

CHROMWARE



Tornado HPLC Reservoir

TORNADO® HPLC Reservoirs (U.S. Patents: Des. 350,609 & 5,275,723) have two bottom cavities, one for a TORNADO® PTFE stirrer (included) and the other for a mobile phase inlet filter. Made of borosilicate glass, they are coated with an autoclavable red plastic that absorbs UV up to 385nm. The mouth of reservoir has 45mm thread.

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1901-001	1L	120mm	245mm	1	\$219.01
BP-1901-002	2L	150mm	310mm	1	\$308.30
BP-1901-005	5L	195mm	370mm	1	\$532.52
BP-1901-010	10L	240mm	450mm	1	\$1235.21
BP-1901-020	20L	300mm	530mm	1	\$2037.99



Three Valve Mobile Phase Delivery Cap

This THF version mobile phase delivery cap has three on-off ETFE valves with 1/4" -28 threads top and bottom. Body is constructed of glass-filled PTFE. Screw cap has 45mm threads.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1903-647	1	\$760.45



Mobile Phase Pickup Adapter

This borosilicate glass adapter with flange is designed to fit the Mobile Phase Filtration/Degassing Cap or the Integrated Mobile Phase Filtration/Delivery Cap. It holds a 47mm diameter membrane filter in place while providing for continuous in-line filtration of mobile phase. Includes 4mm PTFE valve with 1/4" 1 -28 O.D. outlet, PTFE union with compression fittings for 1/4" O.D. tubing, and 3' of 1/4" O.D. PTFE tubing (required for Filtration/Degassing Cap).

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1904-048	1	\$191.49



Five Valve Mobile Phase Filtration/Delivery Caps

These five-valve filtration/delivery caps are designed to control HPLC Mobile Phase Systems. The upper portion of the cap has a screw clamp to secure a solvent pickup adapter and a recess to accommodate a 47mm diameter membrane filter/support disc.

Valves are supplied to control filtration, vacuum, sparging, recirculation, and output to the pump. Valve body is glass-filled PTFE, resistant to organic solvents and has stronger threads than PTFE alone.

Connections are 1/4" -28 allowing installation of optional sparging or pressure relief valves.

CATALOG NO.	DESCRIPTION	QUANTITY / PACK	PRICE
BP-1905-047	Standard Version	1	\$788.49
BP-1905-647	THF Version	1	\$1428.02



Economy Three Hole Mobile Phase Delivery Cap

This economy three-hole delivery cap attaches to mobile phase reservoirs or Corning #1395 bottles. The three holes have 1/4" -28 threads in the top with 1/8" holes through for 1/8" O.D. PTFE tubing. Body is glass-filled PTFE. Screw cap has 45mm thread and is made of PBT (polybutylene terephthalate) with PTFE faced silicone liner. Includes three 1/4" -28 ETFE plugs and Viton® O-ring for sealing to the reservoir. Integral pressure relief valve relieves reservoir pressure at 10 psi.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1908-000	1	\$142.51

Polypropylene Reservoir Storage Cap

This reservoir storage cap is red, made from polypropylene, has 45mm thread, and PTFE liner. Fits all CHROMWARE® HPLC reservoirs.



CATALOG NO.	QUANTITY / PACK	PRICE
BP-1909-000	1	\$13.89



Single Cavity HPLC Reservoirs

Single cavity HPLC reservoirs (U.S. Patent: Des. 341,205) are made of borosilicate glass and have one central cavity for a mobile phase inlet filter, an autoclavable red plastic coat that absorbs UV up to 385nm, and a 45mm thread cap. While these reservoirs do not permit the rapid mixing of the TORNADO® HPLC reservoirs, they can be stirred by placing a plus type stirring bar (BP-2315) in the inlet filter cavity just below the inlet filter.

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1911-001	1L	120mm	260mm	1	\$183.57
BP-1911-002	2L	150mm	325mm	1	\$264.72
BP-1911-005	5L	195mm	385mm	1	\$457.18
BP-1911-010	10L	240mm	465mm	1	\$1060.51
BP-1911-020	20L	300mm	545mm	1	\$1749.73



Three Hole Mobile Phase Delivery Cap

The three holes of this mobile phase delivery cap have 1/4" -28 threads in the top with 1/8" holes through for 1/8" O.D. PTFE tubing. Body is glass-filled PTFE. Screw cap has 45mm thread. Includes three 1/4" -28 ETFE plugs and Viton® O-ring for sealing to the reservoir. Integral pressure relief valve relieves reservoir pressure at 10 psi.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1913-000	1	\$166.45



Mobile Phase Filtration/Degassing Cap

These filtration/degassing caps are constructed of PTFE with polypropylene vacuum adapter for 1/4" I.D. tubing. Lower screw cap has 45mm thread and upper screw clamp holds mobile phase pickup adapter. Caps include a removable coarse fritted glass filter support (specially treated to resist flaking) and a Viton® O-ring for sealing to the reservoir.

CATALOG NO.	DESCRIPTION	QUANTITY / PACK	PRICE
BP-1914-001	Replacement Glass Frit, 47mm	1	\$45.24
BP-1914-922	Slotted Pickup Cap Adapter	1	\$46.00
BP-1915-047	Complete 47mm Diameter Cap	1	\$446.81



CHROMWARE Four Valve Mobile Phase Caps

CHROMWARE® Four Valve Caps combine the mobile phase filtration, sparging/degassing, storage, and delivery functions. The 1/4 -28 fittings allow easy connection to any HPLC pump system. Cap body is manufactured from glass-filled PTFE. Filter cap diameter is 47mm and will attach to any reservoir or bottle with a GL 45 thread.

NOTE: Standard version cap is supplied with Viton® O-rings. The THF-resistant version cap is supplied with Kalrez® O-rings.

CATALOG NO.	DESCRIPTION	QUANTITY / PACK	PRICE
BP-1914-047	Standard Version	1	\$716.64
BP-1914-647	THF Version	1	\$1298.34



CHROMWARE Three Valve Cap Reservoir Systems

CHROMWARE® three valve reservoir systems are recommended for applications where on-off control of all three ports on the cap is necessary. For example, HPLC mobile phases for several labs can be filtered and degassed at a central location, sealed with a three valve cap with the internal inlet filters and tubing connections already in place, and delivered to the HPLC stations ready-for-use. Furthermore, after an HPLC run is completed, all three valves on each reservoir can be closed to maintain the mobile phase in a sealed environment until the next run.

Complete three valve cap reservoir systems consist of:

- BP-1903-000 Three Valve Delivery Cap, PTFE/Propylene O-Rings (qty 1)
- BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
- BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
- BP-1916-000 Stainless Steel inlet filter, 2 micron (qty 2)
- BP-1821-018 PEEK 1/4" -28 Nut for 1/8" O.D. Tubing (qty 8)
- BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)
- BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)
- BP-1918-018 ETFE Adapter, 1/4"-28 to 1/8" I.D. Tubing (qty 2)

NOTE: To filter HPLC mobile phases directly into the reservoir, use filtration/degassing cap (BP-1915-047) and a mobile phase pickup adapter (BP-1904-048) – each sold separately.

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1925-001	1L	120mm	285mm	1	\$658.28
BP-1925-002	2L	150mm	350mm	1	\$742.51
BP-1925-005	5L	190mm	410mm	1	\$907.54
BP-1925-010	10L	240mm	490mm	1	\$1467.83
BP-1925-020	20L	300mm	570mm	1	\$2010.97



CHROMWARE THF-Resistant Integrated HPLC Mobile Phase Systems

CHROMWARE® integrated HPLC mobile phase handling systems have a four valve reservoir cap that incorporates the functions of both a filtration cap and a three valve cap. Once the four valve cap is screwed onto the reservoir it can stay on during an indefinite number of cycles of mobile phase filtration, sparging, and delivery. This means the inside of the reservoir can be isolated from both atmospheric gases and particulates for weeks or months as long as the mobile phase doesn't support bacterial growth.

Tetrahydrofuran (THF), which is widely used as a mobile phase for GPC, attacks the Viton® O-rings of the standard CHROMWARE®. The only changes required to make an economy system THF-resistant are replace the standard inlet filters with all-stainless-steel inlet filters (BP-1916-621), and the Viton® O-ring at the base of the three hole cap with a size 216 Kalrez® O-ring (BP-1240-026).

Complete THF-resistant integrated HPLC mobile phase handling systems consist of:

- BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
- BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
- BP-1914-647 47mm four Valve Cap, THF-Resistant (qty 1)
- BP-1904-049 47mm Mobile Phase Pickup Adapter without Valve (qty 1)
- BP-1821-018 PEEK ¼" -28 Nut for 1/8" O.D. Tubing (qty 8)
- BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)
- BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)
- BP-1918-018 ETFE Adapter, ¼"-28 to 1/8" I.D. Tubing (qty 2)
- BP-1916-621 10 micron S.S. Inlet Filter (qty 2)
- BP-1919-014 Vacuum Adapter, ¼"-28 to ¼" I.D. Tubing (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1941-001	1L	120mm	420mm	1	\$1787.54
BP-1941-002	2L	150mm	485mm	1	\$1863.14
BP-1941-005	5L	195mm	545mm	1	\$2005.79
BP-1941-010	10L	240mm	625mm	1	\$2600.50
BP-1941-020	20L	300mm	705mm	1	\$2909.86



CHROMWARE Integrated HPLC Mobile Phase Handling Systems

CHROMWARE® integrated HPLC mobile phase handling systems have a four valve reservoir cap that incorporates the functions of both a filtration cap and a three valve cap. Once the four valve cap is screwed onto the reservoir it can stay on during an indefinite number of cycles of mobile phase filtration, sparging, and delivery. This means the inside of the reservoir can be isolated from both atmospheric gases and particulates for weeks or months as long as the mobile phase doesn't support bacterial growth.

Complete integrated HPLC mobile phase handling systems consist of:

BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating

BP-2310-118 TORNADO® PTFE Stirrer (qty 1)

BP-1914-047 47mm four Valve Cap, PTFE/Propylene O-Rings (qty 1)

BP-1904-049 47mm Mobile Phase Pickup Adapter without Valve (qty 1)

BP-1821-018 PEEK ¼" -28 Nut for 1/8" O.D. Tubing (qty 8)

BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)

BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)

BP-1918-018 ETFE Adapter, ¼"-28 to 1/8" I.D. Tubing (qty 2)

BP-1916-000 2 micron S.S. Inlet Filter (qty 2)

BP-1919-014 Vacuum Adapter, ¼"-28 to ¼" I.D. Tubing (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1940-001	1L	120mm	420mm	1	\$1215.19
BP-1940-002	2L	150mm	485mm	1	\$1292.53
BP-1940-005	5L	195mm	545mm	1	\$1457.52
BP-1940-010	10L	240mm	625mm	1	\$1918.14
BP-1940-020	20L	300mm	705mm	1	\$2495.67



CHROMWARE Five Valve Cap Systems

These CHROMWARE® five valve cap systems include a five valve cap to facilitate recycling in the mobile phase. Direct membrane filtration into the mobile phase reservoir avoids transfer losses and contamination by airborne particulates. Gas tight ETFE valves effectively contain helium within the reservoir, and dry, deoxygenated mobile phases are maintained for chromatographic separations. 1/4"-28 flangeless fittings allow for easy connection to pumps or other system components.

Complete five valve cap system consists of:

BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)

BP-2310-118 TORNADO® PTFE Stirrer (qty 1)

BP-1905-047 47mm Five Valve Cap (qty 1)

BP-1904-049 47mm Mobile Phase Pickup Adapter without Valve (qty 1)

BP-1821-018 PEEK 1/4" -28 Nut for 1/8" O.D. Tubing (qty 8)

BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)

BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)

BP-1918-018 ETFE Adapter, 1/4"-28 to 1/8" I.D. Tubing (qty 2)

BP-1916-000 2 micron S.S. Inlet Filter (qty 2)

BP-1919-014 Vacuum Adapter, 1/4"-28 to 1/4" I.D. Tubing (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1950-001	1L	120mm	420mm	1	\$1283.92
BP-1950-002	2L	120mm	485mm	1	\$1363.00
BP-1950-005	5L	195mm	545mm	1	\$1526.27
BP-1950-010	10L	240mm	625mm	1	\$1988.62
BP-1950-020	20L	300mm	705mm	1	\$2567.85



CHROMWARE THF Resistant Five Valve Cap Systems

These CHROMWARE® five valve cap systems include a five valve cap to facilitate recycling in the mobile phase. Direct membrane filtration into the mobile phase reservoir avoids transfer losses and contamination by airborne particulates. Gas tight ETFE valves effectively contain helium within the reservoir, thereby, dry, deoxygenated mobile phases are maintained for chromatographic separations. 1/4" -28 flangeless fittings allow for easy connection to pumps or other system components.

Tetrahydrofuran (THF), which is widely used as a mobile phase for GPC, attacks the Viton® O-rings of the standard CHROMWARE®. The only changes required to make an economy system THF-resistant are replace the standard inlet filters with all-stainless-steel inlet filters (BP-1916-621), and the Viton® O-ring at the base of the three hole cap with a size 216 Kalrez® O-ring (BP-1240-026).

Complete THF-resistant five valve cap system consists of:

- BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
- BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
- BP-1905-447 47mm Five Valve Cap, THF Resistant (qty 1)
- BP-1904-049 47mm Mobile Phase Pickup Adapter without Valve (qty 1)
- BP-1821-018 PEEK 1/4" -28 Nut for 1/8" O.D. Tubing (qty 8)
- BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)
- BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)
- BP-1918-018 ETFE Adapter, 1/4"-28 to 1/8" I.D. Tubing (qty 2)
- BP-1916-621 10 micron S.S. Inlet Filter (qty 2)
- BP-1919-014 Vacuum Adapter, 1/4"-28 to 1/4" I.D. Tubing (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1951-001	1L	120mm	420mm	1	\$1914.71
BP-1951-002	2L	120mm	485mm	1	\$1990.35
BP-1951-005	5L	195mm	545mm	1	\$2136.45
BP-1951-010	10L	240mm	625mm	1	\$2729.42
BP-1951-020	20L	300mm	705mm	1	\$3038.80



CHROMWARE Economy HPLC Mobile Phase Handling Systems

CHROMWARE® economy HPLC mobile phase systems are modular filtration and reservoir systems. There are at least four modes of operation for economy systems - filtration, stirring, sparging, and storage/delivery. A mobile phase filtration/degassing cap is required for the filtration, however the filtration cap is replaced by a three hole mobile phase delivery cap for the next three modes of operation. Since mobile phase filtration takes a relatively short time, several CHROMWARE® HPLC reservoirs can share one filtration cap.

Complete economy HPLC mobile phase handling system consists of:

- BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
- BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
- BP-1915-047 47mm Filtration/Degassing Cap (qty 1)
- BP-1904-048 47mm Mobile Phase Pickup Adapter w/Valve (qty 1)
- BP-1913-000 Three Hole Delivery Cap (qty 1)
- BP-1913-001 ETFE 1/4"-28 Threaded Plug (qty 3)
- BP-1821-018 PEEK 1/4" -28 Nut for 1/8" O.D. Tubing (qty 4)
- BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 4)
- BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)
- BP-1918-018 ETFE Adapter, 1/4"-28 to 1/8" I.D. Tubing (qty 2)
- BP-1916-000 2 micron S.S. Inlet Filter (qty 2)
- BP-1919-014 Vacuum Adapter, 1/4"-28 to 1/4" I.D. Tubing (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1970-001	1L	120mm	415mm	1	\$1059.51
BP-1970-002	2L	150mm	480mm	1	\$1128.20
BP-1970-005	5L	195mm	540mm	1	\$1272.44
BP-1970-010	10L	240mm	620mm	1	\$1724.03
BP-1970-020	20L	300mm	700mm	1	\$3741.19



CHROMWARE Economy HPLC Mobile Phase Filtration/Degassing Systems

The economy HPLC mobile phase filtration/degassing system is offered for those chromatographers who want the benefits of filtering directly into a CHROMWARE® HPLC reservoir, but don't need the air-tight three-hole cap.

Complete economy HPLC mobile phase filtration/degassing system consists of:

- BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
- BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
- BP-1915-047 47mm Filtration/Degassing Cap (qty 1)
- BP-1904-048 47mm Mobile Phase Pickup Adapter w/Valve (qty 1)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1975-001	1L	120mm	415mm	1	\$673.73
BP-1975-002	2L	150mm	480mm	1	\$754.56
BP-1975-005	5L	195mm	540mm	1	\$916.10
BP-1975-010	10L	240mm	620mm	1	\$1430.03
BP-1975-020	20L	300mm	700mm	1	\$2016.10



CHROMWARE Economy HPLC Mobile Phase Reservoir Systems

CHROMWARE® economy HPLC mobile phase systems are modular filtration and reservoir systems. There are at least four modes of operation for economy systems - filtration, stirring, sparging, and storage/delivery. In this reservoir system, the filtration cap is replaced by a three-hole mobile phase delivery cap.

Complete economy HPLC mobile phase reservoir system consists of:

BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)

BP-2310-118 TORNADO® PTFE Stirrer (qty 1)

BP-1913-000 Three Hole Delivery Cap (qty 1)

BP-1913-001 ETFE ¼"-28 Threaded Plug (qty 3)

BP-1821-018 PEEK ¼"-28 Nut for 1/8" O.D. Tubing (qty 4)

BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 4)

BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 2)

BP-1918-018 ETFE Adapter, ¼"-28 to 1/8" I.D. Tubing (qty 2)

BP-1916-000 2 micron S.S. Inlet Filter (qty 2)

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1980-001	1L	120mm	285mm	1	\$457.17
BP-1980-002	2L	150mm	350mm	1	\$558.58
BP-1980-005	5L	195mm	410mm	1	\$747.68
BP-1980-020	20L	300mm	570mm	1	\$1684.39



CHROMWARE THF-Resistant Three Valve Cap Reservoir Systems

CHROMWARE® three valve reservoir systems are recommended for applications where on-off control of all three ports on the cap is necessary. For example, HPLC mobile phases for several labs can be filtered and degassed at a central location, sealed with a three valve cap with the internal inlet filters and tubing connections already in place, and delivered to the HPLC stations ready-for-use. Furthermore, after an HPLC run is completed, all three valves on each reservoir can be closed to maintain the mobile phase in a sealed environment until the next run. Tetrahydrofuran (THF), which is widely used as a mobile phase for GPC, attacks the Viton® O-rings of the standard CHROMWARE® systems. The integrated and three valve cap systems have been made into THF-resistant systems by replacing all Viton® O-rings with Kalrez® O-rings, and replacing the standard stainless steel inlet filters with CTFE components, with conventional all-stainless-steel filters.

Complete three valve cap THF resistant reservoir systems consist of:
 BP-1901 TORNADO® HPLC Reservoir with Red UV Safety Coating (qty 1)
 BP-1903-647 Three Valve Delivery Cap, THF Resistant (qty 1)
 BP-2310-118 TORNADO® PTFE Stirrer (qty 1)
 BP-1821-018 PEEK ¼" -28 Nut for 1/8" O.D. Tubing (qty 8)
 BP-1822-018 ETFE Ferrule for 1/8" O.D. Tubing (qty 8)
 BP-1823-018 PTFE 1/8" O.D. Tubing 10' (qty 1)
 BP-1918-018 ETFE Adapter, ¼"-28 to 1/8" I.D. Tubing (qty 2)
 BP-1916-621 10 micron S.S. Inlet Filter (qty 2)

NOTE: To filter HPLC mobile phases directly into the reservoir, use filtration/degassing cap (BP-1915-047) and a mobile phase pickup adapter (BP-1904-048) – each sold separately.

CATALOG NO.	CAPACITY	DIAMETER	HEIGHT	QUANTITY / PACK	PRICE
BP-1931-001	1L	120mm	285mm	1	\$1211.72
BP-1931-002	2L	150mm	350mm	1	\$1297.68
BP-1931-005	5L	195mm	410mm	1	\$1462.66
BP-1931-010	10L	240mm	490mm	1	\$1971.42
BP-1931-020	20L	300mm	507mm	1	\$2595.37

COLUMNS



Rapid Separation Funnel/Column

These columns are used where rapid separation is needed. Made of borosilicate glass, the funnel has an Standard Taper inner joint at the bottom with a coarse porosity frit.

CATALOG NO.	DISC SIZE	HEIGHT ABOVE DISC	JOINT	QUANTITY / PACK	PRICE
LG-4537-100	30mm	4"	ST 14/20	1	\$136.52
LG-4537-102	30mm	6"	ST 14/20	1	\$145.38
LG-4537-104	40mm	4"	ST 14/20	1	\$136.52
LG-4537-106	40mm	6"	ST 14/20	1	\$161.36
LG-4537-108	30mm	4"	ST 24/40	1	\$152.49
LG-4537-110	30mm	6"	ST 24/40	1	\$161.36
LG-4537-112	30mm	8"	ST 24/40	1	\$173.76
LG-4537-120	40mm	6"	ST 24/40	1	\$172.33
LG-4537-122	40mm	8"	ST 24/40	1	\$173.76
LG-4537-124	40mm	10"	ST 24/40	1	\$186.18
LG-4537-126	40mm	12"	ST 24/40	1	\$198.59
LG-4537-128	60mm	4"	ST 24/40	1	\$184.38
LG-4537-130	60mm	6"	ST 24/40	1	\$200.35
LG-4537-132	60mm	8"	ST 24/40	1	\$232.93
LG-4537-134	60mm	10"	ST 24/40	1	\$235.79
LG-4537-136	60mm	12"	ST 24/40	1	\$253.52
LG-4537-138	80mm	4"	ST 24/40	1	\$234.03
LG-4537-140	80mm	6"	ST 24/40	1	\$258.85
LG-4537-142	80mm	8"	ST 24/40	1	\$281.92
LG-4537-144	80mm	10"	ST 24/40	1	\$306.72
LG-4537-146	80mm	12"	ST 24/40	1	\$329.78
LG-4537-148	90mm	8"	ST 24/40	1	\$281.92



Large Diameter Chromatography Columns

With minimum dead space between coarse porosity sealed-in fritted disc and PTFE stopcock, these large diameter chromatography columns are made of borosilicate glass. Other diameters and frit porosities available on request.

CATALOG NO.	INSIDE DIAMETER	LENGTH	STOPCOCK SIZE	QUANTITY / PACK	PRICE
LG-4552-100	50.8mm	300mm	4mm	1	\$298.91
LG-4552-102	50.8mm	600mm	4mm	1	\$313.22
LG-4552-110	76.2mm	300mm	6mm	1	\$429.80
LG-4552-112	76.2mm	600mm	6mm	1	\$453.18
LG-4552-120	101.6mm	300mm	6mm	1	\$561.68
LG-4552-122	101.6mm	600mm	6mm	1	\$596.42



General Purpose Columns

These general purpose columns are made of borosilicate glass and are used for ion exchange or adsorption chromatography. Glass wool is used as a bed support.

CATALOG NO.	LENGTH	INSIDE DIAMETER	QUANTITY / PACK	PRICE
LG-4556-104	200mm	22mm	1	\$42.21
LG-4556-106	250mm	22mm	1	\$37.86
LG-4556-108	300mm	22mm	1	\$42.65
LG-4556-110	400mm	22mm	1	\$43.55

STOPCOCK COLUMNS



Flash Chromatography Columns

These borosilicate glass flash chromatography columns are useful for separation and purification of samples by absorption chromatography. They are available with or without a coarse frit. LG-4535 models are made with heavy wall tubing to withstand greater pressure applications. Complete assembly consists of column with Socket Joint at top and straight bore stopcock with PTFE plug at bottom, reservoir (LG-4525 or 4526), flow controller (LG-4520) and clamps. Each component can be ordered separately.

CATALOG NO.	DESCRIPTION	LENGTH	O.D.	JOINT	QUANTITY / PACK	PRICE
LG-4530-100	No Frit	450mm	13mm	SJ 35/20	1	\$189.32
LG-4530-102	No Frit	450mm	22mm	SJ 35/20	1	\$243.15
LG-4530-104	No Frit	450mm	45mm	SJ 35/20	1	\$176.43
LG-4530-106	No Frit	450mm	54mm	SJ 35/20	1	\$197.80
LG-4530-200	Coarse Frit	450mm	13mm	SJ 35/20	1	\$227.55
LG-4530-202	Coarse Frit	450mm	22mm	SJ 35/20	1	\$247.18
LG-4530-204	Coarse Frit	450mm	45mm	SJ 35/20	1	\$265.22
LG-4530-206	Coarse Frit	450mm	54mm	SJ 35/20	1	\$290.12
LG-4535-102	No Frit	400mm	38mm	SJ 50/30	1	\$208.46
LG-4535-104	No Frit	550mm	38mm	SJ 50/30	1	\$216.22
LG-4535-200	Coarse Frit	450mm	13mm	SJ 50/30	1	\$228.77
LG-4535-202	Coarse Frit	450mm	22mm	SJ 50/30	1	\$250.88
LG-4535-204	Coarse Frit	450mm	45mm	SJ 50/30	1	\$268.07

Chromatography Cap Adapter

Used on top of LG-4552 chromatography column sections, these borosilicate glass cap adapters are connected with clamps (LG-4661) – sold separately.



CATALOG NO.	JOINT	COLUMN I.D.	QUANTITY / PACK	PRICE
LG-4558-100	SJ 29/42	2"	1	\$139.26
LG-4558-102	SJ 29/42	3"	1	\$220.41
LG-4558-104	SJ 29/42	4"	1	\$335.02
LG-4558-108	SJ 45/50	4"	1	\$349.50
LG-4558-200	SJ 35/20	2"	1	\$140.53
LG-4558-202	SJ 50/30	3"	1	\$226.79
LG-4558-204	SJ 65/40	4"	1	\$355.36
LG-4558-206	SJ 75/50	4"	1	\$366.54



Chromatography Columns with Reservoir

These borosilicate glass chromatography columns are available with or without a coarse frit. A reservoir with Standard Taper joint is at top and a 2mm straight bore stopcock with PTFE plug is at bottom.

CATALOG NO.	DESCRIPTION	JOINT	RESERVOIR CAPACITY	LENGTH	I.D.	QUANTITY / PACK	PRICE
LG-4564T-100	No Frit	SJ 24/40	200mL	250mm	10.5mm	1	\$134.29
LG-4564T-102	No Frit	SJ 24/40	250mL	250mm	14.5mm	1	\$140.09
LG-4564T-104	No Frit	SJ 24/40	250mL	300mm	19mm	1	\$145.81
LG-4564T-106	No Frit	SJ 24/40	300mL	350mm	22mm	1	\$157.33
LG-4564T-108	No Frit	SJ 24/40	500mL	400mm	29.5mm	1	\$165.25
LG-4564T-110	No Frit	SJ 24/40	500mL	300mm	41mm	1	\$182.18
LG-4564T-112	No Frit	SJ 24/40	1000mL	300mm	49mm	1	\$237.34
LG-4564T-120	No Frit	SJ 35/25	200mL	250mm	10.5mm	1	\$126.59
LG-4564T-122	No Frit	SJ 35/25	250mL	250mm	14.5mm	1	\$132.20
LG-4564T-124	No Frit	SJ 35/25	250mL	300mm	19mm	1	\$137.32
LG-4564T-126	No Frit	SJ 35/25	300mL	350mm	22mm	1	\$148.97
LG-4564T-128	No Frit	SJ 35/25	500mL	400mm	29.5mm	1	\$166.47
LG-4564T-130	No Frit	SJ 35/25	500mL	300mm	41mm	1	\$184.06
LG-4564T-132	No Frit	SJ 35/25	1000mL	300mm	49mm	1	\$239.12
LG-4564T-200	Coarse Frit	SJ 24/40	200mL	250mm	10.5mm	1	\$152.87
LG-4564T-202	Coarse Frit	SJ 24/40	250mL	250mm	14.5mm	1	\$148.69
LG-4564T-204	Coarse Frit	SJ 24/40	250mL	300mm	19mm	1	\$166.26
LG-4564T-206	Coarse Frit	SJ 24/40	300mL	350mm	22mm	1	\$179.11
LG-4564T-208	Coarse Frit	SJ 24/40	500mL	400mm	29.5mm	1	\$187.30
LG-4564T-210	Coarse Frit	SJ 24/40	500mL	300mm	41mm	1	\$205.58
LG-4564T-212	Coarse Frit	SJ 24/40	1000mL	300mm	49mm	1	\$262.76
LG-4564T-220	Coarse Frit	SJ 35/25	200mL	250mm	10.5mm	1	\$144.16
LG-4564T-222	Coarse Frit	SJ 35/25	250mL	250mm	14.5mm	1	\$150.72
LG-4564T-224	Coarse Frit	SJ 35/25	250mL	300mm	19mm	1	\$158.42
LG-4564T-226	Coarse Frit	SJ 35/25	300mL	350mm	22mm	1	\$170.17
LG-4564T-228	Coarse Frit	SJ 35/25	500mL	400mm	29.5mm	1	\$189.96
LG-4564T-230	Coarse Frit	SJ 35/25	500mL	300mm	41mm	1	\$208.24
LG-4564T-232	Coarse Frit	SJ 35/25	1000mL	300mm	49mm	1	\$266.00



Plain Chromatography Columns with Reservoir

These borosilicate glass chromatography columns have a reservoir at top with joint to accept #2 rubber stopper. The bottom has a 2mm straight bore stopcock with PTFE plug.

CATALOG NO.	RESERVOIR CAPACITY	I.D.	LENGTH	QUANTITY / PACK	PRICE
LG-4565T-102	250mL	14.5mm	250mm	1	\$113.37
LG-4565T-104	250mL	19mm	300mm	1	\$134.53
LG-4565T-106	300mL	22mm	350mm	1	\$137.58
LG-4565T-108	500mL	29.5mm	400mm	1	\$166.81



Plain Chromatography Columns

These borosilicate glass plain chromatography columns have a straight bore stopcock with PTFE plug.

CATALOG NO.	I.D.	LENGTH	STOPCOCK SIZE	QUANTITY / PACK	PRICE
LG-4566T-100	10.5mm	150mm	2mm	1	\$104.48
LG-4566T-104	10.5mm	250mm	2mm	1	\$104.48
LG-4566T-108	14.5mm	250mm	2mm	1	\$104.48
LG-4566T-114	19mm	250mm	2mm	1	\$116.22
LG-4566T-116	19mm	300mm	2mm	1	\$125.61
LG-4566T-118	19mm	500mm	2mm	1	\$128.50
LG-4566T-122	22mm	300mm	2mm	1	\$123.51
LG-4566T-126	22mm	500mm	2mm	1	\$137.03
LG-4566T-130	29.5mm	350mm	3mm	1	\$137.58
LG-4566T-140	34mm	500mm	3mm	1	\$176.73
LG-4566T-142	34mm	600mm	3mm	1	\$160.78



Chromatography Columns with Fritted Disc

These borosilicate glass plain chromatography columns have a coarse porosity fritted disc sealed into column just above straight bore stopcock with PTFE plug.

CATALOG NO.	I.D.	LENGTH	STOPCOCK SIZE	QUANTITY / PACK	PRICE
LG-4567T-100	10.5mm	150mm	2mm	1	\$118.50
LG-4567T-104	10.5mm	250mm	2mm	1	\$109.73
LG-4567T-106	14.5mm	200mm	2mm	1	\$118.50
LG-4567T-122	22mm	300mm	2mm	1	\$135.53
LG-4567T-124	22mm	350mm	2mm	1	\$138.02
LG-4567T-126	22mm	500mm	2mm	1	\$139.47
LG-4567T-130	29.5mm	350mm	3mm	1	\$148.76
LG-4567T-134	29.5mm	500mm	3mm	1	\$161.77
LG-4567T-140	34mm	500mm	3mm	1	\$176.64
LG-4567T-146	41mm	500mm	4mm	1	\$182.25
LG-4567T-148	41mm	600mm	4mm	1	\$192.43



Plain Chromatography Columns with Standard Taper Joint

These borosilicate glass plain chromatography columns have a Standard Taper 24/40 outer joint on top and a straight bore stopcock with PTFE plug at bottom.

CATALOG NO.	I.D.	LENGTH	QUANTITY / PACK	PRICE
LG-4568T-100	10.5mm	150mm	1	\$112.45
LG-4568T-102	10.5mm	200mm	1	\$104.14
LG-4568T-104	10.5mm	250mm	1	\$112.45
LG-4568T-108	14.5mm	250mm	1	\$104.14
LG-4568T-110	14.5mm	500mm	1	\$122.52
LG-4568T-114	19mm	250mm	1	\$139.04
LG-4568T-116	19mm	300mm	1	\$137.12
LG-4568T-118	19mm	500mm	1	\$130.53
LG-4568T-122	22mm	300mm	1	\$116.18
LG-4568T-124	22mm	350mm	1	\$119.96
LG-4568T-126	22mm	500mm	1	\$138.99
LG-4568T-132	29.5mm	400mm	1	\$145.04
LG-4568T-134	29.5mm	500mm	1	\$154.33
LG-4568T-136	29.5mm	600mm	1	\$155.27
LG-4568T-140	34mm	500mm	1	\$178.72
LG-4568T-142	34mm	600mm	1	\$184.20



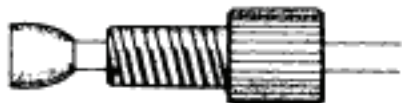
Chromatography Columns with Fritted Disc and Standard Taper Joint

These borosilicate glass plain chromatography columns have a Standard Taper 24/40 outer joint at top. A coarse porosity fritted disc is sealed into column just above straight bore stopcock with PTFE plug at bottom.

CATALOG NO.	I.D.	HEIGHT	STOPCOCK SIZE	QUANTITY / PACK	PRICE
LG-4569T-100	10.5mm	150mm	2mm	1	\$122.52
LG-4569T-102	10.5mm	200mm	2mm	1	\$113.45
LG-4569T-104	10.5mm	250mm	2mm	1	\$122.52
LG-4569T-106	14.5mm	200mm	2mm	1	\$113.45
LG-4569T-108	14.5mm	250mm	2mm	1	\$122.52
LG-4569T-110	14.5mm	500mm	2mm	1	\$122.69
LG-4569T-114	19mm	250mm	2mm	1	\$157.58
LG-4569T-116	19mm	300mm	2mm	1	\$166.84
LG-4569T-122	22mm	300mm	2mm	1	\$138.02
LG-4569T-124	22mm	350mm	2mm	1	\$138.01
LG-4569T-126	22mm	500mm	2mm	1	\$143.18
LG-4569T-130	29.5mm	350mm	3mm	1	\$162.84
LG-4569T-132	29.5mm	400mm	3mm	1	\$158.07
LG-4569T-134	29.5mm	500mm	3mm	1	\$165.49
LG-4569T-136	29.5mm	600mm	3mm	1	\$168.31
LG-4569T-140	34mm	500mm	3mm	1	\$192.65
LG-4569T-142	34mm	600mm	3mm	1	\$184.99
LG-4569T-152	44mm	500mm	4mm	1	\$199.88
LG-4569T-154	44mm	600mm	4mm	1	\$218.46
LG-4569T-155	49mm	250mm	4mm	1	\$239.53
LG-4569T-157	49mm	300mm	4mm	1	\$256.89
LG-4569T-158	49mm	600mm	4mm	1	\$267.76
LG-4569T-159	49mm	450mm	4mm	1	\$282.91
LG-4569T-162	49mm	1000mm	4mm	1	\$342.17
LG-4569T-170	64mm	250mm	4mm	1	\$258.60
LG-4569T-172	64mm	300mm	4mm	1	\$274.27
LG-4569T-174	64mm	450mm	4mm	1	\$319.39
LG-4569T-190	95mm	450mm	4mm	1	\$463.71
LG-4569T-192	95mm	600mm	4mm	1	\$547.31
LG-4569T-194	95mm	900mm	4mm	1	\$597.90
LG-4569T-196	95mm	1200mm	4mm	1	\$652.22

FITTINGS & ACCESSORIES

PEEK Nut for 1/8 in. OD Tubing



Due to the nature of glass, Extreme Caution should be exercised when using at elevated or reduced pressures as performance of tubes under pressure or vacuum cannot be guaranteed. Adequate safety shielding should always be used when working in these conditions.

NOTE: Precision Glass Barrel (Item QPV-B) is not sold separately.

Ferrules, Nuts, Tubing and Unions for Quick Pressure Valve (QPV) NMR Sample Tube

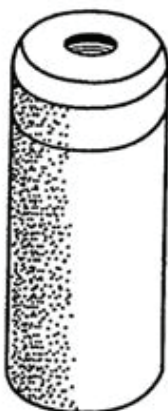
CATALOG NO.	DESCRIPTION	QUANTITY / PACK	PRICE
BP-1821-018	PEEK Nut 1/4-28 for 1/8" tubing	1	\$3.94

PEEK Union



This PEEK (polyether ether ketone) union is used for connecting 1/4"-28 fittings. Nuts and ferrules included.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1824-018	1	\$28.34



Stainless Steel Inlet Filters

Inlet solvent filters are economical and provide optimal protection by filtering solvents to prevent pump cavitation and other system component damage. Disposable filters are easy to replace - simply tighten by hand. Wetted parts are stainless steel and filters are ultra-high molecular weight polyethylene (UHMWPE).

Model BP-1916-000 has a 2µm porosity and is for 1/8" O.D. tubing. Approx. Dimensions: 1/2" Dia. x 1" Height.

Model 1916-621 has a 10µm porosity and comes with an ETFE fingertight fitting cap (male nut) with a 1/4-28 thread port configuration and is for 1/8"O.D. tubing.

CATALOG NO.	POROSITY	QUANTITY / PACK	PRICE
BP-1916-000	2µm	1	\$28.06
BP-1916-621	10µm	1	\$19.95



ETFE Vacuum Adapter

This ETFE (Ethylene Tetrafluoroethylene) TEFZEL® adapter is designed for use with 1/8" tubing. With a 1/4"-28 thread, it is equipped with a lock nut and screws directly into existing fitting caps.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1918-018	1	\$5.10



Polypropylene Vacuum Adapter

This polypropylene vacuum adapter is designed for use with 1/4" tubing. With a 1/4"-28 thread, it is equipped with a lock nut and screws directly into existing fitting caps.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1919-014	1	\$7.00

PEEK Tee



This PEEK (polyether ether ketone) three-port union is used for connecting 1/4"-28 fittings. Nuts and ferrules for 1/8" O.D. PTFE tubing included.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1926-018	1	\$37.98

PEEK Cross



This PEEK (polyether ether ketone) four-port union is used for connecting 1/4"-28 fittings. Nuts and ferrules for 1/8" O.D. PTFE tubing included.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1927-018	1	\$47.33

Tubing Cutter



This simple guillotine-style polymer tubing cutter provides flat 90-degree, burr-free cuts for flangeless fittings requiring leak-free seals. It has been designed specifically for cutting PTFE, PEEK, and ETFE tubing in either 1/8" or 1/6" O.D. sizes. Construction is durable, molded glass-filled nylon.

CATALOG NO.	QUANTITY / PACK	PRICE
BP-1928-100	1	\$25.86
BP-1928-001	5	\$6.72

FLASH RESERVOIRS



Flash Chromatography Reservoirs

Borosilicate glass reservoirs for containment of mobile phase when larger volumes are required to elute samples from flash chromatography column (see LG-4530). Upper outer joint connects to flow controller while lower inner connects with column.

NOTE: LG-4525 has Socket Joints and LG-4526 has Standard Taper joints.

CATALOG NO.	CAPACITY	JOINT	QUANTITY / PACK	PRICE
LG-4525-100	250mL	SJ 35/20	1	\$87.72
LG-4525-102	500mL	SJ 35/20	1	\$93.30
LG-4525-112	2000mL	SJ 50/30	1	\$188.83
LG-4526-102	250mL	ST 24/40	1	\$85.11
LG-4526-104	500mL	ST 24/40	1	\$99.61
LG-4526-106	1000mL	ST 24/40	1	\$102.63
LG-4526-108	2000mL	ST 24/40	1	\$131.35

FLOW CONTROL

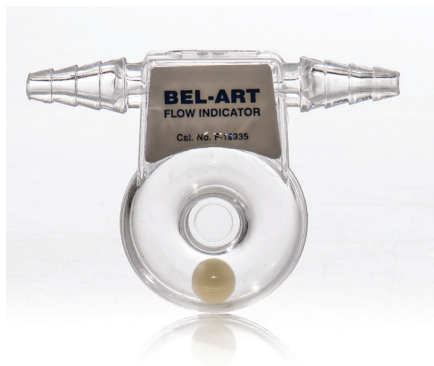


Flow Controller

These flow controllers control pressure applied to a reservoir or directly to a chromatography column. They are made of borosilicate glass and are designed to affect rapid separations in both analytical and preparative modes. PTFE valve and vent control pressure to reservoir/column. Top valve is 0-4mm.

CATALOG NO.	JOINT	QUANTITY / PACK	PRICE
LG-4520-100	SJ 35/20	1	\$144.39
LG-4520-102	SJ 50/30	1	\$162.99

FLOW CONTROL



Flow Indicator

A highly visible, nylon indicator ball housed in clear polycarbonate rotates in a circular channel during flow for simple flow monitoring.

- Continuity and relative flow rate indicated by speed of ball's rotation
- Arrow shows direction of flow
- A minimum water flow rate of 100/ml per minute in a horizontal position and 140ml per minute in a vertical position is required to mobilize the ball
- Upper flow limit is in excess of 1 liter/minute
- Maximum working pressure is 10 p.s.i.g. (69 kN/m²)
- Dimensions: 30 x 57mm (1¹/₅ x 2¹/₄") with two 23mm (0.9") long tube extensions
- Accepts 6.4mm (1/4") to 9.5mm (3/8") I.D. tubing
- Overall size: 76 x 57mm (3 x 2¹/₄")

CATALOG NO.	QUANTITY / PACK	PRICE
LG-9560T-100	1	\$26.34

TLC TANKS



Chromatography TLC Developing Tanks

These heavy wall cylindrical borosilicate glass chromatography tanks are supplied complete with Standard Taper ground glass stoppers. They are used in the development of TLC plates and can accommodate small (25mm x 75mm) to large (50mm x 200mm) size plates.

CATALOG NO.	DESCRIPTION	JOINT	FOR USE WITH PLATE SIZE (W x L)	QUANTITY / PACK	PRICE
LG-4595-096	Tank with Stopper	ST 34/12	25mm x 75mm	1	\$88.40
LG-4595-098	Tank with Stopper	ST 34/12	25mm x 100mm	1	\$116.07
LG-4595-100	Tank with Stopper	ST 60/21	50mm x 100mm	1	\$177.53
LG-4595-102	Tank with Stopper	ST 60/21	50mm x 200mm	1	\$215.61
LG-4595-106	Tank Only		25mm x 75mm	1	\$48.62
LG-4595-108	Tank Only		25mm x 100mm	1	\$84.39
LG-4595-110	Tank Only		50mm x 100mm	1	\$100.71
LG-4595-112	Tank Only		50mm x 200mm	1	\$144.87
LG-4595-118	Stopper Only	ST 34/12		1	\$40.44
LG-4595-120	Stopper Only	ST 60/21		1	\$69.56



Flat Bottom TLC Developing Tanks

These borosilicate glass cylindrical thin layer chromatography (TLC) developing chambers have flat bottoms and molded plastic caps.

CATALOG NO.	APPROX. O.D.	HEIGHT	FOR USE WITH PLATE SIZE (W x L)	QUANTITY / PACK	PRICE
LG-4597-098	42mm	95mm	25mm x 75mm	1	\$52.46
LG-4597-100	70mm	120mm	50mm x 100mm	1	\$71.87
LG-4597-102	70mm	220mm	50mm x 200mm	1	\$76.56

TLC SPRAYERS



Chromatography TLC Sprayers

When using thin layer or paper chromatography (TLC), these borosilicate glass atomizers are used for spraying chromogenic reagents. Complete unit consists of spray head, flask, and LG-1004 clamp. The air inlet tube has an opening to release pressure and stop spraying. All joints are Standard Taper 24/40.

CATALOG NO.	DESCRIPTION	CAPACITY	QUANTITY / PACK	PRICE
LG-4590-100	Complete Sprayer	125mL	1	\$154.68
LG-4590-102	Complete Sprayer	250mL	1	\$156.57
LG-4590-110	Flask	125mL	1	\$48.35
LG-4590-112	Flask	250mL	1	\$45.77
LG-4590-120	Sprayer Only	125mL	1	\$112.42
LG-4590-122	Sprayer Only	250mL	1	\$104.10