



Syringes and Accessories

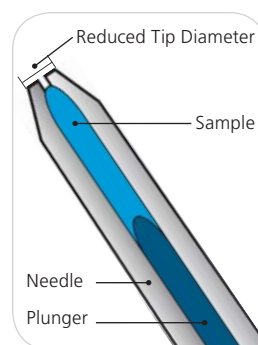
0.5 - 5 µL NanoVolume

With the ability to inject down to 50 nL with high precision and accuracy, SGE NanoVolume Syringes are perfect for NanoVolume capillary chromatography injection as well as making accurate standards that require small volumes.

The sample is only drawn into the needle, not the syringe barrel. When the plunger is depressed, the sample is completely dispensed by the NanoVolume plunger that extends to the tip of the needle.

Displacing the full sample during injection results in virtually zero dead volume and carry over between injections.

The plungers and needles are matched sets and must be replaced as a set. Refer to page 65 for a list of replacement plunger and needle kits.



NOZZLE TIP SHOWN IN DIAGRAM.

SPECIFICATIONS	
Accuracy and Reproducibility	± 2 % (dispensed volume)
Borosilicate Glass Barrel Outer Diameter (OD)	6.5 mm and 8 mm
Scale Length	0.5 µL (6.5 mm OD barrel) = 27.05 mm, 0.5 µL (8 mm OD barrel) = 63.7 mm, 1 µL = 54.1 mm, 63.7 mm, 5 µL = 48.7 mm
International Standards Traceability	

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle and Plunger Part No.	Syringe Part No.
6.5 mm Outer Diameter (OD) Barrel								
0.5 µL	50	23	0.63	0.155	Cone	0.5BNR-5	033010	000300
0.5 µL	50	23	0.63	0.155	Bevel	0.5BNR-5BV	033011	000301
0.5 µL	50	26	0.47	0.155	Cone	0.5BNR-5/0.47	033012	000303
8.0 mm Outer Diameter (OD) Barrel								
0.5 µL	70	23	0.63	0.1	Cone	0.5BR-7	033057	000310
0.5 µL	70	23	0.63	0.1	Bevel	0.5BR-7BV	033060	000311
1 µL	50	23	0.63	0.155	Cone	1BR-5	034055	000500
1 µL	50	23	0.63	0.155	Bevel	1BR-5BV	034056	000501
1 µL	70	23	0.63	0.155	Cone	1BR-7	034057	000505
1 µL	70	23	0.63	0.155	Bevel	1BR-7BV	034060	000506
1 µL	115	23	0.63	0.155	Cone	1BR-11.5	034059	000510
1 µL	70	26	0.47	0.155	Cone	1BR-7/0.47	034610	000570
5 µL	50	23	0.63	0.365	Cone	5BR-5	035055	000800
5 µL	50	23	0.63	0.365	Bevel	5BR-5BV	035056	000801
5 µL	70	23	0.63	0.365	Cone	5BR-7	035057	000802
5 µL	70	23	0.63	0.365	Bevel	5BR-7BV	035058	000803
5 µL	115	23	0.63	0.365	Cone	5BR-11.5	035059	000804
5 µL	70	23	0.63	0.365	Nozzle	5BR-7N	035060	000805

Syringes Fitted with Repeating Adaptor

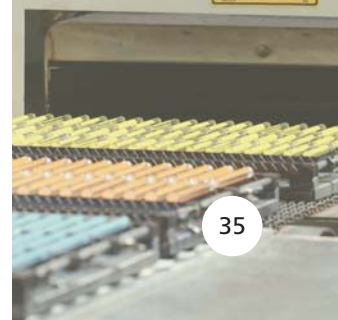
See page 63 for more details about the RAX repeating adaptor.



Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle and Plunger Part No.	Syringe Part No.
6.5 mm Outer Diameter (OD) Barrel								
0.5 µL	50	23	0.63	0.155	Cone	0.5BNR-5-RAX	033010	000350
0.5 µL	50	26	0.47	0.155	Cone	0.5BNR-5/0.47-RAX	033012	000353
8.0 mm Outer Diameter (OD) Barrel								
0.5 µL	70	23	0.63	0.1	Cone	0.5BR-7-RAX	033057	000355
1 µL	50	23	0.63	0.155	Cone	1BR-5-RAX	034055	000550
1 µL	70	23	0.63	0.155	Cone	1BR-7-RAX	034057	000553

Expert Tip :

When replacing the plunger and needle follow the instructions included in the kit – the front cover nut must be loosened before removing the plunger.



5 - 10 µL Metal Plunger

Syringes and Accessories



SPECIFICATIONS	
Accuracy and Reproducibility	± 1 % (dispensed volume)
Borosilicate Glass Barrel Outer Diameter (OD)	6.5 mm (guided plunger syringes 8 mm)
Scale Length	54.1 mm
International Standards Traceability	

Standard Plunger Protection Syringes

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	6 Pack Syringe Part No.	10 Pack Syringe Part No.	25 Pack Syringe Part No.	Syringe Part No.
Fixed Needle											
5 µL	50	26	0.47	0.11	Bevel	5F	-	-	-	-	001000
5 µL	70	26	0.47	0.11	Bevel	5F-7	-	-	-	-	001002
5 µL	42	23	0.63	0.11	Cone	5F-4.2/0.63C	-	-	-	-	008139
10 µL	50	26	0.47	0.11	Bevel	10F	-	002030	002033	002035	002000
10 µL	70	26	0.47	0.11	Bevel	10F-7	-	-	-	-	002003
10 µL	50	26	0.47	0.11	cone	10F-5C	-	-	-	-	002005
10 µL	115	26	0.47	0.11	Bevel	10F-11.5	-	-	-	-	002007
10 µL	42	23	0.63	0.11	Cone	10F-4.2/0.63C	-	-	-	-	002839
Removable Needle											
5 µL	50	26	0.47	0.11	Bevel	5R	036110	-	-	-	001050
10 µL	50	26	0.47	0.11	Bevel	10R	037110	002080	-	-	002050
10 µL	70	26	0.47	0.11	Bevel	10R-7	037130	-	-	-	002055

SuperFlex™ Syringes

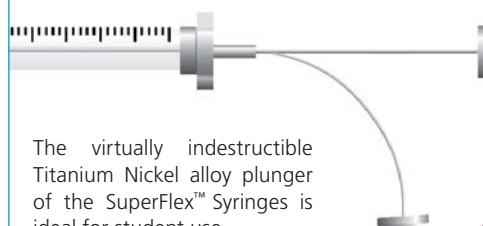
Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	6 Pack Syringe Part No.	Syringe Part No.
Fixed Needle									
5 µL	50	26	0.47	0.11	Bevel	5FX	-	-	001100
5 µL	50	26	0.47	0.11	Cone	5FX-5C	-	-	001105
10 µL	50	26	0.47	0.11	Bevel	10FX	-	002130	002100
10 µL	70	26	0.47	0.11	Bevel	10FX-7	-	-	002101
10 µL	50	26	0.47	0.11	Cone	10FX-5C	-	002133	002105
10 µL	50	23	0.63	0.11	Cone	10FX-5/0.63C	-	002135	002108
Removable Needle									
5 µL	50	26	0.47	0.11	Bevel	5RX	036110	-	001150
10 µL	50	26	0.47	0.11	Bevel	10RX	037110	002180	002150

Expert Tip :

Plunger protection helps prevent plunger bending during injection.



Expert Tip:



The virtually indestructible Titanium Nickel alloy plunger of the SuperFlex™ Syringes is ideal for student use.



Expert Tip:

Guided plunger syringes are the most rugged syringe available, making them perfect for industrial environments.

**Guided Plunger Syringes**

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	6 Pack Syringe Part No	Syringe Part No.
Fixed Needle									
5 µL	50	26	0.47	0.11	Bevel	5F-GP	-	-	001400
10 µL	50	26	0.47	0.11	Bevel	10F-GP	-	-	002400
Removable Needle									
5 µL	50	26	0.47	0.11	Bevel	5R-GP	036110	-	001450
5 µL	70	26	0.47	0.11	Bevel	5R-GP-7	036130	-	001455
5 µL	50	26	0.47	0.11	Bevel	5R-GPS	037110	-	001495*
10 µL	50	26	0.47	0.11	Bevel	10R-GP	037110	-	002450
10 µL	70	26	0.47	0.11	Bevel	10R-GP-7	037130	-	002453

* Short half scale syringe (scale length 27 mm).

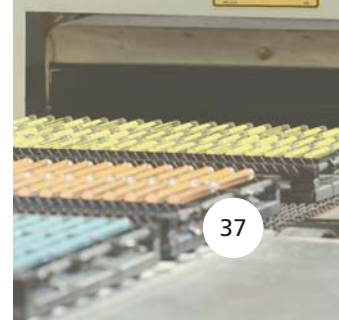
**Syringes Fitted with Repeating Adaptor**

See page 63 for more details about the RAX repeating adaptor.

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	6 Pack Syringe Part No	Syringe Part No.
Fixed Needle									
10 µL	50	26	0.47	0.11	Bevel	10F-RAX	-	-	002040
Removable Needle									
5 µL	50	26	0.47	0.11	Bevel	5R-RAX	036110	-	001090
10 µL	50	26	0.47	0.11	Bevel	10R-RAX	037110	-	002090
Removable Needle - Guided Plunger									
5 µL	50	26	0.47	0.11	Bevel	5R-GP-RAX	036110	-	001490
10 µL	50	26	0.47	0.11	Bevel	10R-GP-RAX	037110	-	002490
10 µL	70	26	0.47	0.11	Bevel	10R-GP-7-RAX	037130	-	002493

Expert Tip :

The RAX repeating adaptor improves precision and reproducibility when repeatedly injecting the same volume manually.



25 - 500 µL Metal Plunger

Syringes and Accessories



SPECIFICATIONS		
Accuracy and Reproducibility	± 1 % (dispensed volume)	
Borosilicate Glass Barrel Outer Diameter (OD)	8 mm	
Scale Length	60 mm	
International Standards Traceability		

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	Syringe Part No.
Fixed Needle								
25 µL	50	25	0.5	0.2	Bevel	25F	-	003000
50 µL	50	25	0.5	0.2	Bevel	50F	-	004000
100 µL	50	25	0.5	0.2	Bevel	100F	-	005000
250 µL	50	25	0.5	0.2	Bevel	250F	-	006000
500 µL	50	25	0.5	0.2	Bevel	500F	-	007000
Removable Needle								
25 µL	50	25	0.5	0.2	Bevel	25R	038110	003050
50 µL	50	25	0.5	0.2	Bevel	50R	038110	004050
100 µL	50	25	0.5	0.2	Bevel	100R	038110	005050
100 µL	70	25	0.5	0.2	Bevel	100R-7	038130	005055
250 µL	50	25	0.5	0.2	Bevel	250R	038110	006050
500 µL	50	25	0.5	0.2	Bevel	500R	038110	007050



Syringes Fitted with Repeating Adaptor

See page 63 for more details about the RAX repeating adaptor.

Syringe Volume	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	Syringe Part No.
Removable Needle								
25 µL	50	25	0.5	0.2	Bevel	25R-RAX	038110	003090
50 µL	50	25	0.5	0.2	Bevel	50R-RAX	038110	004090
100 µL	50	25	0.5	0.2	Bevel	100R-RAX	038110	005090
250 µL	50	25	0.5	0.2	Bevel	250R-RAX	038110	006090
500 µL	50	25	0.5	0.2	Bevel	500R-RAX	038110	007090

Expert Tip:

To eliminate carryover between samples, flush the syringe with solvent 5-20 times, remembering to discard the first 2-3 washes.

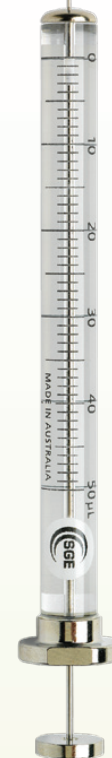


10 - 500 µL PTFE Tipped Plunger

SPECIFICATIONS	
Accuracy and Reproducibility	± 1 % (dispensed volume)
Borosilicate Glass Barrel Outer Diameter (OD)	10 µL = 6.5 mm, 25 - 500 µL = 8 mm
Scale Length	10 µL = 54.1 mm, 25 - 500 µL = 60 mm
International Standards Traceability	

Syringe Volume	PTFE Tipped Plunger	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replace-ment Needle Part No.	Replace-ment Plunger Part No.	6 Pack Syringe Part No.	Syringe Part No.
Fixed Needle											
10 µL	✓	50	26	0.47	0.11	Bevel	10F-GT	-	031810	002202	002200
10 µL	✓	70	26	0.47	0.11	Bevel	10F-GT-7	-	031810	-	002208
25 µL	✓	50	25	0.50	0.20	Bevel	25F-GT	-	031815	-	003200
50 µL	✓	50	25	0.50	0.20	Bevel	50F-GT	-	031820	-	004200
100 µL	✓	50	25	0.50	0.20	Bevel	100F-GT	-	031825	-	005200
250 µL	✓	50	25	0.50	0.20	Bevel	250F-GT	-	031830	-	006200
500 µL	✓	50	25	0.50	0.20	Bevel	500F-GT	-	031835	-	007200
Removable Needle											
10 µL	✓	50	26	0.47	0.11	Bevel	10R-GT	037110	031811	002252	002250
25 µL	✓	50	25	0.50	0.20	Bevel	25R-GT	038110	031815	-	003250
50 µL	✓	50	25	0.50	0.20	Bevel	50R-GT	038110	031820	-	004250
100 µL	✓	50	25	0.50	0.20	Bevel	100R-GT	038110	031825	-	005250
250 µL	✓	50	25	0.50	0.20	Bevel	250R-GT	038110	031830	-	006250
500 µL	✓	50	25	0.50	0.20	Bevel	500R-GT	038110	031835	-	007250
Guided Plunger											
10 µL	✓	50	26	0.47	0.11	Bevel	10R-GP-GT	037110	031805	-	002455
On-Column											
10 µL	✓	75	-	0.17	0.11	On-Column	10R-GT-OC-CE	037675	031811	-	002500
Fixed Luer Tip											
50 µL	✓	-	-	-	-	-	50F-LT-GT	-	031820	-	004229
100 µL	✓	-	-	-	-	-	100F-LT-GT	-	031825	-	005229
250 µL	✓	-	-	-	-	-	250F-LT-GT	-	031830	-	006229
500 µL	✓	-	-	-	-	-	500F-LT-GT	-	031835	-	007229
Fixed Luer Lock											
50 µL	✓	-	-	-	-	-	50F-LL-GT	-	031820	-	004230
100 µL	✓	-	-	-	-	-	100F-LL-GT	-	031825	-	005230
250 µL	✓	-	-	-	-	-	250F-LL-GT	-	031830	-	006230
500 µL	✓	-	-	-	-	-	500F-LL-GT	-	031835	-	007230

Syringes and Accessories



1 - 100 mL PTFE Tipped Plunger

Also Suitable for Syringe Pumps and Dispensers

Syringes and Accessories



SPECIFICATIONS	
Accuracy and Reproducibility	± 1 % (dispensed volume)
Borosilicate Glass Barrel Outer Diameter (OD)	1 mL = 9 mm, 2.5 mL = 11 mm, 5 mL = 14 mm, 10 mL = 18 mm, 25 mL = 27 mm, 50 mL = 32.8 mm, 100 mL = 40.8 mm
Scale Length	1 – 25 mL = 60 mm, 50 mL = 84.2 mm, 100 mL = 104 mm
Thread in Plunger Button	6-32 UNC
International Standards Traceability	

Syringe Volume	PTFE Tipped Plunger	Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Syringe Code	Replacement Needle Part No.	Replacement Plunger Part No.	Syringe Part No.
Fixed Needle										
1 mL	✓	50	22	0.72	0.37	Bevel	1MDF-GT	-	0318441	008102
2.5 mL	✓	50	22	0.72	0.37	Bevel	2.5MDF-GT	-	031852	008502
Removable Needle										
1 mL	✓	50	23	0.63	0.32	Bevel	1MR-GT	039110	031842	008100*
2.5 mL	✓	50	23	0.63	0.32	Bevel	2.5MDR-GT	039110	031852	008500
5 mL	✓	50	23	0.63	0.32	Bevel	5MDR-GT	031516	031856	008700
10 mL	✓	50	23	0.63	0.32	Bevel	10MDR-GT	031516	031862	008900
Fixed Luer Tip										
1.0 mL	✓	-	-	-	-	Luer Tip	1MF-LT-GT	-	031842	008020*
2.5 mL	✓	-	-	-	-	Luer Tip	2.5MDF-LT-GT	-	031852	008420
Fixed Luer Lock										
1.0 mL	✓	-	-	-	-	Luer Lock	1MDF-LL-GT	-	0318441	008025
2.5 mL	✓	-	-	-	-	Luer Lock	2.5MDF-LL-GT	-	031852	008425
5 mL	✓	-	-	-	-	Luer Lock	5MDF-LL-GT	-	0318562	008762
10 mL	✓	-	-	-	-	Luer Lock	10MDF-LL-GT	-	031864	008962
25 mL	✓	-	-	-	-	Luer Lock	25MDF-LL-GT	-	031874	009463
Removable Luer Lock										
5 mL	✓	-	-	-	-	Luer Lock	5MDR-LL-GT	-	031856	008760
10 mL	✓	-	-	-	-	Luer Lock	10MDR-LL-GT	-	031862	008960
25 mL	✓	-	-	-	-	Luer Lock	25MR-LL-GT	-	031870	009462
50 mL	✓	-	-	-	-	Luer Lock	50MR-LL-GT	-	0312170	009660*
100 mL	✓	-	-	-	-	Luer Lock	100MR-LL-GT	-	0312176	009760*

* No thread in plunger stem of syringe part numbers 008100, 008020, 009660 and 009760.



Syringes | Syringe Valves



Syringe valves are ideal for sample storage and transportation or to pressurize sample prior to injection.

SGE offers three basic types of manually operated syringe valves; push-pull for smaller volumes (25 µL – 2.5 mL), septum and push-button for larger volumes (5 mL – 2 L).

SGE Luer Tip, Luer Lock and removable needle syringes can be fitted with valves. The valve allows fluid to be stored in the syringe without contamination.

Push-pull Valves



Part No. 031905 Part No. 031907 and 031906
Push-pull valves suit removable needle 25 µL - 2.5 mL syringes.

Septum Valve



Part No. 031911
The septum cap (PIN 031911) allows sample access without loss or contamination. It can be removed and Luer Lock needles or devices fitted.

Push-button Valves

OPEN ← → CLOSE



Part No. 031910 Suits 5 mL - 2 L syringes with removable Luer Lock or removable needle.
Part No. 031915 Suitable for any Luer Lock and Luer Tip syringes or other Luer devices.

Expert Tip :

With the valve in the closed position it is possible to move the plunger to pre-pressurize the sample.



Description	Syringe Volume	Valve Code	Replacement Needle Part No.	Valve Part No.
Push-pull Valve with Replaceable 23 Gauge Needle	25 µL - 2.5 mL	V25/2.5M-0.63C	038810	031905*
Push-pull Valve with Replaceable 26 Gauge Needle	25 µL - 2.5 mL	V25/2.5M-0.47C	038820	031906^
Push-pull Valve with Luer Lock	25 µL - 2.5 mL	VLL25/2.5M	-	031907
Push-button Valve with Luer Lock or Removable Needle	5 mL - 2 L	VLLMA	-	031910
Septum Valve	5 mL - 2 L	VLLMA5/2000	-	031911
Push-button Valve for Luer Lock Devices	50 µL - 2 L	SLLV	-	031915

* 50 mm, 0.63 mm OD cone tip needle. ^ 50 mm, 0.47 mm OD cone tip needle.



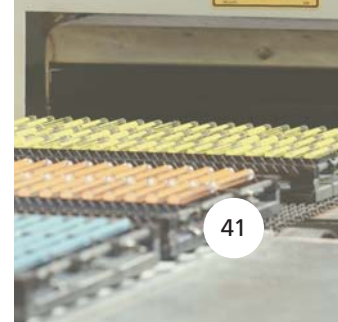
Syringes Pre-fitted with Syringe Valves

Syringe Volume	PTFE Tipped Plunger	Syringe Code	Replacement Needle Part No.	Replacement Plunger Part No.	Replacement Valve Part No.	Syringe Part No.
Pre-fitted with Removable Needle Push-pull Valve						
50 µL	✓	50R-V-GT	038810	031820	031905	004279
100 µL	✓	100R-V-GT	038810	031825	031905	005279
250 µL	✓	250R-V-GT	038810	031830	031905	006279
500 µL	✓	500R-V-GT	038810	031835	031905	007279
1 mL	✓	1MR-V-GT	038810	031842	031905	008110
2.5 mL	✓	2.5MDR-V-GT	038810	031852	031905	008510
Pre-fitted with Luer Lock Valve						
1 mL	✓	1MR-VLL-GT	-	031842	031907	008160
2.5 mL	✓	2.5MDR-VLL-GT	-	031852	031907	008560
5 mL	✓	5MDR-VLLMA-GT	-	031856	031910	008770
10 mL	✓	10MDR-VLLMA-GT	-	031862	031910	008970
25 mL	✓	25MDR-VLLMA-GT	-	031870	031910	009472
50 mL	✓	50MR-VLLMA-GT	-	0312170	031910	009670
100 mL	✓	100MR-VLLMA-GT	-	0312176	031910	009770

Valve Needles

Needle Length (mm)	Needle Gauge	Needle OD (mm)	Needle ID (mm)	Needle Tip	Pack Size	Valve Needle Part No.
For use with P/N 031905 and 031906						
50	23	0.63	0.20	Cone	1	038810
50	23	0.63	0.20	Side Hole/Dome	1	038815
50	26	0.47	0.24	Cone	1	038820

See page 67 for the complete range of Luer Lock needles suitable for use on Luer Lock valves.



SealTight™

Syringes and Accessories



SealTight™ low pressure valves are designed for improved valve seal life. SGE valves have overcome the problem of leakage by reducing perpendicular rotor force, and optimizing the rotor face union, thereby improving PTFE plug integrity. The end result is a longer life seal. The SealTight™ Valves are completely inert and enable connection of a variety of fittings. Valves are available in standard (SV) or bulkhead panel mounting connection (SVP) which can be easily mounted to a dispenser. Other valves, including custom OEM configurations, are available.

SPECIFICATIONS	
Flow Path	1.5 mm (0.059")
Threaded Ports	1/4–28 UNF
Pressure Rating	120 psi
Temperature Rating	10 – 120 °C
Standard Weight	58 g
Bulkhead Weight	65 g
Breakaway Torque	0.15 Nm
Lifetime Testing	≥ 8,000 cycles

ADVANTAGES

- Extended life resulting from face rotor seal technology, making valves cost effective and reliable.
- Inert PTFE and Kel-F® flow path compatible with a variety of solvents and sample matrices.
- Easily reassembled by hand: no need to torque it up like other valves.
- Screw thread for connection onto 5 mL – 2 L syringes using syringe-valve connector (Part No. 030930).

APPLICATIONS

SealTight™ valves offer the versatility to be utilized in a variety of industries and applications:

- Dispensers.
- Diluters.
- Flow path variation.
- Biocompatible, suitable for use in pathology equipment.

Description	Mounting	Code	Part No.
Distribution Valves			
2-way L	Bulkhead	SVP-2L/D	030025
3-way T	Standard	SV-3T/D	030040
3-way T	Bulkhead	SVP-3T/D	030045
Port Valves			
I flow 2 port	Standard	SV-2I/I	030200
T flow 3 port	Standard	SV-3T/T	030240
T flow 3 port	Bulkhead	SVP-3T/T	030245
L flow 3 port	Standard	SV-3T/L	030260
L flow 3 port	Bulkhead	SVP-3T/L	030265



2-way L



3-way T



I flow 2 port



T flow 3 port



L flow 3 port

SealTight™ Valve Fittings and Connectors

Description	Code	Part No.
Kel-F® Female Luer	KSV-FL	030900
Kel-F® Male Luer	KSV-LT	030905
Metal Thread Male Luer Lock - PTFE Flow Path	MSV-LL	030920
Syringe-Valve Connector (fits 5 mL – 2 L syringes) PTFE Flow Path	MSV-SYR	030930
Flangeless Tubing Connector for 1/16" Tubing (includes 2 ferrules)	MSV-1/16	030950
Flangeless Tubing Connector for 1/8" Tubing (includes 2 ferrules)	MSV-1/8FLT	030952
Replacement Ferrules for 1/16" Tubing	PF16-16	0730018
Replacement Ferrules for 1/8" Tubing	PF8-8	0730019