

SALES LITERATURE

Revision 17-1

SNAP[®]

Laboratory Glass Columns

"Next Generation" technology for high-performance preparative chromatography



essentialLife Solutions
for preparative chromatography



Proudly Made in America

Helping You Succeed!

Table of Contents

Introducing the SNAP® Glass Column	1
Advantages of SNAP® Glass Columns	2
Bed Length/Volume Selection Chart	3
Pressure/Material Specifications	4
Part Numbering System	5
SNAP® Series Glass Columns, AB-Version, Short/Short Pistons (S/S)	6
SNAP® Series Glass Columns, AB-Version, Short/Long Pistons (S/L)	7
SNAP® Series Glass Columns, AB-Version, Long/Long Pistons (L/L)	8
SNAP® Series Glass Columns, SR-Version, Short/Short Pistons (S/S)	9
SNAP® Series Glass Columns, SR-Version, Short/Long Pistons (S/L)	10
SNAP® Series Glass Columns, SR-Version, Long/Long Pistons (L/L)	11
Packing Adaptors	12
Column Stands/Peek Piston & Frit Assemblies (Stainless Steel)	13
Supplied Accessories/Spare Parts	14-15
Cartridge Configuration/Customized Solutions/Limited Warranty	16-17

OUR MISSION STATEMENT

To be a “world class” provider of products and services to Life Sciences for the advancement of research, development, and production of materials for the good of mankind.

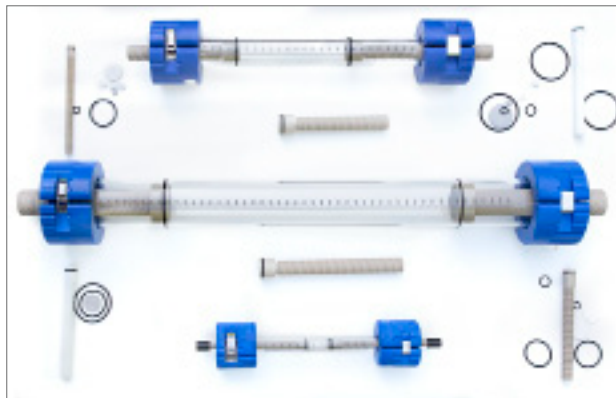
Introducing the SNAP® Glass Column

Liquid preparative chromatography is a widely used downstream purification technique that can be used on a wide range of compounds. The common targeted molecules include proteins, peptides and/or nucleic acids. With the emergence of smaller particle, higher performance chromatography media, there has been an identified need for higher pressure column hardware that can handle the increased back pressure loading in a safe column configuration. Traditionally, this has been addressed with stainless steel hardware, which does not allow the scientist visibility of the column contents.

Essential Life Solutions designed a "Next Generation" column line to address these evolving demands. Drawing on its many years of experience, Essential Life is pleased to announce the most effective and user friendly preparative column on the market.

SNAP® columns have been designed to exceed what is currently available to the scientist for laboratory use. Essential Life understands the value that the scientist places on his or her results, and we have strived to help them achieve those goals.

Careful choice in materials of construction, combined with customer feedback, has driven the design such that biocompatibility can be achieved in virtually any circumstance. Essential Life proudly offers this new SNAP® column hardware line and appreciates your interest. We at Essential Life Solutions value your business.



The patented SNAP® closure mechanism provides a safe and reliable means to access the column contents.

Advantages of SNAP® Glass Columns

1 HIGHER PRESSURE RATINGS INCORPORATING GLASS CONSTRUCTION

Pressures to 40 Bars (580 psig)
Full view of bed unlike stainless steel
Rugged construction for hard lab use
Temps up to 80 °C

2 LINEAR MOTION OF PISTON

Due to the true linear motion of piston there is NO scraping of the bed surface or induced TORSIONAL load imposed on the packed bed assuring true linear compression.

3 CALIBRATED GLASS TUBING

Superior glass tolerance eliminates seal adjustment.
True bore tubing reduces wall effect

4 TRUE FRITS

Columns are supplied with true sintered material frits assuring good flow distribution and minimizes dead volume.

5 ROBUST INLET AND OUTLET CONNECTIONS

Connections are made externally and are visible if any leakage should occur.

6 FINE THREAD ADJUSTMENT

Columns are provided with fine thread adjustment allowing better and more precise piston control.

7 DOUBLE PISTON ADJUSTMENT

Columns are provided with piston adjustment from both ends allowing greater flexibility of bed adjustments.

8 QUICK RELEASE ENDS

ELS (patented) column end closure design allows easy assembly and disassembly of columns even on large diameters. Inherently self-locking design ensures user safety.

9 GRADUATED GLASS – PATENTED

All columns are supplied with column graduations on the glass exterior to make bed measurements quick and simple.

10 CONFIGURABLE

Columns can be custom configured based on mobile phase conditions and meet the exact needs of the chromatographer.

SNAP® Series Glass Columns Bed Length/Volume Selection Chart

NOTE: Actual lengths and volumes may vary slightly due to manufacturing tolerance of glass.

Column ID (mm)	Bed Length (mm)	Short/Short (SS) Piston Bed Length min-max (mm)	Short/Short (SS) Piston Volume min-max (ml)	Short/Long (SL) Piston Bed Length min- max (mm)	Short/Long (SL) Piston Volume min-max (ml)	Long/Long (LL) Piston Bed Length min- max (mm)	Long/Long (LL) Piston Volume min-max (ml)
10mm	125mm	0-125	0-9.8	0-125	0-9.8	0-125	0-9.8
	250mm	125.9-250	9.9-19.6	83.4-250	6.5-19.6	40.9-250	3.2-19.6
	350mm	226.1-350	17.8-27.5	183.6-350	14.4-27.5	141.1-350	11.1-27.5
	500mm	375.9-500	29.5-39.3	333.4-500	26.2-39.3	290.9-500	22.8-39.3
	750mm	625.9-750	49.1-58.9	583.4-750	45.8-58.9	540.9-750	42.5-58.9
	1000mm	875.9-1000	68.8-78.5	833.4-1000	65.4-78.5	790.9-1000	62.1-78.5
15mm	125mm	0-125	0-22.1	0-125	0-22.1	0-125	0-22.1
	250mm	95.3-250	16.8-44.2	52.8-250	9.3-44.2	10.3-250	1.8-44.2
	350mm	196.1-350	34.6-68.8	153.6-350	27.1-68.8	111.1-350	19.6-68.8
	500mm	345.3-500	61-88.3	302.8-500	53.5-88.3	260.3-500	46-88.3
	750mm	595.3-750	105.1-132.5	552.8-750	97.6-132.5	510.3-750	90.1-132.5
	1000mm	845.3-1000	149.3-176.6	802.8-1000	141.8-176.6	760.3-1000	134.3-176.6
25mm	125mm	0-125	0-61.3	0-125	0-61.3	0-125	0-61.3
	250mm	108-250	53-122.7	65.5-250	32.1-122.7	23-250	11.3-122.7
	350mm	208.9-350	102.5-171.8	166.4-350	81.7-171.8	123.9-350	60.8-171.8
	500mm	358-500	175.6-245.3	315.5-500	154.8-245.3	273-500	133.9-245.3
	750mm	608-750	298.3-368	565.5-750	277.4-368	523-750	256.6-368
	1000mm	858-1000	420.9-490.6	815.5-1000	400.1-490.6	772-1000	379.2-490.6
35mm	125mm	0-125	0-120.2	0-125	0-120.2	0-125	0-120.2
	250mm	110.1-250	105.9-240.4	57.6-250	55.4-240.4	25.1-250	24.1-240.4
	350mm	209.5-350	201.6-336.7	167-350	160.7-336.7	124.5-350	119.8-336.7
	500mm	360.1-500	346.3-480.8	307.6-500	295.8-480.8	275.1-500	264.5-480.8
	750mm	610.1-750	586.7-721.2	557.6-750	536.2-721.2	525.1-750	504.9-721.2
	1000mm	860.1-1000	827.1-961.6	807.6-1000	776.6-961.6	775.1-1000	745.4-961.6
50mm	125mm	0-125	0-245.3	0-125	0-245.3	0-125	0-245.3
	250mm	105.1-250	206.3-490.6	62.6-250	122.9-490.6	20.1-250	39.5-490.6
	350mm	208.9-350	410.2-687.2	166.4-350	326.7-687.2	123.9-350	243.3-687.2
	500mm	355.1-500	696.9-981.3	312.6-500	613.7-981.3	270.1-500	530.1-981.3
	750mm	605.1-750	1246-1472	562.6-750	1104-1472	520.1-750	1021-1472
	1000mm	855.1-1000	1678-1963	812.6-1000	1595-1963	770.1-1000	1511-1963

Pressure and Material Specifications

Maximum Operating Pressure

Diameter (ID)	Pressure (BAR)	Pressure (PSIG)
10mm	40 BAR	580 PSIG
15mm	35 BAR	508 PSIG
25mm	24 BAR	348 PSIG
35mm	18 BAR	261 PSIG
50mm	13 BAR	188 PSIG



Aqueous Buffer (AB) - version

Temperature Range	4-40 °C
Piston	Acetal
Sealing	O-Ring, EPDM (ethylene propylene diene monomer rubber)
Frit	Polyethylene (PE)
Height Adjustment	Short/Short, Short/Long, Long/Long pistons (see table on page 3)
Connections	1/4"-28 female screw thread

Solvent Resistant (SR) - version

Temperature Range	4-80 °C
Piston	PEEK (polyether ether ketone)
Sealing	O-Ring, Viton or Kalrez®
Frit	Stainless Steel
Height Adjustment	Short/Short, Short/Long, Long/Long pistons (see table on page 3)
Connections	1/4"-28 female screw thread

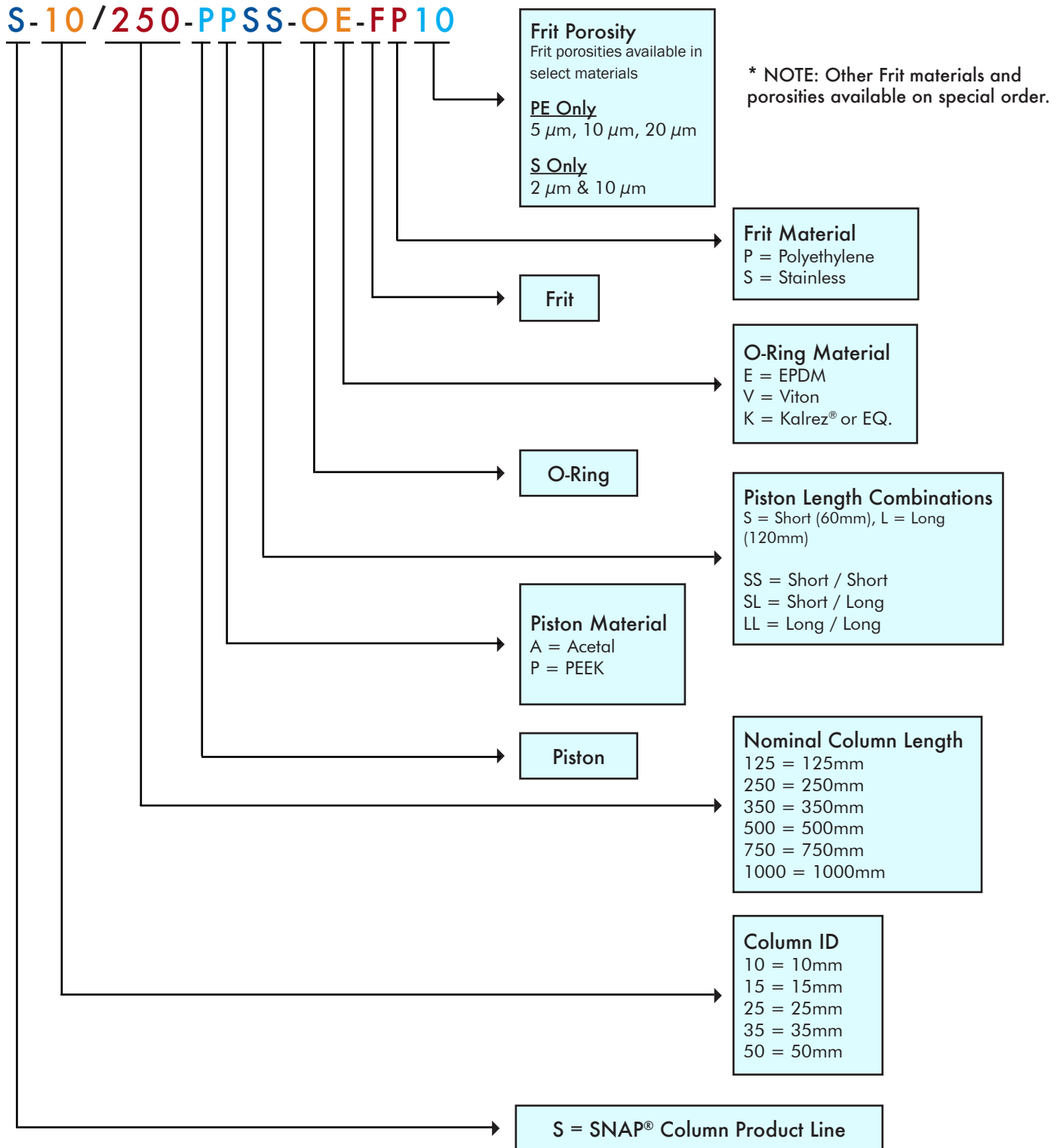
SNAP® Series Glass Columns Part Numbering System

S-10/250-PPSS-OE-FP10

This is an example of a typical part number description based on the following specifications:

Snap Column, 10mm ID, 250mm Max Bed Length, Peek Piston, Short/Short Piston Combination, EPDM "O" Ring, Polyethylene Frit, 10 µm Frit Porosity

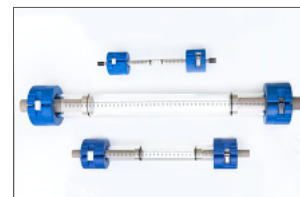
S - 10 / 250 - PPSS - OE - FP 10



SNAP® Series Glass Columns, AB-Version, Short/Short Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range	4 - 40 °C
Pistons	A (Acetal)
Sealings	O-Ring, EPDM
Frits	*ID 10 - 50 mm: Polyethylene (5 µm, 10 µm or 20 µm)
Piston Configuration	Short / Short pistons

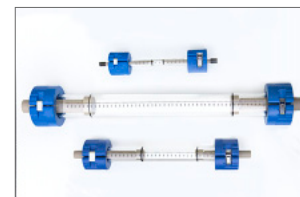


	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PASS-OE-FP*	10	40	0 - 125	0 - 9.8	Polyethylene	*5, 10, 20
	S-10/250-PASS-OE-FP*	10	40	125.9 - 250	9.9 - 19.6	Polyethylene	*5, 10, 20
	S-10/350-PASS-OE-FP*	10	40	226.1 - 350	17.8 - 27.5	Polyethylene	*5, 10, 20
	S-10/500-PASS-OE-FP*	10	40	375.9 - 500	29.5 - 39.3	Polyethylene	*5, 10, 20
	S-10/750-PASS-OE-FP*	10	40	625.9 - 750	49.1 - 58.9	Polyethylene	*5, 10, 20
	S-10/1000-PASS-OE-FP*	10	40	875.9 - 1000	68.8 - 78.5	Polyethylene	*5, 10, 20
15 mm ID	S-15/125-PASS-OE-FP*	15	35	0 - 125	0 - 22.1	Polyethylene	*5, 10, 20
	S-15/250-PASS-OE-FP*	15	35	95.3 - 250	16.8 - 44.2	Polyethylene	*5, 10, 20
	S-15/350-PASS-OE-FP*	15	35	196.1 - 350	34.6 - 68.8	Polyethylene	*5, 10, 20
	S-15/500-PASS-OE-FP*	15	35	345.3 - 500	61 - 88.3	Polyethylene	*5, 10, 20
	S-15/750-PASS-OE-FP*	15	35	595.3 - 750	105.1 - 132.5	Polyethylene	*5, 10, 20
	S-15/1000-PASS-OE-FP*	15	35	845.3 - 1000	149.3 - 176.6	Polyethylene	*5, 10, 20
25 mm ID	S-25/125-PASS-OE-FP*	25	24	0 - 125	0 - 61.3	Polyethylene	*5, 10, 20
	S-25/250-PASS-OE-FP*	25	24	108 - 250	53 - 122.7	Polyethylene	*5, 10, 20
	S-25/350-PASS-OE-FP*	25	24	208.9 - 350	102.5 - 171.8	Polyethylene	*5, 10, 20
	S-25/500-PASS-OE-FP*	25	24	358 - 500	175.6 - 245.3	Polyethylene	*5, 10, 20
	S-25/750-PASS-OE-FP*	25	24	608 - 750	298.3 - 368	Polyethylene	*5, 10, 20
	S-25/1000-PASS-OE-FP*	25	24	858 - 1000	420.9 - 490.6	Polyethylene	*5, 10, 20
35 mm ID	S-35/125-PASS-OE-FP*	35	18	0 - 125	0 - 120.2	Polyethylene	*5, 10, 20
	S-35/250-PASS-OE-FP*	35	18	110.1 - 250	105.9 - 240.4	Polyethylene	*5, 10, 20
	S-35/350-PASS-OE-FP*	35	18	209.5 - 350	201.6 - 336.7	Polyethylene	*5, 10, 20
	S-35/500-PASS-OE-FP*	35	18	360.1 - 500	346.3 - 480.8	Polyethylene	*5, 10, 20
	S-35/750-PASS-OE-FP*	35	18	610.1 - 750	586.7 - 721.2	Polyethylene	*5, 10, 20
	S-35/1000-PASS-OE-FP*	35	18	860.1 - 1000	827.1 - 961.6	Polyethylene	*5, 10, 20
50 mm ID	S-50/125-PASS-OE-FP*	50	13	0 - 125	0 - 245.3	Polyethylene	*5, 10, 20
	S-50/250-PASS-OE-FP*	50	13	105.1 - 250	206.3 - 490.6	Polyethylene	*5, 10, 20
	S-50/350-PASS-OE-FP*	50	13	208.9 - 350	410.2 - 687.2	Polyethylene	*5, 10, 20
	S-50/500-PASS-OE-FP*	50	13	355.1 - 500	696.9 - 981.3	Polyethylene	*5, 10, 20
	S-50/750-PASS-OE-FP*	50	13	605.1 - 750	1246 - 1472	Polyethylene	*5, 10, 20
	S-50/1000-PASS-OE-FP*	50	13	855.1 - 1000	1678 - 1963	Polyethylene	*5, 10, 20

SNAP® Series Glass Columns, AB-Version, Short/Long Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range	4 - 40 °C
Pistons	A (Acetal)
Sealings	O-Ring, EPDM
Frits	*ID 10 - 50 mm: Polyethylene (5 µm, 10 µm or 20 µm)
Piston Configuration	Short / Long pistons

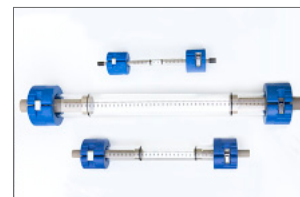


	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PASL-OE-FP*	10	40	0 - 125	0 - 9.8	Polyethylene	*5, 10, 20
	S-10/250-PASL-OE-FP*	10	40	83.4 - 250	6.5 - 19.6	Polyethylene	*5, 10, 20
	S-10/350-PASL-OE-FP*	10	40	183.6 - 350	14.4 - 27.5	Polyethylene	*5, 10, 20
	S-10/500-PASL-OE-FP*	10	40	333.4 - 500	26.2 - 39.3	Polyethylene	*5, 10, 20
	S-10/750-PASL-OE-FP*	10	40	583.4 - 750	45.8 - 58.9	Polyethylene	*5, 10, 20
	S-10/1000-PASL-OE-FP*	10	40	833.4 - 1000	65.4 - 78.5	Polyethylene	*5, 10, 20
15 mm ID	S-15/125-PASL-OE-FP*	15	35	0 - 125	0 - 22.1	Polyethylene	*5, 10, 20
	S-15/250-PASL-OE-FP*	15	35	52.8 - 250	9.3 - 44.2	Polyethylene	*5, 10, 20
	S-15/350-PASL-OE-FP*	15	35	153.6 - 350	27.1 - 68.8	Polyethylene	*5, 10, 20
	S-15/500-PASL-OE-FP*	15	35	302.8 - 500	53.5 - 88.3	Polyethylene	*5, 10, 20
	S-15/750-PASL-OE-FP*	15	35	552.8 - 750	97.6 - 132.5	Polyethylene	*5, 10, 20
	S-15/1000-PASL-OE-FP*	15	35	802.8 - 1000	141.8 - 176.6	Polyethylene	*5, 10, 20
25 mm ID	S-25/125-PASL-OE-FP*	25	24	0 - 125	0 - 61.3	Polyethylene	*5, 10, 20
	S-25/250-PASL-OE-FP*	25	24	65.5 - 250	32.1 - 122.7	Polyethylene	*5, 10, 20
	S-25/350-PASL-OE-FP*	25	24	166.4 - 350	81.7 - 171.8	Polyethylene	*5, 10, 20
	S-25/500-PASL-OE-FP*	25	24	315.5 - 500	154.8 - 245.3	Polyethylene	*5, 10, 20
	S-25/750-PASL-OE-FP*	25	24	565.5 - 750	277.4 - 368	Polyethylene	*5, 10, 20
	S-25/1000-PASL-OE-FP*	25	24	815.5 - 1000	400.1 - 490.6	Polyethylene	*5, 10, 20
35 mm ID	S-35/125-PASL-OE-FP*	35	18	0 - 125	0 - 120.2	Polyethylene	*5, 10, 20
	S-35/250-PASL-OE-FP*	35	18	57.6 - 250	55.4 - 240.4	Polyethylene	*5, 10, 20
	S-35/350-PASL-OE-FP*	35	18	167 - 350	160.7 - 336.7	Polyethylene	*5, 10, 20
	S-35/500-PASL-OE-FP*	35	18	307.6 - 500	295.8 - 480.8	Polyethylene	*5, 10, 20
	S-35/750-PASL-OE-FP*	35	18	557.6 - 750	536.2 - 721.2	Polyethylene	*5, 10, 20
	S-35/1000-PASL-OE-FP*	35	18	807.6 - 1000	776.6 - 961.6	Polyethylene	*5, 10, 20
50 mm ID	S-50/125-PASL-OE-FP*	50	13	0 - 125	0 - 245.3	Polyethylene	*5, 10, 20
	S-50/250-PASL-OE-FP*	50	13	62.6 - 250	122.9 - 490.6	Polyethylene	*5, 10, 20
	S-50/350-PASL-OE-FP*	50	13	166.4 - 350	326.7 - 687.2	Polyethylene	*5, 10, 20
	S-50/500-PASL-OE-FP*	50	13	312.6 - 500	613.7 - 981.3	Polyethylene	*5, 10, 20
	S-50/750-PASL-OE-FP*	50	13	562.6 - 750	1104 - 1472	Polyethylene	*5, 10, 20
	S-50/1000-PASL-OE-FP*	50	13	812.6 - 1000	1595 - 1963	Polyethylene	*5, 10, 20

SNAP® Series Glass Columns, AB-Version, Long/Long Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range	4 - 40 °C
Pistons	A (Acetal)
Sealings	O-Ring, EPDM
Frits	*ID 10 - 50 mm: Polyethylene (5 µm, 10 µm or 20 µm)
Piston Configuration	Long / Long pistons

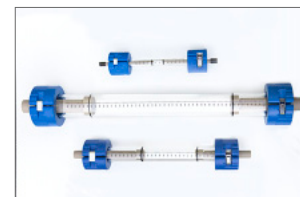


	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PALL-OE-FP*	10	40	0 - 125	0 - 9.8	Polyethylene	*5, 10, 20
	S-10/250-PALL-OE-FP*	10	40	40.9 - 250	3.2 - 19.6	Polyethylene	*5, 10, 20
	S-10/350-PALL-OE-FP*	10	40	141.1 - 350	11.1 - 27.5	Polyethylene	*5, 10, 20
	S-10/500-PALL-OE-FP*	10	40	290.9 - 500	222.8 - 39.3	Polyethylene	*5, 10, 20
	S-10/750-PALL-OE-FP*	10	40	540.9 - 750	42.5 - 58.9	Polyethylene	*5, 10, 20
	S-10/1000-PALL-OE-FP*	10	40	790.9 - 1000	62.1 - 78.5	Polyethylene	*5, 10, 20
15 mm ID	S-15/125-PALL-OE-FP*	15	35	0 - 125	0 - 22.1	Polyethylene	*5, 10, 20
	S-15/250-PALL-OE-FP*	15	35	10.3 - 250	1.8 - 44.2	Polyethylene	*5, 10, 20
	S-15/350-PALL-OE-FP*	15	35	111.1 - 350	19.6 - 68.8	Polyethylene	*5, 10, 20
	S-15/500-PALL-OE-FP*	15	35	260.3 - 500	46 - 88.3	Polyethylene	*5, 10, 20
	S-15/750-PALL-OE-FP*	15	35	510.3 - 750	90.1 - 132.5	Polyethylene	*5, 10, 20
	S-15/1000-PALL-OE-FP*	15	35	760.3 - 1000	134.3 - 176.6	Polyethylene	*5, 10, 20
25 mm ID	S-25/125-PALL-OE-FP*	25	24	0 - 125	0 - 61.3	Polyethylene	*5, 10, 20
	S-25/250-PALL-OE-FP*	25	24	23 - 250	11.3 - 122.7	Polyethylene	*5, 10, 20
	S-25/350-PALL-OE-FP*	25	24	123.9 - 350	60.8 - 171.8	Polyethylene	*5, 10, 20
	S-25/500-PALL-OE-FP*	25	24	273 - 500	133.9 - 245.3	Polyethylene	*5, 10, 20
	S-25/750-PALL-OE-FP*	25	24	523 - 750	256.6 - 368	Polyethylene	*5, 10, 20
	S-25/1000-PALL-OE-FP*	25	24	773 - 1000	379.2 - 490.6	Polyethylene	*5, 10, 20
35 mm ID	S-35/125-PALL-OE-FP*	35	18	0 - 125	0 - 120.2	Polyethylene	*5, 10, 20
	S-35/250-PALL-OE-FP*	35	18	25.1 - 250	24.1 - 240.4	Polyethylene	*5, 10, 20
	S-35/350-PALL-OE-FP*	35	18	124.5 - 350	119.8 - 336.7	Polyethylene	*5, 10, 20
	S-35/500-PALL-OE-FP*	35	18	275.1 - 500	264.5 - 480.8	Polyethylene	*5, 10, 20
	S-35/750-PALL-OE-FP*	35	18	540.9 - 750	520.4 - 721.6	Polyethylene	*5, 10, 20
	S-35/1000-PALL-OE-FP*	35	18	775.1 - 1000	745.4 - 961.6	Polyethylene	*5, 10, 20
50 mm ID	S-50/125-PALL-OE-FP*	50	13	0 - 125	0 - 245.3	Polyethylene	*5, 10, 20
	S-50/250-PALL-OE-FP*	50	13	20.1 - 250	39.5 - 490.6	Polyethylene	*5, 10, 20
	S-50/350-PALL-OE-FP*	50	13	123.9 - 350	243.3 - 687.2	Polyethylene	*5, 10, 20
	S-50/500-PALL-OE-FP*	50	13	270.1 - 500	530.1 - 981.3	Polyethylene	*5, 10, 20
	S-50/750-PALL-OE-FP*	50	13	520.1 - 750	1021 - 1472	Polyethylene	*5, 10, 20
	S-50/1000-PALL-OE-FP*	50	13	775.1 - 1000	1511 - 1963	Polyethylene	*5, 10, 20

SNAP® Series Glass Columns, SR-Version, Short/Short Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range 4 - 80 °C
 Pistons PEEK
 Sealings Viton or Kalrez®
 Frits *ID 10 - 50 mm: Stainless Steel (2 µm or 10 µm)
 Piston Configuration Short / Short pistons



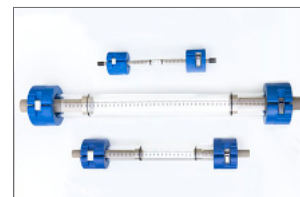
◆=Substitute V for Viton or K for Kalrez®

	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PPSS-O◆-FS*	10	40	0 - 125	0 - 9.8	Stainless Steel	*2, 10
	S-10/250-PPSS-O◆-FS*	10	40	125.9 - 250	9.9 - 19.6	Stainless Steel	*2, 10
	S-10/350-PPSS-O◆-FS*	10	40	226.1 - 350	17.8 - 27.5	Stainless Steel	*2, 10
	S-10/500-PPSS-O◆-FS*	10	40	375.9 - 500	29.5 - 39.3	Stainless Steel	*2, 10
	S-10/750-PPSS-O◆-FS*	10	40	625.9 - 750	49.1 - 58.9	Stainless Steel	*2, 10
	S-10/1000-PPSS-O◆-FS*	10	40	875.9 - 1000	68.8 - 78.5	Stainless Steel	*2, 10
15 mm ID	S-15/125-PPSS-O◆-FS*	15	35	0 - 125	0 - 22.1	Stainless Steel	*2, 10
	S-15/250-PPSS-O◆-FS*	15	35	95.3 - 250	16.8 - 44.2	Stainless Steel	*2, 10
	S-15/350-PPSS-O◆-FS*	15	35	196.1 - 350	34.6 - 68.8	Stainless Steel	*2, 10
	S-15/500-PPSS-O◆-FS*	15	35	345.3 - 500	61 - 88.3	Stainless Steel	*2, 10
	S-15/750-PPSS-O◆-FS*	15	35	595.3 - 750	105.1 - 132.5	Stainless Steel	*2, 10
	S-15/1000-PPSS-O◆-FS*	15	35	845.3 - 1000	149.3 - 176.6	Stainless Steel	*2, 10
25 mm ID	S-25/125-PPSS-O◆-FS*	25	24	0 - 125	0 - 61.3	Stainless Steel	*2, 10
	S-25/250-PPSS-O◆-FS*	25	24	108 - 250	53 - 122.7	Stainless Steel	*2, 10
	S-25/350-PPSS-O◆-FS*	25	24	208.9 - 350	102.5 - 171.8	Stainless Steel	*2, 10
	S-25/500-PPSS-O◆-FS*	25	24	358 - 500	175.6 - 245.3	Stainless Steel	*2, 10
	S-25/750-PPSS-O◆-FS*	25	24	608 - 750	298.3 - 368	Stainless Steel	*2, 10
	S-25/1000-PPSS-O◆-FS*	25	24	858 - 1000	420.9 - 490.6	Stainless Steel	*2, 10
35 mm ID	S-35/125-PPSS-O◆-FS*	35	18	0 - 125	0 - 120.2	Stainless Steel	*2, 10
	S-35/250-PPSS-O◆-FS*	35	18	110.1 - 250	105.9 - 240.4	Stainless Steel	*2, 10
	S-35/350-PPSS-O◆-FS*	35	18	209.5 - 350	201.6 - 336.7	Stainless Steel	*2, 10
	S-35/500-PPSS-O◆-FS*	35	18	360.1 - 500	346.3 - 480.8	Stainless Steel	*2, 10
	S-35/750-PPSS-O◆-FS*	35	18	610.1 - 750	586.7 - 721.2	Stainless Steel	*2, 10
	S-35/1000-PPSS-O◆-FS*	35	18	860.1 - 1000	827.1 - 961.6	Stainless Steel	*2, 10
50 mm ID	S-50/125-PPSS-O◆-FS*	50	13	0 - 125	0 - 245.3	Stainless Steel	*2, 10
	S-50/250-PPSS-O◆-FS*	50	13	105.1 - 250	206.3 - 490.6	Stainless Steel	*2, 10
	S-50/350-PPSS-O◆-FS*	50	13	208.9 - 350	410.2 - 687.2	Stainless Steel	*2, 10
	S-50/500-PPSS-O◆-FS*	50	13	355.1 - 500	696.9 - 981.3	Stainless Steel	*2, 10
	S-50/750-PPSS-O◆-FS*	50	13	605.1 - 750	1246 - 1472	Stainless Steel	*2, 10
	S-50/1000-PPSS-O◆-FS*	50	13	855.1 - 1000	1678 - 1963	Stainless Steel	*2, 10

SNAP® Series Glass Columns, SR-Version, Short/Long Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range 4 - 80 °C
 Pistons PEEK
 Sealings Viton or Kalrez®
 Frits *ID 10 - 50 mm: Stainless Steel (2 µm or 10 µm)
 Piston Configuration Short / Long pistons



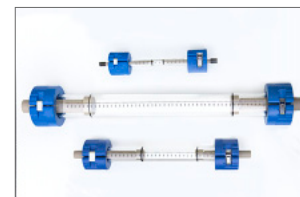
◆ = Substitute V for Viton or K for Kalrez®

	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PPSL-O◆-FS*	10	40	0 - 125	0 - 9.8	Stainless Steel	*2, 10
	S-10/250-PPSL-O◆-FS*	10	40	83.4 - 250	6.5 - 19.6	Stainless Steel	*2, 10
	S-10/350-PPSL-O◆-FS*	10	40	183.6 - 350	14.4 - 27.5	Stainless Steel	*2, 10
	S-10/500-PPSL-O◆-FS*	10	40	333.4 - 500	26.2 - 39.3	Stainless Steel	*2, 10
	S-10/750-PPSL-O◆-FS*	10	40	583.4 - 750	45.8 - 58.9	Stainless Steel	*2, 10
	S-10/1000-PPSL-O◆-FS*	10	40	833.4 - 1000	65.4 - 78.5	Stainless Steel	*2, 10
15 mm ID	S-15/125-PPSL-O◆-FS*	15	35	0 - 125	0 - 22.1	Stainless Steel	*2, 10
	S-15/250-PPSL-O◆-FS*	15	35	52.8 - 250	9.3 - 44.2	Stainless Steel	*2, 10
	S-15/350-PPSL-O◆-FS*	15	35	153.6 - 350	27.1 - 68.8	Stainless Steel	*2, 10
	S-15/500-PPSL-O◆-FS*	15	35	302.8 - 500	53.5 - 88.3	Stainless Steel	*2, 10
	S-15/750-PPSL-O◆-FS*	15	35	552.8 - 750	97.6 - 132.5	Stainless Steel	*2, 10
	S-15/1000-PPSL-O◆-FS*	15	35	802.8 - 1000	141.8 - 176.6	Stainless Steel	*2, 10
25 mm ID	S-25/125-PPSL-O◆-FS*	25	24	0 - 125	0 - 61.3	Stainless Steel	*2, 10
	S-25/250-PPSL-O◆-FS*	25	24	65.5 - 250	32.1 - 122.7	Stainless Steel	*2, 10
	S-25/350-PPSL-O◆-FS*	25	24	166.4 - 350	81.7 - 171.8	Stainless Steel	*2, 10
	S-25/500-PPSL-O◆-FS*	25	24	315.5 - 500	154.8 - 245.3	Stainless Steel	*2, 10
	S-25/750-PPSL-O◆-FS*	25	24	565.5 - 750	277.4 - 368	Stainless Steel	*2, 10
	S-25/1000-PPSL-O◆-FS*	25	24	815.5 - 1000	400.1 - 490.6	Stainless Steel	*2, 10
35 mm ID	S-35/125-PPSL-O◆-FS*	35	18	0 - 125	0 - 120.2	Stainless Steel	*2, 10
	S-35/250-PPSL-O◆-FS*	35	18	57.6 - 250	55.4 - 240.4	Stainless Steel	*2, 10
	S-35/350-PPSL-O◆-FS*	35	18	167 - 350	160.7 - 336.7	Stainless Steel	*2, 10
	S-35/500-PPSL-O◆-FS*	35	18	307.6 - 500	295.8 - 480.8	Stainless Steel	*2, 10
	S-35/750-PPSL-O◆-FS*	35	18	557.6 - 750	536.2 - 721.2	Stainless Steel	*2, 10
	S-35/1000-PPSL-O◆-FS*	35	18	807.6 - 1000	776.6 - 961.6	Stainless Steel	*2, 10
50 mm ID	S-50/125-PPSL-O◆-FS*	50	13	0 - 125	0 - 245.3	Stainless Steel	*2, 10
	S-50/250-PPSL-O◆-FS*	50	13	62.6 - 250	122.9 - 490.6	Stainless Steel	*2, 10
	S-50/350-PPSL-O◆-FS*	50	13	166.4 - 350	326.7 - 687.2	Stainless Steel	*2, 10
	S-50/500-PPSL-O◆-FS*	50	13	312.6 - 500	613.7 - 981.3	Stainless Steel	*2, 10
	S-50/750-PPSL-O◆-FS*	50	13	562.6 - 750	1104 - 1472	Stainless Steel	*2, 10
	S-50/1000-PPSL-O◆-FS*	50	13	812.6 - 1000	1595 - 1963	Stainless Steel	*2, 10

SNAP® Series Glass Columns, SR-Version, Long/Long Pistons

Length and volume may vary slightly based on glass tolerance.

Temperature range	4 - 80 °C
Pistons	PEEK
Sealings	Viton or Kalrez®
Frits	*ID 10 - 50 mm: Stainless Steel (2 µm or 10 µm)
Piston Configuration	Long / Long pistons



◆ = Substitute V for Viton or K for Kalrez®

	Part No.	ID [mm]	Pressure limit [bar]	Bed length [mm]	Volume [ml]	Frit material	Frit porosity [µm]
10 mm ID	S-10/125-PPLL-O◆-FS*	10	40	0 - 125	0 - 9.8	Stainless Steel	*2, 10
	S-10/250-PPLL-O◆-FS*	10	40	40.9 - 250	3.2 - 19.6	Stainless Steel	*2, 10
	S-10/350-PPLL-O◆-FS*	10	40	141.1 - 350	11.1 - 27.5	Stainless Steel	*2, 10
	S-10/500-PPLL-O◆-FS*	10	40	290.9 - 500	22.8 - 39.3	Stainless Steel	*2, 10
	S-10/750-PPLL-O◆-FS*	10	40	540.9 - 750	42.5 - 58.9	Stainless Steel	*2, 10
	S-10/1000-PPLL-O◆-FS*	10	40	790.9 - 1000	62.08 - 78.5	Stainless Steel	*2, 10
15 mm ID	S-15/125-PPLL-O◆-FS*	15	35	0 - 125	0 - 22.1	Stainless Steel	*2, 10
	S-15/250-PPLL-O◆-FS*	15	35	10.3 - 250	1.8 - 44.2	Stainless Steel	*2, 10
	S-15/350-PPLL-O◆-FS*	15	35	111.1 - 350	19.6 - 68.8	Stainless Steel	*2, 10
	S-15/500-PPLL-O◆-FS*	15	35	260.3 - 500	46 - 88.3	Stainless Steel	*2, 10
	S-15/750-PPLL-O◆-FS*	15	35	510.3 - 750	90.1 - 132.5	Stainless Steel	*2, 10
	S-15/1000-PPLL-O◆-FS*	15	35	760.3 - 1000	134.3 - 176.6	Stainless Steel	*2, 10
25 mm ID	S-25/125-PPLL-O◆-FS*	25	24	0 - 125	0 - 61.3	Stainless Steel	*2, 10
	S-25/250-PPLL-O◆-FS*	25	24	23 - 250	11.3 - 122.7	Stainless Steel	*2, 10
	S-25/350-PPLL-O◆-FS*	25	24	123.9 - 350	60.8 - 171.8	Stainless Steel	*2, 10
	S-25/500-PPLL-O◆-FS*	25	24	273 - 500	133.9 - 245.3	Stainless Steel	*2, 10
	S-25/750-PPLL-O◆-FS*	25	24	523 - 750	256.6 - 368	Stainless Steel	*2, 10
	S-25/1000-PPLL-O◆-FS*	25	24	773 - 1000	379.2 - 490.6	Stainless Steel	*2, 10
35 mm ID	S-35/125-PPLL-O◆-FS*	35	18	0 - 125	0 - 120.2	Stainless Steel	*2, 10
	S-35/250-PPLL-O◆-FS*	35	18	25.1 - 250	24.1 - 240.4	Stainless Steel	*2, 10
	S-35/350-PPLL-O◆-FS*	35	18	124.5 - 350	119.8 - 336.7	Stainless Steel	*2, 10
	S-35/500-PPLL-O◆-FS*	35	18	275.1 - 500	264.5 - 480.8	Stainless Steel	*2, 10
	S-35/750-PPLL-O◆-FS*	35	18	540.9 - 750	520.4 - 721.6	Stainless Steel	*2, 10
	S-35/1000-PPLL-O◆-FS*	35	18	775.1 - 1000	745.4 - 961.6	Stainless Steel	*2, 10
50 mm ID	S-50/125-PPLL-O◆-FS*	50	13	0 - 125	0 - 245.3	Stainless Steel	*2, 10
	S-50/250-PPLL-O◆-FS*	50	13	20.1 - 250	39.5 - 490.6	Stainless Steel	*2, 10
	S-50/350-PPLL-O◆-FS*	50	13	123.9 - 350	243.3 - 687.2	Stainless Steel	*2, 10
	S-50/500-PPLL-O◆-FS*	50	13	270.1 - 500	530.1 - 981.3	Stainless Steel	*2, 10
	S-50/750-PPLL-O◆-FS*	50	13	520.1 - 750	1021 - 1472	Stainless Steel	*2, 10
	S-50/1000-PPLL-O◆-FS*	50	13	775.1 - 1000	1511 - 1963	Stainless Steel	*2, 10

Packing Adaptors

Since most columns will be wet or slurry packed, a packing adaptor should be used. SNAP® column packing adaptors have a number of advantages. The first is that they are easy to install and remove. Secondly, the packing adaptors have a sufficient pressure rating, appropriate for the columns they are mounted on, allowing for adequate flow conditions. Third, they are the same diameter as the column they are mounted on avoiding issues with turbulent flow at the interface or joining point. All this adds up to ease of use, safe operations and good results!

These consist of a coupling unit and glass body of same column ID as column to be packed.

Packing Adaptor consisting of:

- SNAP® coupling unit (cast resin) with seal ring insert (PTFE)
- AB-Version with two Viton O-Rings
- SR-Version with two Kalrez® or Viton O-Rings



Packing Adaptors AB-Version

Part No.	Column ID (mm)	Pressure Rating (bars)
S-10/125-PAK-AB	10	20
S-10/250-PAK-AB	10	20
S-10/350-PAK-AB	10	20
S-10/500-PAK-AB	10	20
S-10/750-PAK-AB	10	20
S-10/1000-PAK-AB	10	20
S-15/125-PAK-AB	15	17
S-15/250-PAK-AB	15	17
S-15/350-PAK-AB	15	17
S-15/500-PAK-AB	15	17
S-15/750-PAK-AB	15	17
S-15/1000-PAK-AB	15	17
S-25/125-PAK-AB	25	12
S-25/250-PAK-AB	25	12
S-25/350-PAK-AB	25	12
S-25/500-PAK-AB	25	12
S-25/750-PAK-AB	25	12
S-25/1000-PAK-AB	25	12
S-35/125-PAK-AB	35	9
S-35/250-PAK-AB	35	9
S-35/350-PAK-AB	35	9
S-35/500-PAK-AB	35	9
S-35/750-PAK-AB	35	9
S-35/1000-PAK-AB	35	9
S-50/125-PAK-AB	50	6
S-50/250-PAK-AB	50	6
S-50/350-PAK-AB	50	6
S-50/500-PAK-AB	50	6
S-50/750-PAK-AB	50	6
S-50/1000-PAK-AB	50	6

Packing Adaptors SR-Version

◆ = Substitute V for Viton or K for Kalrez®

Part No.	Column ID (mm)	Pressure Rating (bars)
S-10/125-PAK-SR-◆	10	20
S-10/250-PAK-SR-◆	10	20
S-10/350-PAK-SR-◆	10	20
S-10/500-PAK-SR-◆	10	20
S-10/750-PAK-SR-◆	10	20
S-10/1000-PAK-SR-◆	10	20
S-15/125-PAK-SR-◆	15	17
S-15/250-PAK-SR-◆	15	17
S-15/350-PAK-SR-◆	15	17
S-15/500-PAK-SR-◆	15	17
S-15/750-PAK-SR-◆	15	17
S-15/1000-PAK-SR-◆	15	17
S-25/125-PAK-SR-◆	25	12
S-25/250-PAK-SR-◆	25	12
S-25/350-PAK-SR-◆	25	12
S-25/500-PAK-SR-◆	25	12
S-25/750-PAK-SR-◆	25	12
S-25/1000-PAK-SR-◆	25	12
S-35/125-PAK-SR-◆	35	9
S-35/250-PAK-SR-◆	35	9
S-35/350-PAK-SR-◆	35	9
S-35/500-PAK-SR-◆	35	9
S-35/750-PAK-SR-◆	35	9
S-35/1000-PAK-SR-◆	35	9
S-50/125-PAK-SR-◆	50	6
S-50/250-PAK-SR-◆	50	6
S-50/350-PAK-SR-◆	50	6
S-50/500-PAK-SR-◆	50	6
S-50/750-PAK-SR-◆	50	6
S-50/1000-PAK-SR-◆	50	6

Column Stands



Features and Benefits:

1. Lightweight
2. Made from chemical resistant materials
3. Provided with (4) adjustable leveling pads
4. Universally adjustable for all diameters and lengths of columns (10mm to 50mm)

PART	ELS PN	Dimensions (wxdxh)	Included Brackets	For ELS Column Diameter (max)	For ELS Column Length (max)
Universal Column Stand (small)	ELS-UCS-SMALL	10" x 8" x 24"	1	10mm - 50mm	350mm
Universal Column Stand (large)	ELS-UCS-LARGE	15" x 12" x 48"	2	10mm - 50mm	1000mm
Column Stand Extender (small)	ELS-UCS-SMALL-EXT	24" EXT	1	10mm - 50mm	350mm/ Packing Adapter
Column Stand Extender (large)	ELS-UCS-LARGE-EXT	48" EXT	2	10mm - 50mm	1000mm/ Packing Adapter
Additional Column Brackets	ELS-COLUMNBRACKETASSY-001	N/A	N/A	All	All

Peek Piston / Stainless Steel Frit Assemblies (O-Ring not included)



Column ID	Piston Length	Piston Assembly Part No.
10	Short	ELS-10-PPS-FS-(2 or 10)
10	Long	ELS-10-PPL-FS-(2 or 10)
15	Short	ELS-15-PPS-FS-(2 or 10)
15	Long	ELS-15-PPL-FS-(2 or 10)
25	Short	ELS-25-PPS-FS-(2 or 10)
25	Long	ELS-25-PPL-FS-(2 or 10)
35	Short	ELS-35-PPS-FS-(2 or 10)
35	Long	ELS-35-PPL-FS-(2 or 10)
50	Short	ELS-50-PPS-FS-(2 or 10)
50	Long	ELS-50-PPL-FS-(2 or 10)

Supplied Accessories

Parts Kit (1/16")

PN: ELS-1/16-KIT

ELS-BLUENUT-1/16	[2]	Blue Nuts, 1/16"
ELS-BLACKNUT-1/16	[2]	Black Nuts, 1/16"
ELS-FERRULE-1/16	[4]	Ferrules, 1/16"
ELS-FRT	[1]	Frit Ejector

Parts Kit (1/8")

PN: ELS-1/8-KIT

ELS-BLUENUT-1/8	[2]	Blue Nuts, 1/8"
ELS-BLACKNUT-1/8	[2]	Black Nuts, 1/8"
ELS-FERRULE-1/8	[4]	Ferrules, 1/8"
ELS-FRT	[1]	Frit Ejector

Tubing should be connected to the SNAP Glass Columns with the following screws:

For tubing with 1/16" outer diameter:

ELS-BLUENUT-1/16	Blue Nuts, 1/16" (1/4"-28)
ELS-BLACKNUT-1/16	Black Nuts, 1/16" (M6)
ELS-FERRULE-1/16	Ferrules, 1/16"
ELS-FEPTUBE-1/16	Tubing, 1/16"

For tubing with 1/8" outer diameter:

ELS-BLUENUT-1/8	Blue Nuts, 1/8" (1/4"-28)
ELS-BLACKNUT-1/8	Black Nuts, 1/8" (M6)
ELS-FERRULE-1/8	Ferrules, 1/8"
ELS-FEPTUBE-1/8	Tubing, 1/8"

Examples:

M6 to System (Black Nut + Ferrule)



1/4"-28 to Column (Blue Nut + Ferrule)



Recommended to be purchased with column:

ELS-COLUMNPLUG	1/4" - 28 Column Plug (Rec. 2 pcs)
ELS-FEPTUBE -1/16	1/16" FEP Tubing x 1 ft (Rec. 10 ft)
ELS-FEPTUBE -1/8	1/8" FEP Tubing x 1 ft (Rec. 10 ft)

Spare Parts

Frits [Polyethylene (PE)] for AB Version

Part No.	Column ID (mm)	Porosity (µm)
ELS-10-FR-PE-05	10	5
ELS-10-FR-PE-10	10	10
ELS-10-FR-PE-20	10	20
ELS-15-FR-PE-05	15	5
ELS-15-FR-PE-10	15	10
ELS-15-FR-PE-20	15	20
ELS-25-FR-PE-05	25	5
ELS-25-FR-PE-10	25	10
ELS-25-FR-PE-20	25	20
ELS-35-FR-PE-05	35	5
ELS-35-FR-PE-10	35	10
ELS-35-FR-PE-20	35	20
ELS-50-FR-PE-05	50	5
ELS-50-FR-PE-10	50	10
ELS-50-FR-PE-20	50	20



Frits

O-Rings [EDPM] for Pistons AB Version

Part No.	Column ID (mm)
ELS-OR-010-E	10
ELS-OR-013-E	15
ELS-OR-116.5-E	25
ELS-OR-123-E	35
ELS-OR-132-E	50



O-Rings

O-Rings [Viton] for Pistons SR Version

Part No.	Column ID (mm)
ELS-OR-010-V	10
ELS-OR-013-V	15
ELS-OR-116.5-V	25
ELS-OR-123-V	35
ELS-OR-132-V	50

O-Rings [Kalrez® or EQ.] for Pistons SR Version

Part No.	Column ID (mm)
ELS-OR-010-K	10
ELS-OR-013-K	15
ELS-OR-116.5-K	25
ELS-OR-123-K	35
ELS-OR-132-K	50

Customized Solutions for SNAP® Series Glass Columns

Cartridge Configuration

The column requires two clamps while in use but not for column storage. The advantage is that the scientist can buy many cartridges and a few clamps. This reduces the overall cost to equip the lab with multiple columns. The cartridges can be stored in the packed and plugged condition and the clamps can then be installed on another column and run immediately.



Customized Solutions

SNAP® columns can be provided with many customizations that the scientist may require including but not limited to:

- Custom column lengths
- Customized material configurations
- Heating and cooling jackets
- Custom end connections
- Any unique specifications upon request



LIMITED WARRANTY

Essential Life Solutions offers a one-year limited guarantee on these columns covering defects in material and workmanship if used under conditions detailed in the instruction manual provided with the column. This guarantee does not include frits, O-Rings and glass tube.

Essential Life Solutions makes no other representation or warranty, express or implied with respect to these columns, and it disclaims all implied warranties of merchantability or fitness for a particular purpose. In no event shall Essential Life Solutions be liable for any special, indirect or consequential damages.



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