Liquid Chromatography

Order:: 1.800.325.3010 Technical Service: 1.800.359.3041 Web: www.sigma-aldrich.com/supelco

HPLC Accessories
SupelPRO™ Valves New!

SupelPRO™ Automated Fluidics Instruments

Supelco's SupelPRO series are precision, electronically-controlled, motorized valve instruments for repetitive fluid switching operations. Each SupelPRO instrument is self-contained and incorporates a 2-position or multi-position port valve. Standard multi-position models include a 4-line BCD port, and the 2-position models include the Level Logic. Power requirements: 100-240VAC, 50-60Hz (auto switching). All units shipped with standard US power cord. Other power cords are available on a custom basis.

All SupelPRO™ units are CE approved.

SupelPRO™ 3-Column or 6-Column Selector

Select from among up to 3 columns or up to 6 columns. Useful for column selectivity comparisons, other column selection applications. Includes mounting clips and cover.

DESCRIPTION	CAT. NO.	PRICE
3-Column		
Stainless Steel	53140-U	
PEEK	53142-U	
6-Column		
Stainless Steel	53141-U	
PEEK	53143-U	

SupelPRO™ 2-Channel Selector with Bypass Valve

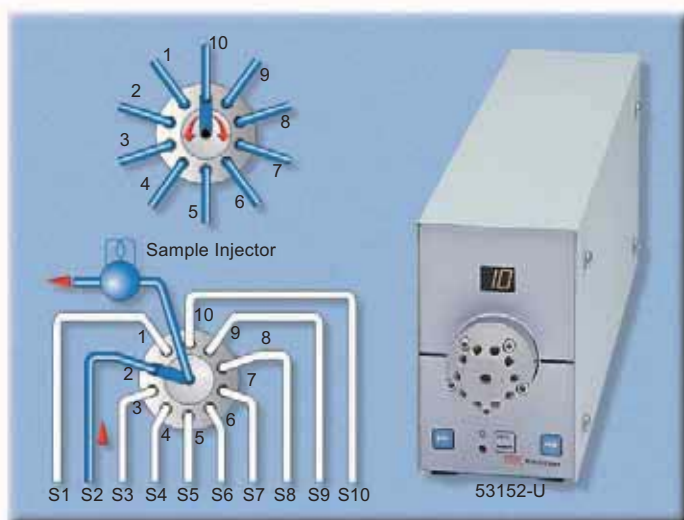This 6-port, 3-position motorized valve is useful for selecting 1 of 2 connected columns, or flush.

DESCRIPTION	CAT. NO.	PRICE
Stainless Steel	53146-U	
PEEK	53147-U	
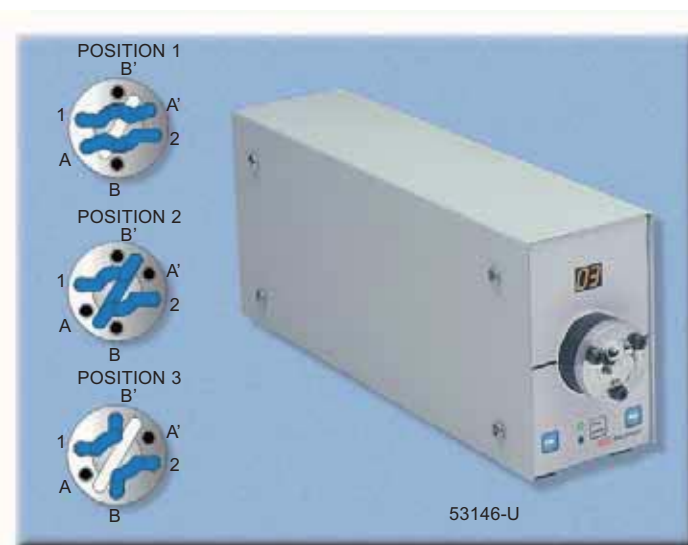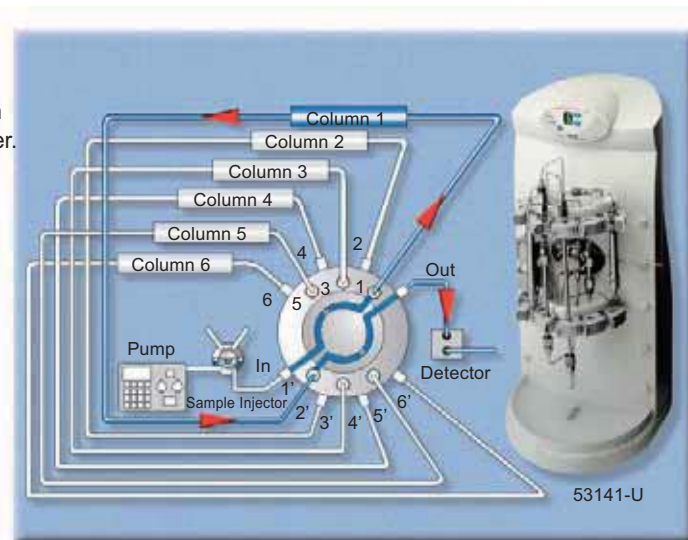
53141-U

53146-U

HPLC Accessories
SupelPRO™ Valves


53152-U

SupelPRO™ 11-Port, 10-Position Valve

Use this 11-port, 10-position valve to select from up to 10 inputs to 1 output, or select 10 outputs from 1 input.

DESCRIPTION	CAT. NO.	PRICE
Stainless Steel	53152-U	
PEEK	53153-U	

SupelPRO™ 2-Position Valves

Available with 6 or 10 ports. Useful for a wide variety of applications, including sample clean-up and back-flushing.

DESCRIPTION	CAT. NO.	PRICE
6-Port		
Stainless Steel	53148-U	
PEEK	53149-U	
10-Port		
Stainless Steel	53150-U	
PEEK	53151-U	

53148-U
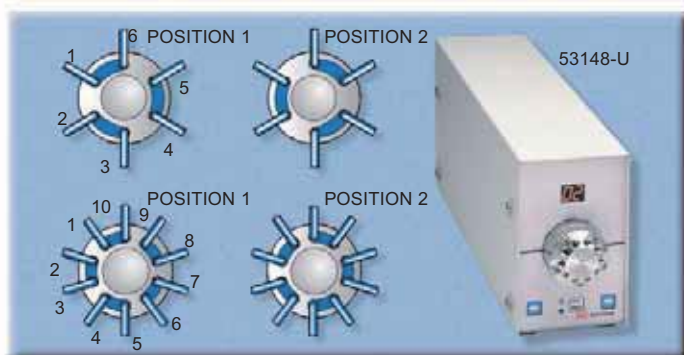
SupelPRO™ Solvent Selector Valve

Allows automation of mobile phase selection from 6 inlets. Comes with factory installed 1/16" or 1/8" OD tubing and 1/4-28 fittings. Rated to 300psi (20 bar).

DESCRIPTION	CAT. NO.	PRICE
1/16"	53144-U	
1/8"	53145-U	
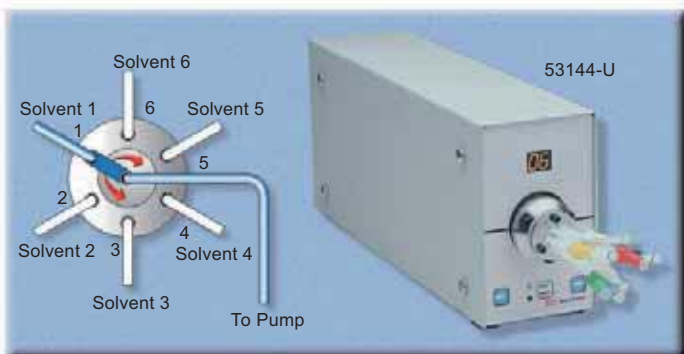
53144-U

HPLC Accessories
Rheodyne Injectors

57461

Rheodyne Model 3725i Preparative Sample Injectors

Model 3725i sample injectors for 1-10cm ID HPLC columns combine the ease of use and versatility of Rheodyne's analytical-scale injectors with the ability to handle large samples and high flow rates. Rugged and easily maintained, in a choice of stainless steel or PEEK flowpaths. Includes 10mL sample loop, 1/8" fitting for all ports, 5cm large-bore syringe needle (16 gauge/0.65" OD) for rapid injection of large samples, needle port cleaner, two vent tubes, wrenches, mounting screws, and instructions.

SPECIFICATIONS	
Tubing and Fittings:	1/8"
Valve Flow Passages:	1mm/0.04"
Flow Rates:	10-800mL/min
Pressure Rating:	Model 3725i: 276 bar/4000psi*
	Model 3725i-038: 345 bar/5000psi

* Usable pressure depends on sample loop ID, organic solvent concentration, and organic solvent exposure time.

DESCRIPTION	CAT. NO.	PRICE
PREPARATIVE SAMPLE INJECTORS		
Model 3725i, PEEK	57461	
Model 3725i-038, SS	57463	
REPLACEMENT COMPONENTS		
Rotor Seal	57473	
Stator Face Assembly	57474	
Needle, PEEK for model 3725	57475	
Needle, 16-Gauge SS for model 3725	57476	
Fitting Set, 1/8" (1 nut & 1 ferrule)		
RheFlex	57477	
Stainless Steel	57479	
Ferrules, 1/8" (pk. of 5)		
Stainless Steel	57480-U	
RheBuild Kit for		
3725/3725i/3725-038/3725i-038	55043	
SAMPLE LOOPS²		
PEEK		
2mL	57464-U	
5mL	57465	
10mL	57466-U	
20mL	57467	
Stainless Steel		
2mL	57468-U	
5mL	57469	
10mL	57470-U	
20mL	57471	

58920-U

Rheodyne Model 7000 Stream Switching Valve

Designed specifically for column selection, sample clean-up and enrichment, column programming, backflushing, and other stream switching operations. Six peripheral ports (no center port) are interconnected through a two-position rotor. Low volume flow passages (0.6mm ID) minimize dead volume that can affect column switching analyses. The pressure limit is factory set at 5000psi (350kg/cm²), but can be adjusted to 7000psi (490kg/cm²). The flat-face seal is easy to adjust.

DESCRIPTION	CAT. NO.	PRICE
Model 7000 Valve	58920-U	
REPLACEMENT COMPONENTS		
VESPEL Rotor Seal	58831	
RheBuild Kit for 7000/7010	55044	

58827

Rheodyne Model 7010 Injector

The original Rheodyne HPLC injector, Model 7010 introduces 5µL-5mL samples onto a column with excellent reproducibility (intended for complete loop filling only). Six clustered ports allow compact interconnections, minimizing tubing volume. The flat-face seal is easy to adjust and service. Operates at pressures to 7000psi (490kg/cm²). Supplied with a 20µL loop; order fill port separately.

DESCRIPTION	CAT. NO.	PRICE
Model 7010 Injector	58827	
REPLACEMENT COMPONENTS		
Loop Fill Port	58825-U	
VESPEL Rotor Seal	58831	
RheBuild Kit for 7000/7010	55044	
SAMPLE LOOPS WITH FITTINGS		
5µL	58840-U	
10µL	58832	
20µL	58833-U	
50µL	58834	
100µL	58835	
200µL	58836	
500µL	58837	
1mL	58838	
2mL	58839	
5mL	57637	

[1] Supplied with unswaged fittings for connection to Model 3721i injector.

[2] Two 1/8" x 1/16" reducing unions (Cat. No. 22999), two short pieces of 1/16" capillary tubing, and 1/16" nuts and ferrules are needed to connect a preparative sample loop to a valve with 1/16" ports.

Liquid Chromatography

Rheodyne Model 7060 Selection Valve

For column or mobile phase selection.

Instead of frequently connecting and disconnecting columns to your system, connect the injector outlet to the common center port of a Model 7060 valve, and connect up to 6 columns to the peripheral ports. (We recommend allowing one port for bypass/flushing operations.) The common port can be sequentially connected to each of the 6 peripheral ports by manually rotating the handle in either direction. Connect the column outlets to a second Model 7060 valve to direct the flow from the columns to the detector.

Low dispersion 0.41mm/0.016" ID passages and an internal volume of less than 2µL ensure minimal extra-column band broadening.

DESCRIPTION	CAT. NO.	PRICE
Model 7060 Selection Valve	58817	

Rheodyne Model 7520 Microsample (Syringe-Loading) Injector

Designed specifically for use with narrow bore HPLC columns. 0.13mm/0.005" ID passages and a built-in needle port (0.3µL hold-up volume) minimize dispersion of small samples. A 0.5µL sample rotor is included; order other rotors separately.

DESCRIPTION	CAT. NO.	PRICE
Model 7520 Microsample Injector	58819	
REPLACEMENT COMPONENTS		
RheBuild Kit for 7520/7526	55048	
SAMPLE ROTORS		
0.2µL	58820	
1.0µL	58822-U	

Rheodyne Model 7125 Injector

The Rheodyne Model 7125 syringe loading injector allows injection of the entire contents of the syringe into the sample loop – you won't have to flush the valve between injections, unless you are conducting trace analyses. It also injects samples from a partially filled loop (you save time by not having to change the sample loop).

The Model 7125 injector can be used at pressures to 7000psi (490kg/cm²) and is supplied with a VESPEL rotor seal for operation at pH 0-10. A 20µL sample loop is included; order additional loops separately.

DESCRIPTION	CAT. NO.	PRICE
Model 7125 Injector	58826	
REPLACEMENT COMPONENTS		
VESPEL Rotor Seal	58830-U	
Tefzel Rotor Seal	57633	
Needle Port Cleaner	57635	
Valve Angle Bracket (for all metal Rheodyne valves)	57636	
RheBuild Kit for 7125/7126	55045	
SAMPLE LOOPS WITH FITTINGS		
5µL	58840-U	
10µL	58832	
20µL	58833-U	
50µL	58834	
100µL	58835	
200µL	58836	
500µL	58837	
1mL	58838	
2mL	58839	
5mL	57637	

Note: Use VESPEL seals to pH 10, Tefzel seals to pH 14.

Liquid
Chromatography

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HPLC Accessories
Rheodyne Injectors

Rheodyne Model 7725 and 7725i Injectors

The Rheodyne Model 7725 injector allows you to inject 1µL-5mL samples with accuracy and precision. The rugged, easily maintained design offers many advanced features:

- Patented continuous flow design (Figure A) – flow is uninterrupted when you switch from LOAD to INJECT
- Easy seal adjustment using pressure screw on front of injector
- Easy access to fittings (Figure B)

Injector includes a 20µL sample loop and is supplied with a VESPEL rotor seal that can be replaced with a Tefzel rotor seal for operation at pH 0-14. Factory set at 5000psi (345 bar), adjustable to 7000psi (483 bar). Model 7725i has an internal position sensing switch.

| DESCRIPTION	CAT. NO.	PRICE
Model 7725 Injector	57620-U	
Model 7725i Injector	57621	
REPLACEMENT COMPONENTS		
VESPEL Rotor Seal	58830-U	
Tefzel Rotor Seal	57633	
Stator Face Assembly	57634	
Needle Port Cleaner	57635	
Valve Angle Bracket		
(for all metal Rheodyne valves)	57636	
RheBuild Kit for 7725/7725i/7726	55049	
SAMPLE LOOPS(WIDE-ANGLE PORTS; FITTINGS INCLUDED)		
2µL	57622	
5µL	57623	
10µL	57624	
20µL	57625	
50µL	57626	
100µL	57627	
200µL	57628-U	
500µL	57629-U	
1mL	57630	
2mL	57631	
5mL	57632	

Note: Use VESPEL seals to pH 10, Tefzel seals to pH 14.

Figure A.   A Model 7725 Injector Reduces Wear and Tear on Your Columns
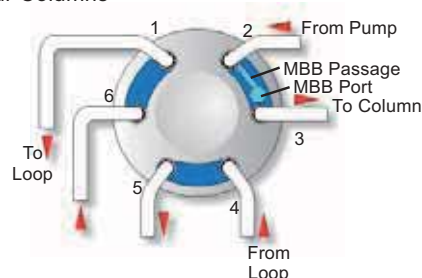
A conventional HPLC valve momentarily interrupts flow during sample injection, subjecting your column to repetitive pressure shocks. Rheodyne's patented MBB (make-before-break) design makes the new connection before breaking the old one, providing uninterrupted flow.

Figure B.   Model 7725 Injectors also Feature a Wide Port Angle (30°), for Easy Access to the Fittings
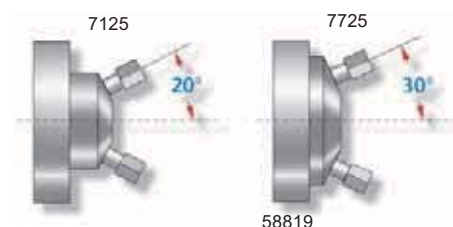
Rheodyne Model 8125 Low Dispersion Injector

Inject as little as 0.1µL of sample with high accuracy and zero waste.

Small diameter flow channels in a low-dispersion version of the popular Model 7125 injector. Excellent for use with narrow bore columns (1-3mm ID), but also well suited for larger diameter columns. Resolution is most improved with relatively unretained (low-k') peaks – the peaks most affected by extra-column effects. Additional features include:

- Built-in zero-holdup needle port
- Built-in position switch to signal injection
- Long rotor seal lifetime – make up to 30,000 injections before replacing seal (VESPEL)
- User-adjustable to 7000psi (490kg/cm²)
- Easy-to-service flat-face rotor design

Supplied with a 5µL sample loop, fittings for all ports, 22-gauge luer hub needles, needle port cleaner, two vent tubes, wrench mounting screws and instructions. Order additional sample loops separately.

DESCRIPTION	CAT. NO.	PRICE
Model 8125 Injector	57950-U	
REPLACEMENT COMPONENTS		
VESPEL Rotor Seal	57955	
RheBuild Kit for 8125/8126	55050-U	
SAMPLE LOOPS		
5µL	57951	
10µL	57952	
20µL	57953	

57950-U

Biocompatible Rheodyne Injectors

All flow passages in the 6-port injectors on this page are inert PEEK (polyetheretherketone) or alumina-ceramic materials. They are unaffected by buffers, acids, bases, or halide salts, including 1M sodium chloride, over the entire pH range. Both valves are for pressures up to 5000psi (350kg/cm²), but the usable operating pressure may be lower, depending on the loop and solvents used.

P00570

57695

P000571

54432

Rheodyne Model 9010 Injector

This injector is similar in function to the Model 7010 stainless steel injector, but is constructed of inert PEEK and Tefzel materials for use in the pH range 0-14. It can be used for HPLC, soft gel chromatography, or ion chromatography.

A position-sensing switch closes in the INJECT position and stays closed until the handle is returned to the LOAD position. Supplied with a 20µL sample loop; order additional loops separately.

DESCRIPTION	CAT. NO.	PRICE
Model 9010 Injector	57695	
REPLACEMENT COMPONENTS		
Tefzel Rotor Seal	57696	
Loop Filler Port	57638	
Needle Port	57639	
RheBuild Kit for 9010/9040	55052	

Rheodyne Model 9725 Injector

The Model 9725 injector is ideal for both HPLC and soft gel LC purification procedures for biomolecules. Performance of this 6-port rotary injector is similar to that of the Model 7725 injector, but no metal contacts the samples. Model 9725 incorporates the patented make-before-break design (see previous page, Figure A).

The 0.25mm ID flow channels provide low dispersion when used with narrow ID columns, but prevent excessive flow resistance at flow rates used with larger analytical columns and preparative columns. Use with Rheodyne HPT fittings and high pressure PEEK tubing. Model 9725i includes a position-sensing switch.

Supplied with a 20µL PEEK sample loop, Tefzel rotor seal, fittings for all ports, 22-gauge luer hub needle, needle port cleaner, two Tefzel vent tubes, wrenches, mounting screws and instructions. Order additional sample loops separately.

DESCRIPTION	CAT. NO.	PRICE
Model 9725 Injector	54432	
REPLACEMENT COMPONENTS		
Tefzel Rotor Seal	57971-U	
RheBuild Kit for 9725/9725i/9726	55053	

PEEK Sample Loops for 9010, 9125, and 9725 Injectors

VOLUME	CAT. NO.	PRICE
5µL	57640	
10µL	57641	
20µL	57642	
50µL	57643	
100µL	57644	
200µL	57645	
500µL	57646	
1mL	57647	
2mL	57648	
5mL	57649	

HPLC Accessories
Rheodyne RheBuild Kits, Fittings, Tools

Needle Port Cleaner

Stator Face Assembly

Isolation Seal

Rotor Seal

Needle Guide

55087-U

Rheodyne Port Adapter, ValvTool

Use the Port Adapter for connecting 1/16" tubing to a 1/8" valve port. Use the ValvTool for changing sample loops or replacing fittings on Rheodyne valves. The 1/4" end is a uniquely designed slotted socket wrench that provides easy access to many hard-to-reach areas.

DESCRIPTION	CAT. NO.	PRICE
Rheodyne Port Adapter	57472	
ValvTool	55087-U	

58258   58256   58687

58257

Rhedyne Fittings

DESCRIPTION	CAT. NO.	PRICE
Nuts, 1/16" (pk. of 10)	58256	
Long Nuts, 1/16" (pk. of 10)	58257	
Extra Long Nuts, 1/16" (pk. of 5)	58687	
Ferrules, 1/16" (pk. of 10)	58258	
Fitting Set, 1/8" (1 nut, 1 ferrule)	57479	
Ferrules, 1/8" (pk. of 5)	57480-U	

RheBuild Kits

These kits include all of the tools and parts you need to repair your Rheodyne injector. The parts included are those most likely to be damaged, worn, or lost. Kits for front-loading injectors include: rotor seal, stator face assembly, isolation seal, needle guide, needle port cleaner, 2 hex keys, operating instructions, and a mini-manual. Parts may vary, depending on valve model.

VALVE MODEL	CAT. NO.	PRICE
3725/3725i/3725-038/3725i-038	55043	
7010	55044	
7010 with stator	504602	
7125/7126	55045	
7125-081	55046	
7410	55047	
7520/7526	55048	
7650/9650 TPMV	504629	
7725/7725i/7726	55049	
7750 TPMV Series	7750999	
8125/8126	55050-U	
9010/9040	55052	
9125/9126	55051	
9725/9725i/9726	55053	
9750 TPMV Series	9750999	
KITS FOR SupelPRO/LabPRO UNITS		
Injector with Purge [1]	54398-U	
2-Channel Selector [1]	54394-U	
3 Column Selector [1]	54388-U	
11-Port/10-Position [1]	57443-U	
2-Position, 6-Port [1]	54395-U	
2-Position, 10-Port [1]	54396-U	
Solvent Selector, 1/16"	54392-U	
Solvent Selector, 1/8"	54393-U	
Low Pressure Switching, 1/16"	54390-U	

[1] Either stainless steel or PEEK unit.

57691

RheFlex PEEK Fittings

For Rheodyne valves. Hold to 5000psi/350kg/cm².

DESCRIPTION	CAT. NO.	PRICE
1/16" RHEFLEX FITTING SETS		
Long Fitting Sets (5 nuts, 5 ferrules)	57690-U	
Short Fitting Sets (5 nuts, 5 ferrules)	57691	
1/16" Ferrules (pk. of 5)	57692	
1/8" RHEFLEX FITTING SETS		
Fitting Set (1 nut, 1 ferrule)	57477	

Rheodyne pH Upgrade Kits

Enables you to use your Rheodyne injector with samples at pH 0-14. Includes Tefzel rotor seal, 2 hex keys, instructions.

VALVE MODEL	CAT. NO.	PRICE
7000/7010/7040	55054	
7125/7126	55055	
7410	55056	
8125/8126	55057	

58829

Rheodyne Model 5011 Low Pressure Mobile Phase Selection Valve

Draw the mobile phase you need simply by rotating a switch. This zero dead volume, 7-port 6-position rotary valve operates to 300psi (21kg/cm²). Inert Teflon tubing (0.8mm ID) ensures contaminant-free mobile phases.

DESCRIPTION	CAT. NO.	PRICE
Model 5011 Valve	58829	
Mounting Bracket for 5011/5020	57460-U	

58814

P000576

Rheodyne Model 5020 Low Pressure Sample Injection Valve

A Teflon, fixed volume loop injector with 0.8mm/0.03" ID flow passages. Operates to 300psi (21kg/cm²). Supplied with a 0.5mL sample loop and a female Luer adapter for a Luer tip syringe.

DESCRIPTION	CAT. NO.	PRICE
Model 5020 Injection Valve	58814	
SAMPLE LOOPS		
0.1mL	57680-U	
1mL	57683	
5mL	57684	
10mL	57685	

502367   54719-U   502383

Upchurch Micro-Valves

- Inert PEEK construction
- Flow rates as low as 3.5µL/minute (water)
- 1/4-28 or 10-32 1/16" fittings

SPECIFICATIONS

Internal Volume
  1/4-28 valves: 4.13µL fully opened; 2.1µL closed.
  10-32 valves: 2.8µL fully opened; 1.2µL closed.
  10-32/6-32 valves. 2.5µL fully opened; 1.2µL closed.
Thru-Hole
  54720-U: 0.010"
  all others: 0.020"
Pressure Rating
  low pressure valves: 800psi (54 bar).
  high pressure valves: 5000psi (338 bar).

DESCRIPTION	CAT. NO.	PRICE
MICRO-METERING VALVE (LOW PRESSURE)		
1/4-28 Flangeless Fittings	502367	
10-32 Fingertight Fittings	502375	
MICRO-SPLITTER VALVE (LOW PRESSURE)		
1/4-28 Flangeless Fittings	502383	
10-32 Fingertight Fittings	502391	
MICRO-SPLITTER VALVE (HIGH PRESSURE)		
10-32 Fingertight Fittings	54719-U	
2 x 10-32, 1 x 6-32* Fingertight Fittings	54720-U	
REPLACEMENT FITTINGS		
1/4-28 Flangeless Fittings		
Nuts & Ferrules (5 each)	58685	
Ferrules (pk. of 10)	56700-U	
Fingertight Fittings		
10-32 (pk. of 10)	55067-U	
6-32 (pk. of 10)	502405	

* For capillary tubing.

HPLC Accessories
Priming Valves, Gauge Kits, SSI Valves, Pulse Damper

59425-U

OPTI-PRIME Priming Valve for Waters Pumps

Makes priming Waters pumps a convenient, one hand operation. Replaces Waters priming system.

DESCRIPTION	CAT. NO.	PRICE
OPTI-PRIME Priming Valve	59425-U	
Priming Valve with Safety Syringe	59426	
Safety Syringe	59451	

58690-U

SSI Prime/Purge Valve

The drain port in this valve is incorporated into the valve stem, eliminating the need for extra tubing and fittings. A luer taper on the valve stem accepts a luer syringe for priming. Valve shutoff is provided by a soft-seal tip that withstands back pressures to 8000psi (560kg/cm²). Only Teflon, Tefzel, and 316 stainless steel come in contact with the mobile phase. Order 1/16" SSI nuts and ferrules separately.

DESCRIPTION	CAT. NO.	PRICE
SSI Prime and Purge Valve	58690-U	

Upchurch Prime/Purge Valve

Automatic valve operation with a simple twist of the Luer-Lock syringe. Easy installation, long seal life.

DESCRIPTION	CAT. NO.	PRICE
Upchurch Prime/Purge Valve for Waters Pumps	54716-U	
Upchurch Universal Prime/Purge Valve (1/4 - 28 fittings)	54718-U	

SSI Pressure Gauge Kits

Components already assembled, ready for easy installation. Backed by a three-year warranty, these highly accurate (±1.5%), glycerine-filled gauges have a 2 1/2"/6.4cm face and 1/4" NPT connection. To resist corrosion, the one-piece case and socket and the bourdon tube are made of 316 stainless steel. All fittings and SSI tee are included.

DESCRIPTION	CAT. NO.	PRICE
0-3000psi/210kg/cm²	58623-U	
0-6000psi/420kg/cm²	58624	

Three-Way
Stream-Splitting
Valve

Two-Way
Shut-Off Valve

58789   58794

SSI Two-Way Shut-Off Valve

For 1/16" tubing; 1/4-28 (SSI style) fittings included. Rated to 15,000psi (1054kg/cm²)

DESCRIPTION	CAT. NO.	PRICE
Two-Way Shut-Off Valve	58789	

SSI Three-Way Stream-Splitting Valve

Each port in this valve can be connected to pressure, as in stream-splitting, or when connecting an in-line pressure gauge (open valve to read pressure, seal off to prevent contamination). The side vent model can replace the injector bypass valve on Altex, LDC, Perkin-Elmer, Spectra-Physics, or other chromatographs, and is recommended for all general applications. The bottom vent model replaces the bypass valve on a Varian 5000 chromatograph. For 1/16" tubing; 1/4-28 (SSI style) fittings included. Rated to 15,000psi (1054kg/cm²)

DESCRIPTION	CAT. NO.	PRICE
Three-Way Stream-Splitting Valve		
Side Vent	58794	
Bottom Vent	58793	

SSI LO-Pulse Damper

A pulse damper controls pump pulsations for a more stable baseline. The LO-Pulse damper is a patented unit compatible with single piston reciprocating HPLC pumps (Altex 110A, Eldex pumps, LDC Mini-Pump VS, SSI Models 200 and 300, etc.). At pressures from 500psi to 6000psi (35-420kg/cm²), it improves precision of quantitative analyses and detection limits for trace sample components. Fittings and instructions included.

DESCRIPTION	CAT. NO.	PRICE
Pulse Damper	58455	
Pulse Damper without Cabinet	58442	