing air bubbles during priming and operate in any spatial orientation. All products feature DEHP- and latex-free silicone diaphragms and all materials of construction satisfy USP Class VI and ISO 10993 criteria.

SCV01092 (Blue and Clear Polycarbonate w/Silicone Diaphragm)
Check Valve, Socket for .122" (3.1 mm) ID x .165" (4.2 mm) OD Tubing x 2



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV08053 (White SAN w/Silicone Diaphragm w/Natural LDPE)
Check Valve, Female Locking Luer to Male Locking Luer w/Cap



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV10090 (Clear Polycarbonate w/Silicone Diaphragm)
Check Valve, Female Locking Luer to Pocket for .118" (3.0 mm) OD Tubing



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV17090 (Clear Polycarbonate w/Silicone Diaphragm)
Check Valve, Female Locking Luer to Socket for .118" (3.0 mm) ID x .161" (4.1 mm) OD Tubing



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right



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SCV SERIES:
One-Way Check Valve

SCV SERIES:
Anti-Siphon Valve

SCV21053 (Clear and White ABS w/Silicone Diaphragm)

Check Valve, Socket for .118" (3.0 mm) ID x .161" (4.1 mm) OD Tubing x 2



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV22050 (Clear SAN and Clear ABS w/Silicone Diaphragm)

Check Valve, Socket for .118" (3.0 mm) ID x .161" (4.1 mm) OD to Male Locking Luer



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV23050 (Clear SAN w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Male Locking Luer



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV25052 (Clear ABS and Blue SAN w/Silicone Diaphragm)

Check Valve, Stem for .157" (4.0 mm) ID Tubing to Stem for .118" (3.0 mm) ID Tubing



Cracking Pressure: $\leq .174$ psig
Max. Back Pressure: 87.023 psig
Flow Rate: ≥ 90 ml/min
Flow Direction: Left to right

SCV SERIES:
Anti-Siphon Valve

SCV03052 (Clear and Blue ABS w/Silicone Diaphragm)

Check Valve, Pocket for .165" (4.2 mm) OD Tubing to Socket Fitting .122" (3.1 mm) ID x .165" (4.2 mm) OD Tubing



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 304.579 psig, max 30 sec.
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV04052 (Clear and Blue SAN w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Male Locking Luer



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 304.579 psig, max 30 sec.
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV05052 (Clear SAN and Blue Acrylic w/Silicone Diaphragm)

Check Valve, Pocket for .165" (4.2 mm) OD Tubing to Male Locking Luer



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 304.579 psig, max 30 sec.
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV06052 (Clear and Blue ABS w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Socket for .122" (3.1 mm) ID to .165" (4.2 mm) OD Tubing



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 304.579 psig, max 30 sec.
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV07052 (Clear ABS and Blue SAN w/Silicone Diaphragm)

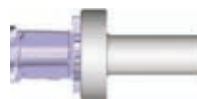
Check Valve, Pocket for .122" (3.1 mm) OD Tubing to Male Locking Luer



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV09093 (Clear and White Polycarbonate w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Pocket for .118" (3.0 mm) OD Tubing



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV11095 (Clear and Green Polycarbonate w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Pocket for .098" (2.5 mm) OD Tubing



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV12052 (White and Blue SAN w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Male Locking Luer



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV15050 (Clear ABS and Clear SAN w/Silicone Diaphragm)

Check Valve, Pocket for .165" (4.2 mm) OD Tubing to Male Locking Luer



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

SCV16090 (Clear Polycarbonate w/Silicone Diaphragm)

Check Valve, Female Locking Luer to Pocket for .118" (3.0 mm) OD Tubing



Cracking Pressure: 1.450-4.351 psig
Max. Back Pressure: 87.023 psig
Flow Rate: max 200 ml/min
Flow Direction: Left to right

THE DCV SERIES

DOUBLE CHECK VALVES



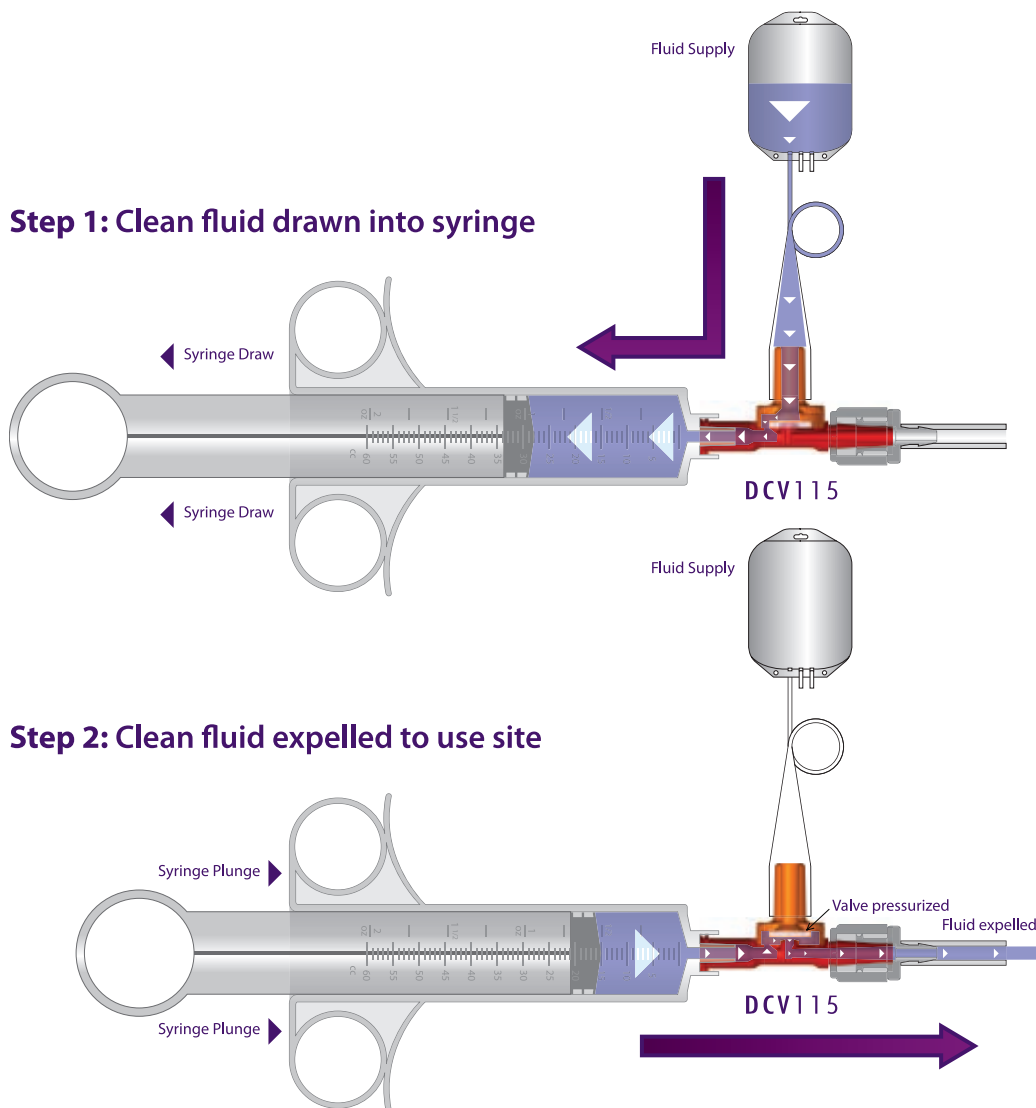
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ECHnology Pty Ltd Importers & Manufacturers

Value Plastics' unique DCV Series bi-directional double check valve is designed to transfer clean fluid from a supply vessel to a use site.

The fluid supply vessel is connected to the valve supply port (chimney) using a luer connection or tubing. The fluid is withdrawn from the supply vessel by a syringe or other device connected to the aspiration port. When the syringe is compressed the fluid is then transferred, through the exit port, to the use site without adulterating the fluid.

The system provides high flow. Two inlet cracking pressure ranges, two supply port options and two exit port options are available. All luer tapers comply with the requirements of ISO Standard 594-1. DCV Series double check valves are manufactured entirely from materials that are compatible with ethylene oxide, gamma and e-beam sterilization procedures.



Material Suffix Key

DCV101 (-001)

Double Check Valve, Tubing Pocket Chimney Port

Cracking Pressure: 1-7 psi



DCV118 (-001)

Double Check Valve, Female Luer Chimney Port

Cracking Pressure: 2-5 psi



DCV114 (-001)

Double Check Valve, Tubing Pocket Chimney Port

Cracking Pressure: 2-5 psi



DCV119 (-001)

Double Check Valve, Female Luer Chimney Port

Cracking Pressure: 1-7 psi



DCV115 (-001)

Double Check Valve, Tubing Pocket Chimney Port, Rotating Luer Lock Exit Port

Cracking Pressure: 2-5 psi



DCV125 (-001)

Double Check Valve, Female Luer Chimney Port, Rotating Luer Lock Exit Port

Cracking Pressure: 2-5 psi



DCV116 (-001)

Double Check Valve, Tubing Pocket Chimney Port, Rotating Luer Lock Exit Port

Cracking Pressure: 1-7 psi



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DCV Series Specifications

	DCV101-001	DCV114-001	DCV115-001	DCV116-001	DCV118-001	DCV119-001	DCV125-001
Chimney Port (Fluid Supply)	Tubing Pocket	Tubing Pocket	Tubing Pocket	Tubing Pocket	Female Slip Luer	Female Slip Luer	Female Slip Luer
Aspiration Port (Syringe)	Threaded Female Luer	Threaded Female Luer	Threaded Female Luer	Threaded Female Luer	Threaded Female Luer	Threaded Female Luer	Threaded Female Luer
Fluid Exit Port	Male Luer Taper	Male Luer Taper	Male Luer with Rotating Lock Nut	Male Luer with Rotating Lock Nut	Male Luer Taper	Male Luer Taper	Male Luer with Rotating Lock Nut
Inlet Cracking Pressure	1-7 PSIG Water	2-5 PSIG Water	2-5 PSIG Water	1-7 PSIG Water	2-5 PSIG Water	1-7 PSIG Water	2-5 PSIG Water
Aspiration Port to Exit Port Cracking Pressure	<10 PSIG Water	<10 PSIG Water	<10 PSIG Water	<10 PSIG Water	<10 PSIG Water	<10 PSIG Water	<10 PSIG Water
Resin	Rad. Stable Polycarb.	Rad. Stable Polycarb.	Rad. Stable Polycarb.	Rad. Stable Polycarb.	Rad. Stable Polycarb.	Rad. Stable Polycarb.	Rad. Stable Polycarb.
Rotating Lock Nut			Polycarbonate	Polycarbonate			Polycarbonate
Diaphragm	Biomed. Grade Silicone	Biomed. Grade Silicone	Biomed. Grade Silicone	Biomed. Grade Silicone	Biomed. Grade Silicone	Biomed. Grade Silicone	Biomed. Grade Silicone

SANITARY FITTINGS



MINI FLANGE FITTINGS
PG-16



MAXI FLANGE FITTINGS
PG-17



MINI FLANGE ACCESSORIES
PG-18



MAXI FLANGE ACCESSORIES
PG-19



SANITARY FITTING: Mini Flange

SFMN655 (-6005 - J1A)

Sanitary Fitting, Mini Flange to 600 Series Barb, 1/4" (6.4 mm) Tubing ID



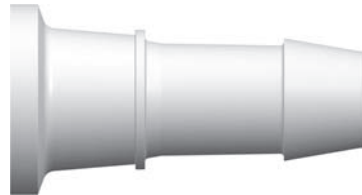
SFMN670 (-6005 - J1A)

Sanitary Fitting, Mini Flange to 600 Series Barb, 3/8" (9.5 mm) Tubing ID



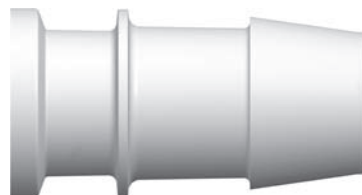
SFMN680 (-6005 - J1A)

Sanitary Fitting, Mini Flange to 600 Series Barb, 1/2" (12.7 mm) Tubing ID



SFMN6100 (-6005 - J1A)

Sanitary Fitting, Mini Flange to 600 Series Barb, 3/4" (19.0 mm) Tubing ID



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Australian Distributors:
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SANITARY FITTING:

Maxi Flange

Material Suffix Key

-6005 Animal-Free Natural Polypropylene

-E PTEE/EPDM

-J1A Natural PVDF

-PX Platinum-Cured Silicon

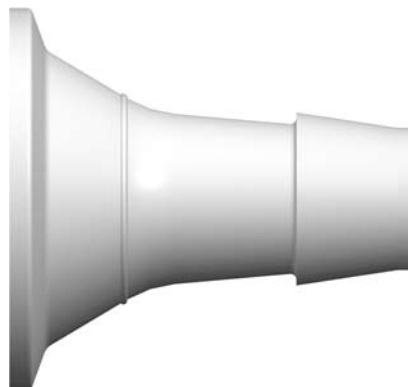
SFMX655 (-6005 - J1A)

Sanitary Fitting, Maxi Flange to 600 Series Barb, 1/4" (6.4 mm) Tubing ID



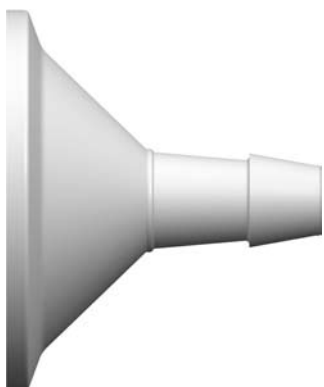
SFMX6100 (-6005 - J1A)

Sanitary Fitting, Maxi Flange to 600 Series Barb, 3/4" (19.0 mm) Tubing ID



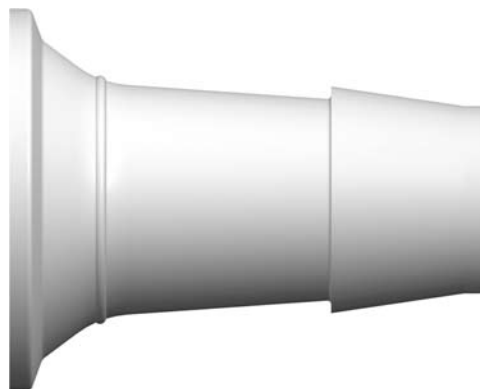
SFMX670 (-6005 - J1A)

Sanitary Fitting, Maxi Flange to 600 Series Barb, 3/8" (9.5 mm) Tubing ID



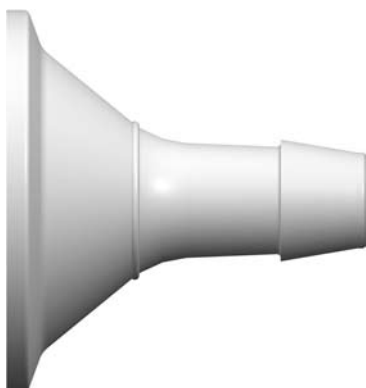
SFMX6110 (-6005 - J1A)

Sanitary Fitting, Maxi Flange to 600 Series Barb, 1.0" (25.4 mm) Tubing ID



SFMX680 (-6005 - J1A)

Sanitary Fitting, Maxi Flange to 600 Series Barb, 1/2" (12.7 mm) Tubing ID



our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

www.valueplastics.com

(Online ordering is not available in countries served by our regional partners)

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SANITARY FITTING:

Mini Flange Accessories

Material Suffix Key

-6005 Animal-Free Natural Polypropylene

-E PTEE/EPDM

-J1A Natural PVDF

-PX Platinum-Cured Silicon

GMN450 (-PX)

Molded Gasket for Mini Flange SFMN Series Fittings



G42MPGR-TF075 (-E)

Molded Tuf-Flex® Gasket for Mini Flange SFMN Series Fittings



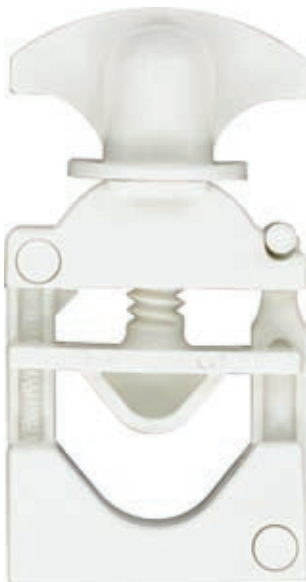
SFMNC (-6005 -J1A)

Sanitary Fitting Mini Cap



VBV0500NW (Glass Reinforced White Nylon)

Pinch Valve, 1/4" (6.4 mm) to 1/2" (12.7 mm) Tubing OD



VNG075WH (Glass Reinforced White Nylon)

Clamp, Mini Flange, 1/2" (12.7 mm) to 3/4" (19.0 mm)



SANITARY
FITTINGS



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LINE DRAWINGS

Value Plastics provides dimensional drawings for all its fittings. For further information, visit our website at www.valueplastics.com.

Material Suffix Key

-6005 Animal-Free Natural Polypropylene

-E PTEE/EPDM

-J1A Natural PVDF

-PX Platinum-Cured Silicon

GMX455 (-PX)

Molded Gasket for Maxi Flange SFMX Series Fittings



G40MPGR-TF150 (-E)

Molded Tuf-Flex® Gasket for Maxi Flange SFMX Series Fittings



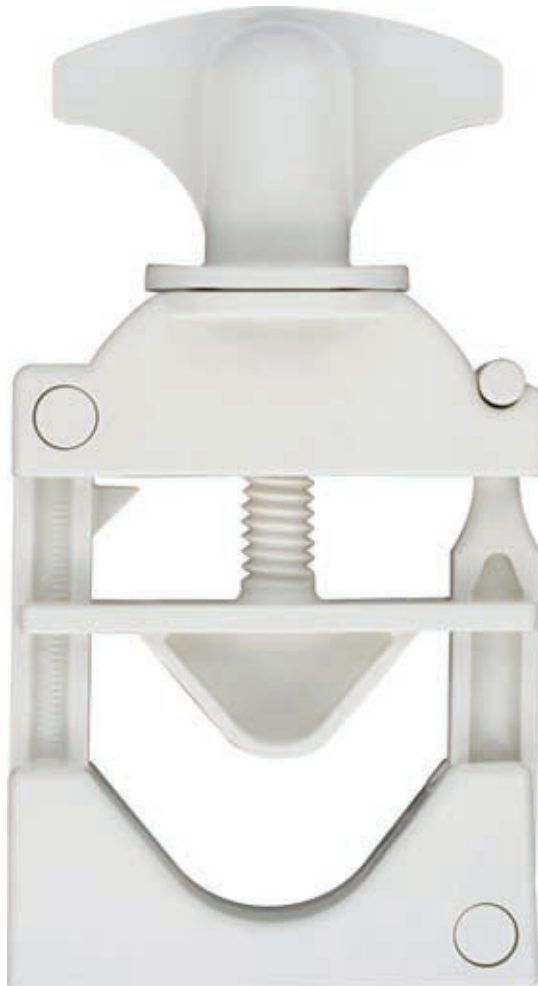
SFMXC (-6005)

Sanitary Fitting Maxi Cap



VBV1000NW (Glass Reinforced White Nylon)

Pinch Valve, Maxi, 1/2" (12.7 mm) to 1" (25.4 mm)



VNG150WH (Glass Reinforced White Nylon)

Clamp, Maxi Flange, 1" (25.4 mm) to 1.5" (38.1 mm)



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LUERS



MALE LUERS
PG-21



FEMALE LUERS
PG-24



ADAPTERS
PG-25



COUPLERS
PG-25



TEES
PG-26



ELBOWS
PG-26



PLUGS & CAPS
PG-27



LUER TO THREAD
PG-27



PANEL MOUNTS & ACCESSORIES
PG-28



CUSTOM LUER FITTINGS
PG-38



OUR LUER TAPERS

Value Plastics® luer tapers are made to the ISO 594-1 standard, and may be connected to other luers meeting ISO standards. Please test your application to verify the performance of the interconnection.

Value Plastics' luer fittings come in over 100 configurations and several materials for the device designer, joining tubing from 1/16" (1.6 mm) to 1/4" (6.4 mm).

Published ISO Design Standard

- Well understood worldwide
- Often assures interconnections without need to retrofit

Rotating Lock Permits Tube Positioning Prior To Tightening

- Minimizes twisting and kinking of tubing

Tapered Cone Seal

- Reliable
- Inexpensive
- Uncomplicated

Available In Many Materials

- Facilitates optimal material selection for your application

Inexpensive

- Facilitates single-use

Easy To Understand

- Ease of use in field

Many Configuration Options

- Adaptable to wide range of applications

Security Options (Fixed Lock, Rotating Lock, No Lock)

- Tailorable to your specific application



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ECHnology Pty Ltd

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Importers & Manufacturers:

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

MTLL004 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



MTLL230 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



MTLL210 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002 - J1A)
Male Luer Integral Lock Ring to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



MTLL430 (-1 -3 -6 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 400 Series Barb, 1/8" (3.2 mm) ID Tubing



MTLL410 (-1 -6 -9 -9002 - J1A)
Male Luer Integral Lock Ring to 400 Series Barb, 1/16" (1.6 mm) ID Tubing



MTLL025 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 5/32" (4.0 mm) ID Tubing



MTLL007 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



MTLL240 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



MTLL220 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



MTLL445 (-1 -6 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 400 Series Barb, .170" (4.3 mm) ID Tubing



MTLL420 (-1 -6 -6005 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 400 Series Barb, 3/32" (2.4 mm) ID Tubing



MTLL035 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



MTLL013 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



MTLL250 (-1 -2 -3 -4 -5 -06 -07 -6 -8003 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



VALUE PLASTICS, INC.

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ECHnology Pty Ltd

Australian Distributors:
Importers & Manufacturers:

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

MTLL450 (-1 -6 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 400 Series Barb, 3/16" (4.8 mm) ID Tubing



MTLL055 (-1 -2 -3 -4 -06 -07 -6 -6005 -9 -9002)
Male Luer Integral Lock Ring to 500 Series Barb, 1/4" (6.4 mm) ID Tubing



MTLL360 (-1 -2 -6 -6005 -9 -9002 -J1A)
Male Luer Integral Lock Ring to 300 Series Barb, 1/4" (6.4 mm) ID Tubing



MLRL004 (-1 -6 -9)
Male Luer to 500 Series Barb, 1/16" (1.6 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



MLRL007 (-1 -6 -9)
Male Luer to 500 Series Barb, 3/32" (2.4 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



MLRL013 (-1 -6 -9)
Male Luer to 500 Series Barb, 1/8" (3.2 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



MLRL025 (-1 -6 -9)
Male Luer to 500 Series Barb, 5/32" (4.0 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



MLRL035 (-1 -6 -9 -9002)
Male Luer to 500 Series Barb, 3/16" (4.8 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



MLRL055 (-1 -6 -9)
Male Luer to 500 Series Barb, 1/4" (6.4 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)



FSLLR (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002)
Finger Snap Luer Lock Ring



IT'S A LOCK WITH VALUE PLASTICS!

Our MLRL and MSL Series of fittings can be used both as a slip luer or as a locking luer with the addition of our FSLLR luer lock ring, which allows color coding without flow path contact. Our MSL/FSLLR combination results in a stationary lock ring. Use a combination of MLRL and FSLLR to create a color coded rotating lock ring.



The MLRL allows FSLLR/lock ring rotation



The MSL has flanges which lock into the FSLLR, preventing rotation

Used together, you can create a color coded male luer with lock ring



MALE LUER:
Slip, or for use with Stationary Lock Ring

MALE LUER:
Slip

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

MLS004 (-1 -6 -9)

Male Luer to 500 Series Barb, 1/16" (1.6 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MLS007 (-1 -6 -9)

Male Luer to 500 Series Barb, 3/32" (2.4 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MLS013 (-1 -6 -9)

Male Luer to 500 Series Barb, 1/8" (3.2 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MLS025 (-1 -6 -9)

Male Luer to 500 Series Barb, 5/32" (4.0 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MLS035 (-1 -6 -9)

Male Luer to 500 Series Barb, 3/16" (4.8 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MLS055 (-1 -6 -9)

Male Luer to 500 Series Barb, 1/4" (6.4 mm) ID Tubing (May be used with separate stationary lock ring; FSLLR)



MTLS210 (-1 -6 -9 -J1A)

Male Luer Slip to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



MSL004 (-1 -6 -9 -9002)

Male Luer Slip to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



MTLS220 (-1 -3 -5 -6 -81 -9 -J1A)

Male Luer Slip to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



MSL007 (-1 -6 -9 -9002)

Male Luer Slip to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



MTLS230 (-1 -3 -5 -6 -81 -9 -9002 -J1A)

Male Luer Slip to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



MSL013 (-1 -6 -9 -9002)

Male Luer Slip to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



MTLS240 (-1 -2 -5 -6 -81 -9 -J1A)

Male Luer Slip to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



MSL025 (-1 -6 -9 -9002)

Male Luer Slip to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



MSL035 (-1 -6 -9 -9002 -J1A)

Male Luer Slip to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



MSL055 (-1 -6 -9 -9002)

Male Luer Slip to 500 Series Barb, 1/4" (6.4 mm) ID Tubing



our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

www.valueplastics.com

(Online ordering is not available in countries served by our regional partners)

Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!


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HRM *plastic* +61(0)3 9762 2034 **Australian Distributors:**
ECH *technology* Pty Ltd **Importers & Manufacturers:**

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF	

FTLL004 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002 -J1A)

Female Luer Thread Style to 500 Series Barb, 1/16" (1.6 mm) ID Tubing


FTLL210 (-1 -2 -3 -5 -6 -9 -9002 -J1A)

Female Luer Thread Style to 200 Series Barb, 1/16" (1.6 mm) ID Tubing


FTLL410 (-1 -6 -9 -9002 -J1A)

Female Luer Thread Style to 400 Series Barb, 1/16" (1.6 mm) ID Tubing


FTLL007 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002)

Female Luer Thread Style to 500 Series Barb, 3/32" (2.4 mm) ID Tubing


FTLL220 (-1 -2 -3 -5 -6 -9 -9002 -J1A)

Female Luer Thread Style to 200 Series Barb, 3/32" (2.4 mm) ID Tubing


FTLL420 (-1 -6 -6005 -9 -9002 -J1A)

Female Luer Thread Style to 400 Series Barb, 3/32" (2.4 mm) ID Tubing


FTLL013 (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002)

Female Luer Thread Style to 500 Series Barb, 1/8" (3.2 mm) ID Tubing


FTLL230 (-1 -2 -3 -5 -6 -6005 -9 -9002 -J1A)

Female Luer Thread Style to 200 Series Barb, 1/8" (3.2 mm) ID Tubing


FTLL430 (-1 -6 -9 -9002 -J1A)

Female Luer Thread Style to 400 Series Barb, 1/8" (3.2 mm) ID Tubing


FTLL025 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)

Female Luer Thread Style to 500 Series Barb, 5/32" (4.0 mm) ID Tubing


FTLL240 (-1 -2 -3 -5 -6 -9 -9002 -J1A)

Female Luer Thread Style to 200 Series Barb, 5/32" (4.0 mm) ID Tubing


FTLL445 (-1 -6 -9 -9002 -J1A)

Female Luer Thread Style to 400 Series Barb, .170" (4.3 mm) ID Tubing


FTLL035 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002 -J1A)

Female Luer Thread Style to 500 Series Barb, 3/16" (4.8 mm) ID Tubing


FTLL250 (-1 -3 -5 -6 -9 -9002 -J1A)

Female Luer Thread Style to 200 Series Barb, 3/16" (4.8 mm) ID Tubing


FTLL450 (-1 -6 -9 -9002 -J1A)

Female Luer Thread Style to 400 Series Barb, 3/16" (4.8 mm) ID Tubing


FTLL055 (-1 -2 -3 -4 -5 -06 -07 -6 -6005 -9 -9002)

Female Luer Thread Style to 500 Series Barb, 1/4" (6.4 mm) ID Tubing


FTLL360 (-1 -3 -5 -6 -6005 -9 -9002 -J1A)

Female Luer Thread Style to 300 Series Barb, 1/4" (6.4 mm) ID Tubing



FEMALE LUER:
Smooth Bore, Thread Style

FEMALE LUER:
Lug Style

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

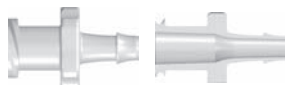
FTLLSB004 (-1 -6 -9)
Female Luer Thread Style Smooth Bore to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



FTLLSB007 (-1 -6 -9)
Female Luer Thread Style Smooth Bore to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



FTLLSB013 (-1 -6 -9)
Female Luer Thread Style Smooth Bore to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



WHY CHOOSE A SMOOTH BORE?

Our Smooth Bore Luers have a smooth inner transition providing for easy insertion of guide wires, probes and other devices.

These components feature a specially designed finger grip to differentiate them from our other luer connectors.

FEMALE LUER:
Lug Style

FTL10 (-1 -6 -9 -J1A)
Female Luer Lug Style to Classic Series Barb, 1/16" (1.6 mm) ID Tubing



FTL210 (-1 -6 -9 -J1A)
Female Luer Lug Style to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



FTL20 (-1 -07 -6 -81 -9 -J1A)
Female Luer Lug Style to Classic Series Barb, 3/32" (2.4 mm) ID Tubing



FTL220 (-1 -3 -5 -6 -9 -J1A)
Female Luer Lug Style to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



FTL30 (-1 -6 -9 -J1A)
Female Luer Lug Style to Classic Series Barb, 1/8" (3.2 mm) ID Tubing



FTL230 (-1 -3 -5 -6 -9 -J1A)
Female Luer Lug Style to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



FTL240 (-1 -6 -9 -J1A)
Female Luer Lug Style to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



LUER:
Adapters, Couplers and Lock Rings

FLLR (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002)
Finger Snap Luer Lock Ring



MLRLC (-1 -6 -6005 -9)
Male Luer Coupler (May be used with separate rotating lock rings; FLLR)



MTLCS (-1 -6 -9 -J1A)
Male Luer Slip Coupler



FTLLC (-1 -6 -9 -9002 -J1A)
Female Luer Thread Style Coupler



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EChnology Pty Ltd

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Importers & Manufacturers:

Material Suffix Key

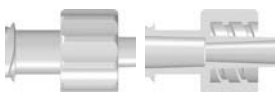
-001 Radiation Stable Polycarbonate	-1 White Nylon	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-8012 White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-9010 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF

FTLC (-1 -6 -9 -9002 -J1A)

Female Luer Lug Style Coupler


LC34 (-1 -6 -9 -9002 -J1A)

Male Luer Integral Lock Ring to Female Luer Thread Style Coupler


LC78 (-1 -6 -9 -9002 -J1A)

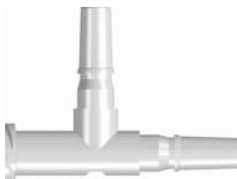
Male Luer to Female Luer Thread Style Coupler (May be used with separate rotating lock ring; FSLLR)


LT878 (-1 -6 -9 -9002)

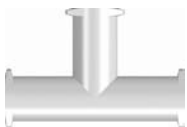
Female Luer Thread Style (2) to Male Luer Tee (May be used with separate rotating lock ring; FSLLR)


LT787 (-1 -6 -9 -8012 -9002)

Male Luer (2) to Female Luer Thread Style Tee (May be used with separate rotating lock ring; FSLLR)


FTLT (-1 -6 -9 -J1A)

Female Luer Lug Style Tee


FTLLE (-1 -6 -9 -J1A)

Female Luer Thread Style Elbow


FTLE (-1 -6 -9 -J1A)

Female Luer Lug Style Elbow


LE87 (-1 -6 -8003 -9 -9002)

Male Luer to Female Luer Thread Style Elbow (May be used with separate rotating lock ring; FSLLR)


LE7220 (-1 -2)

Male Luer to 200 Series Barb Elbow, 3/32" (2.4 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)


LE7230 (-1 -6 -9 -9010)

Male Luer to 200 Series Barb Elbow 1/8" (3.2 mm) ID Tubing (May be used with separate rotating lock ring; FSLLR)


CA091 (-001)

Male Luer Elbow to 3/16" Classic Series Barb, (CF361-9002) with Rotating Lock Ring (FSLLR-9002)



Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF	

MTLLP (-1 -2 -3 -07 -6 -6005 -9 -J1A)

Male Luer Integral Lock Ring Plug, Closed at Luer Tip



LP4 (-1 -2 -3 -4 -5 -6 -9 -9002 -J1A)

Male Luer Integral Lock Ring Plug, Closed at Grip



VLP4 (-1 -3 -6 -81 -J1A)

Male Luer Integral Lock Ring Vented Plug, Closed at Grip



MLRLP (-1 -6 -9)

Male Luer Plug (May be used with separate rotating lock ring; FSLLR)



MLSLP (-1 -6 -9)

Male Luer Plug (May be used with separate stationary lock ring; FSLLR)



MTLP (-1 -6 -9 -J1A)

Male Luer Plug, Closed at Tether Loop (May be used with separate stationary lock ring; MLRL)



MTLSP (-1 -6 -81 -9 -J1A)

Male Luer Slip Plug, Closed at Grip



FTLP (-1 -6 -9 -J1A)

Female Luer Lug Style Cap with Tether Loop



FTLLP (-1 -2 -3 -5 -07 -6 -6005 -81 -9 -9002 -J1A)

Female Luer Thread Style Cap



LP34 (-1 -3 -5 -6 -9 -9002 -J1A)

Male Luer Integral Lock Ring to Female Luer Thread Style Plug



LUER TO THREAD:

Male

ABSML-6 UNDER (-1 -2 -3 -4 -5 -06 -07)

Male Luer with Rotating Lock Ring and 5/16" Hex to 1/4-28 UNF Bottom Sealing Thread



ABSML-J1A UNDER (-1 -2 -3 -4 -5 -06 -07)

Male Luer with Rotating Lock Ring and 5/16" Hex to 1/4-28 UNF Bottom Sealing Thread



XMTLL (-1 -6 -9 -J1A)

Male Luer Integral Lock Ring to 10-32 Special Tapered Thread



SMTLL (-1 -6 -9 -J1A)

Male Luer Integral Lock Ring to 1/4-28 UNF Thread



18MTLL (-1 -2 -6 -J1A)

Male Luer Integral Lock Ring with 7/16" Hex to 1/8-27 NPT Thread



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LUER TO THREAD:*Male***LUER TO THREAD:***Female***Material Suffix Key**

-1 White Nylon

-4 Green Nylon

-6 Natural Polypropylene

-81 Lace White ABS

-10 Acetal

-5 Blue Nylon

-62 Black Polypropylene

-9 Clear Polycarbonate

-2 Black Nylon

-06 Orange Nylon

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate

-3 Red Nylon

-07 Yellow Nylon

-8003 Natural ABS

-J1A Natural Kynar PVDF

14MTLL (-1 -2 -6)

Male Luer Integral Lock Ring with 9/16" Hex to 1/4-18 NPT Thread

**XMLRL (-1 -6 -9 -9002)**

Male Luer with 1/4" Hex to 10-32 Special Tapered Thread (May be used with separate rotating lock ring; FSLLR)

**SMLRL (-1 -6 -9 -J1A)**

Male Luer with 5/16" Hex to 1/4-28 UNF Thread (May be used with separate rotating lock ring; FSLLR)

**BSMLRL (-6 -J1A)**

Male Luer with 5/16" Hex to 1/4-28 Bottom-Sealing Thread (May be used with separate rotating lock ring; FSLLR)

**LUER TO THREAD:***Female***XFTLL (-1 -6 -9 -J1A)**

Female Luer Thread Style with 1/4" Hex to 10-32 Special Tapered Thread

**KFTLL (-1 -6 -9 -J1A)**

Female Luer Thread Style with 1/4" Hex to 10-32 UNF Thread

**SFTLL (-1 -2 -6 -9 -J1A)**

Female Luer Thread Style with 5/16" Hex to 1/4-28 UNF Thread

**BSFTLL (-1 -6 -J1A)**

Female Luer Thread Style with 5/16" Hex to 1/4-28 UNF Bottom Sealing Thread

**XFTL (-1 -6 -9 -J1A)**

Female Luer Lug Style with 1/4" Hex to 10-32 Special Tapered Thread

**KFTL (-1 -6 -9 -J1A)**

Female Luer Lug Style with 1/4" Hex to 10-32 UNF Thread

**SFTL (-1 -6 -9 -J1A)**

Female Luer Lug Style with 5/16" Hex to 1/4-28 UNF Thread

**18FTLL (-1 -6 -J1A)**

Female Luer Thread Style with 7/16" Hex to 1/8-27 NPT Thread

**18LFTLL (-1 -4 -5 -6 -J1A -62)**

Female Luer Thread Style Elbow with 7/16" Hex to 1/8-27 NPT Thread

**PANEL MOUNTS:***Female Thread Style and Lug Style Luer***FLLB210 (-1 -2 -6 -9 -J1A)**

Female Luer Thread Style Panel Mount 1/4-28 UNF to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**FLLB220 (-1 -2 -6 -9 -J1A)**

Female Luer Thread Style Panel Mount 1/4-28 UNF to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**FLLB230 (-1 -2 -6 -9 -J1A)**

Female Luer Thread Style Panel Mount 1/4-28 UNF to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



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ECH *technology* Pty Ltd

 Australian Distributors:
 Importers & Manufacturers:

Material Suffix Key

- 1 White Nylon
- 4 Green Nylon
- 6 Natural Polypropylene
- 9 Clear Polycarbonate
- 10 Acetal
- 5 Blue Nylon
- 6005 Animal-Free Polypropylene
- 9002 Radiation Stable Polycarbonate

- 2 Black Nylon
- 06 Orange Nylon
- 8003 Natural ABS
- J1A Natural Kynar PVDF
- 3 Red Nylon
- 07 Yellow Nylon
- 81 Lace White ABS
- XO Stainless Steel

FTLB210 (-1 -6 -9 -J1A)

Female Luer Lug Style Panel Mount 1/4-28 UNF to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



FTLB220 (-1 -6 -9 -J1A)

Female Luer Lug Style Panel Mount 1/4-28 UNF to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



FTLB230 (-1 -6 -9 -J1A)

Female Luer Lug Style Panel Mount 1/4-28 UNF to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



FTLLBMLRL (-1 -6)

Female Luer Thread Style Panel Mount 1/4-28 UNF to Male Luer (May be used with separate rotating lock ring; FSLLR)



MLRLB210 (-1 -6)

Male Luer Panel Mount 10-32 UNF to 200 Series Barb, 1/16" (1.6 mm) ID Tubing, (May be used with separate rotating lock ring; FSLLR)



MLRLB220 (-1 -6)

Male Luer Panel Mount 10-32 UNF to 200 Series Barb, 3/32" (2.4 mm) ID Tubing, (May be used with separate rotating lock ring; FSLLR)



MLRLB230 (-1 -6)

Male Luer Panel Mount 1/4-28 UNF to 200 Series Barb, 1/8" (3.2 mm) ID Tubing, (May be used with separate rotating lock ring; FSLLR)



CCR (-1 -2 -3 -4 -5 -06 -07)

Color Coded Ring (For use with PMS, PMK, FTLLB or FTLB panel mount fittings)



CCLR (-1 -2 -3 -4 -5 -06 -07)

Color Coded Lock Ring (For use with PMS, PMK, FTLLB or FTLB panel mount fittings)



PMKN (-XO)

Panel Mount Nut 10-32 UNF with 3/8" Hex (For use with PMK panel mount fittings)



PMSN (-XO)

Panel Mount Nut 1/4-28 UNF with 7/16" Hex (For use with PMS, FTLB, and FTLLB panel mount fittings)



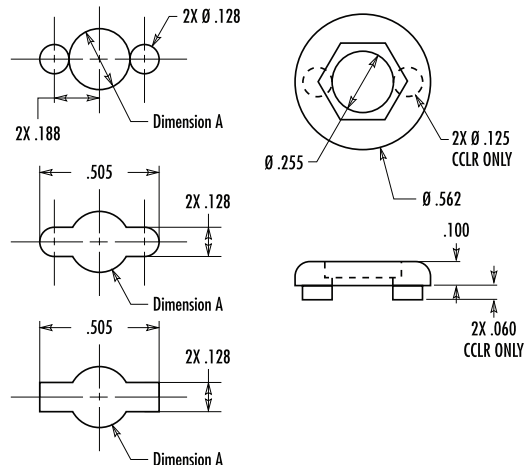
LNS (-1 -2 -3 -4 -5 -06 -07 -6 -81 -J1A)

1/4-28 UNF Panel Mount Lock Nut (For use with PMS, FTLLB or FTLB panel mount fittings)



SELECT THE CORRECT LOCK NUT FOR YOUR PANEL MOUNT:

PART	Dimension A	Use Lock Nut
FTLLB Series	.255"	PMSN or LNS
FTLB Series	.255"	PMSN or LNS
FTLLBMLRL	.255"	PMSN or LNS
MLRLB210	.193"	PMKN
MLRLB220	.193"	PMKN
MLRLB230	.255"	PMSN or LNS



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EChnology Pty Ltd

Australian Distributors:
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BLOOD PRESSURE



BPF SERIES
PG-30



BAYONET MALE CUFF CONNECTORS & DINAMAP® MONITOR ADAPTERS
PG-31



BPLF 1/4 TURN CUFF CONNECTORS
PG-32



DINAMAP® CUFF CONNECTORS
PG-33



THE **BPF** SERIES

From Value Plastics, the reference standard for healthcare fluid management products: The BPF Series bayonet-style female quick connector. BPF series quick connect fittings are designed to withstand abuse, provide economy and ease of use over other alternatives, and comply with ISO Standard BS EN 1060-3.

Ergonomic Shape

- Easy to hold, even with gloves
- Won't irritate patients in case of incidental contact

Large Guarded Button

- Easy to use, even with gloves
- Easy to understand, convenient operation
- Protected against accidental disconnect

Push To Connect

- Easiest connector to use, even with gloves

O-Ring Seal

- Never gets more difficult to put together
- Consistent performance throughout product life

Bayonet Rotates In Connector

- Prevents kinked tubes
- Facilitates easy connections to patient cuff

Unique Spring-Loaded Bayonet Retainer

- Clicks when assembled to signal secure connection
- Resists accidental disconnects

Rugged Polymer Construction

- Withstands tens of thousands of cycles
- Withstands hospital sanitizing procedures

Unimpeded Flow Path

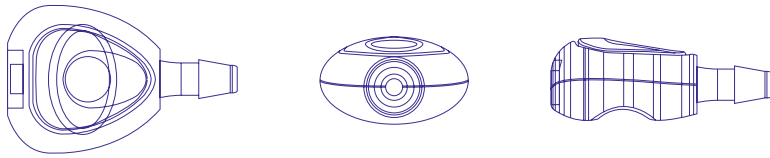
- Better acoustics for accurate readings



VALUE PLASTICS, INC.

CHROM *ai* **TECH**
ECHNOLOGY Pty Ltd

Australian Distributors:
Importers & Manufacturers



THE **BPF** SERIES

BAYONET-STYLE FEMALE QUICK CONNECT FITTING

BPF220-001 3/32" (2.4 mm) ID tubing, 200 Series barb

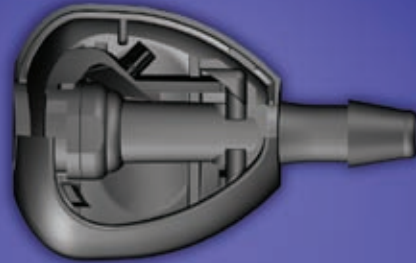
BPF230-001 1/8" (3.2 mm) ID tubing, 200 Series barb

BPF240-001 5/32" (4.0 mm) ID tubing, 200 Series barb

BPF250-001 3/16" (4.8 mm) ID tubing, 200 Series barb

Housing: ABS
O-Ring: Buna-N (lubricated)
Bayonet Retainer: Nylon

Button: Acetal
Spring: 304 Stainless Steel



Patent Pending



Bayonet Male Connectors



BPM013-1 White Nylon
1/8" (3.2 mm) ID tubing, 500 Series barb



BPM240-1 White Nylon
5/32" (4.0 mm) ID tubing, 200 Series barb



BPM025-1 White Nylon
5/32" (4.0 mm) ID tubing, 500 Series barb

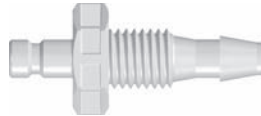


BPM035-1 White Nylon
3/16" (4.8 mm) ID tubing, 500 Series barb

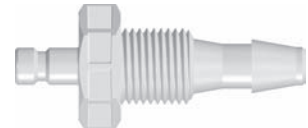
Bayonet Panel Mount Connectors



BPMB230-1 White Nylon
1/8" (3.2 mm) ID tubing, 200 Series barb
1/4-28 UNF Thread



BPMB240-1 White Nylon
5/32" (4.0 mm) ID tubing, 200 Series barb
5/16-24 UNF Thread



BPMB250-1 White Nylon
3/16" (4.8 mm) ID tubing, 200 Series barb
3/8-24 UNF Thread

Panel Mount Nuts



PMSN-X0 Stainless Steel
Panel Mount Nut 1/4-28 UNF with 7/16"
Hex (for use with BPMB230 connectors)



PM3N-X0 Zinc-Plated Class 2 Steel
Panel Mount Nut 5/16-24 UNF with 1/2"
Hex (for use with BPMB240 connectors)



PM2N-X0 Zinc-Plated Class 2 Steel
Panel Mount Nut 3/8-24 UNF with 9/16"
Hex (for use with BPMB250 connectors)

Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available, quantities vary • Call for details!


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 ECH *technology* Pty Ltd
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Material Suffix Key

-001 Black Nylon over White Nylon
-81 Lace White ABS

-1 White Nylon
-8012 White ABS

-5 Blue Nylon

-10 Acetal

BPM013 (-1)

Blood Pressure Monitor Bayonet Connector to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



works with...

**BPM240 (-1)**

Blood Pressure Monitor Bayonet Connector to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



works with...

**BPM025 (-1)**

Blood Pressure Monitor Bayonet Connector to 500 Series Barb, 5/32" (4.0 mm) ID Tubing



works with...

**BPM035 (-1)**

Blood Pressure Monitor Bayonet Connector to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



works with...

**BPMMTLL (-1 -5)**

Blood Pressure Monitor Bayonet Connector to Male Luer Integral Lock Ring



works with...

**BPAM (-001)**

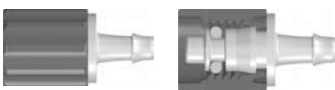
Blood Pressure Monitor Bayonet Connector to Internal 5/16-24 UNF Thread and O-Ring



works with...

**BPA013 (-001)**

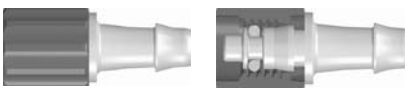
Blood Pressure Adapter with Internal 5/16-24 UNF Thread and O-Ring to 500 Series Barb, 1/8" (3.2 mm) ID Tubing

**BPA025 (-001)**

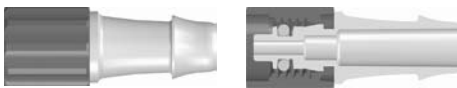
Blood Pressure Adapter with Internal 5/16-24 UNF Thread and O-Ring to 500 Series Barb, 5/32" (4.0 mm) ID Tubing

**BPA035 (-001)**

Blood Pressure Adapter with Internal 5/16-24 UNF Thread and O-Ring to 500 Series Barb, 3/16" (4.8 mm) ID Tubing

**BPA055 (-001)**

Blood Pressure Adapter with Internal 5/16-24 UNF Thread and O-Ring to 500 Series Barb, 1/4" (6.4 mm) ID Tubing



THE BPLF SERIES

CUFF CONNECTORS

Value Plastics introduces BPLF Series quarter-turn cuff connectors, expanding the range of solutions offered to blood pressure cuff manufacturers. BPLF Series products feature an ergonomic grip, facilitating gripping the fitting, connecting and disconnecting the cuff as needed. They mate perfectly with quarter-turn male o-ring connectors already found on some patient monitoring equipment.

BPLF230 (-8012)

Quarter-turn Female Blood Pressure Cuff Connector to 200 Series Barb, 1/8" (3.2 mm) Tubing ID

**BPLF240 (-8012)**

Quarter-turn Female Blood Pressure Cuff Connector to 200 Series Barb, 5/32" (4.0 mm) Tubing ID



Material Suffix Key

-001 Black Nylon over White Nylon
-8012 White ABS

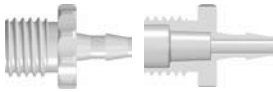
-1 White Nylon

-10 Acetal

-81 Lace White ABS

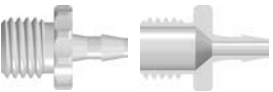
BPCL220 (-10 -81)

Blood Pressure Adapter with 5/16-24 UNF Thread and 6% Taper to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



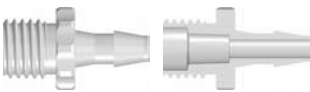
BPC220 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



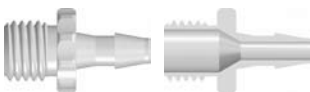
BPCL230 (-10 -81)

Blood Pressure Adapter with 5/16-24 UNF Thread and 6% Internal Taper to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



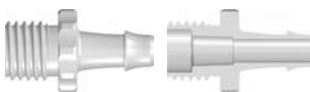
BPC230 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



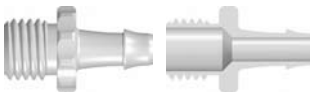
BPCL025 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread 6% Internal Taper to 500 Series Barb, 5/32" (4.0 mm) ID Tubing



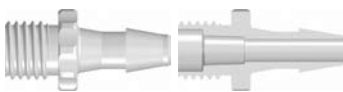
BPC025 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread to 500 Series Barb, 5/32" (4.0 mm) ID Tubing



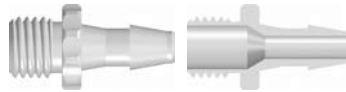
BPCL240 (-10 -81)

Blood Pressure Adapter with 5/16-24 UNF Thread and 6% Internal Taper to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



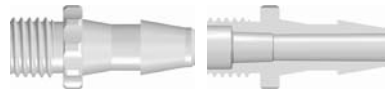
BPC240 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



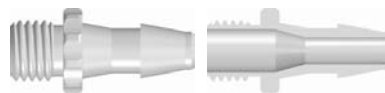
BPCL250 (-10 -81)

Blood Pressure Adapter with 5/16-24 UNF Thread and 6% Internal Taper to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



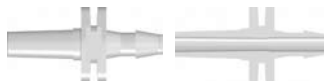
BPC250 (-10)

Blood Pressure Adapter with 5/16-24 UNF Thread to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



CF229 (-1)

Neonatal Blood Pressure Slip Fit (non luer) with 200 Series Barb, 3/32" (2.4 mm) ID Tubing



CF230 (-1)

Neonatal Blood Pressure Slip Fit (non luer) with 200 Series Barb, 5/32" (4.0 mm) ID Tubing



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TAPERED SEAL



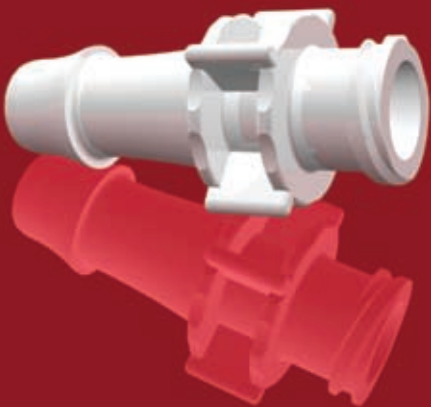
SMALL BORE
PG-34



LARGE BORE MALE
PG-35



LARGE BORE FEMALE
PG-35



PLUGS AND CAPS
PG-35



SMALL BORE CONNECTORS:

Male, Female and Caps

TSC2M013 (-6) 100 piece minimum
Male Taper Seal Non-Luer Connector to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



TSC2M035 (-6) 100 piece minimum
Male Taper Seal Non-Luer Connector to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



TSC2F007 (-6) 100 piece minimum
Female Taper Seal Non-Luer Connector to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



TSC2F013 (-6) 100 piece minimum
Female Taper Seal Non-Luer Connector to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



TSC2F035 (-6) 100 piece minimum
Female Taper Seal Non-Luer Connector to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



TSC2FB230 (-6) 100 piece minimum
Female Taper Seal Non-Luer with 1/4-28 UNF Panel Mount to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



TSC2MP (-6) 1,000 piece minimum
Male Taper Seal (Non-Luer) Plug with Tether Recess



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Material Suffix Key

-1 White Nylon
-9002 Radiation Stable Polycarbonate

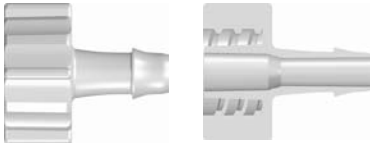
-6 Natural Polypropylene

-8012 White ABS

-9 Clear Polycarbonate

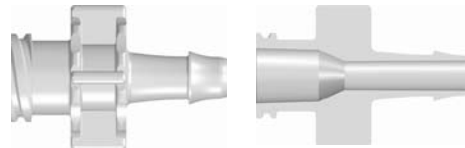
MLB035 (-1 -8012 -9)

Male Large Bore Non-Luer Connector to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



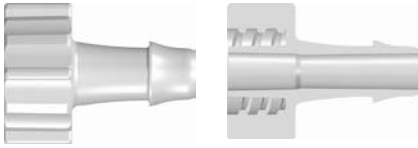
FLB035 (-1 -8012 -9)

Female Large Bore Non-Luer Connector to 500 Series Barb, 3/16" (4.8 mm) ID Tubing



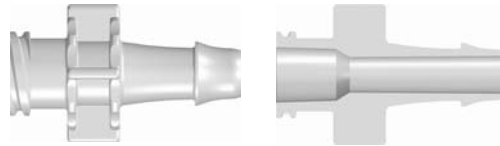
MLB055 (-1 -8012 -9)

Male Large Bore Non-Luer Connector to 500 Series Barb, 1/4" (6.4 mm) ID Tubing



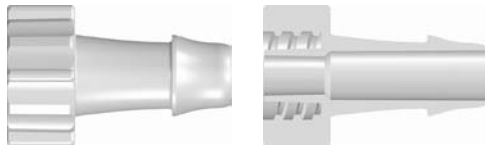
FLB055 (-1 -8012 -9)

Female Large Bore Non-Luer Connector to 500 Series Barb, 1/4" (6.4 mm) ID Tubing



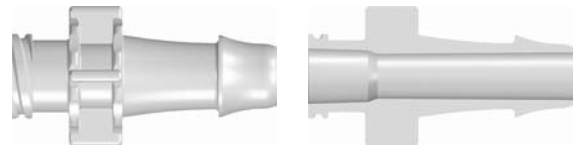
MLB065 (-1 -8012 -9)

Male Large Bore Non-Luer Connector to 500 Series Barb, 5/16" (8.0 mm) ID Tubing



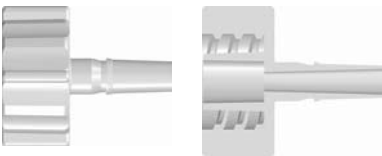
FLB065 (-1 -8012 -9)

Female Large Bore Non-Luer Connector to 500 Series Barb, 5/16" (8.0 mm) ID Tubing



MLBC7 (-9002)

Male Large Bore Non-Luer Connector with Integral Lock Ring to Male Slip Luer (May be Used with Separate Rotating Lock Ring; FSLLR)



LARGE BORE CONNECTORS:
Plugs and Caps

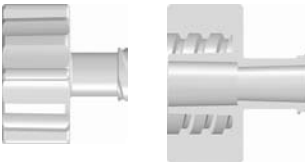
FLBP (-1 -8012 -9)

Female Large Bore Non-Luer Cap



MLBC8 (-9002)

Male Large Bore Non-Luer Connector with Integral Lock Ring to Female Thread-Style Locking Luer



MLBP (-1 -8012 -9 -9002)

Male Large Bore Non-Luer Plug



our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

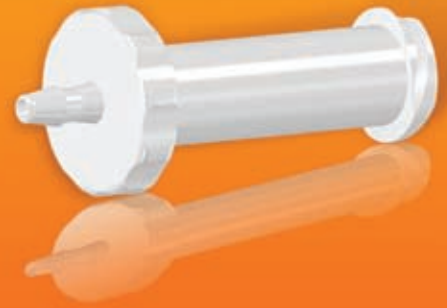
www.valueplastics.com

(Online ordering is not available in countries served by our regional partners)

Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

500 piece minimums • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!

DESIGN CENTER



VALUE PLASTICS DESIGN CENTER

OUR PROCESS

DEFINITION PHASE

- Define application
- Quantify product usage
- Establish project budget and timeline with customer
- Identify prospective technical challenges
- Develop project plan

DESIGN PHASE

- Collaborative conceptual development
- Research existing technology
- Concept testing and customer review
- Establish final product specifications
- Complete design, gain customer approval

DEVELOPMENT PHASE

- Develop quality plan
- Fabrication and procurement of necessary tooling and equipment
- First Article inspection
- Qualify and validate product
- Customer product approval

PRODUCTION PHASE

- Release manufacturing, inspection and packaging plans
- Manufacture approved product



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ECH technology Pty Ltd

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THE VALUE PLASTICS DESIGN CENTER

Specialists in Fluid Connections

We sometimes hear our customers say **“That would be the perfect fitting if only . . .”** We know a lot is expected of you: leading-edge product capabilities, lower costs, shorter design times, compounded by issues such as biocompatibility, precise flow rate requirements and tight physical envelopes.

As much as you might like to be, you know you're not an expert in everything - especially when it comes to specifying fittings and connectors that are often not your area of expertise.

Make it easy on yourself.

Contact the connection experts at the Value Plastics Design Center. Together we can develop a solution delivering exactly what you want, when you need it, with exceptional quality, at a surprisingly affordable price. Our dedicated team of fluid connection professionals collaborates with you to solve your most difficult challenges.

Our Design Center experts provide:

- Expert and timely design assistance from our dedicated technical staff with years of experience solving real world fluid connection challenges
- Technical support before and after the sale
- In-house testing facilities to validate and qualify design alternatives
- Assistance with medical qualification requirements needed to transform your design into a validated product.

Your Solution. Faster. Cheaper.

Value Plastics is dedicated to meeting your demanding quality and capability needs. The Value Plastics Design Center works with you to develop custom solutions keeping your projects moving - on time and within budget, whether it's a totally new concept or a refinement of one of our 3,100 products.

Call us today. Let the Value Plastics Design Center show you how we can affordably meet your exacting flexible tubing connector and fitting needs no matter how complex they might be.
+1 866-582 0965.

It's not often that one of our 3,100 off-the-shelf tubing fittings can't fill your application need. But when they won't, call on the Value Plastics Design Center. Our dedicated team of fluid connection professionals will collaborate with you to find the most appropriate and cost-effective solution.

As an example, a medical device manufacturer recently brought a challenge to the Design Center. Their device's tube fittings had the potential to be misconnected with similar, but distinctly different use, tubing fittings. The Design Center analyzed several potential connector solutions and, using Value Plastics' extensive application engineering base, developed a custom fitting that used reliable sealing technology negating any possibility of misconnect within the customer's proprietary surgical system and their corresponding clinical environment. The resulting custom fitting was engineered easier to use, has higher flow rates, and prevents misconnections, all resulting in greater competitive advantage for the customer.

The Value Plastics Design Center really can provide YOUR solution, faster and cheaper. Contact the Value Plastics Design Center today for an initial consultation, +1 866-582-0965, or email designcenter@valueplastics.com .

On the following 2 pages, 38-39, are examples of custom solutions that Value Plastics has developed. They are displayed to provide an idea of some of the most common modifications available. All the individual parts shown are available on special order. To review case studies, please visit our website at www.valueplastics.com/products/design_center.aspx



Material Suffix Key

-1 White Nylon

-6 Natural Polypropylene

-81 Lace White ABS

-J1A Natural Kynar PVDF

-2 Black Nylon

-62 Black Polypropylene

-9 Clear Polycarbonate

-3 Red Nylon

-63 Red Polypropylene

-91 White Polycarbonate

-5 Blue Nylon

-8 Gray Nylon

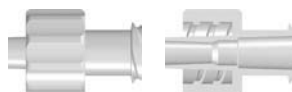
-9002 Radiation Stable Polycarbonate

CF104 (-6)Male Luer Integral Lock Ring Plug, \emptyset .033 Orifice at Luer Tip**CF184 (-1)**

Female Luer To Catheter Handle

**CF226 (-6)**

High Flow Connector to 500 Series Barb, 1/4" (6.4 mm) ID Tubing (May be used with separate rotating lock ring; CF227)

**CF210 (-6)**Male Luer to Female Luer Thread Style Coupler (\emptyset .125 Center Bond-in Port)**CF304 (-6)**

High Flow Connector Body with 500 Series Barb, 3/8" (9.5 mm) ID Tubing

**CF213 (-3)**Male Luer Integral Lock Ring Plug, Closed at Grip (\emptyset .055 to \emptyset .060 Core)**CF015 (-1)**

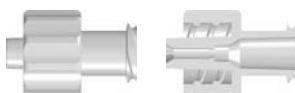
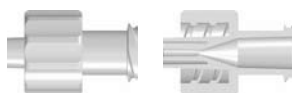
Female Luer Lug Style Flare to M6x.75 Thread

**CF224 (-9)**Male Luer Integral Lock Ring to 500 Series Barb, 5/32" (4 mm) ID Tubing (\emptyset .076 Bore)**CF131 (-1)**

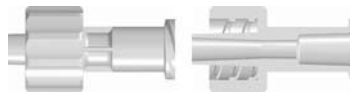
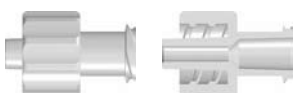
Male Luer Integral Lock Ring Plug, Closed at Grip (Short Luer)

**CF233 (-6)**

Female Extended Luer Thread Style to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**CF141 (-9)**Male Luer to Female Luer Thread Style Coupler (\emptyset .045 Thru Bore with \emptyset .055 Male Side Bond-in Port)**CF235 (-9 -91)**Male Luer to Female Luer Thread Style Coupler (\emptyset .023 Thru Bore with \emptyset .033 Male Side Bond-in Port)**CF239 (-6)**

Male Luer Integral Lock Ring to Female Luer Thread Style Extended Coupler

**CF148 (-9002)**Male Luer to Female Luer Thread Style Coupler (\emptyset .045 Thru Bore with \emptyset .080 Male Side Bond-in Port)**CF322 (-1)**

Female Luer Lug Style Flare to 1/4-32 UNF Thread



Material Suffix Key

- 1 White Nylon
- 2 Black Nylon
- 3 Red Nylon
- 5 Blue Nylon
- 6 Natural Polypropylene
- 62 Black Polypropylene
- 63 Red Polypropylene
- 8 Gray Nylon
- 81 Lace White ABS
- 9 Clear Polycarbonate
- 91 White Polycarbonate
- 9002 Radiation Stable Polycarbonate
- J1A Natural Kynar PVDF

CF006 (-81)

Elbow Connector with One Classic Series Barb, 1/8" (3.2 mm) Tubing



CF079 (-1)

1/8" Tee With Blank Single Leg to 200 Series Barb, for 1/8" (3.2 mm) ID Tubing



CF128 (-1)

Straight Through Connector for Orifice Insert, 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



CF231 (-1 -5 -J1A)

Tee Reduction Connector with 200 and 400 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



CF302 (-1)

Tee Reduction Connector with 400 Series Barbs, 1/16" (1.6 mm) and 3/32" (2.4 mm) ID Tubing



CF001 (-6)

Bottom Sealing 1/4-28 UNF Thread To Classic Series Barb, 1/16" (1.6 mm) ID Tubing



CF020 (-6 -62 -63)

Custom 1/4-28 UNF Bottom Sealing Thread Tube End Coupler (Extended length) 1/8" (3.2 mm) OD Tubing



CF022 (-2)

10-32 UNF Thread with 1/4" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing



CF165 (-6)

1/4-28 UNF Thread with O-Ring Seal and 5/16" Hex to Classic Series Barb 1/16" (1.6 mm) ID Tubing



CF166 (-6)

1/4-28 UNF Thread Plug with O-Ring Seal and 5/16" Hex



CF173 (-6)

Bottom Sealing 1/4-28 UNF To 200 Series Barb, 3/16" (4.8 mm) ID Tubing



CF202 (-J1A)

10-32 UNF To Tube Elbow With Custom Thread Orientation and 400 Series Barb, 3/32" (2.4 mm) ID Tubing



VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers

TUBE-TO-TUBE



STRAIGHT THROUGH
PG-41



STRAIGHT THROUGH REDUCER
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ELBOW
PG-44



ELBOW REDUCER
PG-45



TEE
PG-45



TEE REDUCER
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MULTIPOINT
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PRESS-IN PLUGS
PG-50



ULTRASONICALLY WELDABLE BARBS
PG-51



PANEL MOUNTS & ACCESSORIES
PG-51



CUSTOM TUBE-TO-TUBE FITTINGS
PG-39



TUBE-TO-TUBE

Tube-to-tube fittings join lengths of tubing and are available, depending on the Series, in versions to fit the following tubing IDs and barb configurations

Value Plastics tube-to-tube fittings are available in 11 different basic configurations and 4 different barb styles to fit 6 IDs of tubing between 1/16" (1.6 mm) and 1/4" (6.4 mm) tubing IDs. They are available from stock most commonly in nylon, polypropylene, polycarbonate and PVDF. Other materials are available on special order.

AVAILABLE BARB STYLES

Tube ID	Classic	200 Series	400 Series	500 Series
1/16" (1.6 mm)	X	X	X	X
3/32" (2.4 mm)	X	X	X	X
1/8" (3.2 mm)	X	X	X	X
5/32" (4.0 mm)	X	X	X	X
3/16" (4.8 mm)	X	X	X	X
1/4" (6.4 mm)	X	X	X	X
5/16" (8.0 mm)				X



VALUE PLASTICS, INC.

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Australian Distributors:
Importers & Manufacturers

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-9010 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF

N004 (-1 -2 -6 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 1/16" (1.6 mm) ID Tubing



N210 (-1 -2 -6 -9 -J1A)

Straight Through Connector with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



N410 (-1 -2 -6 -J1A)

Straight Through Connector with 400 Series Barbs, 1/16" (1.6 mm) ID Tubing



AA (-1 -2 -6 -9 -J1A)

Straight Through Connector with Classic Series Barbs, 1/16" (1.6 mm) ID Tubing



N007 (-1 -2 -6 -6005 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 3/32" (2.4 mm) ID Tubing



N220 (-1 -2 -6 -9 -9002 -J1A)

Straight Through Connector with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



N420 (-1 -2 -6 -J1A)

Straight Through Connector with 400 Series Barbs, 3/32" (2.4 mm) ID Tubing



DD (-1 -2 -6 -9 -J1A)

Straight Through Connector with Classic Series Barbs, 3/32" (2.4 mm) ID Tubing



N013 (-1 -2 -6 -6005 -9 -J1A -9002)

Straight Through Connector with 500 Series Barbs, 1/8" (3.2 mm) ID Tubing



N230 (-1 -2 -3 -5 -6 -9 -J1A)

Straight Through Connector with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



N430 (-1 -2 -6)

Straight Through Connector with 400 Series Barbs, 1/8" (3.2 mm) ID Tubing



CC (-1 -2 -6 -9 -J1A)

Straight Through Connector with Classic Series Barbs, 1/8" (3.2 mm) ID Tubing



N025 (-1 -2 -6 -6005 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 5/32" (4.0 mm) ID Tubing



N440 (-1 -2 -5 -6 -9 -J1A)

Straight Through Connector with 400 Series Barbs, 5/32" (4.0 mm) ID Tubing



4040 (-1 -2 -6 -9 -J1A)

Straight Through Connector with Classic Series Barbs, 5/32" (4.0 mm) ID Tubing



N035 (-1 -2 -6 -6005 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 3/16" (4.8 mm) ID Tubing



5050 (-1 -2 -6 -9 -9002 -J1A)

Straight Through Connector with Classic Series Barbs, 3/16" (4.8 mm) ID Tubing



N055 (-1 -2 -6 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 1/4" (6.4 mm) ID Tubing



6060 (-1 -2 -6 -9 -9002 -J1A)

Straight Through Connector with Classic Series Barbs, 1/4" (6.4 mm) ID Tubing



N065 (-1 -2 -6 -9 -J1A)

Straight Through Connector with 500 Series Barbs, 5/16" (8 mm) ID Tubing



Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-9010 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF

N007/004 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing


N220/210 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 200 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing


N420/410 (-1 -2 -6 -10 -J1A)

Straight Through Reduction Connector with 400 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing


AD (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with Classic Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing


N013/004 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing


N230/210 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing


N430/410 (-1 -2 -6 -J1A)

Straight Through Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing


AC (-0 -1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with Classic Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing


N025/004 (-1 -2 -6 -6005 -9 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 5/32" (4.0 mm) and 1/16" (1.6 mm) ID Tubing


T040 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with Classic Series Barbs, 5/32" (4.0 mm) and 1/16" (1.6 mm) ID Tubing


I050 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with Classic Series Barbs, 3/16" (4.8 mm) and 1/16" (1.6 mm) ID Tubing


N013/007 (-1 -2 -6 -9 -9002 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing


N230/220 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing


N430/420 (-1 -2 -6 -J1A)

Straight Through Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing


DC (-1 -2 -6 -9)

Straight Through Reduction Connector with Classic Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing


N025/007 (-1 -2 -6 -6005 -9 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 5/32" (4.0 mm) and 3/32" (2.4 mm) ID Tubing


T040 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with Classic Series Barbs, 5/32" (4.0 mm) and 3/32" (2.4 mm) ID Tubing


N035/007 (-1 -2 -6 -9 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 3/16" (4.8 mm) and 3/32" (2.4 mm) ID Tubing



TUBE-TO-TUBE:
Straight Through Reducer

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

2050 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 3/16" (4.8 mm) and 3/32" (2.4 mm) ID Tubing



N025/013 (-1 -2 -6 -6005 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 5/32" (4.0 mm) and 1/8" (3.2 mm) ID Tubing



3040 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 5/32" (4.0 mm) and 1/8" (3.2 mm) ID Tubing



N035/013 (-1 -2 -6 -6005 -81 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 3/16" (4.8 mm) and 1/8" (3.2 mm) ID Tubing



3050 (-1 -2 -5 -6 -6005 -81 -9 -9002 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 3/16" (4.8 mm) and 1/8" (3.2 mm) ID Tubing



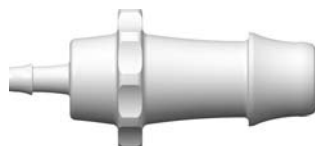
N055/013 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 1/4" (6.4 mm) and 1/8" (3.2 mm) ID Tubing



3060 (-1 -2 -6 -6005 -9 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 1/4" (6.4 mm) and 1/8" (3.2 mm) ID Tubing



N070/013 (-0 -6 -6005 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/8" (3.2 mm) ID Tubing



N035/025 (-1 -2 -6 -6005 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 3/16" (4.8 mm) and 5/32" (4.0 mm) ID Tubing



4050 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 3/16" (4.8 mm) and 5/32" (4.0 mm) ID Tubing



N055/025 (-1 -2 -6 -6005 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 1/4" (6.4 mm) and 5/32" (4.0 mm) ID Tubing



4060 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 1/4" (6.4 mm) and 5/32" (4.0 mm) ID Tubing



N065/025 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 5/16" (8.0 mm) and 5/32" (4.0 mm) ID Tubing



N055/035 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 1/4" (6.4 mm) and 3/16" (4.8 mm) ID Tubing



5060 (-1 -2 -6 -6005 -9 -9002 -J1A)
Straight Through Reduction Connector with Classic Series Barbs, 1/4" (6.4 mm) and 3/16" (4.8 mm) ID Tubing



Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers:

TUBE-TO-TUBE:
Straight Through Reducer

TUBE-TO-TUBE:
Elbow

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

N065/035 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 5/16" (8.0 mm) and 3/16" (4.8 mm) ID Tubing



N065/055 (-1 -2 -6 -9 -J1A)
Straight Through Reduction Connector with 500 Series Barbs, 5/16" (8.0 mm) and 1/4" (6.4 mm) ID Tubing



N070/055 (-0 -6 -9)
Straight Through Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/4" (6.4 mm) ID Tubing



TUBE-TO-TUBE:
Elbow

L210 (-1 -2 -6 -9 -J1A)
Elbow Connector with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



L410 (-1 -2 -6 -J1A)
Elbow Connector with 400 Series Barbs, 1/16" (1.6 mm) ID Tubing



L10 (-1 -2 -6 -J1A)
Elbow Connector with Classic Series Barbs, 1/16" (1.6 mm) ID Tubing



L220 (-1 -2 -6 -9 -9002 -J1A)
Elbow Connector with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



L420 (-1 -2 -6 -J1A)
Elbow Connector with 400 Series Barbs, 3/32" (2.4 mm) ID Tubing



L20 (-1 -2 -6 -J1A)
Elbow Connector with Classic Series Barbs, 3/32" (2.4 mm) ID Tubing



L230 (-1 -2 -6 -9 -J1A)
Elbow Connector with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



L430 (-1 -2 -6 -J1A)
Elbow Connector with 400 Series Barbs, 1/8" (3.2 mm) ID Tubing



L30 (-1 -2 -6 -J1A)
Elbow Connector with Classic Series Barbs, 1/8" (3.2 mm) ID Tubing



L40 (-1 -2 -6 -J1A)
Elbow Connector with Classic Series Barbs, 5/32" (4.0 mm) ID Tubing



L440 (-2)
Elbow Connector with 400 Series Barbs, 5/32" (4.0 mm) ID Tubing



L50 (-1 -2 -6 -J1A)
Elbow Connector with Classic Series Barbs, 3/16" (4.8 mm) ID Tubing



VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers:

TUBE-TO-TUBE:
Elbow

TUBE-TO-TUBE:
Elbow Reducer

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

L60 (-1 -2 -6 -J1A)

Elbow Connector with Classic Series Barbs, 1/4" (6.4 mm) ID Tubing



TUBE-TO-TUBE:
Elbow Reducer

L220/210 (-1 -2 -6 -9 -J1A)

Elbow Reduction Connector with 200 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



L420/410 (-1 -2 -6 -J1A)

Elbow Reduction Connector with 400 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



L230/210 (-1 -2 -6 -9 -J1A)

Elbow Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



L430/410 (-1 -2 -6 -J1A)

Elbow Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



L230/220 (-1 -2 -6 -9 -J1A)

Elbow Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



L430/420 (-1 -2 -6 -J1A)

Elbow Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



L430/220 (-9002)

Elbow Reduction Connector with a 400 Series Barb, 1/8" (3.2 mm) and a 200 Series Barb, 3/32" (2.4 mm) ID Tubing



TUBE-TO-TUBE:

Tee

T210 (-1 -2 -6 -9 -J1A)

Tee Connector with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



T410 (-1 -2 -6 -J1A)

Tee Connector with 400 Series Barbs, 1/16" (1.6 mm) ID Tubing



T10 (-1 -2 -6 -J1A)

Tee Connector with Classic Series Barbs, 1/16" (1.6 mm) ID Tubing



T220 (-1 -2 -6 -9 -J1A)

Tee Connector with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



T420 (-1 -2 -6 -J1A)

Tee Connector with 400 Series Barbs, 3/32" (2.4 mm) ID Tubing



T20 (-1 -2 -6 -J1A)

Tee Connector with Classic Series Barbs, 3/32" (2.4 mm) ID Tubing



T230 (-1 -2 -5 -6 -9 -J1A)

Tee Connector with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



T430 (-1 -2 -6 -9002 -J1A)

Tee Connector with 400 Series Barbs, 1/8" (3.2 mm) ID Tubing



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Australian Distributors:
Importers & Manufacturers

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-9010 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF

T013 (-6005)

Tee Connector with 500 Series Barbs, 1/8" (3.2 mm) ID Tubing



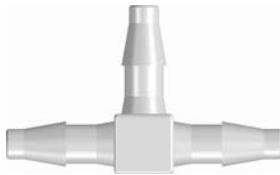
T30 (-1 -2 -6 -9 -J1A)

Tee Connector with Classic Series Barbs, 1/8" (3.2 mm) ID Tubing



T40 (-1 -2 -6 -J1A)

Tee Connector with Classic Series Barbs, 5/32" (4 mm) ID Tubing



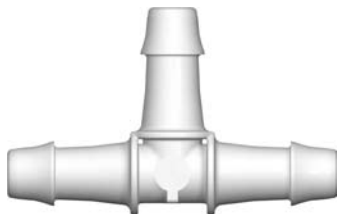
T50 (-1 -2 -6 -J1A)

Tee Connector with Classic Series Barbs, 3/16" (4.8 mm) ID Tubing



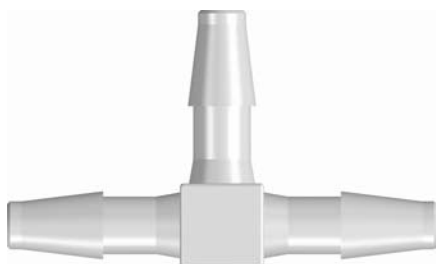
T055 (-6005)

Tee Connector with 500 Series Barbs, 1/4" (6.4 mm) ID Tubing



T60 (-1 -2 -6 -J1A)

Tee Connector with Classic Series Barbs, 1/4" (6.4 mm) ID Tubing



T210/220 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/16" (1.6 mm) and 3/32" (2.4 mm) ID Tubing



T410/420 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/16" (1.6 mm) and 3/32" (2.4 mm) ID Tubing



T420/410 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



T220/210 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



T220R210 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



T420R410 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



T430/410 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



T230/210 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-9010 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF

T210/230 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/16" (1.6 mm) and 1/8" (3.2 mm) ID Tubing



T410/430 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/16" (1.6 mm) and 1/8" (3.2 mm) ID Tubing



T230R210 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



T430R410 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



T220/230 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 3/32" (2.4 mm) and 1/8" (3.2 mm) ID Tubing



T420/430 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 3/32" (2.4 mm) and 1/8" (3.2 mm) ID Tubing



T230/220 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



T430/420 (-1 -2 -3 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



T230R220 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



T430R420 (-1 -2 -6 -J1A)

Tee Reduction Connector with 400 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



T360/220 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 and 300 Series Barbs, 1/4" (6.4 mm) and 3/32" (2.4 mm) ID Tubing



T360/230 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 and 300 Series Barbs, 1/4" (6.4 mm) and 1/8" (3.2 mm) ID Tubing



T360/250 (-1 -2 -6 -9 -J1A)

Tee Reduction Connector with 200 and 300 Series Barbs, 1/4" (6.4 mm) and 3/16" (4.8 mm) ID Tubing



LARGER TEE REDUCERS - For larger Tee Reducers for 3/8" to 1" IDs refer to page 57...



VALUE PLASTICS, INC.

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ECH technology Pty Ltd

Australian Distributors:
Importers & Manufacturers:

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

Y210 (-1 -2 -6 -9 -J1A)

Y Connector with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



Y410 (-1 -2 -6 -J1A)

Y Connector with 400 Series Barbs, 1/16" (1.6 mm) ID Tubing



Y220 (-1 -2 -6 -9 -J1A)

Y Connector with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



Y420 (-1 -2 -6 -J1A)

Y Connector with 400 Series Barbs, 3/32" (2.4 mm) ID Tubing



Y230 (-1 -2 -3 -6 -9 -9010 -J1A)

Y Connector with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



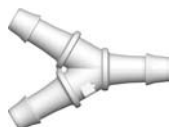
Y430 (-1 -2 -6 -J1A)

Y Connector with 400 Series Barbs, 1/8" (3.2 mm) ID Tubing



Y013 (-6005)

Y Connector with 500 Series Barbs, 1/8" (3.2 mm) ID Tubing



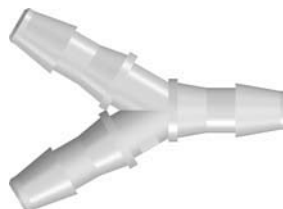
Y240 (-1 -2 -6 -9 -J1A)

Y Connector with 200 Series Barbs, 5/32" (4.0 mm) ID Tubing



Y250 (-1 -2 -6 -9 -9002 -J1A)

Y Connector with 200 Series Barbs, 3/16" (4.8 mm) ID Tubing



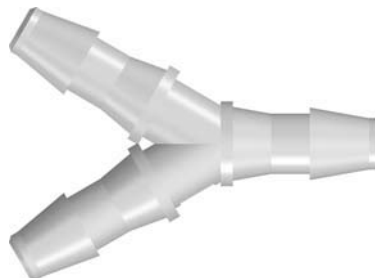
Y450 (-1 -2 -6 -J1A)

Y Connector with 400 Series Barbs, 3/16" (4.8 mm) ID Tubing



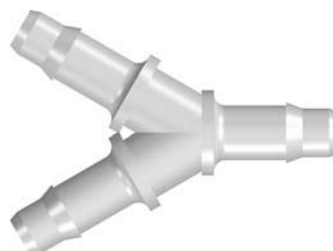
Y260 (-1 -2 -6 -9 -9002 -J1A)

Y Connector with 200 Series Barbs, 1/4" (6.4 mm) ID Tubing



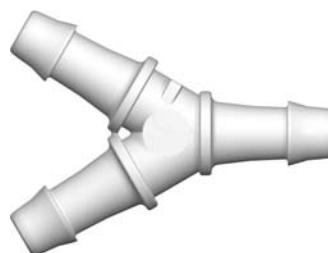
Y460 (-1 -2 -6 -9 -J1A)

Y Connector with 400 Series Barbs, 1/4" (6.4 mm) ID Tubing



Y055 (-6005)

Y Connector with 500 Series Barbs, 1/4" (6.4 mm) ID Tubing



Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

3PF210 (-1 -6)

Three-port F Style Manifold with 200 Series Barbs for 1/16" (1.6 mm) ID Tubing



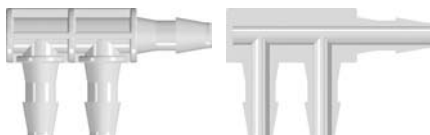
3PF220 (-1 -6)

Three-port F Style Manifold with 200 Series Barbs for 3/32" (2.4 mm) ID Tubing



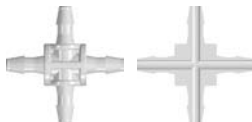
3PF230 (-1 -6)

Three-port F Style Manifold with 200 Series Barbs for 1/8" (3.2 mm) ID Tubing



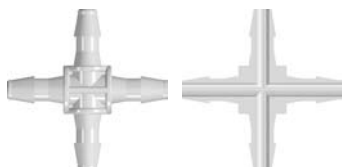
4PX210 (-1 -6)

Four-port Cross Style Manifold with 200 Series Barbs for 1/16" (1.6 mm) ID Tubing



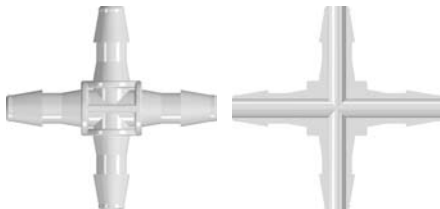
4PX220 (-1 -6)

Four-port Cross Style Manifold with 200 Series Barbs for 3/32" (2.4 mm) ID Tubing



4PX230 (-1 -6)

Four-port Cross Style Manifold with 200 Series Barbs for 1/8" (3.2 mm) ID Tubing



4PDL210 (-1 -6)

Four-port Double Elbow Style Manifold with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



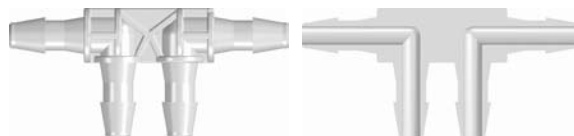
4PDL220 (-1 -6)

Four-port Double Elbow Style Manifold with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



4PDL230 (-1 -6)

Four-port Double Elbow Style Manifold with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



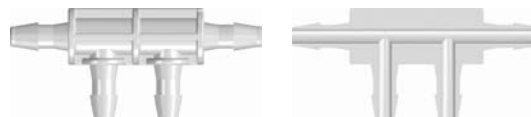
4PLL210 (-1 -6)

Four-port Thru Flow Double Elbow Style Manifold with 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



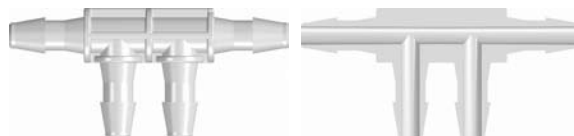
4PLL220 (-1 -6)

Four-port Thru Flow Double Elbow Style Manifold with 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



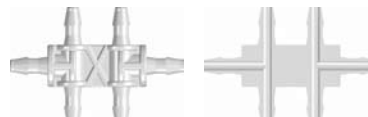
4PLL230 (-1 -2 -6)

Four-port Thru Flow Double Elbow Style Manifold with 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



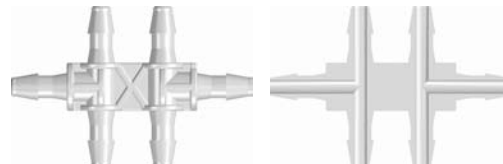
6PDT210 (-1 -6)

Six-port Double T Style Manifold with 200 Series Barbs for 1/16" (1.6 mm) ID Tubing



6PDT220 (-1 -6)

Six-port Double T Style Manifold with 200 Series Barbs for 3/32" (2.4 mm) ID Tubing



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100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



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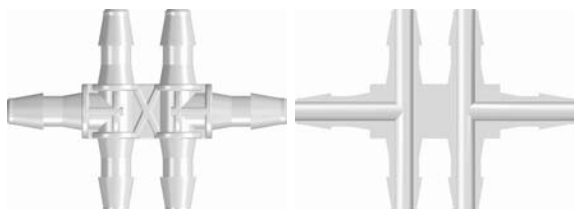
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Australian Distributors:
Importers & Manufacturers

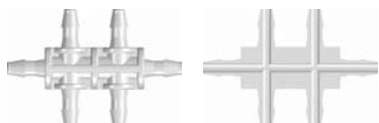
Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|--------------------------------------|-------------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -9010 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF |

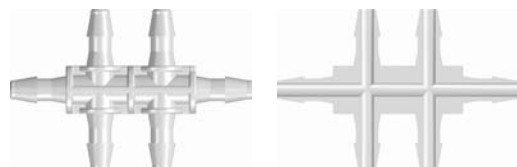
6PDT230 (-1 -6)
Six-port Double T Style Manifold with 200 Series Barbs for 1/8" (3.2 mm) ID Tubing



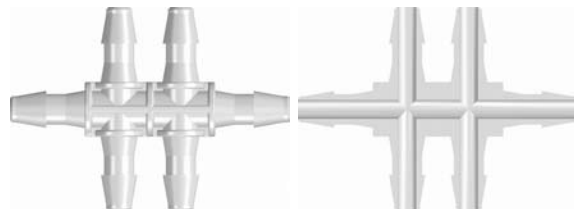
6PTT210 (-1 -6)
Six-port Thru Flow Double T Style Manifold with 200 Series Barbs for 1/16" (1.6 mm) ID Tubing



6PTT220 (-1 -6)
Six-port Thru Flow Double T Style Manifold with 200 Series Barbs for 3/32" (2.4 mm) ID Tubing



6PTT230 (-1 -6)
Six-port Thru Flow Double T Style Manifold with 200 Series Barbs for 1/8" (3.2 mm) ID Tubing



PIP210 (-1 -2 -6 -J1A)
Press-In Plug with 200 Series Barb, 1/16" (1.6 mm) ID Tubing



PIP10 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 1/16" (1.6 mm) ID Tubing



PIP220 (-1 -2 -6 -J1A)
Press-In Plug with 200 Series Barb, 3/32" (2.4 mm) ID Tubing



PIP20 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 3/32" (2.4 mm) ID Tubing



PIP230 (-1 -2 -6 -J1A)
Press-In Plug with 200 Series Barb, 1/8" (3.2 mm) ID Tubing



PIP30 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 1/8" (3.2 mm) ID Tubing



PIP240 (-1 -2 -6 -J1A)
Press-In Plug with 200 Series Barb, 5/32" (4.0 mm) ID Tubing



PIP40 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 5/32" (4.0 mm) ID Tubing



PIP50 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 3/16" (4.8 mm) ID Tubing



PIP60 (-1 -2 -6 -J1A)
Press-In Plug with Classic Series Barb, 1/4" (6.4 mm) ID Tubing



Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|---------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | -XO Stainless Steel |

U10 (-1 -2 -7 -9)

Ultrasonically Weldable Fitting to Classic Series Barb, 1/16" (1.6 mm) ID Tubing



U20 (-1 -2 -7)

Ultrasonically Weldable Fitting to Classic Series Barb, 3/32" (2.4 mm) ID Tubing



U30 (-1 -2 -7)

Ultrasonically Weldable Fitting to Classic Series Barb, 1/8" (3.2 mm) ID Tubing



TUBE-TO-TUBE PANEL MOUNTS:

Straight Through and Reducer

PMK210 (-1 -6)

Panel Mount Connector 10-32 UNF to 200 Series Barbs, 1/16" (1.6 mm) ID Tubing



PMK220 (-1 -6)

Panel Mount Connector 10-32 UNF to 200 Series Barbs, 3/32" (2.4 mm) ID Tubing



PMS230 (-1 -6)

Panel Mount Connector 1/4-28 UNF to 200 Series Barbs, 1/8" (3.2 mm) ID Tubing



PMK220-210 (-1 -6)

Panel Mount Reduction Connector 10-32 UNF to 200 Series Barbs, 3/32" (2.4 mm) and 1/16" (1.6 mm) ID Tubing



PMS230-210 (-1 -6)

Panel Mount Reduction Connector 1/4-28 UNF to 200 Series Barbs, 1/8" (3.2 mm) and 1/16" (1.6 mm) ID Tubing



PMS230-220 (-1 -6)

Panel Mount Reduction Connector 1/4-28 UNF to 200 Series Barbs, 1/8" (3.2 mm) and 3/32" (2.4 mm) ID Tubing



CCR (-1 -2 -3 -4 -5 -06 -07)

Color Coded Ring (For use with PMS, PMK, FTLLB or FTLB panel mount fittings)



CCLR (-1 -2 -3 -4 -5 -06 -07)

Color Coded Lock Ring (For use with PMS, PMK, FTLLB or FTLB panel mount fittings)



PMKN (-XO)

Panel Mount Nut 10-32 UNF with 3/8" Hex (For use with PMK panel mount fittings)



PMSN (-XO)

Panel Mount Nut 1/4-28 UNF with 7/16" Hex (For use with PMS, FTLB, and FTLLB panel mount fittings)



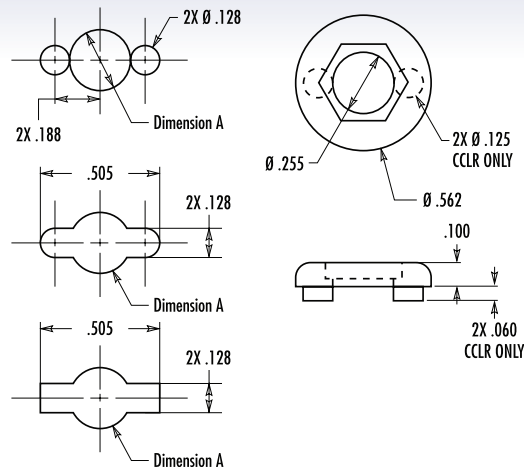
LNS (-1 -2 -3 -4 -5 -06 -07 -6 -81 -J1A)

1/4-28 UNF Panel Mount Lock Nut (For use with PMS, FTLLB or FTLB panel mount fittings)



SELECT THE CORRECT LOCK NUT FOR YOUR PANEL MOUNT:

PART	Dimension A	Use Lock Nut
PMK Series	.193"	PMKN
PMS Series	.255"	PMSN or LNS



LARGE TUBE-TO-TUBE



STRAIGHT THROUGH
PG-53



**STRAIGHT THROUGH
REDUCER**
PG-54



Y
PG-55



PRESS-IN PLUGS
PG-55



ELBOW
PG-56



ELBOW REDUCER
PG-56



TEE
PG-57



TEE REDUCER
PG-57



LARGE TUBE-TO-TUBE

Large tube-to-tube fittings encompass sizes fitting tubing IDs between 3/8" (9.5 mm) and 1.0" (25.4 mm). They are available from stock in 3 barb styles, most commonly in animal-free and natural polypropylene and polycarbonate resins, with PVDF available as an option and other materials available on special order.

AVAILABLE BARB STYLES

Tube ID	500 Series	600 Series	900 Series
3/8" (9.5 mm)	X	X	X
1/2" (12.7 mm)	X	X	X
5/8" (16.0 mm)	X	X	
3/4" (19.0 mm)	X	X	
1" (25.4 mm)	X	X	



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LARGE TUBE-TO-TUBE: Straight Through

Material Suffix Key

-0 Natural Nylon
-J1A Natural Kynnar PVDF

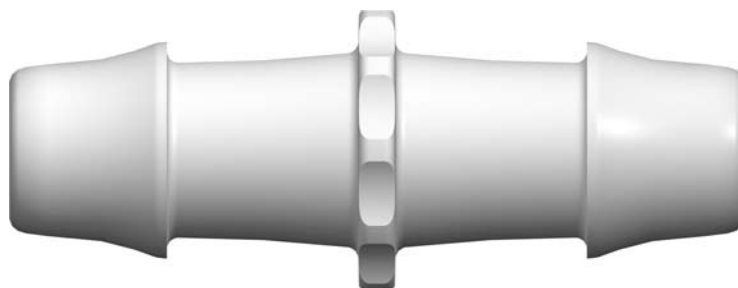
-6 Natural Polypropylene

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate



SHOWN: N670



SHOWN: N110

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

N070 (-0 -6 -9)

Straight Through Connector with 500 Series Barbs, 3/8" (9.5 mm) ID Tubing

N090 (-0 -6 -9)

Straight Through Connector with 500 Series Barbs, 5/8" (16.0 mm) ID Tubing

N670 (-6 -6005 -9 -J1A)

Straight Through Connector with 600 Series Barbs, 3/8" (9.5 mm) ID Tubing

N690 (-0 -6 -9)

Straight Through Connector with 600 Series Barbs, 5/8" (16.0 mm) ID Tubing

N970 (-9)

Straight Through Connector with 900 Series Barbs, 3/8" (9.5 mm) ID Tubing

N100 (-0 -6)

Straight Through Connector with 500 Series Barbs, 3/4" (19.0 mm) ID Tubing

N080 (-0 -6 -9)

Straight Through Connector with 500 Series Barbs, 1/2" (12.7 mm) ID Tubing

N110 (-0 -6)

Straight Through Connector with 500 Series Barbs, 1" (25.4 mm) ID Tubing

N680 (-6 -9 -J1A)

Straight Through Connector with 600 Series Barbs, 1/2" (12.7 mm) ID Tubing

N975 (-9)

Straight Through Connector with 900 Series Barbs, 1/2" (12.7 mm) ID Tubing



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Material Suffix Key

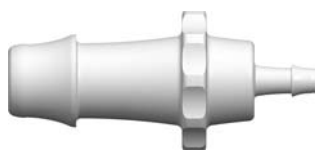
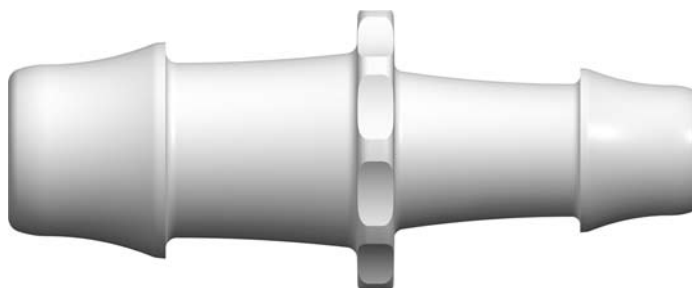
-0 Natural Nylon

-6 Natural Polypropylene

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate

-J1A Natural Kynnar PVDF


SHOWN: N070/013

SHOWN: N110/100

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

N070/013 (-0 -6 -6005 -9 -9002 -J1A)

Straight Through Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/8" (3.2 mm) ID Tubing

N070/055 (-0 -6 -9)

Straight Through Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/4" (6.4 mm) ID Tubing

N670/655 (-6 -6005 -9 -J1A)

Straight Through Reduction Connector with 600 Series Barbs, 3/8" (9.5 mm) and 1/4" (6.4 mm) ID Tubing

N080/055 (-0 -6 -6005 -9)

Straight Through Reduction Connector with 500 Series Barbs, 1/2" (12.7 mm) and 1/4" (6.4 mm) ID Tubing

N680/655 (-6 -9 -J1A)

Straight Through Reduction Connector with 600 Series Barbs, 1/2" (12.7 mm) and 1/4" (6.4 mm) ID Tubing

N090/055 (-0 -6)

Straight Through Reduction Connector with 500 Series Barbs, 5/8" (16.0 mm) and 1/4" (6.4 mm) ID Tubing

N680/670 (-6 -9)

Straight Through Reduction Connector with 600 Series Barbs, 1/2" (12.7 mm) and 3/8" (9.5 mm) ID Tubing

N080/070 (-0 -6 -9)

Straight Through Reduction Connector with 500 Series Barbs, 1/2" (12.7 mm) and 3/8" (9.5 mm) ID Tubing

N690/655 (-6 -9)

Straight Through Reduction Connector with 600 Series Barbs, 5/8" (16.0 mm) and 1/4" (6.4 mm) ID Tubing

N090/070 (-0 -6)

Straight Through Reduction Connector with 500 Series Barbs, 5/8" (16.0 mm) and 3/8" (9.5 mm) ID Tubing

N690/670 (-6 -9)

Straight Through Reduction Connector with 600 Series Barbs, 5/8" (16.0 mm) and 3/8" (9.5 mm) ID Tubing

N100/080 (-0 -6)

Straight Through Reduction Connector with 500 Series Barbs, 3/4" (19.0 mm) and 1/2" (12.7 mm) ID Tubing

N6110/6100 (-6 -9)

Straight Through Reduction Connector with 600 Series Barbs, 1" (25.4 mm) and 3/4" (19.0 mm) ID Tubing

N110/100 (-0 -6)

Straight Through Reduction Connector with 500 Series Barbs, 1" (25.4 mm) and 3/4" (19.0 mm) ID Tubing

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 Importers & Manufacturers:

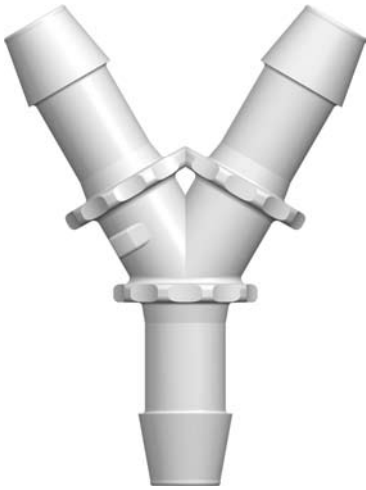
Material Suffix Key

-0 Natural Nylon
-J1A Natural Kynnar PVDF

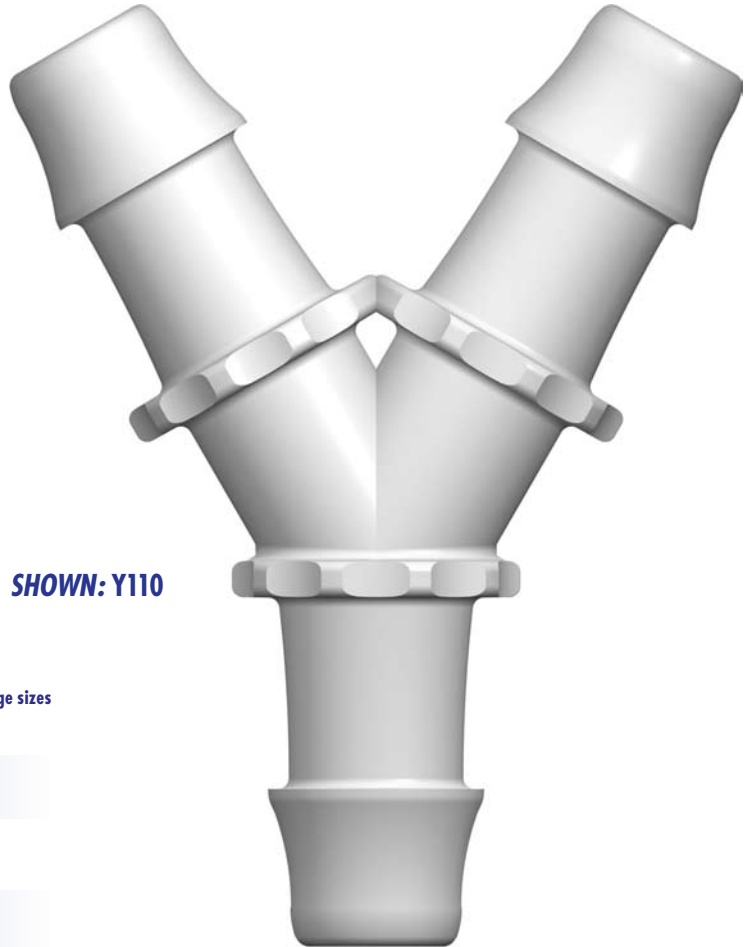
-6 Natural Polypropylene

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate



SHOWN: Y670



SHOWN: Y110

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

Y070 (-0 -6 -9)

Y Connector with 500 Series Barbs, 3/8" (9.5 mm) ID Tubing

Y670 (-6 -9)

Y Connector with 600 Series Barbs, 3/8" (9.5 mm) ID Tubing

Y080 (-0 -6 -9)

Y Connector with 500 Series Barbs, 1/2" (12.7 mm) ID Tubing

Y680 (-6 -9 -J1A)

Y Connector with 600 Series Barbs, 1/2" (12.7 mm) ID Tubing

Y090 (-0 -6 -J1A)

Y Connector with 500 Series Barbs, 5/8" (16.0 mm) ID Tubing

Y100 (-0 -6 -6005 -J1A)

Y Connector with 500 Series Barbs, 3/4" (19.0 mm) ID Tubing

Y110 (-0 -6)

Y Connector with 500 Series Barbs, 1" (25.4 mm) ID Tubing

LARGE TUBE-TO-TUBE:

Press-In Plugs

PIP070 (-0 -6)

Press-In Plug with 500 Series Barb, 3/8" (9.5 mm) ID Tubing



PIP080 (-6)

Press-In Plug with 500 Series Barb, 1/2" (12.7 mm) ID tubing



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Importers & Manufacturers

Material Suffix Key

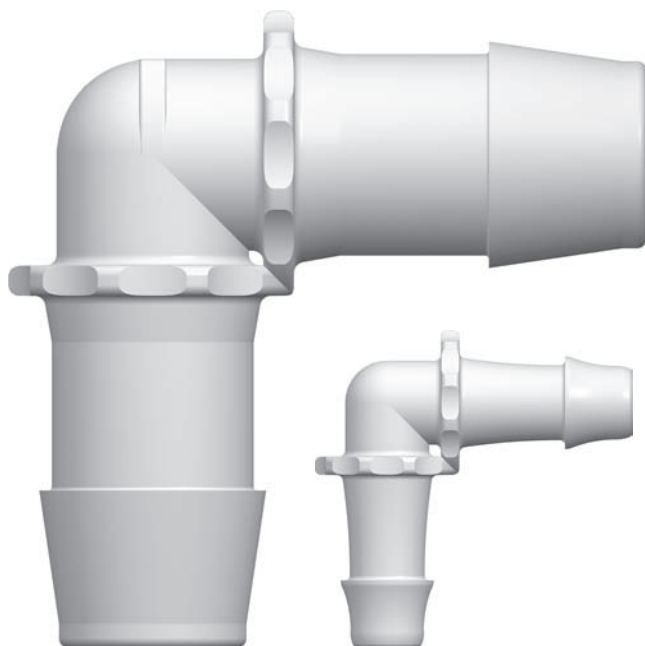
-0 Natural Nylon

-6 Natural Polypropylene

-6005 Animal-Free Polypropylene

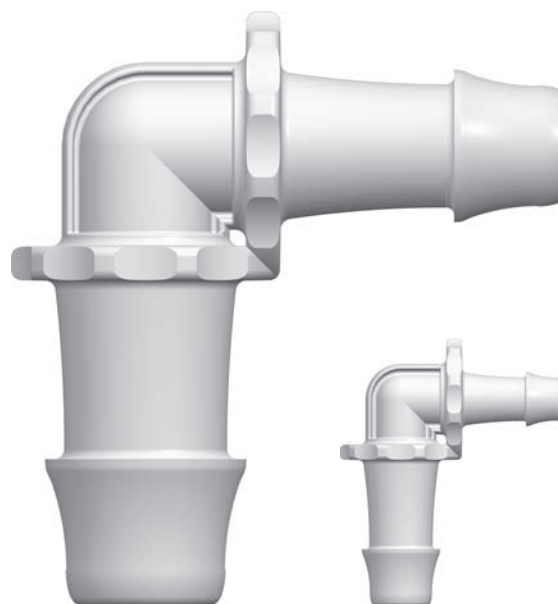
-9002 Radiation Stable Polycarbonate

-11A Natural Kynnar PVDF



SHOWN: L6110

SHOWN: L070



SHOWN: L110/100

SHOWN: L070/055

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

L070 (-0 -6)

Elbow Connector with 500 Series Barbs, 3/8" (9.5 mm) ID Tubing

L970 (-9)

Elbow Connector with 900 Series Barbs, 3/8" (9.5 mm) ID Tubing

L080 (-0 -6)

Elbow Connector with 500 Series Barbs, 1/2" (12.7 mm) ID Tubing

L975 (-9)

Elbow Connector with 900 Series Barbs, 1/2" (12.7 mm) ID Tubing

L090 (-0 -6)

Elbow Connector with 500 Series Barbs, 5/8" (16.0 mm) ID Tubing

L100 (-0 -6 -6005)

Elbow Connector with 500 Series Barbs, 3/4" (19.0 mm) ID Tubing

L110 (-0 -6)

Elbow Connector with 500 Series Barbs, 1" (25.4 mm) ID Tubing

L6110 (-6)

Elbow Connector with 600 Series Barbs, 1" (25.4 mm) ID Tubing

CF494 (-6)

Low-profile Elbow Connector with Custom 600 Series Barbs, 1" (25.4 mm) ID Tubing

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

L070/055 (-0 -6)

Elbow Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/4" (6.4 mm) ID Tubing

L080/070 (-0 -6)

Elbow Reduction Connector with 500 Series Barbs, 1/2" (12.7 mm) and 3/8" (9.5 mm) ID Tubing

L100/080 (-0 -6)

Elbow Reduction Connector with 500 Series Barbs, 3/4" (19.0 mm) and 1/2" (12.7 mm) ID Tubing

L110/100 (-0 -6)

Elbow Reduction Connector with 500 Series Barbs, 1" (25.4 mm) and 3/4" (19.0 mm) ID Tubing

LINE DRAWINGS

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Australian Distributors:
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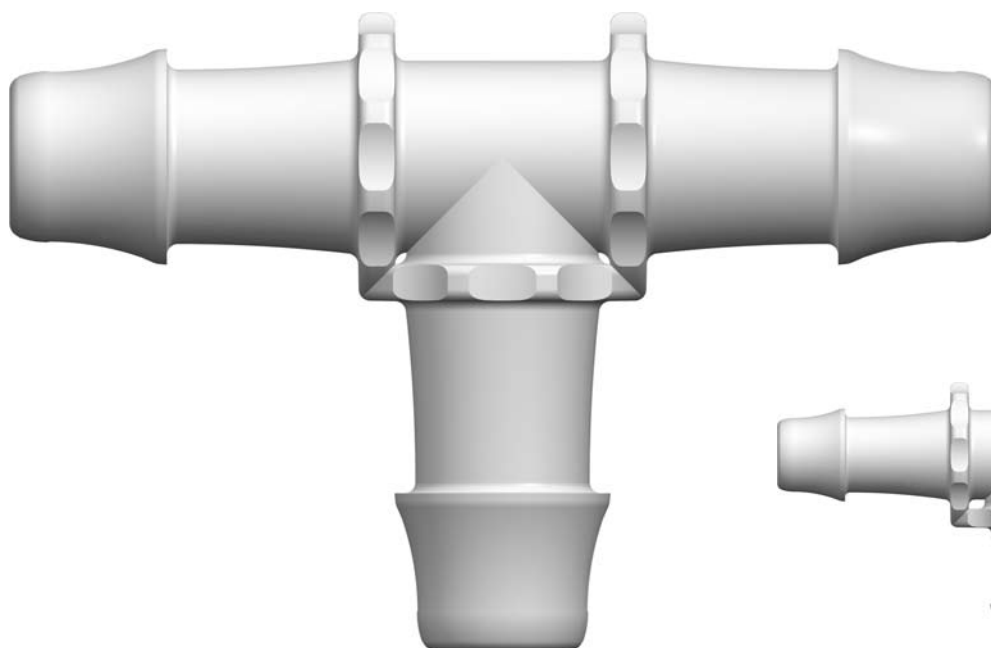
Material Suffix Key

-0 Natural Nylon
-J1A Natural Kynnar PVDF

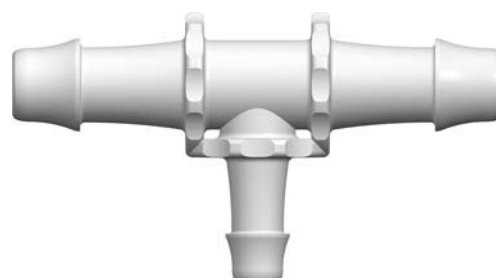
-6 Natural Polypropylene

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate



SHOWN: T110



SHOWN: T070/055

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

T070 (-0 -6 -9)

Tee Connector with 500 Series Barbs, 3/8" (9.5 mm) ID Tubing

T670 (-1 -6 -6005 -9 -J1A)

Tee Connector with 600 Series Barbs, 3/8" (9.5 mm) ID Tubing

T970 (-9)

Tee Connector with 900 Series Barbs, 3/8" (9.5 mm) ID Tubing

T080 (-0 -6 -9)

Tee Connector with 500 Series Barbs, 1/2" (12.7 mm) ID Tubing

T680 (-6 -9 -J1A)

Tee Connector with 600 Series Barbs, 1/2" (12.7 mm) ID Tubing

T975 (-9)

Tee Connector with 900 Series Barbs, 1/2" (12.7 mm) ID Tubing

T690 (-6 -9)

Tee Connector with 500 Series Barbs, 5/8" (16.0 mm) ID Tubing

T100 (-0 -6 -9)

Tee Connector with 500 Series Barbs, 3/4" (19.0 mm) ID Tubing

T110 (-0 -6)

Tee Connector with 500 Series Barbs, 1" (25.4 mm) ID Tubing

Minimum package quantities vary by tube IDs, please verify minimum package sizes when placing orders

T070/055 (-0 -6 -9)

Tee Reduction Connector with 500 Series Barbs, 3/8" (9.5 mm) and 1/4" (6.4 mm) ID Tubing

T080/055 (-0 -6 -9)

Tee Reduction Connector with 500 Series Barbs, 1/2" (12.7 mm) and 1/4" (6.4 mm) ID Tubing

T080/070 (-0 -6 -9)

Tee Reduction Connector with 500 Series Barbs, 1/2" (12.7 mm) and 3/8" (9.5 mm) ID Tubing

T100/080 (-0 -6 -9)

Tee Reduction Connector with 500 Series Barbs, 3/4" (19.0 mm) and 1/2" (12.7 mm) ID Tubing

T110/100 (-0 -6)

Tee Reduction Connector with 500 Series Barbs, 1" (25.4 mm) and 3/4" (19.0 mm) ID Tubing

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100 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



VALUE PLASTICS, INC.

CHROM *analytic* +61(0)3 9762 2034
ECHNOLOGY Pty Ltd

Australian Distributors:
Importers & Manufacturers:

THREADED



10-32 UNF, SPECIAL TAPERED THREAD
PG-59

1/4-28 UNF
PG-62

1/4-28 UNF BOTTOM SEALING
PG-63

METRIC - M6x1
PG-64

METRIC - M5x.8
PG-64

1/16-27 NPT
PG-65

1/8-27 NPT
PG-66

1/4-18 NPT REDUCERS
PG-67

CUSTOM THREADED FITTINGS
PG-39



VALUE PLASTICS THREAD SERIES

The X Thread

Value Plastics® X Series components have a tapered 10-32 thread that functions like a pipe thread. In comparison to standard 10-32 UNF threaded fittings, the tapered design works better with oversized ports and ports which are not perpendicular to the face of the component.

The 120 degree chamfer under the hex provides a seal when the fitting is tightened into a port with a countersink as shown below. It also seals on the thread due to interference on the pitch diameter. When using an elbow or tee, the tapered thread tightens radially and facilitates directional alignment of the barb.

Other Thread Series

K, B, C and D Series fittings, designed for use with 10-32 UNF ports, are straight-threaded components. These fittings seal against the 120 degree chamfer under the hex on the fitting and do not tighten radially as they are assembled. S Series fittings are straight threaded components for 1/4-28 UNF ports, M5 Series are for M5 x .8 ports and M6 Series are for M6 x 1 ports. Part numbers for fittings with pipe threads are noted below. Those for use with 1/16-27 NPT ports have part numbers prefixed with 16; those for 1/8-27 NPT ports have part numbers prefixed with 18; and those for 1/4-18 NPT ports have part numbers prefixed with 14.

The features shown below must be incorporated into the port when using our B, C, D, X, K, S, M5 and M6 Series fittings. Failure to do so will jeopardize the performance of the seal between the fitting and port. For applications in which this seal is highly critical, we recommend that you contact a sealant specialist.

When working with threaded parts, Value Plastics strongly recommends that you test sample parts in your application.

Value Plastics® Thread Series	Dimension A Thread Length	Clearance Needed to Achieve Chamfer Seal	Dimension B Countersink Diameter	Feature C Internal Screw Thread Series
X	.200"	.250"	.210"-.230"	10-32 UNF 28
K, B, C, D	.156"	.200"	.210"-.230"	10-32 UNF 28
S	.204"	.250"	.270"-.290"	1/4-28 UNF 28
M5	.192"	.250"	.210"-.230"	M5 X .8
M6	.235"	.375"	.270"-.290"	M6 X 1



VALUE PLASTICS, INC.

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ECH *Technology* Pty Ltd

Australian Distributors:
Importers & Manufacturers:

THREAD:**10-32 UNF, Special Tapered Thread****Material Suffix Key**

-1 White Nylon
-4 Green Nylon
-6 Natural Polypropylene
-9 Clear Polycarbonate

-10 Acetal
-5 Blue Nylon
-6005 Animal-Free Polypropylene
-9002 Radiation Stable Polycarbonate

-2 Black Nylon
-06 Orange Nylon
-8003 Natural ABS
-J1A Natural Kynar PVDF

-3 Red Nylon
-07 Yellow Nylon
-81 Lace White ABS

X210 (-1 -2 -3 -5 -6 -J1A)

10-32 Special Tapered Thread with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**K210 (-1 -2 -3 -5 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**X410 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**K410 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**X10 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing

**K10 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing

**X220 (-1 -2 -3 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**K220 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**X420 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**K420 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**D (-1 -2 -3 -4 -5 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to Classic Series Barb, 3/32" (2.4 mm) ID Tubing

**X230 (-1 -2 -3 -5 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**K230 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**X430 (-1 -2 -3 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**K430 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**B (-1 -2 -3 -4 -5 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to Classic Series Barb, 1/8" (3.2 mm) ID Tubing

**C (-1 -2 -3 -4 -5 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to Classic Series Barb, Short Neck, 1/8" (3.2 mm) ID Tubing

**K240 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing

**X240 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing

**X445 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread with 1/4" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing

**K445 (-1 -2 -6 -J1A)**

10-32 UNF Thread with 1/4" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing



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VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers

THREAD:**10-32 UNF, Special Tapered Thread Elbow****Material Suffix Key**

-1 White Nylon

-4 Green Nylon

-6 Natural Polypropylene

-9 Clear Polycarbonate

-10 Acetal

-5 Blue Nylon

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate

-2 Black Nylon

-06 Orange Nylon

-8003 Natural ABS

-J1A Natural Kynar PVDF

-3 Red Nylon

-07 Yellow Nylon

-81 Lace White ABS

XL210 (-1 -2 -6 -J1A)

10-32 Special Tapered Thread Elbow with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**KL210 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**XL410 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Elbow with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**KL410 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**XL220 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Elbow with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**KL220 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**XL420 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Elbow with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**KL420 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**XL230 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Elbow with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**KL230 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**XL430 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Elbow with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**KL430 (-1 -2 -6 -J1A)**

10-32 UNF Thread Elbow with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**TECHNICAL ASSISTANCE**

Trying to choose the correct part? Need more material information than is published in this catalog? Call Value Plastics Technical Support for assistance at 970-267-5200.



VALUE PLASTICS, INC.

CHROM
 alytic
 ECH
 nology
 Pty Ltd

 Australian Distributors:
 Importers & Manufacturers

THREAD:

10-32 UNF, Special Tapered Thread Tee

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF	

XT210 (-1 -2 -6 -J1A)

10-32 Special Tapered Thread Tee with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**KT210 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**XT410 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Tee with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**KT410 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**XT220 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Tee with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**KT220 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**XT420 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Tee with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**KT420 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**XT230 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Tee with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**KT230 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**XT430 (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Tee with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**KT430 (-1 -2 -6 -J1A)**

10-32 UNF Thread Tee with 1/4" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**LINE DRAWINGS**

Value Plastics provides line drawings for all its fittings. For further information, visit our website at www.valueplastics.com.



our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

www.valueplastics.com

(Online ordering is not available in countries served by our regional partners)

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VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers

THREAD:

10-32 UNF, Special Tapered Thread Couplers and Plugs

THREAD:

1/4-28 UNF

Material Suffix Key

-1 White Nylon

-4 Green Nylon

-6 Natural Polypropylene

-9 Clear Polycarbonate

-10 Acetal

-5 Blue Nylon

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate

-2 Black Nylon

-06 Orange Nylon

-8003 Natural ABS

-J1A Natural Kynar PVDF

-3 Red Nylon

-07 Yellow Nylon

-81 Lace White ABS

XN (-1 -2 -6 -J1A)

10-32 Special Tapered Thread Coupler with 1/4" Hex

**KN (-1 -2 -6 -J1A)**

10-32 UNF Thread Coupler with 1/4" Hex

**XP (-1 -2 -6 -J1A)**

10-32 Special Tapered Thread Plug with 1/4" Hex

**KP (-1 -2 -6 -J1A)**

10-32 UNF Thread Plug with 1/4" Hex

**LOOKING FOR SOMETHING DIFFERENT?**

Most of our best product ideas have come from you, our customers. While we pride ourselves on our extensive product offering, we recognize that your needs are ever-changing and that our products, too, must adapt to your new needs.

If there's a new product you think Value Plastics should make, drop an email to designcenter@valueplastics.com or fax 970-267-3578 to the attention of Design Center, describing your product concept in as much detail as you desire. We will contact you with any questions, and who knows — the next catalog edition could include products YOU told us to build!

See page 36 for more information on the Value Plastics Design Center.

**VALUE PLASTICS
DESIGN CENTER**

S210 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**S410 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**S10 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing

**S220 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**S420 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**S20 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to Classic Series Barb, 3/32" (2.4 mm) ID Tubing

**S230 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**S430 (-1 -2 -6 -J1A)**

1/4-28 UNF Thread with 5/16" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing



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E C H n o l o g y P t y L t d

Australian Distributors:
Importers & Manufacturers:

THREAD:
1/4-28 UNF

THREAD:
1/4-28 UNF Bottom Sealing

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF	

S30 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to Classic Series Barb, 1/8" (3.2 mm) ID Tubing



S240 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



S40 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to Classic Series Barb, 5/32" (4.0 mm) ID Tubing



S445 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing



S250 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



S450 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to 400 Series Barb, 3/16" (4.8 mm) ID Tubing



S50 (-1 -2 -6 -J1A)

1/4-28 UNF Thread with 5/16" Hex to Classic Series Barb, 3/16" (4.8 mm) ID Tubing



SP (-1 -2 -6 -J1A)

1/4-28 UNF Thread Plug with 5/16" Hex



ABR002-J1A UNDER (-1 -J1A)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



ABR004-6 UNDER (-1 -2 -3 -4 -5)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

ABR004-J1A UNDER (-1 -2 -3 -4 -5 -J1A)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 1/16" (1.6 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

ABR007-6 UNDER (-1 -2 -3 -4 -5)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

ABR007-J1A UNDER (-1 -2 -3 -4 -5 -J1A)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 3/32" (2.4 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

ABR013-6 UNDER (-1 -2 -3 -4 -5)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

ABR013-J1A UNDER (-1 -2 -3 -4 -5 -J1A)

1/4-28 UNF Bottom Sealing Rotating Thread with 5/16" Hex to 500 Series Barb, 1/8" (3.2 mm) ID Tubing



Recommended torque:
Polypropylene - 1.5-2 in. lbs.
Kynar - 2-4 in. lbs.

TECS116 (-6 -J1A)

1/4-28 UNF Bottom Sealing Thread Tube End Coupler with 5/16" Hex, 1/16" (1.6 mm) OD Tubing



TECS118 (-6 -J1A)

1/4-28 UNF Bottom Sealing Thread Tube End Coupler with 5/16" Hex, 1/8" (3.2 mm) OD Tubing



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VALUE PLASTICS, INC.

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EChnology Pty Ltd

Australian Distributors:
Importers & Manufacturers

THREAD:
M6x1

THREAD:
M6x1

Material Suffix Key

-1 White Nylon	-10 Acetal	-2 Black Nylon	-3 Red Nylon
-4 Green Nylon	-5 Blue Nylon	-06 Orange Nylon	-07 Yellow Nylon
-6 Natural Polypropylene	-6005 Animal-Free Polypropylene	-8003 Natural ABS	-81 Lace White ABS
-9 Clear Polycarbonate	-9002 Radiation Stable Polycarbonate	-J1A Natural Kynar PVDF	

M6210 (-1 -2 -6)

M6x1 Thread with 5/16" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



M6250 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



M6410 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing



M6450 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 400 Series Barb, 3/16" (4.8 mm) ID Tubing



M6220 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



M6P (-1 -2 -6 -J1A)

M6x1 Thread Plug with 5/16" Hex



M6420 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing



THREAD:

M5x.8

M5210 (-1 -2 -6)

M5x.8 Thread with 1/4" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



M6230 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



M5220 (-1 -2 -6)

M5x.8 Thread with 1/4" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



M6430 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing



M5230 (-1 -2 -6)

M5x.8 Thread with 1/4" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



M6240 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



M5240 (-1 -2 -6)

M5x.8 Thread with 1/4" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



M6445 (-1 -2 -6 -J1A)

M6x1 Thread with 5/16" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing



TECHNICAL ASSISTANCE

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VALUE PLASTICS, INC.

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ECH *technology* Pty Ltd

Australian Distributors:
Importers & Manufacturers:

THREAD:
1/16-27 NPT

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

16210 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing



1630 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to Classic Series Barb, 1/8" (3.2 mm) ID Tubing



16410 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing



16240 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing



1610 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing



1640 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to Classic Series Barb, 5/32" (4.0 mm) ID Tubing



16220 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing



16445 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing



16420 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing



16250 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



1620 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to Classic Series Barb, 3/32" (2.4 mm) ID Tubing



16450 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 400 Series Barb, 3/16" (4.8 mm) ID Tubing



16230 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



1650 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to Classic Series Barb, 3/16" (4.8 mm) ID Tubing



16430 (-1 -2 -6 -J1A)
1/16-27 NPT Thread with 5/16" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing



1600 (-1 -2 -6 -J1A)
1/16-27 NPT Thread Plug with 5/16" Hex



Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

100 piece minimums, unless noted in red text • Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



VALUE PLASTICS, INC.

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ECH *technology* Pty Ltd

Australian Distributors:
Importers & Manufacturers:

Material Suffix Key

-1 White Nylon

-4 Green Nylon

-6 Natural Polypropylene

-81 Lace White ABS

-10 Acetal

-5 Blue Nylon

-63 Red Polypropylene

-9 Clear Polycarbonate

-2 Black Nylon

-06 Orange Nylon

-6005 Animal-Free Polypropylene

-9002 Radiation Stable Polycarbonate

-3 Red Nylon

-07 Yellow Nylon

-8003 Natural ABS

-J1A Natural Kynar PVDF

18210 (-1 -2 -6 -J1A)

1/8-27 NPT Thread with 7/16" Hex to 200 Series Barb, 1/16" (1.6 mm) ID Tubing

**18430 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 400 Series Barb, 1/8" (3.2 mm) ID Tubing

**18410 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 400 Series Barb, 1/16" (1.6 mm) ID Tubing

**1830 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 1/8" (3.2 mm) ID Tubing

**1810 (-1 -2 -6 -65 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 1/16" (1.6 mm) ID Tubing

**18240 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 200 Series Barb, 5/32" (4.0 mm) ID Tubing

**18220 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 200 Series Barb, 3/32" (2.4 mm) ID Tubing

**1840 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 5/32" (4.0 mm) ID Tubing

**18420 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 400 Series Barb, 3/32" (2.4 mm) ID Tubing

**18445 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 400 Series Barb, .170" (4.3 mm) ID Tubing

**1820 (-1 -2 -6 -63 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 3/32" (2.4 mm) ID Tubing

**1850 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 3/16" (4.8 mm) ID Tubing

**18230 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing

**1860 (-1 -2 -6 -J1A)**

1/8-27 NPT Thread with 7/16" Hex to Classic Series Barb, 1/4" (6.4 mm) ID Tubing



VALUE PLASTICS, INC.

 CHROM Aesthetic
TECHNOLOGY Pty Ltd

 Australian Distributors:
Importers & Manufacturers

THREAD:
1/8-27 NPT Elbow, & Tees

THREAD:
1/8-27 NPT Plugs & Reducers

Material Suffix Key

- | | | | |
|--------------------------|--------------------------------------|-------------------------|--------------------|
| -1 White Nylon | -10 Acetal | -2 Black Nylon | -3 Red Nylon |
| -4 Green Nylon | -5 Blue Nylon | -06 Orange Nylon | -07 Yellow Nylon |
| -6 Natural Polypropylene | -6005 Animal-Free Polypropylene | -8003 Natural ABS | -81 Lace White ABS |
| -9 Clear Polycarbonate | -9002 Radiation Stable Polycarbonate | -J1A Natural Kynar PVDF | |

18L230 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Elbow with 7/16" Hex to 200 Series Barb, 1/8" (3.2 mm) ID Tubing



18L250 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Elbow with 7/16" Hex to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



18L260 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Elbow with 7/16" Hex to 200 Series Barb, 1/4" (6.4 mm) ID Tubing



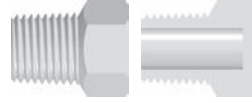
18T250 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Tee with 7/16" Hex to 200 Series Barb, 3/16" (4.8 mm) ID Tubing



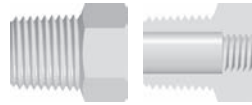
18T260 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Tee with 7/16" Hex to 200 Series Barb, 1/4" (6.4 mm) ID Tubing



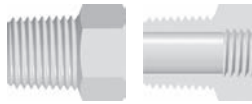
1800 (-1 -2 -6 -J1A)
1/8-27 NPT Thread Plug with 7/16" Hex



1801 (-1 -2 -6 -J1A)
Reducer with 1/8-27 NPT Male Thread and 7/16" Hex to 10-32 UNF Female Thread

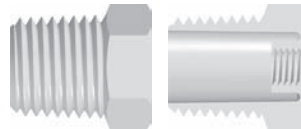


1802 (-1 -2 -6 -J1A)
Reducer with 1/8-27 NPT Male Thread and 7/16" Hex to 1/4-28 UNF Female Thread

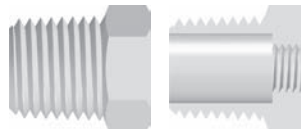


THREAD:
1/4-18 NPT Reducers

1401 (-1 -2 -6 -J1A)
Reducer with 1/4-18 NPT Male Thread and 9/16" Hex to 10-32 UNF Female Thread



1402 (-1 -2 -6 -J1A)
Reducer with 1/4-18 NPT Male Thread and 9/16" Hex to 1/4-28 UNF Female Thread



LINE DRAWINGS

Value Plastics provides line drawings for all its fittings. For further information, visit our website at www.valueplastics.com.

BUILD-A-PART™



JUNCTION BLOCKS PG-69



ACCESSORIES PG-70



BARBS PG-70



THREADS PG-71



Bonding Suggestions

Prior to actually bonding, press together a model of the manifold to use as a reference.

Do not mix plastic resins. Consult your adhesive specialist if you need to bond dissimilar materials.

These components are designed for bonding with any one of a number of solvents, but other adhesive systems may be used. When solvent bonding, use a very small gauge needle (typically 27 or 30) for best solvent control. Consult your adhesive specialist for guidance on other systems.

Apply solvent sparingly. Most solvents are low viscosity and readily wick into the bondline. Excessive solvent may compromise the aesthetics and the function of the assembly.

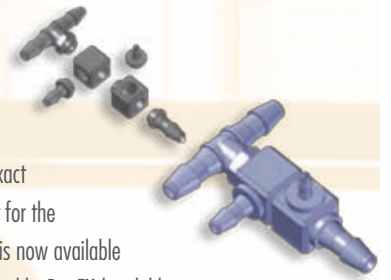
Press the mating components together leaving a .01-.03" gap between them for the solvent. Place the components in an orientation such that they may be rotated ¼ turn to their final position after applying the solvent.

After applying solvent, wait a few seconds, then rotate the components to their final position. When making a long manifold with bondable junction blocks it may be helpful to push the assembly against a flat surface to align the blocks before the solvent has set.

Affordable Unique Solutions:

Design Your New Component with Build-A-Part™ bondable components!

Component designers no longer need be constrained by the limitations of injection molding tool design. The exact fitting, in the optimal layout for the process or product concept, is now available with Value Plastics' line of Build-a-Part™ bondable components, designed for use with gases or liquids.



The Build-a-Part system is based on combining interchangeable components, joining junction blocks and luer, hose barb or threaded features to create the desired configuration. The features are bonded to the junction blocks using commonly available adhesives. Junction blocks and features may be bonded together to create multi-port, multi-axis products that receive and redirect fluid flow in whatever direction the designer desires. The only limitation is the designer's imagination.

114 component options are available from stock in two materials. Options include ISO 594-1 compliant male and female luers and hose barbs in 1/16" (1.6 mm), 3/32" (2.4 mm) and 1/8" (3.2 mm) in straight, elbow and branch tee configurations. Also available are male threads including 10-32 UNF, 1/16-27 NPT, 1/8-27 NPT, 1/4-28 UNF and M6x1 versions, and mounting devices.

The complete range is available in two resins: white ABS or translucent polysulfone. For ease of testing concepts, Value Plastics offers designer kits in both resins. Each kit contains hundreds of components for prototype purposes, enabling designs to be created and modified prior to production commitment.



VALUE PLASTICS, INC.

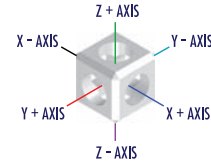
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ECH nology Pty Ltd

Australian Distributors:
Importers & Manufacturers

BLOCK	NUMBER	MATERIAL
	BDJ01-40	Polysulfone
	BDJ01-81	Lace White ABS
	BDJ02-40	Polysulfone
	BDJ02-81	Lace White ABS
	BDJ03-40	Polysulfone
	BDJ03-81	Lace White ABS
	BDJ04-40	Polysulfone
	BDJ04-81	Lace White ABS
	BDJ05-40	Polysulfone
	BDJ05-81	Lace White ABS
	BDJ06-40	Polysulfone
	BDJ06-81	Lace White ABS
	BDJ07-40	Polysulfone
	BDJ07-81	Lace White ABS
	BDJ08-40	Polysulfone
	BDJ08-81	Lace White ABS
	BDJ09-40	Polysulfone
	BDJ09-81	Lace White ABS
	BDJ10-40	Polysulfone
	BDJ10-81	Lace White ABS
	BDJ11-40	Polysulfone
	BDJ11-81	Lace White ABS
	BDJ12-40	Polysulfone
	BDJ12-81	Lace White ABS
	BDJ13-40	Polysulfone
	BDJ13-81	Lace White ABS
	BDJ14-40*	Polysulfone
	BDJ14-81*	Lace White ABS
	BDJ15-40*	Polysulfone
	BDJ15-81*	Lace White ABS

*Check valve junction block. For use with RB01 and SB01

BLOCK	NUMBER	MATERIAL
	BDJ16-40*	Polysulfone
	BDJ16-81*	Lace White ABS
	BDJ17-40*	Polysulfone
	BDJ17-81*	Lace White ABS
	BDJ18-40	Polysulfone
	BDJ18-81	Lace White ABS
	BDJ19-40	Polysulfone
	BDJ19-81	Lace White ABS
	BDJ20-40	Polysulfone
	BDJ20-81	Lace White ABS
	BDJ21-40	Polysulfone
	BDJ21-81	Lace White ABS
	BDJ22-40	Polysulfone
	BDJ22-81	Lace White ABS



Build-A-Part Junction Block Configuration Table

BLOCK	X+ AXIS	X- AXIS	Y+ AXIS	Y- AXIS	Z+ AXIS	Z- AXIS
BDJ01	Female	Female				
BDJ02			Female		Female	
BDJ03			Female		Female	Female
BDJ04	Female	Female	Female	Female		
BDJ05	Female		Female		Female	
BDJ06	Female		Female		Female	Female
BDJ07	Female	Female	Female	Female	Female	
BDJ08	Female	Female	Female	Female	Female	Female
BDJ09	Male	Female	Female		Female	Female
BDJ10	Male	Female	Female	Female	Female	Female
BDJ11	Male	Female	Female	Female		
BDJ12	Male	Female	Female			
BDJ13	Male	Female	Female		Female	
BDJ14	Male	Female				
BDJ15	Female	Female				
BDJ16	Female	Female		Female ^a		
BDJ17	Male	Female	Female ^a			
BDJ18	Male ^b	Female	Female		Female	Female
BDJ19	Male ^b	Female	Female	Female	Female	Female
BDJ20	Male ^b	Female	Female	Female		
BDJ21	Male ^b	Female	Female			
BDJ22	Male ^b	Female	Female		Female	

^aFor non-flow manifolding ^b For use with BDMD

Material Suffix Key

-40 Polysulfone

-9002 Radiation Stable Polycarbonate

-6 Natural Polypropylene

-F1A Medical Grade Polysulfone

-81 Lace White ABS

-XO Stainless Steel

-9 Clear Polycarbonate

-X2 Buna-N Rubber

RB01 (-X2) SB01 (-X0)

Check Valve Ball 5/32" Diameter


BDMRP (-40 -81)

Bondable Plug


BDMD (-40 -81)

Bondable Mounting Device


BDMFTLL (-40 -81 -9)

Bondable Female Luer Thread Style


BDMMTL (-40 -81)

Bondable Male Luer (May be used with separate rotating lock ring; RMLLR)


RMLLR (-1 -2 -3 -4 -5 -06 -07 -6 -9 -9002 -J1A)

Rotating Male Luer Lock Ring (For use with BDMMTL)


BDMR210 (-40 -81 -9 -9002)

Bondable 200 Series Barb, 1/16" (1.6 mm) ID Tubing


BDMR410 (-40 -81)

Bondable 400 Series Barb, 1/16" (1.6 mm) ID Tubing


BDMR220 (-40 -81)

Bondable 200 Series Barb, 3/32" (2.4 mm) ID Tubing


BDMR420 (-40 -81)

Bondable 400 Series Barb, 3/32" (2.4 mm) ID Tubing


BDMR230 (-40 -81)

Bondable 200 Series Barb, 1/8" (3.2 mm) ID Tubing


BDMR430 (-40 -81)

Bondable 400 Series Barb, 1/8" (3.2 mm) ID Tubing


BDMR240 (-40 -6 -81)

Bondable 200 Series Barb, 5/32" (4.0 mm) ID Tubing


BDMR445 (-40 -81)

Bondable 400 Series Barb, .170" (4.3 mm) ID Tubing


BDML210 (-40 -81 -9)

Bondable Elbow 200 Series Barb, 1/16" (1.6 mm) ID Tubing


BDML410 (-40 -81)

Bondable Elbow 400 Series Barb, 1/16" (1.6 mm) ID Tubing


BDML220 (-40 -81 -9)

Bondable Elbow 200 Series Barb, 3/32" (2.4 mm) ID Tubing


BDML420 (-40 -81)

Bondable Elbow 400 Series Barb, 3/32" (2.4 mm) ID Tubing


BDML230 (-40 -81)

Bondable Elbow 200 Series Barb, 1/8" (3.2 mm) ID Tubing


BDML430 (-40 -81)

Bondable Elbow 400 Series Barb, 1/8" (3.2 mm) ID Tubing



VALUE PLASTICS, INC.

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 ECHnology Pty Ltd

 Australian Distributors:
 Importers & Manufacturers:

Material Suffix Key

-40 Polysulfone

-6 Natural Polypropylene

-81 Lace White ABS

-9 Clear Polycarbonate

-9002 Radiation Stable Polycarbonate

-F1A Medical Grade Polysulfone

-X0 Stainless Steel

-X2 Buna-N Rubber

BDMT210 (-40 -81)

Bondable Tee 200 Series Barb, 1/16" (1.6 mm) ID Tubing



BDMT410 (-40 -81)

Bondable Tee 400 Series Barb, 1/16" (1.6 mm) ID Tubing



BDMT220 (-40 -81)

Bondable Tee 200 Series Barb, 3/32" (2.4 mm) ID Tubing



BDMT420 (-40 -81)

Bondable Tee 400 Series Barb, 3/32" (2.4 mm) ID Tubing



BDMT230 (-40 -81)

Bondable Tee 200 Series Barb, 1/8" (3.2 mm) ID Tubing



BDMT430 (-40 -81)

Bondable Tee 400 Series Barb, 1/8" (3.2 mm) ID Tubing



BDMX (-40 -81)

Bondable 10-32 Special Tapered Thread with 1/4" Hex



BDMK (-40 -81)

Bondable 10-32 UNF Thread with 1/4" Hex



BDMS (-81)

Bondable 1/4-28 UNF Thread with 5/16" Hex



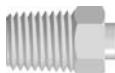
BDMM6 (-40 -81)

Bondable M6x1 Thread with 5/16" Hex



BDM16 (-40 -81)

Bondable 1/16-27 NPT Thread with 5/16" Hex



BDM18 (-40 -81)

Bondable 1/8-27 NPT Thread with 7/16" Hex



BDF16 (-40 -81)

Bondable 1/16-27 NPT Thread with 5/16" Hex



BDF18 (-40 -81)

Bondable 1/8-27 NPT Thread with 7/16" Hex



BDFM6 (-40 -81)

Bondable M6x1 Thread with 5/16" Hex



BDFS (-40 -81)

Bondable 1/4-28 UNF Thread with 5/16" Hex



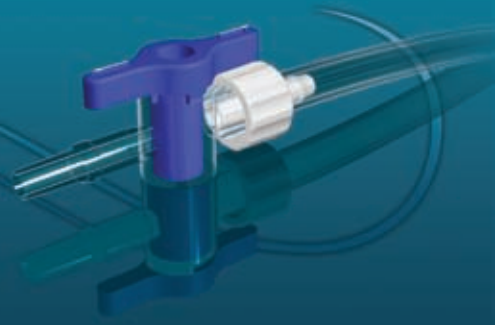
our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

www.valueplastics.com

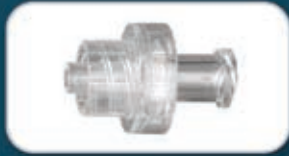
(Online ordering is not available in countries served by our regional partners)

Website : www.chromtech.net.au E-mail : info@chromtech.net.au TelNo : 03 9762 2034 . . . in AUSTRALIA

OTHER COMPONENTS



CHECK VALVES
PG-73



CLAMPS
PG-73



INJECTION SITES
PG-73



STOPCOCKS
PG-73



SPIKES
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TUBING
PG-74



DESIGNER KITS
PG-75



TUBESETTER®
ASSEMBLY TOOL
PG-77



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ECHOLOGY Pty Ltd

Australian Distributors:
Importers & Manufacturers

VPSS401068N (Polycarbonate with Silicone Disk)

Check Valve, Male/Female Luer, 420 mL/min flow rate at 1 M head 30 psi back pressure, 1/4 psi inlet cracking pressure



VPSS401020N (Polycarbonate with Silicone Disk)

Check Valve, Male/Female Luer, 129 mL/min flow rate at 100mmHg, 45 psi back pressure, 1-5 psi inlet cracking pressure



VPSS401036SN (Polycarbonate with Silicone Disk)

Reflux Check Valve, Male/Female Luer, 350mL/min flow Rate at 1 M head, 45 psi back pressure, opens at 284 mmHg



VPSS401001N (ABS Housing with Silicone Disk)

Check Valve, Male Slip Luer, 420 mL/min flow rate at 1 M head, 30 psi back pressure, 1/4 psi inlet cracking pressure



VPM2930601N (White ABS)

Tube Clamp with split, 1/8" (3.2 mm) OD Tubing



VPS3901074N (Polyisoprene with ABS Acrylic Body)

IN-4000 Intermittent Injection Site to Male Luer Lock



VPM1060200N (Clear Low Density Polyethylene)

Long Spike Guard Closed at Tip



VPM0480201N (White Polyethylene)

Luer Tip Syringe Cap



VPB0850400N (Clear ABS)

Female Luer Thread Style Coupler



VPM1080303N (Blue Polyethylene)

Male Luer Integral Lock Ring Plug



VPB1000055N (Polycarbonate Body with Polyethylene Handle)

One way Stopcock, Male Slip Luer to Capped Female Luer Thread Style



VP455980 (Polycarbonate Body with Polyethylene Handle)

One Way Stopcock, Capped Male Luer Lock to Capped Female Luer Thread Style - Sterile Version



VPB1000079N (Polycarbonate Body with Polyethylene Handle)

Three Way Stopcock, (2) Capped Female Luer Thread Style and Capped Male Luer Lock



VPB1000062N (Polycarbonate Body with Polyethylene Handle)

Three Way Stopcock, (2) Female Luer Thread Style and Male Slip Luer



VALUE PLASTICS, INC.

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ECH technology Pty Ltd

Australian Distributors:
Importers & Manufacturers

OTHER COMPONENTS

VPB1000099N (Polycarbonate Body with Polyethylene Handle)

Four Way Stopcock, (2) Capped Female Luer Thread Style and Male Slip Luer

**VPB1000110N** (Polycarbonate Body with Polyethylene Handle)

Four Way Stopcock, (2) Capped Female Luer Thread Style & Capped Male Luer Lock

**VPS5069200N** (White ABS Spike with Clear LDPE Guard)

Bag Spike with vented guard (replaces VPS5069700N)

**POLYVINYL CHLORIDE (PVC) TUBING****75 Durometer**

Our PVC tubing is a very cost effective product that can satisfy a broad array of end use applications. It is flexible in nature, optically clear, and easily sterilized.

Resin Grade & Technical Information:

This tubing is extruded from Unichem 7511 G-015 resin, which is in compliance with all US Food & Drug Administration regulations for food grade use under Title 21 CFR. It is also certified USP Class VI. It can be sterilized by gamma radiation or Ethylene Oxide (EtO) gas. This tubing is not autoclavable.

We recommend that you request free samples for testing in your particular applications.

DIMENSION (ID X OD X LGTH)	NUMBER
1/16" X 1/8" X 100'	PV00-1031C
1/16" X 1/8" X 1000'	PV00-1031M
3/32" X 3/16" X 100'	PV00-2047C
1/8" X 1/4" X 100'	PV00-3062C
1/8" X 1/4" X 1000'	PV00-3062M
3/16" X 5/16" X 100'	PV00-5062C
1/4" X 3/8" X 100'	PV00-6062C

POLYURETHANE TUBING**80 Durometer**

Our polyurethane tubing is extremely kink resistant. It is also highly resistant to abrasion and suffing. It is widely accepted as a premium material for medical device use because of its flexible nature and easy sterilizability.

Resin Grade & Technical Information:

This tubing is extruded from Dow's compound Pellethane 2363-80AE, which has passed USP Class VI testing. It can be sterilized by gamma radiation or Ethylene Oxide (EtO) gas. Please do not autoclave this tubing, as it may alter the chemical nature of the resin.

DIMENSION (ID X OD X LGTH)	NUMBER
1/16" X 1/8" X 100'	UR00-1031C
1/16" X 1/8" X 1000'	UR00-1031M
3/32" X 3/16" X 100'	UR00-2047C
3/32" X 3/16" X 1000'	UR00-2047M
1/8" X 1/4" X 100'	UR00-3062C

LOW DENSITY POLYETHYLENE TUBING**92 Durometer**

Our polyethylene tubing has excellent mechanical and chemical resistance properties. However, please use caution if your application involves possible bending or kinking the tubing. It is a semi-rigid material and will be permanently deformed if kinked or bent too tight.

Resin Grade & Technical Information:

This tubing is extruded from DuPont 2020T, which is in compliance with all U.S. Food & Drug Administration regulations for food grade use under Title 21 CFR. It can be sterilized by gamma radiation or Ethylene Oxide (EtO) gas. Autoclaving is not recommended.

DIMENSION (ID X OD X LGTH)	NUMBER
1/16" X 1/10" X 100'	LDPE01-1019C
1/16" X 1/10" X 1000'	LDPE01-1019M
1/16" X 1/8" X 100'	LDPE01-1031C
1/16" X 1/8" X 1000'	LDPE01-1031M
3/32" X 5/32" X 100'	LDPE01-2031C
3/32" X 5/32" X 1000'	LDPE01-2031M
1/8" X 3/16" X 100'	LDPE01-3031C
1/8" X 3/16" X 1000'	LDPE01-3031M
5/32" X 7/32" X 100'	LDPE01-4031C
5/32" X 7/32" X 1000'	LDPE01-4031M



VALUE PLASTICS, INC.

The Chromtech logo, featuring the word 'Chrom' in a large, stylized font with 'tech' in a smaller font below it.

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ASSORTED DESIGNER KIT (Part number - ASSORTED KIT-001)

Our Assorted Kit provides a cross section of many components designed and manufactured by Value Plastics. This kit contains a variety of our popular components, including luers, tube-to-tube and threaded fittings. Includes 484 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

LUER DESIGNER KIT (Part Number - LUER KIT-001)

Our Luer Kit contains male and female luers, luer plugs, couplers, tees, elbows as well as blood pressure cuff and monitor fittings. Luer tapers are made to ISO standards. Includes over 500 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

TUBE-TO-TUBE DESIGNER KIT (Part Number - TUBE-TO-TUBE KIT-001)

Our Tube-to-Tube Kit contains a variety of fittings in different configurations - and one that is sure to work for your application. Some of the fittings contained in this kit include straight-thru connectors, tees, elbows, Ys, and press-in plugs. Includes over 500 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

XQC DESIGNER KIT (Part Number - XQC KIT-001)

Our XQC Kit contains an assortment of XQC Series Quick Connect Fittings (Quick Disconnect Couplings). Includes 22 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

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1 piece minimum, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!


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OTHER COMPONENTS

BLOOD PRESSURE DESIGNER KIT (Part Number - BP KIT-001)

Our Blood Pressure Kit contains a variety of blood pressure fittings that are manufactured by Value Plastics. Some of the fittings contained in this kit include, quick connect fittings, connectors, panel mounts and adaptors. Includes 30 different parts and 138 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

BIOPHARM DESIGNER KIT (Part Number - BIOPHARM KIT-001)

Our Biopharm Designer Kit contains a variety of fittings that are commonly found within the BioPharm market. Some of the fittings contained in this kit include our larger fittings of Y's, T's, elbows, straight through and reducing connectors ranging from 3/8" to 1", sanitary fittings and gaskets. Contains 95 different pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

BUILD-A-PART DESIGNER KIT (Part Number -KIT01-81 -KIT01-40)

Our Build-A-Part Kits are available in two different materials: White ABS or Polysulfone. Contained in these kits are luers, elbows, tees, and junction blocks. Includes over 500 pieces, please see www.valueplastics.com for a complete list of all included parts.



Note: Due to our ever increasing product line, Kit contents are subject to change without notice. Kits may include one or more of each component in a variety of materials.

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Value Plastics' Tubesetter® assembly tool sets the standard for effortless tube set production. The Tubesetter product joins flexible tubing and Value Plastics' barbed fitting, applying the force necessary to push the tube over the barb, providing efficiency, economy and ease of use over other connection alternatives without adhesives or solvents!

TUBESETTER®: Manual

Designed for rapid assembly of barb to tube connections, the Tubesetter assembly tool joins flexible tubing and Value Plastics' barbed fitting, applying the force necessary to push the tube over the barb. No external power source is needed. Made almost entirely of acetal plastic, the device is easy to clean and suitable for operation in most environments. Consider the Manual Small Fitting Tubesetter assembly tool for prototype assembly or lower-volume manufacturing needs.

Due to the wide variety of tubing and connection options available, please contact our Sales dept. to arrange for an evaluation of your application before ordering.

PART	DESCRIPTION
930B1A	Manual TUBESETTER® Base
930JS*	Standard Jaw Set
930AS*	Standard Flip Top Anvil
920PS*	Standard Pin Set Assembly

*The base manual TUBESETTER® unit requires a jaw set, anvil assembly and pin set assembly. An additional engineering fee may be required for a custom application.

MANUAL TUBESETTER

- Easy to use
- Excellent for volumes up to 1,000 assemblies per month
- Accommodates tubing from 3/32" to 3/8" OD
- Configurable for: Luers - Straights - Ys - Tees - Elbows
- Requires no electricity or pneumatic power
- Long-life acetal construction



our online ordering for component parts, now available 24 hours a day, 7 days a week, with no \$ minimums! You can find every catalog part at:

www.valueplastics.com

(Online ordering is not available in countries served by our regional partners)

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1 piece minimums, unless noted in red text • ■ Red Text = Special order items • Volume pricing may be available for quantities 5,000 and over • Call for details!



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OTHER COMPONENTS

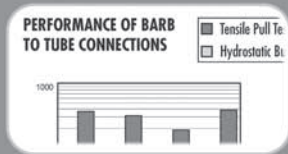
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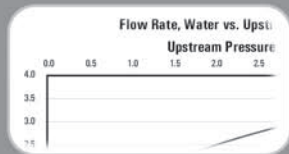
BARB DIMENSIONS PG-79

200 SERIES	BARB SIZE	BARB OD	BARB ID
	210	0.094	0.1
	220	0.141	0.1
	230	0.188	0.1
	240	0.234	0.1

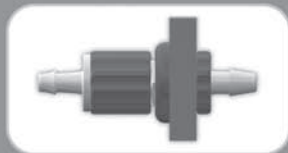
BARB PERFORMANCE PG-80



BPF SERIES PERFORMANCE PG-81



PANEL MOUNT INSTRUCTIONS PG-81



RESIN INFORMATION PG-82

CHEMICAL	%	TEMP C	TEMP F	ABS
Acetic Acid	5%	23 C	73 F	Excellent
Acetone	100%	50 C	122 F	Satisfactory
Acetophenone	100%	24 C	75 F	Satisfactory
Acetylene	100%	24 C	75 F	—
Air	100%	82 C	180 F	Excellent
Ammonia, Liquid	100%	24 C	75 F	Satisfactory
Ammonium Methylsulfate	100%	99 F	110 C	Good

TRADEMARKS PG-85



TERMS & CONDITIONS PG-86

TERMS AND CONDITIONS OF SALE

All terms are current as of January 1, 2009 and are subject to change without notice. These Terms and Conditions of Sale and any quote submitted with these Terms and Conditions, and the agreement to which these Terms and Conditions of Sale and any quote are attached ("the Agreement") form a contract between Chromtech and the customer. The customer's acceptance of the Agreement is deemed to be the customer's agreement to these Terms and Conditions of Sale. The customer's acceptance of the Agreement is deemed to be the customer's agreement to these Terms and Conditions of Sale. The customer's acceptance of the Agreement is deemed to be the customer's agreement to these Terms and Conditions of Sale.

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CLASSIC SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
10	0.105	0.046	0.063	1/16"	1.6 mm
20	0.145	0.060	0.094	3/32"	2.4 mm
30	0.187	0.078	0.125	1/8"	3.2 mm
40	0.234	0.100	0.156	5/32"	4.0 mm
50	0.280	0.130	0.188	3/16"	4.8 mm
60	0.355	0.187	0.250	1/4"	6.4 mm

500 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
004	0.102	0.060	0.063	1/16"	1.6 mm
007	0.129	0.076	0.094	3/32"	2.4 mm
013	0.164	0.096	0.125	1/8"	3.2 mm
025	0.208	0.122	0.156	5/32"	4.0 mm
035	0.264	0.155	0.188	3/16"	4.8 mm
055	0.335	0.197	0.250	1/4"	6.4 mm
065	0.425	0.250	0.312	5/16"	7.9 mm
N070	0.483	0.262	0.375	3/8"	9.5 mm
L070	0.483	0.251	0.375	3/8"	9.5 mm
T070	0.483	0.290	0.375	3/8"	9.5 mm
Y070	0.483	0.290	0.375	3/8"	9.5 mm
N080	0.613	0.333	0.500	1/2"	12.7 mm
L080	0.613	0.319	0.500	1/2"	12.7 mm
T080	0.613	0.356	0.500	1/2"	12.7 mm
Y080	0.613	0.362	0.500	1/2"	12.7 mm
N090	0.718	0.390	0.625	5/8"	16.0 mm
L090	0.718	0.374	0.625	5/8"	16.0 mm
T090	0.718	0.374	0.625	5/8"	16.0 mm
Y090	0.718	0.390	0.625	5/8"	16.0 mm
N100	0.853	0.465	0.750	3/4"	19.0 mm
L100	0.853	0.443	0.750	3/4"	19.0 mm
T100	0.853	0.447	0.750	3/4"	19.0 mm
Y100	0.853	0.492	0.750	3/4"	19.0 mm
N110	1.125	0.623	1.000	1"	25.4 mm
L110	1.125	0.600	1.000	1"	25.4 mm
T110	1.125	0.600	1.000	1"	25.4 mm
Y110	1.125	0.623	1.000	1"	25.4 mm

200 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
210	0.094	0.047	0.063	1/16"	1.6 mm
220	0.141	0.070	0.094	3/32"	2.4 mm
230	0.188	0.094	0.125	1/8"	3.2 mm
240	0.234	0.117	0.156	5/32"	4.0 mm
250	0.282	0.141	0.188	3/16"	4.8 mm
260	0.375	0.188	0.250	1/4"	6.4 mm

300 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
360	0.338	0.192	0.250	1/4"	6.4 mm

400 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
410	0.078	0.046	0.063	1/16"	1.6 mm
420	0.117	0.068	0.094	3/32"	2.4 mm
430	0.156	0.092	0.125	1/8"	3.2 mm
440	0.206	0.125	0.156	5/32"	4.0 mm
445	0.213	0.125	0.170	-	4.3 mm
450	0.234	0.137	0.188	3/16"	4.8 mm
460	0.313	0.184	0.250	1/4"	6.4 mm

600 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
N655	0.335	0.181	0.250	1/4"	6.4 mm
N670	0.490	0.296	0.375	3/8"	9.5 mm
N680	0.625	0.403	0.500	1/2"	12.7 mm
N690	0.762	0.499	0.625	5/8"	16.0 mm
N6100	0.900	0.615	0.750	3/4"	19.0 mm
N6110	1.180	0.804	1.000	1"	25.4 mm
T670	0.490	0.286	0.375	3/8"	9.5 mm
T680	0.625	0.399	0.500	1/2"	12.7 mm
T690	0.762	0.483	0.625	5/8"	16.0 mm
Y670	0.490	0.296	0.375	3/8"	9.5 mm
Y680	0.625	0.401	0.500	1/2"	12.7 mm

700 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
755	0.329	0.204	0.250	1/4"	6.4 mm
770	0.450	0.302	.375	3/8"	9.5 mm

900 SERIES



BARB SIZE	BARB OD	BARB ID	TUBE INTERNAL DIAMETER		
			DEC.	FRAC.	METRIC
970	0.437	0.269	0.375	3/8"	9.5 mm
975	0.573	0.358	0.500	1/2"	12.7 mm



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Performance of Barb to Tube Connection

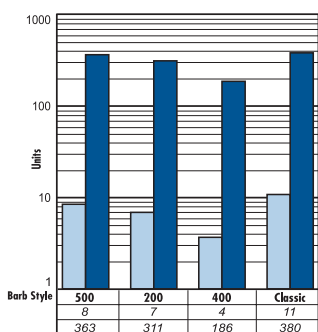
Tensile pull and burst tests were performed by an independent laboratory under controlled conditions to provide comparative performance data for the various barb styles and sizes offered by Value Plastics. Graph numbers 1 through 8 present the data from each of the tests for each barb size and each barb style connected to PVC tube.

The values shown are the means of a statistically significant sample quantity of each configuration. Value Plastics® barbed fittings specifically designed for use with the tubing size indicated were used in these tests. No oversized barbs, solvents, adhesives, or secondary fasteners of any kind were used.

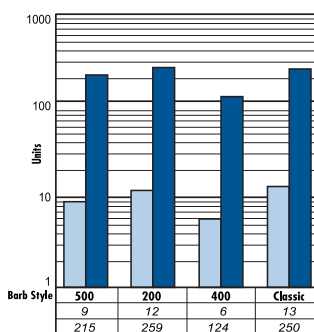
Tensile Pull Test: Tensile properties were measured to determine the force required to remove the barbed fitting from the tubing. Tensile specimens were mounted axially in a holding fixture and tested at a rate of 20 inches per minute. Failure mode was tubing separating from the barb.

Hydrostatic Burst Test: Hydrostatic burst testing was performed in general accordance with ASTM D1599. Failure mode was either tubing separating from the barb, the tubing bursting, or a combination of the two.

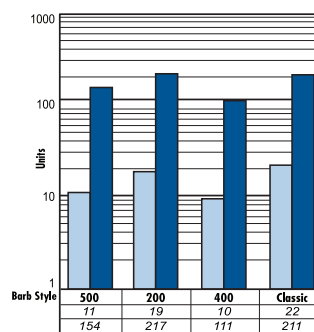
PERFORMANCE OF BARB TO TUBE CONNECTIONS



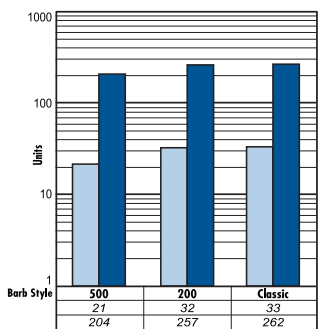
Graph 1: 1/16" Barb Performance



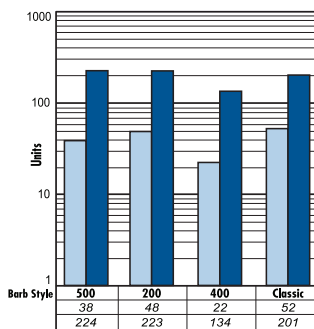
Graph 2: 3/32" Barb Performance



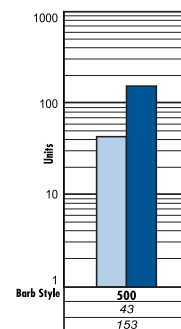
Graph 3: 1/8" Barb Performance



Graph 4: 5/32" Barb Performance

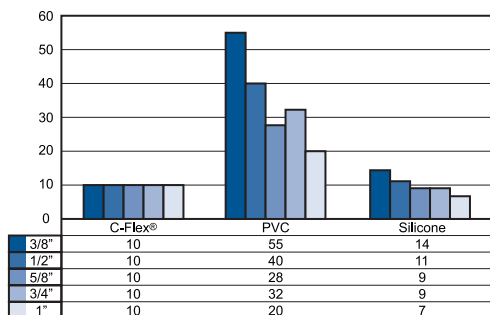


Graph 5: 3/16" Barb Performance

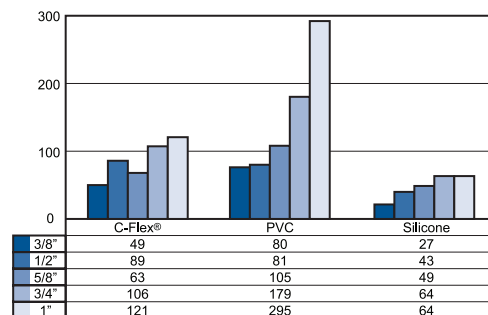


Graph 6: 1/4" Barb Performance

600 Series Leak Tests



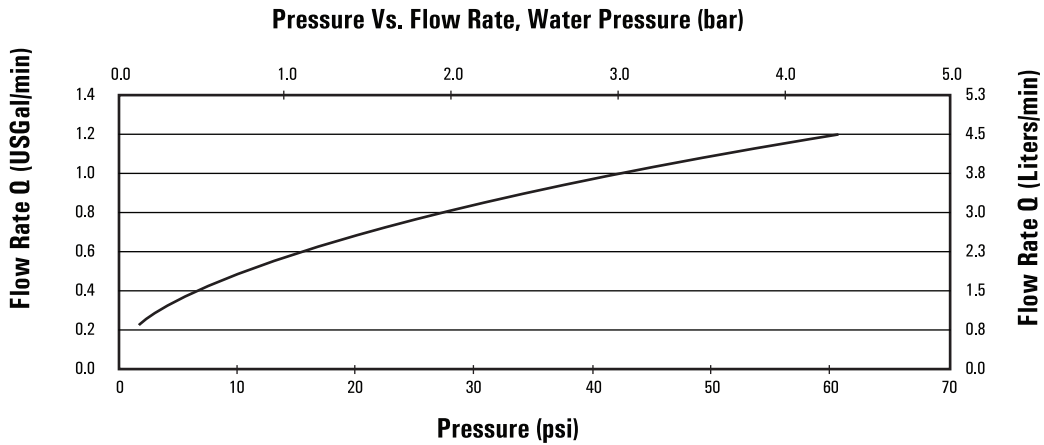
600 Series Tensile Pull Tests



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BPF Series Typical Physical Properties

Maximum cycles _____ 50,000 connect-disconnect cycles	Maximum leak resistance _____ < .007 psi / 0.05 kPa / sec.
Maximum axial tensile resistance _____ 20 lbf.	Minimum Fitting ID _____ .113" / 2.9 mm
Maximum working pressure _____ 60 psi, 4.14 bar	Minimum Cv _____ .39



Panel Mount Instructions

Panel-mounted female luers, in both FTLLB (thread style) and FTLB (lug style) series, are shown beginning on page 19. When used with our CCLR lock rings or CCR color coding rings and LNS lock nuts (see pages 20, 44), color coding of connections is easy.

The information provided here will help you mount the panel mount luers. Please note that they are intended for panel thickness of 1/16" to 1/8" (1.5 to 3 mm).

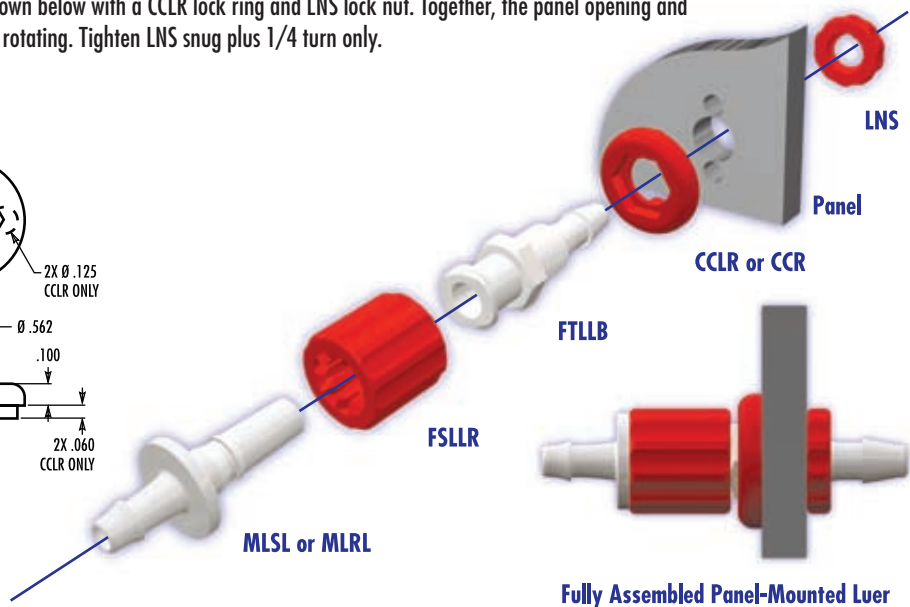
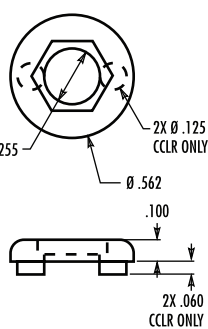
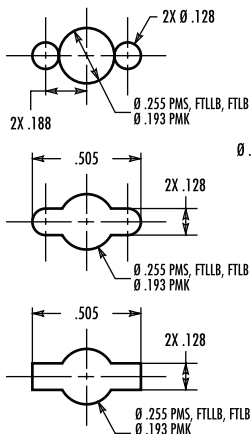
FTLLB series shown with MLSL luer, FSLLR lock ring, CCLR color coding lock ring, and LNS lock nut.

Threaded Panel Openings:

Tap the panel with threads from tube fittings, panel mounts or BPMBs and use a CCR color coded ring. In this case, the fitting tightened into the panel prevents fitting rotation. Use an LNS lock nut for additional security; tighten snug plus 1/4 turn only.

Non-Threaded Panel Openings:

Use any one of the three panel patterns shown below with a CCLR lock ring and LNS lock nut. Together, the panel opening and CCLR prevent the panel mount fitting from rotating. Tighten LNS snug plus 1/4 turn only.



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CHEMICAL	%	TEMP C	TEMP F	ABS	ACETAL	PVDF	NYLON	POLYCARBONATE	POLYPROPYLENE	POLYSULFONE
Acetic Acid	5%	23 C	73 F	Excellent	Unsatisfactory	Excellent	Satisfactory	Satisfactory	Excellent	Excellent
Acetone	100%	50 C	122 F	Unsatisfactory	Unsatisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory
Acetophenone	100%	24 C	75 F	Satisfactory	—	Unsatisfactory	Excellent	—	Satisfactory	—
Acetylene	100%	24 C	75 F	—	—	Excellent	Excellent	—	—	—
Air	100%	82 C	180 F	Excellent	Excellent	Excellent	Excellent	—	—	Excellent
Ammonia, Liquid	100%	24 C	75 F	Satisfactory	—	Unsatisfactory	Satisfactory	Unsatisfactory	Excellent	Excellent
Ammonium Hydroxide	10%	23 C	73 F	Satisfactory	—	Excellent	Excellent	Unsatisfactory	Excellent	Excellent
Ammonium Hydroxide	10%	70 C	158 F	Unsatisfactory	—	Excellent	Unsatisfactory	Unsatisfactory	Excellent	Excellent
Barium Sulfide	100%	24 C	75 F	Excellent	Excellent	Excellent	Satisfactory	—	Excellent	—
Benzene	100%	23 C	73 F	Satisfactory	Excellent	Excellent	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory
Bleach	100%	23 C	73 F	—	Unsatisfactory	Excellent	Satisfactory	Unsatisfactory	Satisfactory	Excellent
Boric Acid	7%	35 C	95 F	Excellent	Excellent	Excellent	Unsatisfactory	Excellent	Excellent	—
Calcium Carbonate	Sat. sol.	24 C	75 F	Excellent	—	Excellent	—	—	Excellent	—
Carbon Dioxide	100%	50 C	122 F	Satisfactory	Excellent	Excellent	Excellent	—	Excellent	—
Carbon Monoxide	100%	50 C	122 F	Satisfactory	—	Excellent	Excellent	—	Excellent	—
Carbon Tetrachloride	100%	50 C	122 F	Unsatisfactory	—	Excellent	Excellent	Unsatisfactory	Unsatisfactory	Unsatisfactory
Chlorine Water	Dilute	23 C	73 F	Unsatisfactory	—	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	Satisfactory
Chlorine Water	Concen.	23 C	73 F	Unsatisfactory	—	Excellent	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory
Chlorobenzene	100%	23 C	73 F	Satisfactory	—	Excellent	Excellent	Unsatisfactory	Unsatisfactory	Unsatisfactory
Chlorofluorocarbon 11	100%	24 C	75 F	—	—	Excellent	Excellent	Satisfactory	—	Excellent
Chloroform	100%	23 C	73 F	Unsatisfactory	Satisfactory	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory
Cyclohexanone	100%	24 C	75 F	Unsatisfactory	—	Excellent	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory
Dichlorethylene	100%	23 C	73 F	—	—	Excellent	Satisfactory	—	Excellent	Unsatisfactory
Ethanol	95%	50 C	122 F	Satisfactory	—	Excellent	Excellent	Satisfactory	Excellent	Satisfactory
Ethyl Acetate	95%	50 C	122 F	Satisfactory	—	Unsatisfactory	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory
Ethylene Glycol	100%	23 C	73 F	Excellent	Satisfactory	Excellent	Excellent	Satisfactory	Excellent	Excellent
Ethylene Oxide	100%	24 C	75 F	Unsatisfactory	—	Excellent	Satisfactory	Satisfactory	Satisfactory	Excellent
Ethylene Oxide	100%	79 C	175 F	Unsatisfactory	—	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory	Excellent
Fatty Acids	—	—	—	—	Excellent	Excellent	—	Satisfactory	Excellent	—
Fluorine	100%	23 C	73 F	Unsatisfactory	—	Excellent	Unsatisfactory	—	—	—
Formaldehyde	37%	24 C	75 F	Unsatisfactory	Excellent	Excellent	—	Unsatisfactory	Excellent	Unsatisfactory
Gasoline	100%	85 C	185 F	Excellent	Satisfactory	Excellent	Excellent	Unsatisfactory	Satisfactory	Satisfactory
Glucose	Concen.	24 C	75 F	Excellent	—	Excellent	—	—	Excellent	—
Glycerin	100%	24 C	75 F	Excellent	—	Excellent	—	Excellent	Excellent	Excellent
Hydrochloric Acid	2%	23 C	73 F	Excellent	Satisfactory	Excellent	Excellent	Excellent	Excellent	Excellent
Hydrochloric Acid	10%	25 C	77 F	Excellent	Satisfactory	Excellent	Unsatisfactory	Excellent	Excellent	Excellent
Hydrofluoric Acid	10%	23 C	73 F	Satisfactory	—	Excellent	Unsatisfactory	—	Excellent	Excellent
Hydrogen Peroxide	1%	24 C	75 F	Excellent	Unsatisfactory	Excellent	Satisfactory	Excellent	Excellent	Excellent
Hydrogen Peroxide	5%	43 C	110 F	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory	Excellent	Satisfactory	Excellent
Isopropanol	70%	23 C	73 F	—	Excellent	Excellent	Excellent	Call*	Excellent	Satisfactory
Kerosene	100%	85 C	185 F	Satisfactory	—	Excellent	Excellent	Satisfactory	Satisfactory	Satisfactory
Methyl Ethyl Ketone	100%	50 C	122 F	Unsatisfactory	—	Unsatisfactory	Excellent	Unsatisfactory	Satisfactory	Unsatisfactory
Methylene Chloride	100%	23 C	73 F	Unsatisfactory	—	Excellent	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory
Methanol	100%	23 C	73 F	Unsatisfactory	—	Excellent	Excellent	Satisfactory	Excellent	Satisfactory
Nitric Acid	10%	23 C	73 F	Satisfactory	—	Excellent	Unsatisfactory	Unsatisfactory	Excellent	Satisfactory
Oxygen	100%	24 C	75 F	—	—	Excellent	Satisfactory	—	—	—
Ozone	100%	43 C	110 F	Satisfactory	—	Satisfactory	Unsatisfactory	Unsatisfactory	—	—
Phenol	90%	23 C	73 F	Unsatisfactory	Unsatisfactory	Excellent	Unsatisfactory	—	Excellent	—
Phosphoric Acid	5%	98 C	208 F	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory	Unsatisfactory	Excellent	Excellent
Propane	100%	23 C	73 F	Satisfactory	—	Excellent	Excellent	—	—	—
Sodium Bicarbonate	Concen.	24 C	75 F	Excellent	Excellent	Excellent	Excellent	—	Excellent	Excellent
Sodium Chloride	10%	23 C	73 F	Excellent	—	Excellent	Excellent	—	Excellent	Excellent
Sodium Chloride	Sat. sol.	24 C	75 F	Excellent	—	Excellent	Excellent	—	Excellent	Excellent
Sodium Hydroxide	10%	70 C	158 F	Satisfactory	—	Excellent	Satisfactory	—	Excellent	Excellent
Steam	—	120 C	248 F	Unsatisfactory	—	Excellent	Unsatisfactory	Unsatisfactory	Satisfactory	Excellent
Sulfuric Acid	30%	23 C	73 F	Satisfactory	Unsatisfactory	Excellent	Unsatisfactory	Excellent	Excellent	Excellent
Tetrahydrofuran	100%	23 C	73 F	Satisfactory	—	Unsatisfactory	Excellent	—	Unsatisfactory	—
Toluene	100%	50 C	122 F	Satisfactory	Unsatisfactory	Excellent	Excellent	Unsatisfactory	Unsatisfactory	Unsatisfactory
Trichloroethylene	100%	23 C	73 F	Satisfactory	—	Excellent	Satisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory
Water	100%	79 C	175 F	Excellent	—	Excellent	Excellent	Unsatisfactory	Excellent	Excellent

* Call Value Plastics technical support to review your application and the concentration of Isopropanol that will be used.



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Material - Manufacturer & Grade	VP Code	Regulatory Compliance of Base Resin*	RoHS Compliant	BPA Free	DEHP Free	Animal Derivative Free*
ABS (Lace White) - Dow Magnum 9020	-81	21 CFR 181.32 FDA Approved for Food Contact	Yes	Yes	Yes	No
ABS (Methyl Methacrylate) - BASF Terlux 2802 TR	-8003, SCV Series	USP Class VI Certified; FDA Approved	Yes	Yes	Yes	Yes
ABS (Sno White) - INEOS Lustran 348-012002	-8012	USP Class VI Certified; FDA Approved; ISO 10993 Part I Compliant	Yes	Yes	Yes	N/A
Acryal - Dupont Delrin-500P	-10	Information unavailable at time of print, please call for details	Yes	Yes	Yes	No
Acryal Copolymer - BASF Ultraform N 23020 003 UNC Q600	-1006	USP Class VI Certified; FDA Approved 21 CFR 177.2470	Yes	Yes	Yes	No
Acrylic - Cyralite Med 2	-50	USP Class VI Certified; 21 CFR 177.1010 FDA Approved	Yes	Yes	Yes	Yes
Carbonyl Ester - Eastman EASTAR MN211 Natural	-CM018	USP Class VI Certified; ISO 10993 Compliant	Yes	Yes	Yes	N/A
Carbon - Dupont Zytel 101F	-0, -1, -2, -3, -4, -5, -06, -07	21 CFR 177.1500 FDA Approved	Yes	Yes	Yes	No
Carbon (Glass Reinforced) - Dupont Zytel 70G33L	-7, -72	Information unavailable at time of print, please call for details	Yes	Yes	Yes	No
Polycarbonate (Clear) - Bayer Makrolon 2558 550115	-9	USP Class VI Certified; 21 CFR 177.1580; FDA Approved; ISO 10993 Compliant	Yes	No	Yes	No
Polycarbonate (Clear) - Bayer Makrolon Rx 1805 451118	-9010, SCV Series	USP Class VI Certified; ISO 10993 Compliant	Yes	No	Yes	Yes
Polycarbonate (Tinted) - Dow Calibre Megarad 2081-15	-9002, DCV Series	ISO 10993 Compliant	Yes	No	Yes	Yes
Polyethylene - Eastman Voridian 1870A	-CM006	USP Class VI Certified; FDA Approved	Yes	Yes	Yes	Yes
Polyethylene - Basell Purell PE 1840 H	SCV Series	Information unavailable at time of print, please call for details	N/A	N/A	N/A	N/A
Polypropylene - Basell Profax PD626	-6	USP Class VI Certified; 21 CFR 177.1520 FDA Approved	Yes	Yes	Yes	No
Polypropylene - Flint Hills P5-080X	-6005	USP Class VI Certified; 21 CFR 177.1520 FDA Approved	Yes	Yes	Yes	Yes
Polypropylene - Solvay Udel P1700 MG11	-4001	USP Class VI Certified; 21 CFR 177.1655 FDA Approved	Yes	Yes	Yes	Yes
Polypropylene - Solvay Udel P1700 CL2611	-40	21 CFR 177.1655 FDA Approved	Yes	Yes	Yes	Yes
Polypropylene - Arkema Kynar 1000 HD	-J1A	USP Class VI Certified; 21 CFR 177.2510 FDA Approved	Yes	Yes	Yes	Yes
SAN - BASF 388S TR 77770	SCV Series	Information unavailable at time of print, please call for details	Yes	Yes	Yes	N/A
Silicone - Wacker Elastosil LR 3003	SCV Series	Information unavailable at time of print, please call for details	Yes	Yes	Yes	N/A

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Material - Manufacturer & Grade	VP Code	Gamma Radiation Sterilization*	Ethylene Oxide Sterilization	Autoclave Sterilization
ABS (Lace White) - Dow Magnum 9020	-81	Compatible up to 1 Mrad	Not recommended	Poor. Components may distort due to low heat deflection temperatures
ABS (Methyl Methacrylate) - BASF Terlux 2802 TR	-8003, SCV Series	Withstands up to 5 Mrad doses without yellowing	Good	Poor. Components may distort due to low heat deflection temperatures
ABS (Sno White) - INEOS Lustran 348-012002	-8012	Compatible up to 5 Mrads	Good	Not suitable due to low heat deflection temperatures
Acetal - Dupont Delrin 500P	-10	Compatible up to 1 Mrad	Excellent	Very Good
Acetal Copolymer - BASF Ultradom N 23020 003 UMC 0600	-1006	Compatible up to 1.5 Mrads	Excellent	Very Good
Acrylic - Cyrolite Med 2	-50	Very good up to commonly used doses (6 Mrads).	Excellent	Not Recommended
Copolyester - Eastman EASTAR MN211 Natural	-CM018	Compatible up to 6 Mrads	Highly compatible	N/A
Nylon - Dupont Zytel 101F	-0, -1, -2, -3, -4, -5, -06, -07	Very good. May discolor to brownish hue.	Very good. Some susceptibility to oxidizing agents.	Very good. Product may swell slightly due to water absorption.
Nylon (Glass Reinforced) - Dupont Zytel 70G33L	-7, -72	Very good. May discolor to brownish hue.	Very good. Some susceptibility to oxidizing agents.	Excellent
Polycarbonate (Clear) - Boyer Makrolon 2558 550115	-9	Compatible up to 10 Mrads with minor loss of physical properties. Will discolor to yellow-green hue.	Highly compatible	Poor. May craze or stress crack due to molding stresses.
Polycarbonate (Clear) - Boyer Makrolon Rx 1805 451118	-9010, SCV Series	Compatible up to 10 Mrads with minor loss of physical properties. May discolor slightly dependent upon dose/number of cycles.	Highly compatible	Poor. May craze or stress crack due to molding stresses.
Polycarbonate (Tinted) - Dow Calibre Megarad 2081-15	-9002, DCV Series	Excellent up to 10 Mrads with minor loss of physical properties. Light violet hue turns clear upon sterilization.	Highly compatible	Not Recommended
Polyethylene - Eastman Voridan 1870A	-CM006	Compatible up to 6 Mrads	Highly compatible	Not Recommended
Polyethylene - Borell Purell PE 1840 H	SCV Series	N/A	N/A	N/A
Polypropylene - Borell Profax PD626	-6	Excellent up to commonly used sterilization doses (6 Mrads).	Good. May react poorly to ETO/CFC mix.	Poor. Components may distort due to low heat deflection temperatures
Polypropylene - Flint Hills P5-080X	-6005	Very good to commonly used sterilization doses (6 Mrads).	Highly compatible	Not Recommended
Polysulfone - Solvay Udal P1700 MG11	-4001	Highly compatible. Will discolor to brownish hue.	Excellent	Excellent
Polysulfone - Solvay Udal P1700 CL2611	-40	Highly compatible. Will discolor to brownish hue.	Excellent	Excellent
PVDF - Arkema Kynar 1000 HD	-11A	Highly compatible. Will discolor to brownish hue.	Excellent	Highly Compatible
SAN - BASF 3885 TR 7770	SCV Series	N/A	N/A	N/A
Silicone - Wacker Elastosil LR 3003	SCV Series	N/A	N/A	N/A

Property	ASTM Test Method	PVDF	Polycarb	Radiation Stable PC	Polypro	Nylon ^a	GF Nylon ^a	ABS	MABS	Polysulfone	Acetal
Tensile Strength	D638	5,400	10,000	9,800	—	12,000	27,000	4,800	—	—	—
Elongation at Break, %	D638	100-400	120	150	375	300	3	50	12	50-100	40
Tensile Yield Strength, psi	D638	6,500	9,200	9,800	4,400	12,000	—	5,700	6,960	10,200	9,900
Flexural Modulus, kpsi	D790	360	330	350	170	410	1,300	330	—	390	450
Rockwell Hardness D	D785	—	R118	R118	R80-102	R121	—	R107	—	—	R122
Rockwell Hardness M	—	—	M75	M72	—	M79	M101	—	—	M69	M89
Shore Hardness D	D2240	D76-80	—	—	—	—	—	—	—	—	—
Coef. of linear 10-5 in/in/°F	D696	7.6	3.9	3.8	—	4	1.3	5.5	—	3.1	—
Deflection Temp°F @264psi	D648	244	266	252	—	194	480	173	194	345	216
Deflection Temp°F @66psi	D648	—	273	—	190	455	—	—	201	358	332
Water Absorption, %, 24 h	D570	0.015	0.15	0.15	0	1.2	0.7	0.25- 0.40	0.7	0.3	0.4
Izod Impact, (Notched) ft-lb/in	D256	3.1	16.0	14.0	0.5	1.0	2.2	6.0	1.31	1.3	—

The data presented here is for reference only. It was compiled primarily from the resin manufacturers' data to provide our customers with a means of comparing the characteristics of components at the time of publication. The particular conditions of your use and application of our products are beyond our control. Thus, it is imperative that you test our products in your specific application to determine their suitability. All information is provided without implied or expressed warranty or guarantee by Value Plastics® or other manufacturers. None of the information provided constitutes a recommendation or endorsement of any kind by Value Plastics®.

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Australian Distributors:
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