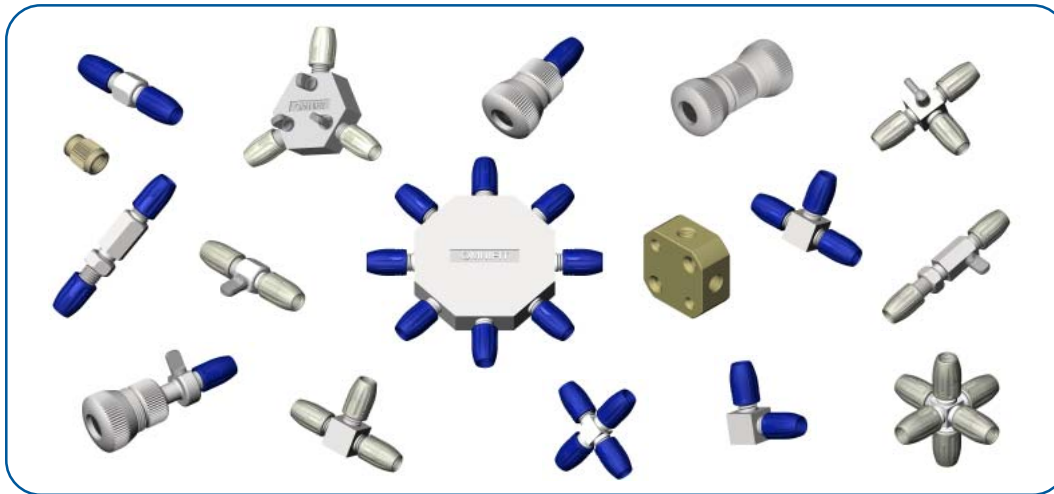




Connectors & Connectors with valves



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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

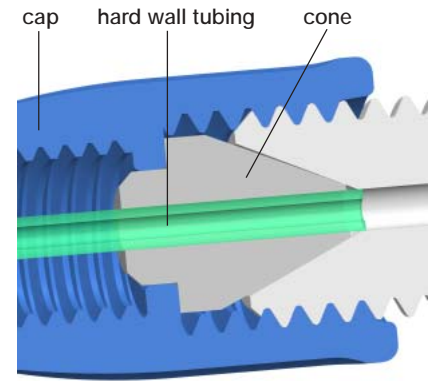
PEEK™ In-line connectors are available for 1/16" and 1/8" O.D. hardwall tubing and have a 1/4"-28 female port. The 3-way 'T' block connector is made of PEEK™ material and has a bore size of 1.5mm. The ports are standard 1/4"-28.



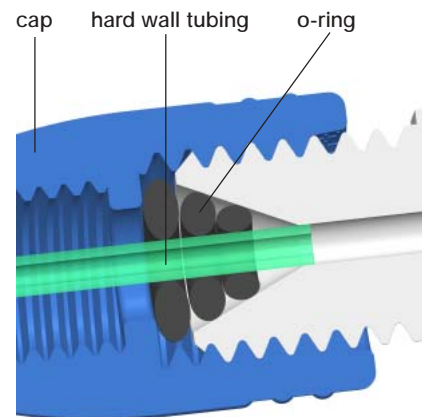
Instructions for using the 'Omnifit Cap' tube connection system

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.

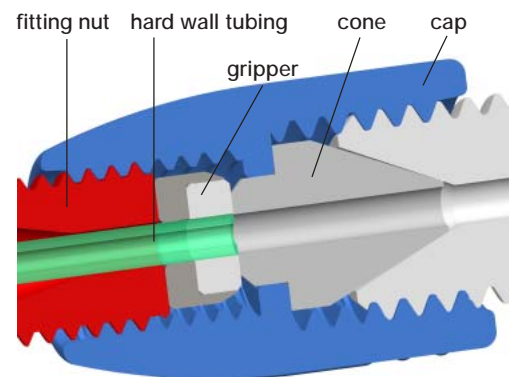
1	PTFE cone option , for use where chemical resistance is paramount. Typical pressure rating is 50 psi.
<p>The Outside diameter of the hard wall tubing being used should be known, and must be matched to a PTFE cone with a corresponding size inside diameter. To assemble, cut the end of the tube square 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>	



2	Viton® 'O'-ring option , 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>	



3	Using an 'Omnifit cap' as a flat bottomed port , 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>	

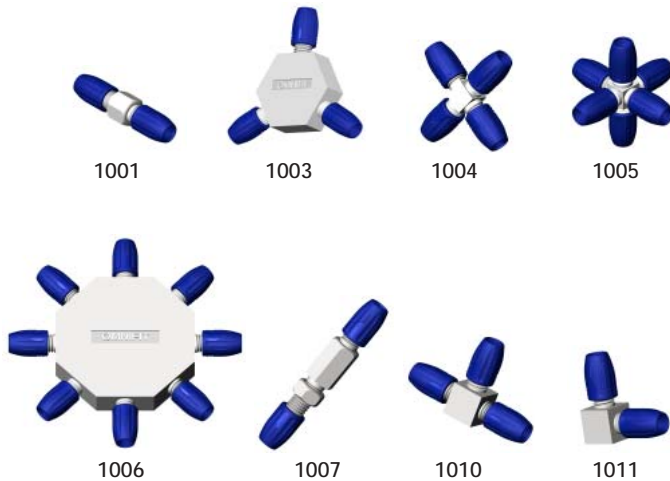


Small Variable Bore Connectors

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.



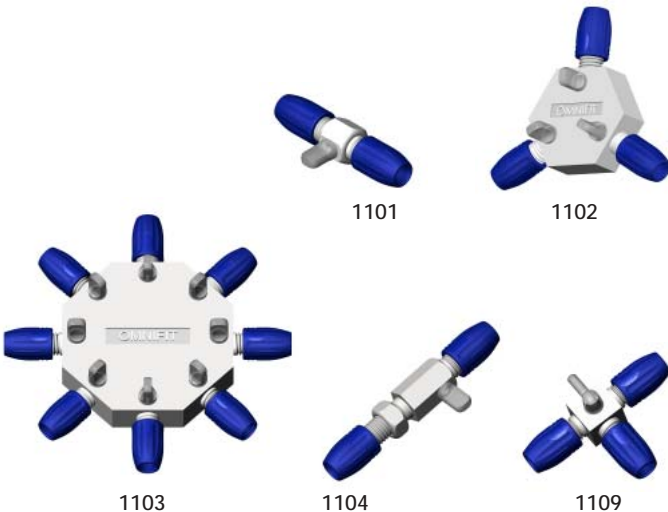
Part Number	Description	Pack Size
2401	3-way connector ('T')	1
2402	4-way connector	1
2403	6-way connector	1
2404	8-way connector	1
2407	3-way connector (Hex)	1
2415	2-way connector	3
2417	2-way connector (bulkhead mountable)	2

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.

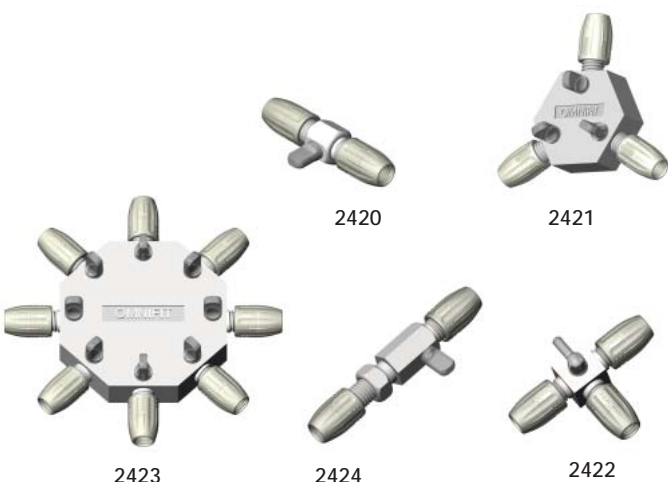


Part Number	Description	Pack Size
1101	2-way valve	2
1102	3-way valve (Hex)	1
1103	8-way valve	1
1104	2-way valve (bulkhead mountable)	2
1109	3-way valve single key ('T')	1

Small bore size (0.8mm)

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

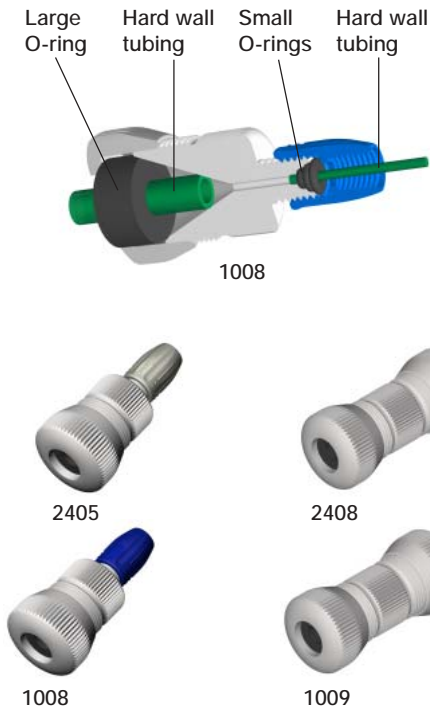
The Omnifit range of small bore size connectors with valves is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. Each connector has a manual valve operation, enabling flow to be switched on or off. They can be used for sampling, flow-splitting, mixing and fluid 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



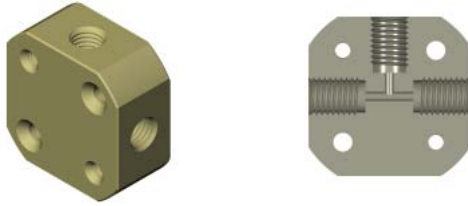
The Omnifit range of large variable bore connectors with valves is a versatile system for connecting different types of hardwall tubing such as PTFE, instantly. These valved versions can be used for sampling and fluid line interconnection. Tubing sizes between 0.5 and 11mm OD can be connected using either 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.



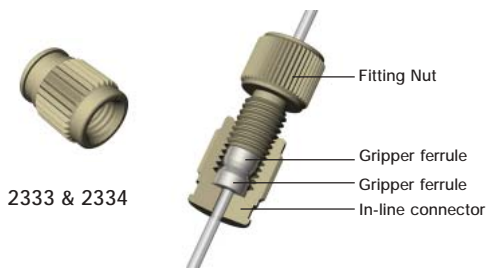
1057

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

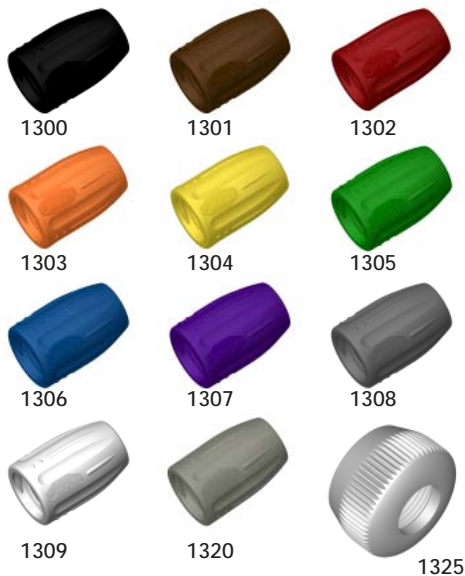
Part Number	Description	Compatible Tubing O.D.	Pack Size
2333	PEEK™, female in-line connector	1/16"	1
2334	PEEK™, female in-line connector	1/8"	1

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

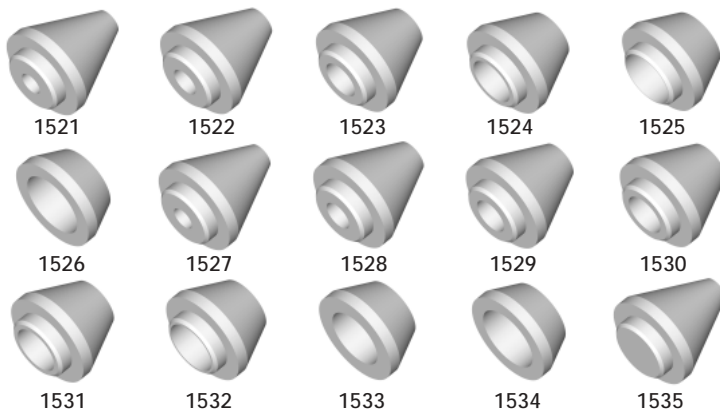
Used as an option with 'Omnifit-Cap' connectors, a PTFE cone is matched to the outside diameter of the tubing being used. This cone, once fitted, is compressed onto the tube forming a seal. PTFE is resistant to most chemicals including sulphuric acid, sodium hydroxide and all organic solvents. The cone 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).

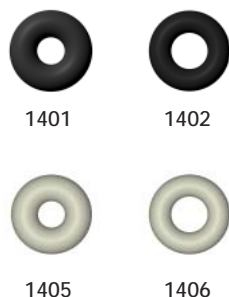


P/N	Compatible tubing O.D.	Pack Size
1521	5/32" (4.0mm)	2
1522	3/16" (4.8mm)	2
1523	1/4" (6.4mm)	2
1524	5/16" (8.0mm)	2
1525	3/8" (9.5mm)	2
1526	7/16" (11.1mm)	2
1526	4.0 mm	2
1528	5.0 mm	2
1529	6.0 mm	2
1530	7.0 mm	2
1531	8.0 mm	2
1532	9.0 mm	2
1533	10.0 mm	2
1534	11.0 mm	2
1535	Blank	2

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:

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PEEK™ is a trademark of Victrex plc
Tefzel®, Viton® are registered trademarks of E.I. du Pont de Nemours and Company

Rev. 0205

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