



# Connectors & Connectors with valves



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Inert connectors with a versatile system for joining sections of tubing quickly and easily.

- Chemically inert materials
- Flexibility of three connection methods
- Options available with valves
- Ideal for joining various sizes of tubing together

## The 'Omnifit Cap' Tube Connection System

The 'Omnifit-Cap' tube connection system is a versatile system for connecting different types of tubing quickly and easily. There are three main methods for tubing connection including: PTFE cone option, Viton® 'O'-ring option and using an 'Omnifit Cap' as a flat-bottomed port. Through the use of adaptors, soft wall tubing can also be connected.

## Small Variable Bore Connectors

Small variable bore connectors with the 'Omnifit-Cap' tube connection system, can be ordered with or without valves and are available in 1.5mm or 0.8mm bore sizes. Each 1.5mm bore connector comes with Viton® 'O'-rings, 1/16" PTFE cones and blue polypropylene caps. Other colors are available for easy line identification. The 0.8mm bore size connectors are supplied with 1/32" PTFE cones and natural colored Tefzel® caps. All small variable bore connectors accept tubing sizes between 0.5 and 4mm O.D.

## Large Variable Bore Connectors

Large variable bore connectors can be supplied with or without valves. Versions are available in 0.8mm, 1.5mm and 4.7mm bore sizes. Each connector comes with Viton® 'O'-rings and Acetal caps. All large variable bore connectors accept tubing sizes between 4 and 11mm O.D.

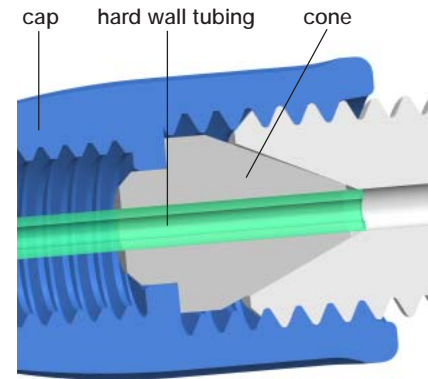
## In-line and Block Connectors

PEEK™ In-line connectors are available for 1/16" and 1/8" O.D. hardwall tubing and have a 1/4"-28 female port. The 3-way 'T' block connector is made of PEEK™ material and has a bore size of 1.5mm. The ports are standard 1/4"-28.

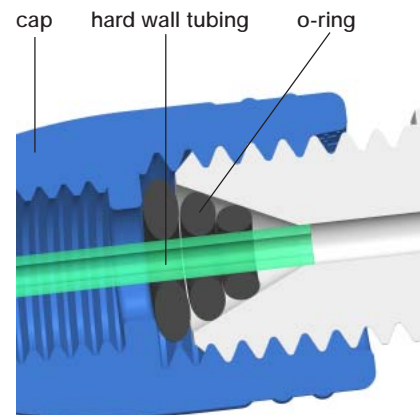
## Instructions for using the 'Omnifit Cap' tube connection system

The Omnifit cap tube connection system is a versatile system for connecting different types of tubing easily and quickly. Tubing suitable for use include PTFE, glass, PVC, Tefzel®, Stainless Steel and other hard wall tubing. It can also be used to connect soft wall tubing by using Omnifit barbed adaptors. Hardwall tubing sizes between 1mm and 4mm outside diameter may be connected. The three main methods for tubing connection are described below.

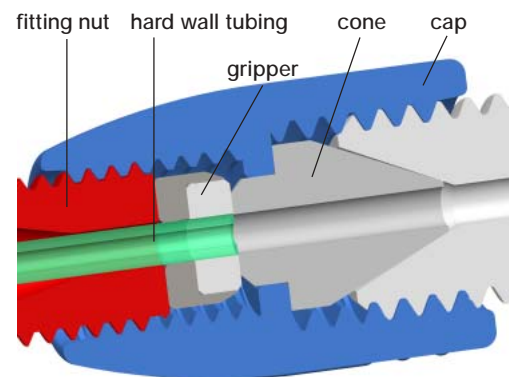
<b>1</b>	<b>PTFE cone option</b> , for use where chemical resistance is paramount. Typical pressure rating is 50 psi.
<p>The Outside diameter of the hard wall tubing being used should be known, and must be matched to a PTFE cone with a corresponding size inside diameter. To assemble, cut the end of the tube square with an Omnifit tube cutter. Fit the 'Omnifit cap' to the tube and push the tubing through the cone until a small amount is protruding, as shown. Screw down the cap onto the mating PTFE part until finger tight. The assembly is now ready for use.</p>	



<b>2</b>	<b>Viton® 'O'-ring option</b> , for use where the outside diameter of the tube is between 1 and 4mm, but is possibly not known and chemical resistance is less important. Typical pressure rating is 50psi.
<p>To assemble, cut tube end square with an Omnifit tube cutter and push through Omnifit cap, and then through 3 'O'-rings, two largest first, leaving 1 to 2mm of tube protruding from small 'O'-ring as shown. Screw down the cap onto the mating PTFE part until finger tight. Assembly is now ready for use.</p> <p>Omit the small 'O'-ring for tube sizes 2.5 to 4mm outside diameter. The 'O'-rings compress into the cone angle in the body so when the cap is tightened, a seal is created and the tube is retained.</p>	



<b>3</b>	<b>Using an 'Omnifit cap' as a flat bottomed port</b> , for using adaptors for softwall tubing or when pre-formed tubing assemblies are present.
<p>To assemble, fit the cone supplied into the cap and screw down onto the mating PTFE part to finger tightness. The Omnifit cap has now been converted to a 1/4"-28 UNF flat bottomed port. This port will now take any standard Omnifit 1/4"-28 UNF male fitting, for example, a gripper type as shown. Alternatives include the Omnifit inverted cone, Omni-Lok™ and also barbed fittings for connecting soft wall tubing.</p>	

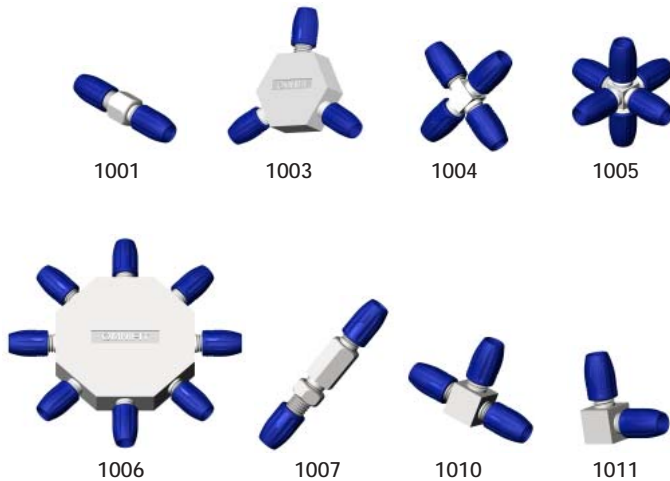


## Small Variable Bore Connectors

### Standard bore size (1.5mm)

- Chemically inert all PTFE body
- 50psi pressure rating

The Omnifit range of standard bore size connectors is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. They have a 1.5mm bore size and can be used for flow-splitting, mixing and fluid line inter-connection. Tubing sizes between 0.5 and 4mm OD can be connected using either PTFE cones or Viton® 'O'-rings. Standard bore connectors are supplied with Viton® 'O'-rings, 1/16" (1.5mm) PTFE cones and blue polypropylene caps. The polypropylene caps have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. The PTFE cone supplied with the connector provides the flat bottom for the 1/4"-28 UNF fitting to give a leak-free connection. Can be autoclaved if caps are removed first.



Part Number	Description	Pack Size
1001	2-way connector	3
1002	2-way connector	20
1003	3-way connector (Hex)	1
1004	4-way connector	1
1005	6-way connector	1
1006	8-way connector	1
1007	2-way connector (bulkhead mountable)	2
1010	3-way connector ('T')	1
1011	2-way elbow connector	1

### Small bore size (0.8mm)

- Chemically inert all PTFE body & Tefzel® caps
- 50psi pressure rating
- Autoclavable

The Omnifit range of small bore size connectors is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. They have a 0.8mm bore size and can be used for flow-splitting, mixing and fluid line interconnection. Tubing sizes between 0.5 and 4mm OD can be connected using PTFE cones. Small bore connectors are supplied with 1/32" (0.8mm) PTFE cones and natural Tefzel® caps. The Tefzel® caps have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. The PTFE cone supplied with the connector provides the flat bottom for the 1/4"-28 UNF fitting to give a leak-free, connection.



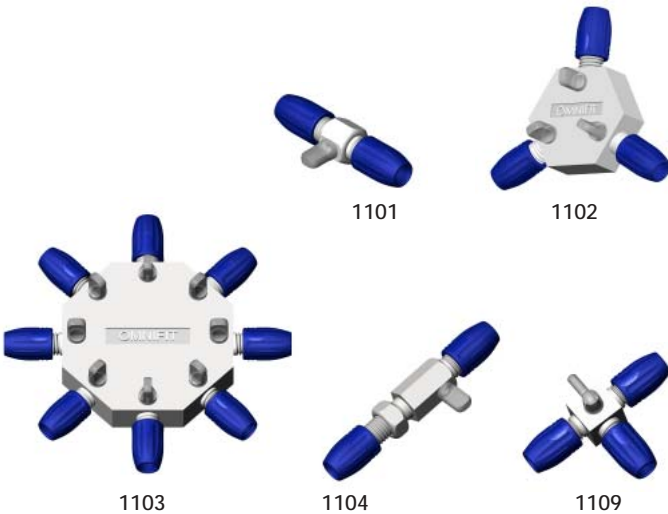
Part Number	Description	Pack Size
2401	3-way connector ('T')	1
2402	4-way connector	1
2403	6-way connector	1
2404	8-way connector	1
2407	3-way connector (Hex)	1
2415	2-way connector	3
2417	2-way connector (bulkhead mountable)	2

## Small Variable Bore Connectors with Valves

### Standard bore size (1.5mm)

- Instant tube connection
- Chemically inert all PTFE body
- Color coded caps available for easy line identification
- 50psi pressure rating
- On-off operation

The Omnifit range of standard bore size connectors with valves is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. Each connector has a manual valve operation, enabling flow to be switched on or off. They can be used for sampling, flow-splitting, mixing and fluid line interconnection. Tubing sizes between 0.5 and 4mm OD can be connected using either Viton® 'O'-rings or PTFE cones. Standard bore size valves are supplied with Viton® 'O'-rings, 1/16" (1.5mm) PTFE cones and blue polypropylene caps. The caps have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. The PTFE cone provides the flat bottom for the 1/4"-28 UNF fitting to give a leak-free connection. Can be autoclaved if caps are removed first.

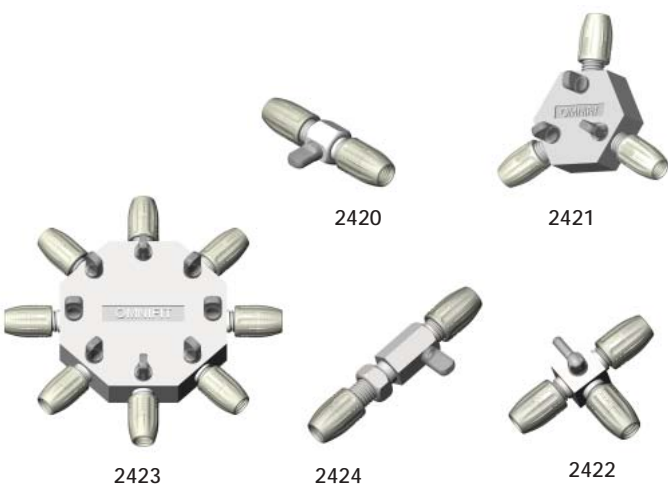


Part Number	Description	Pack Size
1101	2-way valve	2
1102	3-way valve (Hex)	1
1103	8-way valve	1
1104	2-way valve (bulkhead mountable)	2
1109	3-way valve single key ('T')	1

### Small bore size (0.8mm)

- Instant tube connection
- Chemically inert all PTFE body
- 50psi pressure rating
- On-off operation
- Autoclavable

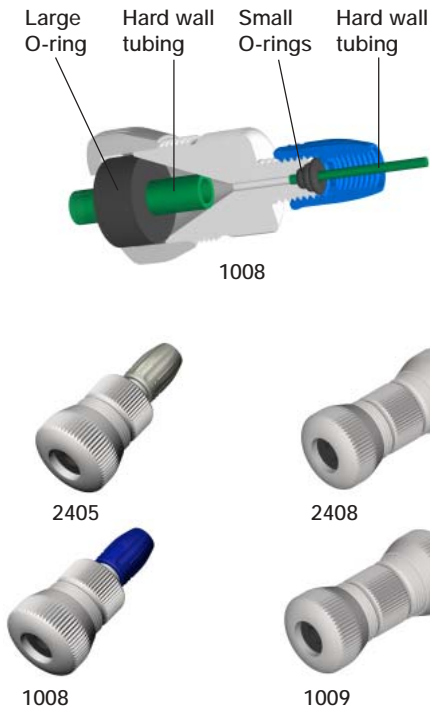
The Omnifit range of small bore size connectors with valves is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. Each connector has a manual valve operation, enabling flow to be switched on or off. They can be used for sampling, flow-splitting, mixing and fluid line interconnection. Tubing sizes between 0.5 and 4mm OD can be connected using PTFE cones. Small bore valves are supplied with 1/32" (0.8mm) PTFE cones and natural Tefzel® caps. The Tefzel® caps have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. The PTFE cone provides the flat bottom for the 1/4"-28 UNF fitting to give a leak-free connection.



Part Number	Description	Pack Size
2420	2-way valve	2
2421	3-way valve (Hex)	1
2422	3-way valve single key ('T')	1
2423	8-way valve	1
2424	2-way valve (bulkhead mountable)	2

## Large Variable Bore Connectors

- Chemically inert all PTFE body
- 50psi pressure rating



The Omnifit range of large variable bore connectors is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. Tubing sizes between 0.5 and 11mm OD can be connected using either Viton® seals or PTFE cones\*. The large bore-to-large bore connectors are supplied with Viton® seals in both ends of the connector which allow instant connection of tubing sizes from 5mm to 8mm OD and make a compression-type fitting. Tubing sizes from 4mm to 11mm OD can be connected using PTFE cones. The large bore-to-small bore reducing connectors have a Viton® seal in the large end that is suitable for 5 to 8mm OD tubing sizes and the small end is supplied with Viton® 'O'-rings for immediate connection of 0.5 to 4mm OD tubing sizes. The blue polypropylene cap at the small end of the connector has an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. Can be autoclaved if caps are removed first. For connecting up to 4 and over 8mm OD tubing use PTFE cones available separately.

\* 1/16" cones supplied in small end, other sizes for both large and small ends sold separately.

Part Number	Description	Bore Size	Compatible Tubing O.D.	Pack Size
2405	Large to small universal connector	0.8mm	0.5 - 11mm	2
2408	Large to large variable connector	0.8mm	4 - 11mm	2
1008	Large to small universal connector	1.5mm	0.5 - 11mm	2
1009	Large to large variable connector	4.7mm	4 - 11mm	2

## Large Variable Bore Connector with Valves

- Instant tube connection
- Chemically inert all PTFE body
- 50psi pressure rating
- On-off operation



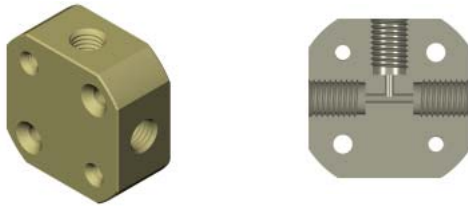
The Omnifit range of large variable bore connectors with valves is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. These valved versions can be used for sampling and fluid line interconnection. Tubing sizes between 0.5 and 11mm OD can be connected using either the supplied Viton® seals or PTFE cones (sold separately). Large bore-to-large bore connectors with valves are supplied with Viton® seals in both ends of the connector and can be used to connect tubing sizes from 5 to 8mm OD. Tubing sizes from 4mm to 11mm OD can be connected using PTFE cones. Large bore-to-small bore reducing connectors with valves have a Viton® seal at the large bore end that is suitable for 5 to 8mm OD tubing sizes and the small end is supplied with Viton® 'O'-rings suitable for 0.5 to 4mm OD tubing sizes. The caps at the small end of the valve have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit inverted cone or Gripper fitting. Can be autoclaved if caps are removed first. For connecting up to 4 and over 8mm OD tubing use PTFE cones available separately.

Part Number	Description	Bore Size	Compatible Tubing O.D.	Pack Size
1105	Large universal connector valve	1.5mm	1 - 11mm	1
1129	2-way large to large connector valve	4.7mm	4 - 11mm	2

## 3-way 'T' Block Connector

- Low dead volume
- Bulkhead mountable
- Accepts male 1/4"-28 UNF fittings

This 3-way connector block has a bore size of 1.5mm. The block is constructed from PEEK™ and is bulkhead mountable. Used with Omnifit Gripper fittings, these connectors provide an inert fluid path with zero dead volume.



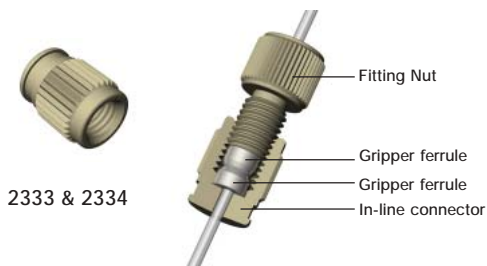
1057

Part Number	Description	Pack Size
1057	3-way 'T' connector PEEK™	1

## In-line Connectors

- Flangeless connections
- Zero dead volume
- Pressure rated to 1000 psi (69 bar)
- For use with Omnifit Grippers

In-line connectors are ideal for applications where space is limited. Versions are available for either 1/16" or 1/8" OD hardwall tubing. The in-line connector then simply connects onto any male 1/4"-28 UNF fitting.



2333 & 2334

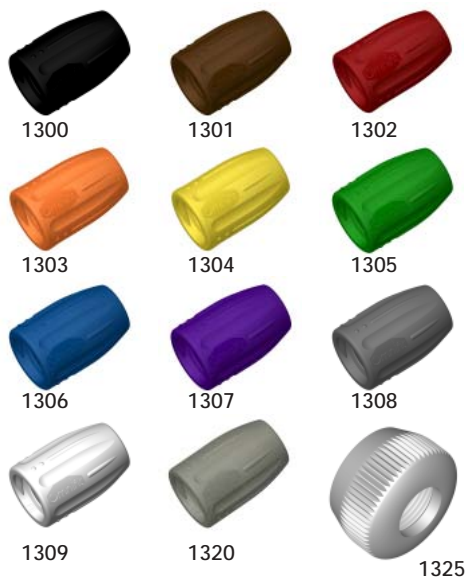
Part Number	Description	Compatible Tubing O.D.	Pack Size
2333	PEEK™, female in-line connector	1/16"	1
2334	PEEK™, female in-line connector	1/8"	1

## Spare Parts

### Connector Caps

- Color coded for identification
- Accept 1/4"-28 male fittings

These colored polypropylene caps have an internal thread that accepts 1/4"-28 UNF fittings, such as the Omnifit adaptors or tube fittings.

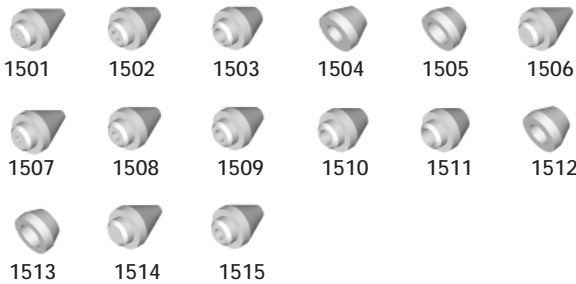


Color	P/N	Pack Size
Black	1300	10
Brown	1301	10
Red	1302	10
Orange	1303	10
Yellow	1304	10
Green	1305	10
Blue	1306	10
Violet	1307	10
Grey	1308	10
White	1309	10
Mixed	1310	10
Tefzel	1320	10
M6	1321	10
PTFE large size	1325	1
Acetal large size	1326	1

## Spare Parts (contd.)

### PTFE Cones for small variable bore connectors

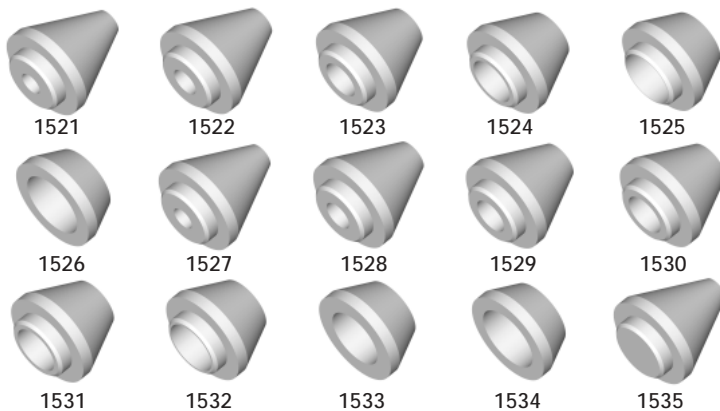
Used as an option with 'Omnifit-Cap' connectors, a PTFE cone is matched to the outside diameter of the tubing being used. This cone, once fitted, is compressed onto the tube forming a seal. PTFE is resistant to most chemicals including sulphuric acid, sodium hydroxide and all organic solvents. The cone option gives an all PTFE fluid path with very low dead volume. The typical pressure rating is 50psi (3 bar). PTFE cones for 1/16" OD tubing are supplied as standard with all 1.5mm bore 'Omnifit-Cap' connectors. PTFE cones for 1/32" OD tubing are supplied as standard with all 0.8mm bore 'Omnifit-Cap' connectors.



P/N	Compatible tubing O.D.	Pack Size
1501	1/32" (0.8mm)	4
1502	1/16" (1.6mm)	4
1503	3/32" (2.4mm)	4
1504	1/8" (3.2mm)	4
1505	5/32" (4.0mm)	4
1506	0.5 mm	4
1507	1.0 mm	4
1508	1.5 mm	4
1509	2.0 mm	4
1510	2.5 mm	4
1511	3.0 mm	4
1512	3.5 mm	4
1513	4.0 mm	4
1514	Blank	4
1515	1.8 mm	4

### PTFE Cones for large variable bore connectors

Used as an option with large variable bore connectors, a PTFE cone is matched to the outside diameter of the tubing being used. This cone, once fitted, is compressed onto the tube forming a seal. PTFE is resistant to most chemicals including sulphuric acid, sodium hydroxide and all organic solvents. The cone option gives an all PTFE fluid path with very low dead volume. The typical pressure rating is 50psi (3 bar).



P/N	Compatible tubing O.D.	Pack Size
1521	5/32" (4.0mm)	2
1522	3/16" (4.8mm)	2
1523	1/4" (6.4mm)	2
1524	5/16" (8.0mm)	2
1525	3/8" (9.5mm)	2
1526	7/16" (11.1mm)	2
1526	4.0 mm	2
1528	5.0 mm	2
1529	6.0 mm	2
1530	7.0 mm	2
1531	8.0 mm	2
1532	9.0 mm	2
1533	10.0 mm	2
1534	11.0 mm	2
1535	Blank	2



# The Omni-Lok™ Fitting System



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**A flangeless fitting system with a firmly attached ferrule permitting repeated connect/disconnect and tight connection even in PTFE ports**

- Recess in fitting leads to maximum thread engagement
- Stays sealed when finger tight, even in shallow PTFE ports
- PTFE, Tefzel® or PEEK™ ferrules
- Designed for 1/8" and 1/16" outside diameter tubing
- Pressure ratings up to 1000 psi (69 bar)
- Robust, glass-filled Polypropylene fitting nuts

## Omni-Lok™ Type S ferrule

The Omni-Lok™ Type S ferrule is available in Tefzel® or PEEK™. A Stainless Steel lock ring is assembled onto the ferrule and attaches it firmly to the end of hard wall tubing allowing repeated connect and disconnect of the fitting nut without twisting the tubing.



## Omni-Lok™ Type P ferrule

The pre-assembled Omni-Lok™ Type P ferrule consists of a Stainless Steel casing and a PTFE sealing surface that attaches to the end of hard wall tubing to create an all PTFE flow path and allows repeated connect and disconnect of the fitting nut without twisting the tubing.



## Close-Packing Glass-Filled Polypropylene Fitting Nuts

These robust, 30% glass-filled polypropylene fitting nuts are available in versions for Omni-Lok™ ferrules and for inverted cones and come in eight different colors for easy line identification. The compact head ensures a close-packing design that can be used in small spaces. The built-in recess securely houses the Omni-Lok™ ferrule resulting in maximum thread engagement.



## Inverted Cone Option

The inverted cone option provides a means to assemble a flangeless fitting quickly and economically with no tools required. Just fit the fitting nut on the tubing and fit the Tefzel® cone to the end of the tubing and screw into the port.

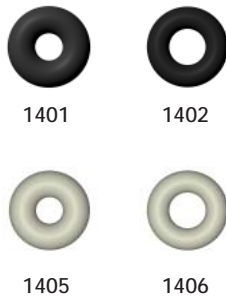




## Spare Parts (contd.)

### 'O'-rings for small variable bore connectors

All 'Omnifit-Cap' connectors come complete with 1 small and 2 large Viton® 'O'-rings, enabling instant connections to be made using a variety of tubing sizes. This is particularly advantageous when changing fluid lines of differing dimensions. For small variable bore fittings, up to 3 Viton® 'O'-rings are compressed into the body which holds the tube tightly and forms the seal. The 'O'-rings allow maximum flexibility as they seal on hard wall tubing of any diameter between 0.5 and 4mm.



Part Number	Material	Size	Pack Size
1401	Viton®	small	10
1402	Viton®	large	10
1405	Silicone	small	10
1406	Silicone	large	10

### Seals for large variable bore connectors

Viton® cylindrical seals are supplied with all large bore 'Omnifit-Cap' connectors. The seals allow maximum flexibility as they seal on rigid wall tubing between 5 and 8mm OD.



Part Number	Material	Pack Size
1403	Viton®	1
1404	Viton®	10

Trademarks:

**Omnifit™** is a trademark of Omnifit Ltd.

**PEEK™** is a trademark of Victrex plc

**Tefzel®, Viton®** are registered trademarks of E.I. du Pont de Nemours and Company

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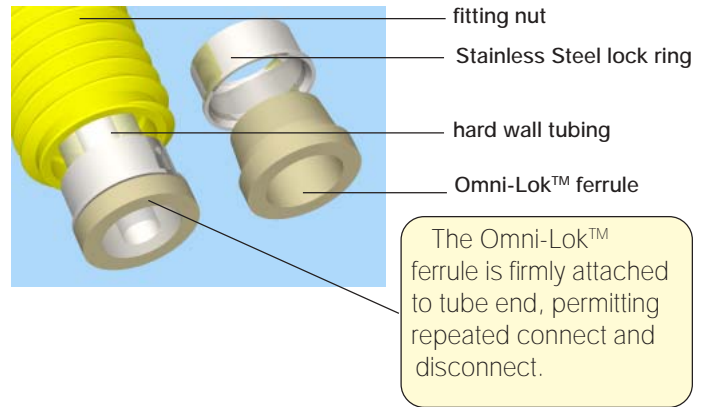
Bio-Chem Valve / Omnifit, 2 College Park, Coldhams Lane, Cambridge, CB1 3HD UK  
t: +44 (0) 1223 416642 f: +44 (0) 1223 416787 e: sales@omnifit.com w: omnifit.com

Bio-Chem Valve / Omnifit, 85 Fulton Street, Boonton, NJ 07005 USA  
t: 973 263 3001 f: 973 263 2880 e: info@bio-chemvalve.com w: bio-chemvalve.com

# Omni-Lok™ Type S Ferrules

## Features

- Bio-compatible Tefzel® or PEEK™ ferrules
- Minimal to zero dead volume
- Specifically designed for use with solenoid valves and shallow PTFE ports
- Fitting nut spins freely without twisting the tubing



## Specifications

- Materials:
  - lock ring: 316 Stainless Steel
  - ferrule: Tefzel® or PEEK™
- Tubing sizes: 1/16" O.D. and 1/8" O.D.

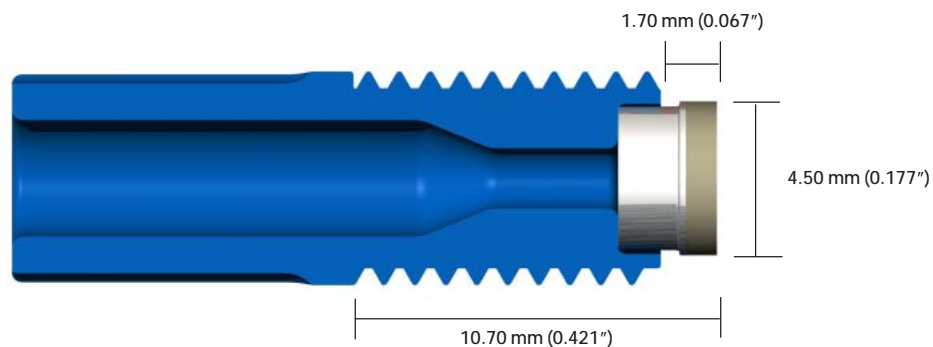
## Tubing:

Omni-Lok™ ferrule material	Compatible Tubing Types				
	PTFE	FEP	PEEK™	Stainless Steel	Tefzel®
Tefzel®	✓	✓		✓	✓
PEEK™	✓	✓	✓		✓

## How it works

1. The Stainless Steel lock ring is compressed onto the ferrule.
2. The external angle of the ferrule conflicts with the internal angle of the lock ring.
3. The sharp edge of the ferrule becomes engaged with the tube, holding the tube firmly.
4. The ferrule and case are now permanently together, with tube retained.
5. The fitting nut is assembled onto the tube behind the ferrule and lock ring.
6. The Omni-Lok™ Type S fitting system is screwed into a 1/4"-28 UNF threaded port.

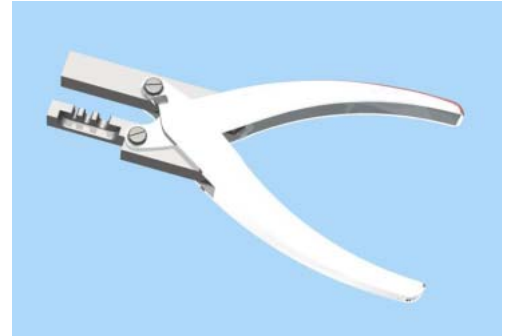
## Dimensions:




## Assembling The Omni-Lok™ Type S Fitting System


### Omnifit Omni-Lok™ Type S Assembly tool

- Easy assembly of the Omni-Lok™ Type S in only seconds
- Available for purchase from Bio-Chem Valve and Omnifit under part number **008AT**



1	Cut the tube end square. For best results, use the Omnifit tubing cutter part number 3062 (See Fittings Spec Sheet).
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2	Fit the Omni-Lok™ ferrule and lock ring onto the squarely cut tube end and load into the slot in the assembly tool that most closely fits the outside of the tube.	
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3	Push the tube up against the tool face to ensure a no dead volume connection. Simultaneously, squeeze the tool handles together until the lip of the lock ring and the lip of the ferrule come together as shown. This assembly is now ready for use.	
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## How to Order Omni-Lok™ Type S ferrules and the Omni-Lok™ Assembly Tool

### Omni-Lok™ Type S ferrules

Part Number	Description	Tubing O.D.	Pack Size
008FK16	PEEK™ ferrule with stainless steel lock ring	1/16" (1.6 mm)	10
008FZ16	Tefzel® ferrule with stainless steel lock ring	1/16" (1.6 mm)	10
008FK32	PEEK™ ferrule with stainless steel lock ring	1/8" (3.2 mm)	10
008FZ32	Tefzel® ferrule with stainless steel lock ring	1/8" (3.2 mm)	10

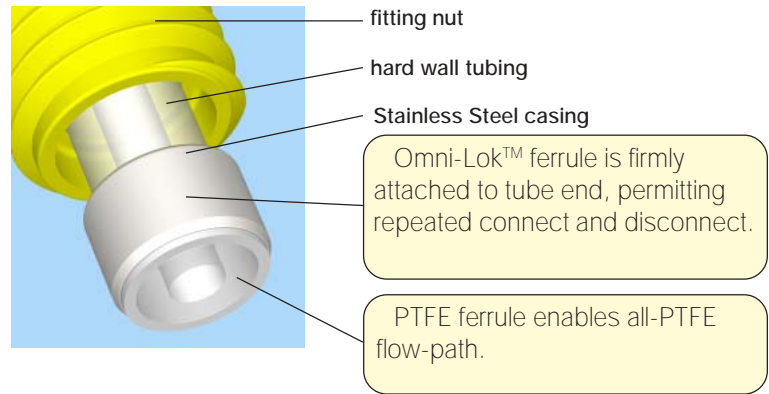
### Omni-Lok™ Assembly Tool

Part Number	Description
008AT	Omni-Lok™ Assembly Tool

# Omni-Lok™ Type P Ferrules

## Features

- Secure up to 1,000 psi (69 bar) pressure when finger-tight
- Minimal to zero dead volume
- Allows an all-PTFE flow path
- Fitting nut spins freely without twisting the tubing
- Designed for use in solenoid valves and shallow PTFE ports



## Specifications

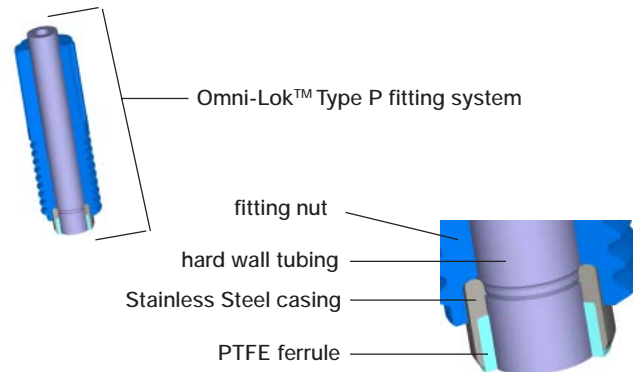
- Materials:
  - casing: 316 stainless steel
  - ferrule: PTFE (polytetrafluoroethylene)
- Tubing sizes: 1/16" O.D. and 1/8" O.D.

## Tubing:

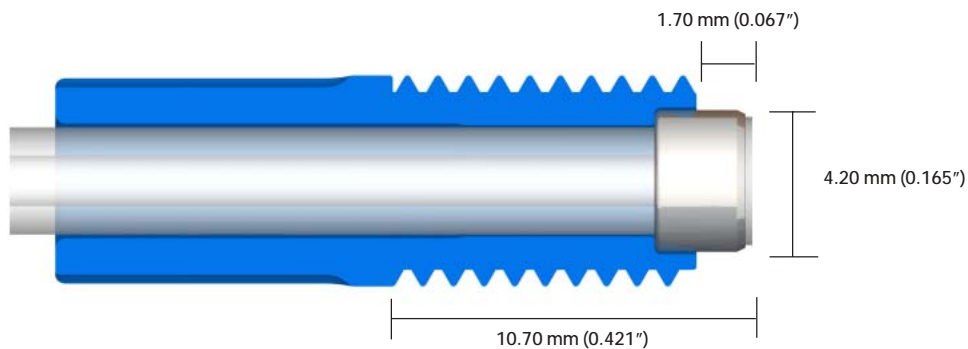
Omni-Lok™ ferrule material	Compatible Tubing Types				
	PTFE	FEP	PEEK™	Stainless Steel	Tefzel®
PTFE	✓	✓			✓

## How it works

1. The pre-assembled Omni-Lok™ Type P ferrule is mounted onto the end of hardwall tubing.
2. The barb in the Stainless Steel casing cuts a groove into the tubing and becomes permanently attached.
3. The fitting nut is assembled onto the tube behind the ferrule.
4. The Omni-Lok™ Type P fitting system is screwed into a 1/4"-28 UNF threaded port.




## Dimensions:




## Assembling The Omni-Lok™ Type P Fitting System


1 With a scalpel, cut the tubing to form a point approximately 30mm long. This enables the tube to be passed through the ferrule.




2 Fit the close-packing polypropylene fitting nut to the tube. Then fit an Omni-Lok™ Type P ferrule to the tube ensuring the PTFE seal is facing towards the pointed tube end.



3 With the aid of pliers or similar, pull the pointed tube end through the ferrule until the PTFE sealing surface has reached the uncut section of the tube. Keeping the ferrule as perpendicular as possible to the tube will ensure the best performance. Rotate the ferrule around the tube 3 or 4 times to seat the ferrule on the tube correctly.



4 Using a scalpel, cut the pointed tube end as close to the ferrule as possible, ensuring the end of the ferrule is not cut. Tube assembly is now ready for use.



### Safety precautions

Always take care when using scalpels. Always make tube cuts away from the body and keep fingers away from blade.

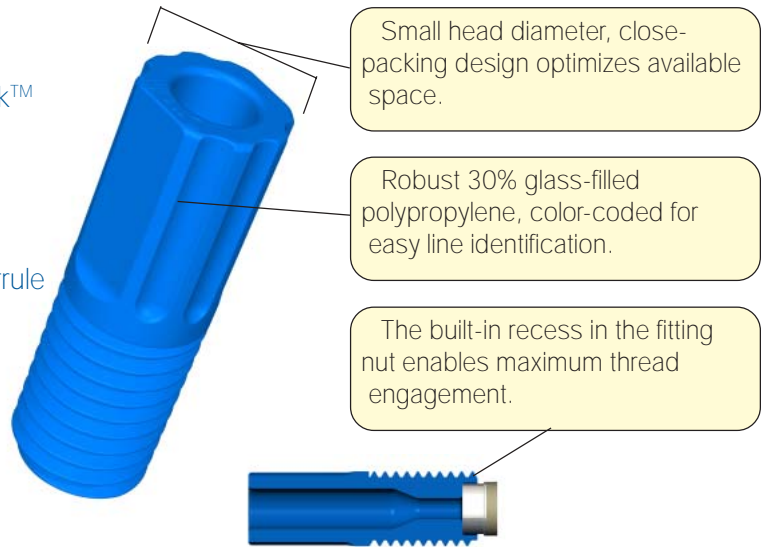
### How to Order Omni-Lok™ Type P ferrules

Part Number	Description	Tubing O.D.	Pack Size
008FT16	One-piece PTFE ferrule & stainless steel case	1/16"	10
008FT32	One-piece PTFE ferrule & stainless steel case	1/8"	10

# Close-Packing Glass-Filled Polypropylene Fitting Nuts

## Features

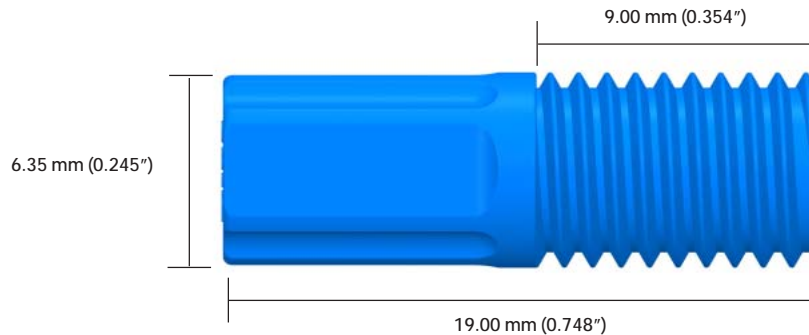
- Simple, finger-tight installation
- Recess in fitting securely houses the Omni-Lok™ ferrule or Inverted Cone, permitting maximum thread engagement
- Versions for 1/16" and 1/8" outside diameter tubing
- Versions for Inverted Cone and Omni-Lok™ ferrule types



## Specifications

- Material: 30% glass-filled Polypropylene
- Threads: 1/4"-28 UNF
- Color Options: black, blue, green, gray, orange, red, white, yellow

## Dimensions:



## How to Order Close-Packing Glass-Filled Polypropylene Fitting Nuts

### Example Part Number:

<b>008N</b>	<b>F</b>	<b>16</b>	<b>—</b>	<b>Y</b>	<b>C</b>	<b>5</b>	<b>U</b>
Product group designator: <b>008N</b> Fitting	For ferrule type: <b>F</b> Omni-Lok™ <b>C</b> Type P or S <b>C</b> Inverted Cone*	For tubing Size: <b>16</b> 1/16" (1.6mm) O.D. <b>32</b> 1/8" (3.2mm) O.D.		Fitting nut material: <b>Y</b> Glass-filled Polypropylene	Head size: <b>C</b> Close-packing (small)	Thread type: <b>5</b> 1/4"-28 UNF, standard	Color: <b>B</b> Black <b>U</b> Blue <b>A</b> Gray <b>G</b> Green <b>N</b> Orange <b>R</b> Red <b>H</b> White <b>Y</b> Yellow <b>M</b> Mixed of 8 colors**

The example part number above, 008NF16-YC5U, designates a Close-Packing Polypropylene fitting nut for 1/16" O.D. tubing, blue color with 1/4"-28 UNF threads designed for an Omni-Lok™ type P or S ferrule. **Supplied in packs of Ten (10).**

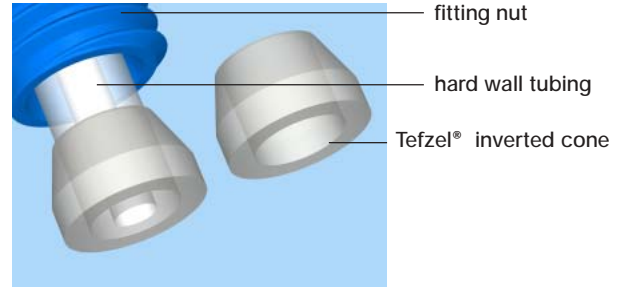
\* Fitting nuts for Inverted Cones are available in Blue (U) only.

\*\* Mixed colors are supplied in packs of Eight (8).

# Inverted Cone Option

## Features

- Chemically resistant, bio-compatible Tefzel® cone material
- Sealing pressure rated to 500 psi (34 bar) for 1/16" O.D. tubing and up to 250 psi (17 bar) for 1/8" O.D. tubing
- Quick, easy installation
- No tools required
- Economical

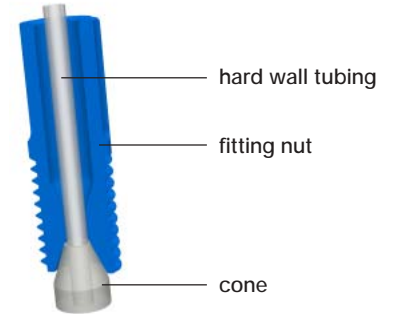


## Specifications

- Cone material: Tefzel®
- Tubing Sizes: 1/16" O.D. and 1/8" O.D.
- Tubing Type: hard wall tubing only

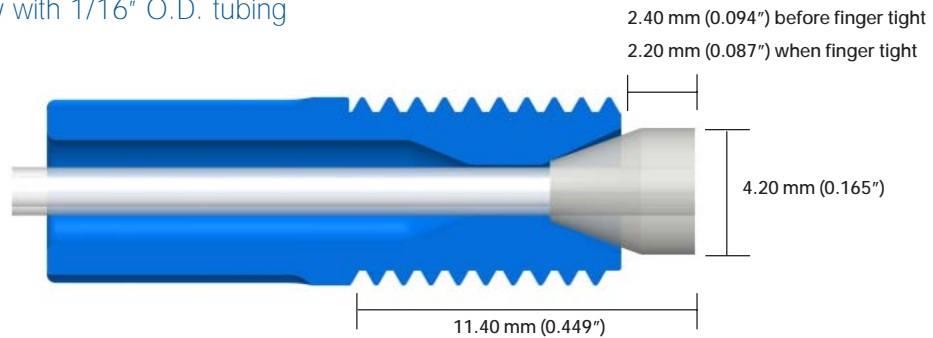
## How it works:

1. An Inverted Cone and fitting nut are assembled onto the end of squarely cut tubing.
2. The fitting is screwed into a 1/4"-28 UNF port until finger tight.
3. The angle of the Inverted Cone is different to that in the fitting.
4. When screwed finger tight into a port, this difference causes compression of the inverted cone at the small end. This makes the cone grip the tube and also creates a seal.

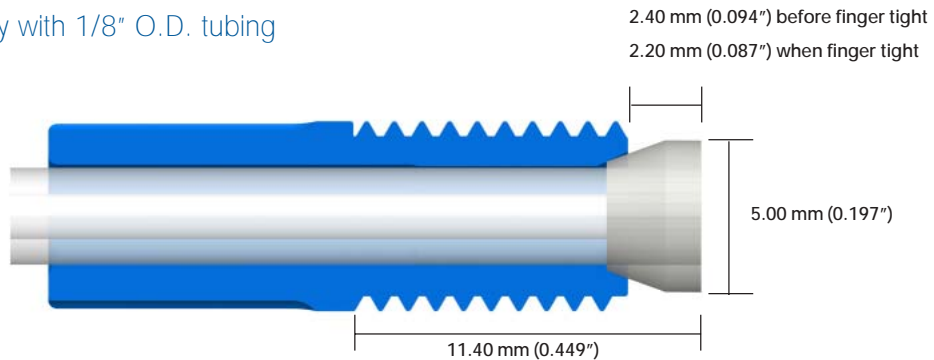


## Dimensions:

Inverted Cone Assembly with 1/16" O.D. tubing



Inverted Cone Assembly with 1/8" O.D. tubing



## Inverted Cone Option (contd.)

### Assembling Inverted Cones:

1. Cut tube end square and push through fitting nut then through the small end of the cone until the tube end is flush with the large end of the cone.
2. Screw in until finger tight into a standard 1/4"-28 UNF flat-bottomed port.

---

### How to Order Inverted Cone ferrules

Part Number	Tubing O.D.	Material	Pack Size
008CZ16	1/16" (1.6 mm)	Tefzel®	10
008CZ32	1/8" (3.2 mm)	Tefzel®	10

Trademarks: \_\_\_\_\_

Rev. 1104

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Omni-Lok™ is a trademark of Omnifit Ltd.

Tefzel® is a registered trademark of E.I. du Pont de Nemours and Company

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## Connection Kits



### Everything you need to make hardwall tubing connections

- Inert connectors and fittings
- Omnifit Gripper fittings rated to 1000psi (68 bar)
- Kits for 1/16" (1.6mm) and 1/8" (3.2mm) outside diameter tubing

### Tube Connector Kits

These kits contain parts to make 10 Gripper fittings and come complete with 5 coupling bodies to enable simple straight-through connection of two Gripper fittings. Available in 1/16" and 1/8" OD tubing versions and with either polypropylene or Tefzel® couplings.

### Starter Kits

Omnifit's starter kits provide a range of fittings and adaptors selected to give a variety of tube connection options for the user. Each kit contains enough Omnifit Grippers, fittings and PTFE tubing to make 20 fittings. Also included are 10 x 2-way couplings, 1 male and 1 female Luer fitting and 1 x 3-way 'T'-connector. Starter kits are available in 1/16" and 1/8" OD tubing versions.

### Laboratory Kit

A comprehensive kit of parts to enable the user to make a range of tubing connections with versions accommodating tubing up to 11mm O.D. Three different valve and connector types provide a wide range of flow splitting and distribution options.

### Gripper Trial Pack

The Gripper Trial Pack contains 2 gripper fitting nuts, 2 PTFE grippers, a Tefzel® coupling and 1/8" O.D. PTFE tubing.

# Ordering Information

## Tube Connector Kits

1/16" and 1/8" Polypropylene  
Tube Connector Kits  
Part Numbers 2003 and 2013

**Contents:**

- 10 x polypropylene tube end fittings (2110, 2210)\*
- 5 x 2-way polypropylene couplings (2301)\*
- 10 x PTFE Grippers (2310, 2312)



2003



2013

1/16" and 1/8" Tefzel®  
Tube Connector Kits  
Part Numbers 2004 and 2014

**Contents:**

- 10 x Tefzel® tube end fittings (2130, 2230)
- 5 x 2-way Tefzel® couplings (2302)\*
- 10 x PTFE Grippers (2310, 2312)



2004



2014

## Starter Kits

1/16" Starter Kit  
Part Number 2002

**Contents:**

- 20 x tube end fittings (2110)\*
- 10 x 2-way couplings (2301)
- 1 x female Luer fitting (2502)
- 1 x 3-way 'T'-connector (2401)
- 20 x Grippers (2310)\*
- 1 x male Luer fitting (2502)
- 2 x plugs (2320)
- 20m x 1/16" OD PTFE tubing (008T16-080-20)



2002

1/8" Starter Kit  
Part Number 2012

**Contents:**

- 20 x tube end fittings (2210)\*
- 10 x 2-way couplings (2301)
- 1 x female Luer fitting (2502)
- 1 x 3-way 'T'-connector (1010)
- 20 x Grippers (2312)\*
- 1 x male Luer fitting (2502)
- 2 x plugs (2320)
- 20m x 1/8" OD PTFE tubing (008T32-150-20)\*



2012

## Laboratory Kit

Part Number 2015

**Contents:**

- 2 x 2-way connector (1001)
- 1 x universal connector (1008)
- 1 x 2-way 'T'-valve (1109)
- 10 x 1/16" tube end fittings (2110)
- 10 x 1/16" Grippers (2310)
- 1 x 3-way 'T'-connector (1010)
- 1 x distribution valve (1118)
- 2 x 2-way coupling (2301)
- 20m x 1/16" OD/0.8mm ID PTFE tubing (008T16-080-20)



2015

## Gripper Trial Pack

1/8" Gripper Trial Pack  
Part Number 2011

**Contents:**

- 2 x tube end fittings
- 2 x Grippers
- 1 x 2-way coupling
- 2m x 1/8" OD/1.5mm ID PTFE tubing



2011

\* Colors or quantity may differ from that sold as stand alone product.

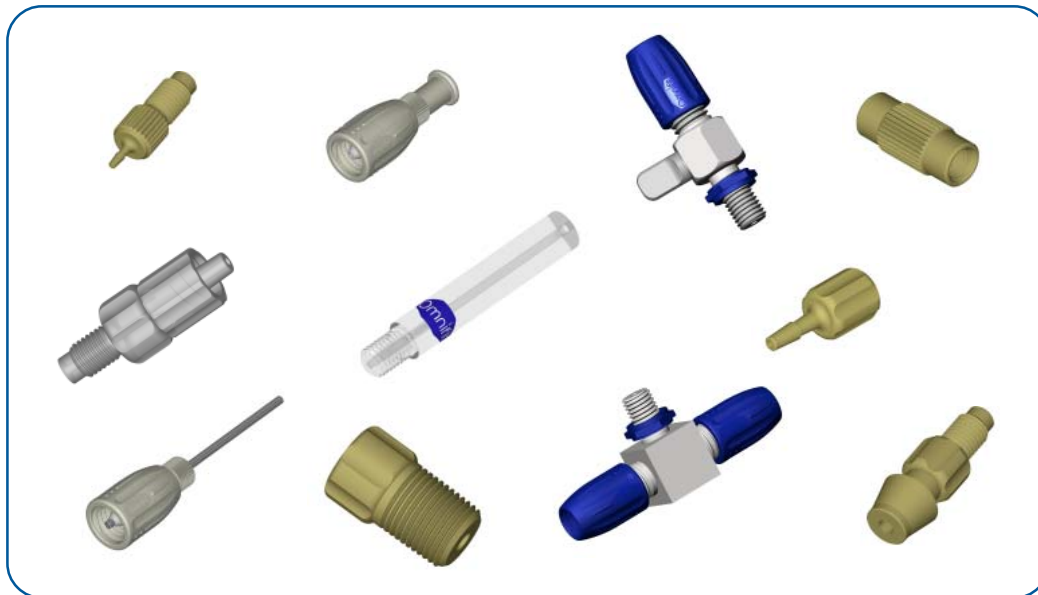
Trademarks:

Tefzel® is a registered trademark of E.I. du Pont de Nemours and Company

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.

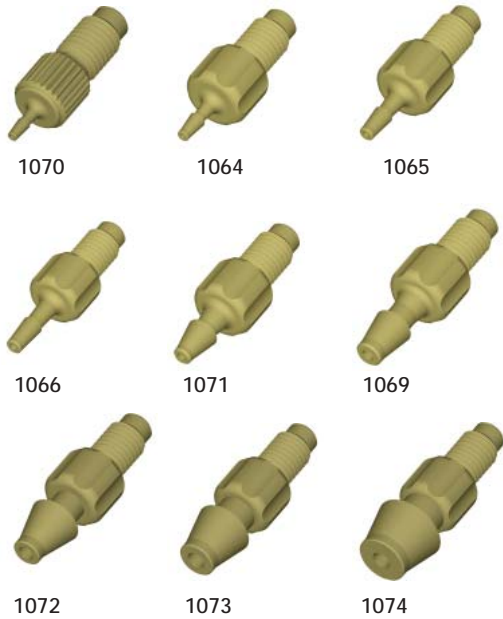
# Barbed Adaptors

## 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.



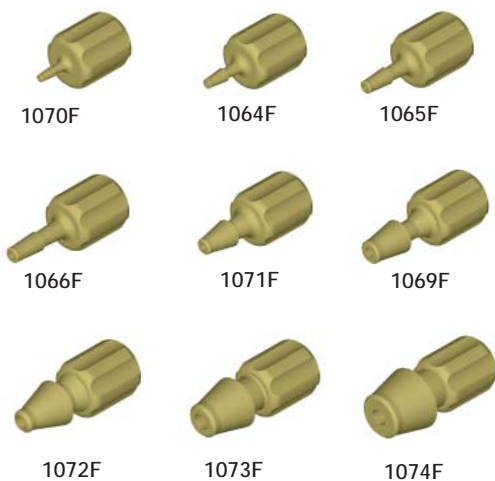
Part Number	Compatible Tubing I.D.	Pack Size
1070	1.0mm	1
1064	1.5mm	1
1065	2.0mm	1
1066	2.5mm	1
1071	3.0mm	1
1069	3.2mm	1
1072	4.0mm	1
1073	6.0mm	1
1074	8.0mm	1

## 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.

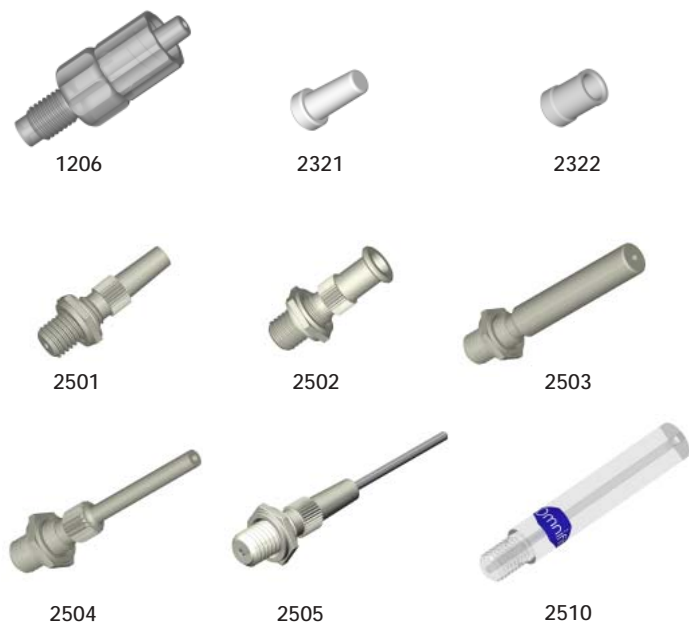


Part Number	Compatible Tubing I.D.	Pack Size
1070F	1.0mm	1
1064F	1.5mm	1
1065F	2.0mm	1
1066F	2.5mm	1
1071F	3.0mm	1
1069F	3.2mm	1
1072F	4.0mm	1
1073F	6.0mm	1
1074F	8.0mm	1

## 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.

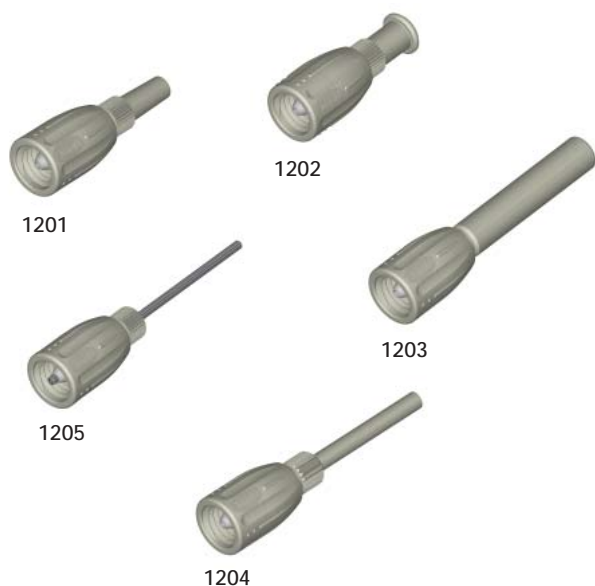


Part Number	Description	Pack Size
1206	Tefzel® Luer lock fitting with Polypropylene lock-ring	1
2321	PTFE plug for female luer	2
2322	PTFE plug for male luer	2
2501	Tefzel® male luer fitting	1
2502	Tefzel® female luer fitting	1
2503	Tefzel® 1/4" O.D. pipe connector	1
2504	Tefzel® 1/8" O.D. pipe connector	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".

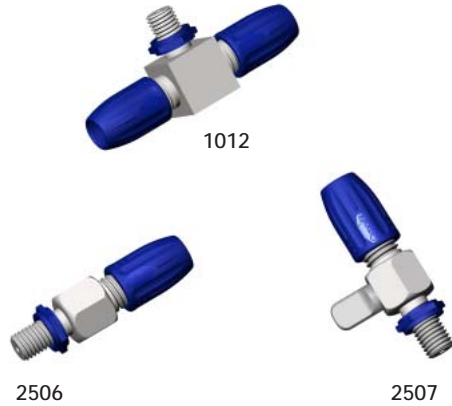


Part Number	Description	Pack Size
1201	Tefzel® male luer fitting	1
1202	Tefzel® female luer fitting	1
1203	Tefzel® 1/4" O.D. pipe connector	1
1204	Tefzel® 1/8" O.D. pipe connector	1
1205	Tefzel® 1/16" O.D. pipe connector with a stainless steel tube	1

## 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.



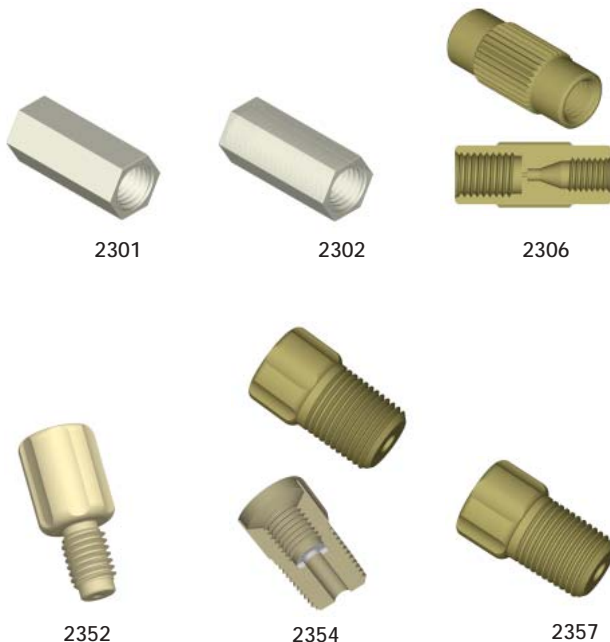
Part Number	Description	Pack Size
1012	3-way 'T' variable bore connector to male 1/4"-28	1
2506	1/4"-28 to variable bore	1
2507	1/4"-28 to variable bore with valve	1

## 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