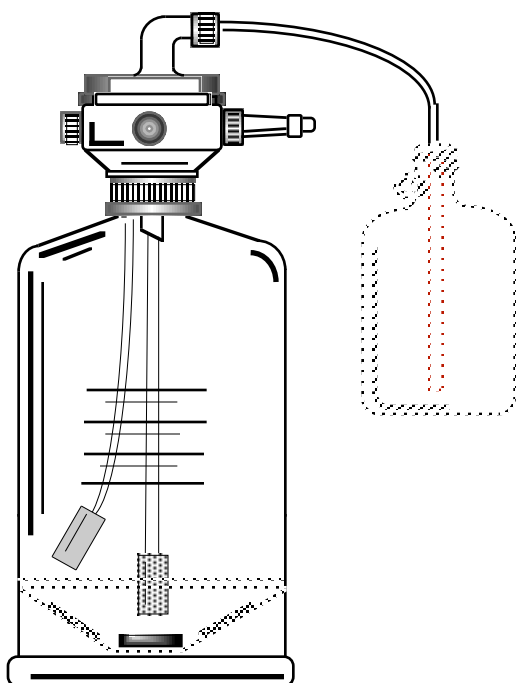


# HPLC Mobile Phase Handling Systems

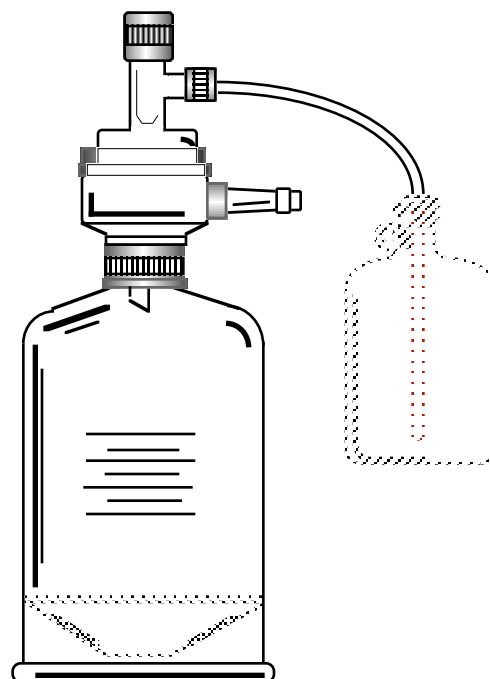
## Mobile Phase Handling Systems

- Economy
- 3 Hole, 3 Valve
- Integrated..... 4 Valve, 5 Valve
- THF Resistant

Integrated..Four and Five Valve System



Economy Systems



NDS Technologies, Inc  
891 E Oak Rd  
Vineland, NJ 08360  
Phone...856.691.0330 Fax.....856.696.3533  
email..jneill@ndstechnologiesinc.com

## Features

- **Safety Coated...Autoclavable PVC**
- **Protection For Light Sensitive Material to 385nm**
- **Specially designed valves and connections to assure leak free operation using (Helium)**
- **Easy assemble cap to reservoir assembly slides into valve to allow easy connection of bottom fittings**
- **Manufactured completely inert materials**
- **Special bottom profile to improve mixing**
- **Finger tip controls for easy precise controls**
- **Low profile minimizes chance of tipping**
- **Reference graduations..run time calculations**
- **NDS multipurpose reservoirs are designed for filtering, storing, mixing, helium and/or ultrasonic degassing**

O-Ring Solvent Compatibility Chart

R = Recommended		Viton...Elastomeric PTFE		NR = Not Recommended	
Solvent	Viton	PTFE	Solvent	Viton	PTFE
Acetic Anhydride	NR	R	Isopropyl	R	R
Acetone	NR	R	Methanol	R	R
Acetonitrile	R	R	Methyl Chloride	NR	R
Chloroform	NR	R	Tetrahydrofuran	NR	R
Ethyl Acetate	NR	R	Water	R	R

**2288- HPLC 5 VALVE CAP RECYCLING SYSTEM**

Same as system number 2280 except an additional port is added to the filtration inlet valve to allow mobile phase to be recycled back into the reservoir.

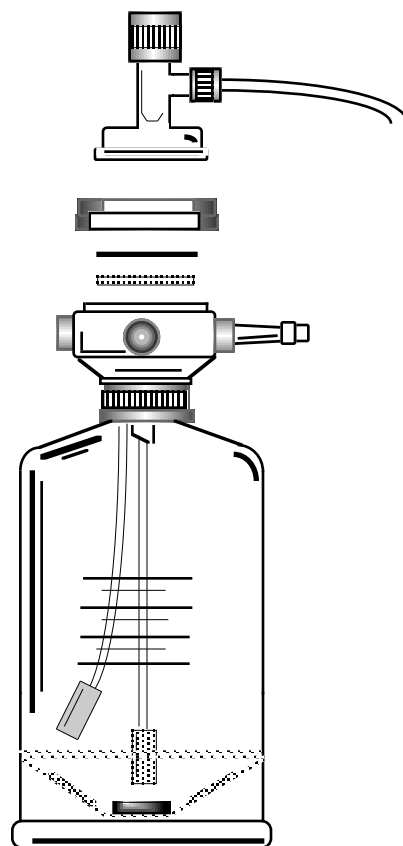
Five Valve Systems

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2288-02	250	75 x 285	<b>1010.00</b>
2288-04	500	90 x 300	<b>1035.00</b>
2288-06	1000	120 x 400	<b>1050.00</b>
2288-08	2000	150 x 450	<b>1115.00</b>
2288-10	5000	195 x 500	<b>1250.00</b>
2288-12	10000	240 x 595	<b>1625.00</b>
2288-14	20000	305 x 675	<b>2100.00</b>

**2288-System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi Performance HPLC Reservoir
2282-00	1	5 valve Cap..PTFE/Polypropylene O-rings
2264-00	1	Solvent Pickup Adapter with PTFE tubing
2216-02	10	1/4-28 nuts for 1/8" OD tubing
2218-02	10	Ferrules for 1/8" OD tubing
2290-02	1	Vacuum Adapter, 1/4-28 to 1/4" ID tubing
2240-10	10 ft	PTFE tubing, 1/8" OD
2248-02	2	2 Micron SS filters
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" tubing [for Water HPLC systems with 1/8' tubing]

2288  
2289



**2289- HPLC 5 VALVE CAP RECYCLING SYSTEM THF RESISTANT**

Same as system number 2280 except an additional port is added to the filtration inlet valve to allow mobile phase to be recycled back into the reservoir.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2289-02	250	75 x 285	<b>1525.00</b>
2289-04	500	90 x 300	<b>1540.00</b>
2289-06	1000	120 x 400	<b>1565.00</b>
2289-08	2000	150 x 450	<b>1625.00</b>
2289-10	5000	195 x 500	<b>1750.00</b>
2289-12	10000	240 x 595	<b>2230.00</b>
2289-14	20000	305 x 675	<b>2490.00</b>

**2289-System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi Performance HPLC Reservoir
2282-01	1	5 valve Cap..PTFE/ Chemraz O-rings
2264-00	1	Solvent Pickup Adapter with PTFE tubing
2216-02	10	1/4-28 nuts for 1/8" OD tubing
2218-02	10	Ferrules for 1/8" OD tubing
2290-02	1	Vacuum Adapter, 1/4-28 to 1/4" ID tubing
2240-10	10 ft	PTFE tubing, 1/8" OD
2248-02	2	2 Micron SS filters
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" tubing [for Water HPLC systems with 1/8' tubing]

**2280- HPLC FOUR VALVE CAP SYSTEM**

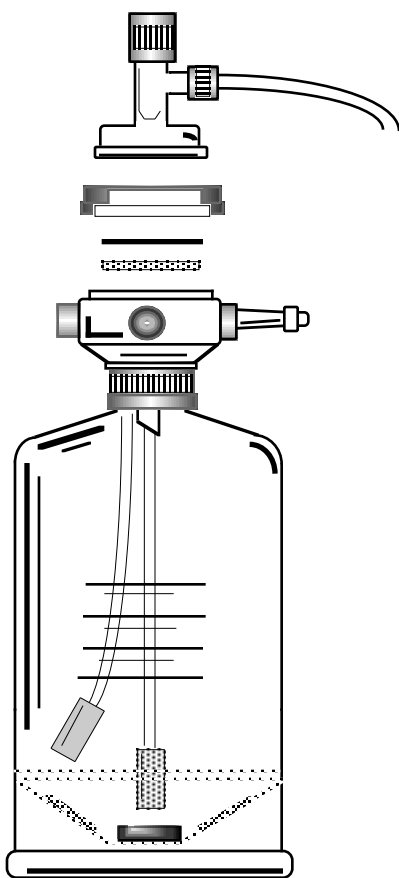
## Four Valve Systems

NDS integrated HPLC systems are the most advanced cost effective, safest systems available. A number of state of the art features are designed into all of our systems. This system is totally integrated and provides for total solvent preparation, handling and delivery without transfer or exposure to the atmosphere.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2280-02	250	75 x 285	<b>955.00</b>
2280-04	500	90 x 300	<b>980.00</b>
2280-06	1000	120 x 400	<b>995.00</b>
2280-08	2000	150 x 450	<b>1055.00</b>
2280-10	5000	195 x 500	<b>1195.00</b>
2280-12	10000	240 x 595	<b>1570.00</b>
2280-14	20000	305 x 675	<b>2040.00</b>

**2280-System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi Performance HPLC Reservoir
2281-00	1	4 valve Cap..PTFE/Polypropylene O-rings
2264-00	1	Solvent Pickup Adapter with PTFE tubing
2216-02	10	1/4-28 nuts for 1/8" OD tubing
2218-02	10	Ferrules for 1/8" OD tubing
2290-02	1	Vacuum Adapter, 1/4-28 to 1/4" ID tubing
2240-10	10 ft	PTFE tubing, 1/8" OD
2248-02	2	2 Micron SS filters
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" tubing [for Water HPLC systems with 1/8' tubing]



**2273**  
**2280**

**2273- HPLC FOUR VALVE CAP SYSTEM THF RESISTANT**

NDS integrated HPLC systems are the most advanced, cost effective, systems available. This system is totally integrated and allows for total solvent preparation, handling and delivery without transfer or exposure to the atmosphere.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2273-02	250	75 x 285	<b>1420.00</b>
2273-04	500	90 x 300	<b>1440.00</b>
2273-06	1000	120 x 400	<b>1470.00</b>
2273-08	2000	150 x 450	<b>1525.00</b>
2273-10	5000	195 x 500	<b>1640.00</b>
2273-12	10000	240 x 595	<b>2125.00</b>
2273-14	20000	305 x 675	<b>2380.00</b>

**2273-System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi Performance HPLC Reservoir
2281-01	1	4 valve Cap..Chemraz O-rings
2264-00	1	Solvent Pickup Adapter with PTFE tubing
2216-02	10	1/4-28 nuts for 1/8" OD tubing
2218-02	10	Ferrules for 1/8" OD tubing
2290-02	2	Vacuum Adapter, 1/4-28 to 1/4" ID tubing
2240-10	10 ft	PTFE tubing, 1/8" OD
2248-02	2	2 Micron SS filter
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" tubing [for Water HPLC systems with 1/8' tubing]

**2274- HPLC THREE VALVE CAP SYSTEM**

This NDS economy system is similar to the [2270]. A cap change is required between the filtration and sparge/delivery operations. Economics can be realized by using one Filtration cap [2667] with several NDS reservoirs.

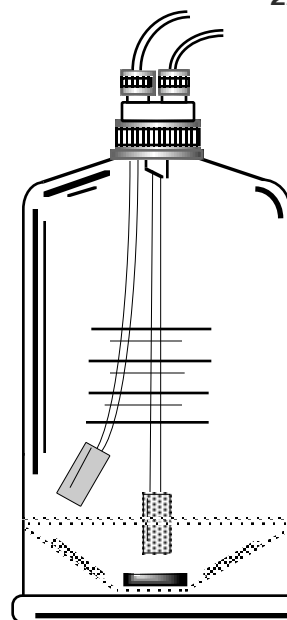
Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2274-02	250	75 x 285	<b>485.00</b>
2274-04	500	90 x 300	<b>495.00</b>
2274-06	1000	120 x 400	<b>535.00</b>
2274-08	2000	150 x 450	<b>610.00</b>
2274-10	5000	195 x 500	<b>745.00</b>
2274-12	10000	240 x 595	<b>1195.00</b>
2274-14	20000	305 x 675	<b>1645.00</b>

**2274- System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi-Performance HPLC Reservoir
2286-00	1	Three Valve Delivery Cap
2216-02	8	1/4-28 nuts for 1/8" tubing
2218-02	8	Ferrules for 1/8" OD tubing
2240-10	10 ft	PTFE tubing 1/8" OD
2248-02	2	2 Micron SS filters
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" ID tubing [for Waters systems with 1/8" tubing]

Three Valve Systems

**2272  
2274**



**2272- HPLC THREE VALVE CAP SYSTEM THF RESISTANT**

This NDS economy system is similar to the [2270] system except it is designed to resist attack from Tetrahydrofuran [THF] used as a mobile phase for GPC. A cap change is required between the filtration and sparge/delivery operations. Economics can be realized by using one Filtration cap [2667] with several NDS reservoirs.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2272-02	250	75 x 285	<b>940.00</b>
2272-04	500	90 x 300	<b>950.00</b>
2272-06	1000	120 x 400	<b>990.00</b>
2272-08	2000	150 x 450	<b>1060.00</b>
2272-10	5000	195 x 500	<b>1195.00</b>
2272-12	10000	240 x 595	<b>1610.00</b>
2272-14	20000	305 x 675	<b>2120.00</b>

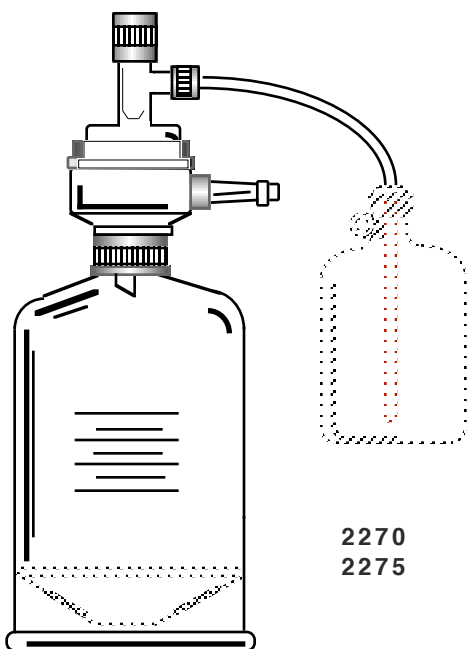
**2272- System Includes**

Article No.	Qty	Description
2260-02-14	1	Hi-Performance HPLC Reservoir
2286-01	1	Three Valve Delivery Cap, Chemraz o-rings
2216-02	8	1/4-28 nuts for 1/8" tubing
2218-02	8	Ferrules for 1/8" OD tubing
2240-10	10 ft	PTFE tubing 1/8" OD
2248-02	2	2 Micron SS filters
2295-02	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" ID tubing [for Waters systems with 1/8" tubing]

**2270- HPLC FILTRATION / DELIVERY SYSTEM**

NDS economy systems are designed to the same exacting performance standards as the integrated HPLC system with the major difference being a cap change is required between the filtration and sparge/delivery operations. Economics can be realized by using one Filtration cap [2667] with several NDS reservoirs.

## Filtration\Degassing Systems



Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2270-02	250	75 x 285	<b>830.00</b>
2270-04	500	90 x 300	<b>850.00</b>
2270-06	1000	120 x 400	<b>865.00</b>
2270-08	2000	150 x 450	<b>925.00</b>
2270-10	5000	195 x 500	<b>1040.00</b>
2270-12	10000	240 x 595	<b>1410.00</b>
2270-14	20000	305 x 675	<b>1835.00</b>

**2270- System Includes**

Article No.	Qty	Description
<b>2260-02-14</b>	1	Hi-Performance HPLC Reservoir
<b>2267-00</b>	1	Filtration/Degassing Cap
<b>2268-00</b>	1	Three Hole Delivery Cap
<b>2266-00</b>	1	Solvent Pickup Adapter
<b>2216-02</b>	4	1/4-28 nuts for 1/8" tubing
<b>2218-02</b>	4	Ferrules for 1/8" OD tubing
<b>2214-02</b>	3	1/4-28 solid plugs
<b>2240-10</b>	10 ft	PTFE tubing 1/8" OD
<b>2248-02</b>	2	2 Micron SS filters
<b>2295-02</b>	1	PTFE coated stirrer bar
<b>2220-02</b>	2	Adapter 1/4-28 to 1/8" ID tubing [for Waters systems with 1/8" tubing]

**2275- HPLC FILTRATION CAP SYSTEM**

This economy system is designed for the chromatographers who want the convenience of filtering directly into a HPLC reservoir but do not need the air tight cap system.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height [mm]	Price [ea]
2275-02	250	75 x 285	<b>510.00</b>
2275-04	500	90 x 300	<b>535.00</b>
2275-06	1000	120 x 400	<b>550.00</b>
2275-08	2000	150 x 450	<b>620.00</b>
2275-10	5000	195 x 500	<b>750.00</b>
2275-12	10000	240 x 595	<b>1170.00</b>
2275-14	20000	305 x 675	<b>1650.00</b>

**2275- System Includes**

Article No.	Qty	Description
2260-02-	1	Hi-Performance HPLC Reservoir
2267-00	1	Filtration/Degassing Cap
2266-00	1	Solvent Pickup Adapter
2295-02	1	PTFE coated stirrer bar

**2271- HPLC THREE HOLE CAP SYSTEM**

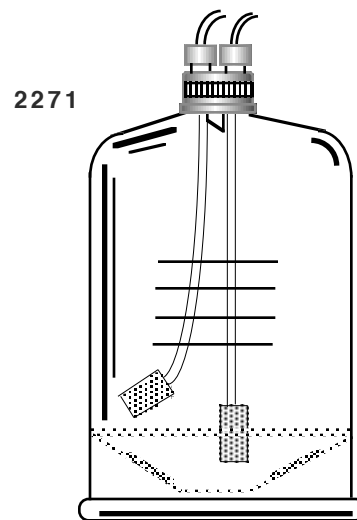
This economy system is designed to the same exacting performance standards as the integrated HPLC system for the chromatographers who want the convenience of filtering directly into an NDS HPLC reservoir but do not need the air tight cap system.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height	Price [ea]
2271-02	250	75 x 95	<b>320.00</b>
2271-04	500	90 x 110	<b>330.00</b>
2271-06	1000	120 x 260	<b>375.00</b>
2271-08	2000	150 x 340	<b>460.00</b>
2271-10	5000	195 x 400	<b>615.00</b>
2271-12	10000	240 x 465	<b>960.00</b>
2271-14	20000	305 x 560	<b>1380.00</b>

**2271 -System Includes**

Article No.	Qty	Description
2260-02-1	1	Hi Performance HPLC Reservoir
2268-00	1	Three Hole Delivery Cap
2216-02	4	1/4-28 nuts for 1/8" OD tubing
2218-02	4	Ferrules for 1/8" OD tubing
2214-02	3	1/4-28 solid plugs
2240-10	10 ft	PTFE tubing, 1/8" OD
2248-02	2	2 Micron SS Filters
2295-02/0	1	PTFE coated stirrer bar
2220-02	2	Adapter 1/4-28 to 1/8" tubing [for Water HPLC systems with 1/8" tubing]

Three Hole Systems



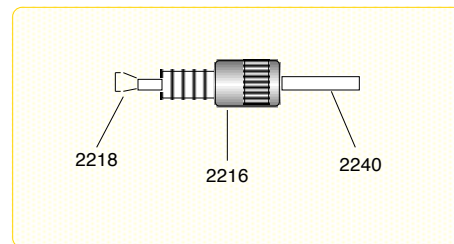
**2310- FITTING KIT for HPLC CAP SYSTEMS**

Kit provides a complete package of fittings, PTFE tubing required to set up several Mobile Phase Handling Systems.

Article No.	Description	Price [ea]
2310-00	Kit Complete	<b>290.00</b>

**2310- Kit Includes**

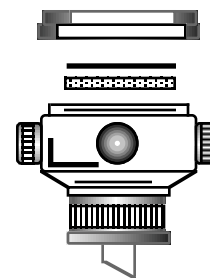
Article No.	Qty	Description
2216-02	20	1/4-28 nuts for 1/8" PTFE tubing
2218-02	20	Ferrules for 1/8" PTFE tubing
2240-02	10 ft	1/8" PTFE tubing
2290-02	1	Adapter, Vacuum 1/4" ID w 1/4-28 thread
2220-02	1	Adapter, connects 1/8" ID tubing to interface with Waters 1/8" ID PTFE tubing



**2281- CAP, FOUR VALVE FILTRATION / DELIVERY**

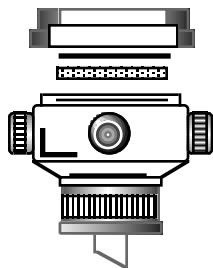
Four on-off valves [1] connects 47mm membrane filter to reservoir [2] pump valve controls reservoir to HPLC pump [3] sparge valve connects filter in reservoir to helium source. [4] vent/vacuum connects vacuum pump to reservoir and is open for reservoir evacuation and helium sparging and closed for helium blanketing. Valve body is glass filled PTFE and lower screw cap is 45mm .

Article No.	Description	Price [ea]
2281-00	Standard	<b>430.00</b>
2281-01	THF resistant	<b>775.00</b>



**2282- CAP, FIVE VALVE RECYCLING / FILTRATION**

Special cap has an additional valve incorporated in the filter valve that allows continuous recycling of mobile phase.

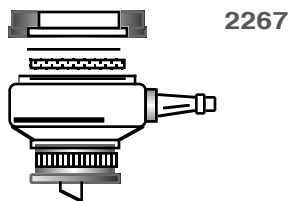


2282

Article No	Description	Price [ea]
2282-00	Standard	470.00
2282-01	THF resistant	850.00

**2267- CAP, FILTRATION**

Glass-filled PTFE construction with a quick turn cap to secure funnel or solvent pick-up adapter. Supplied complete with fritted glass membrane support.



2267

Article No	Filter Diameter	Price [ea]
2267-00	47mm	360.00
2283-90	90mm Conversion Base	240.00
4102-52	47mm Stainless Steel Support	140.00
4102-97	90mm Stainless Steel Support	265.00
4102-55	47mm Fritted Glass Support	32.85
4102-99	90mm Fritted Glass Support	75.20

**2268- CAP, THREE HOLE DELIVERY**

The three hole delivery cap has 3 holes with 1/4"-28 threads at the top for use with 1/8" OD tubing. No need to precut tubing to reach the reservoir bottom. Just a quick quarter turn of the lock nut (from outside the reservoir) allows positioning of PTFE tubing at any depth. Supplied with three special THF resistant 1/4"-28 solid plugs.



2268

Article No	Description	Price [ea]
2268-00	Three Hole Cap	135.00

**2286- CAP, THREE VALVE DELIVERY**

Cap has three independently operated on/off valves built in the cap.

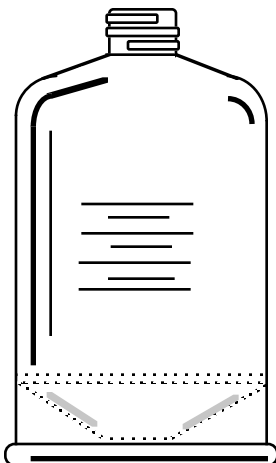


2286

Article No	O-Ring Compound	Price [ea]
2286-00	PTFE O-Rings	375.00
2286-01	THF resistant	610.00

**2260- RESERVOIR, CONICAL BOTTOM SAFETY COATED**

NDS HPLC reservoirs are designed to maximize solvent withdraw and mixing. The autoclavable **Safety** coating is standard. This coating will protect light sensitive mobile phases up to 385nm. Top thread is a heavy wall GL-45.



2260

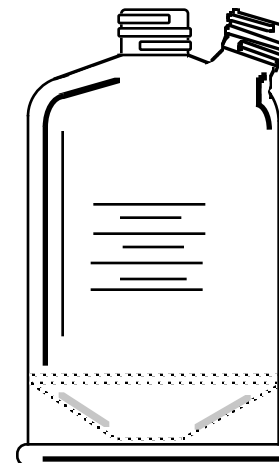
Article No.	Capacity [ml]	Approx. OAL Diameter x Height	Price [ea]
2260-02	250	75 x 115	100.00
2260-04	500	90 x 130	125.00
2260-06	1000	120 x 230	155.00
2260-08	2000	150 x 280	225.00
2260-10	5000	195 x 400	380.00
2260-12	10000	240 x 475	880.00
2260-14	20000	305 x 565	1440.00

### 2261- RESERVOIR, CONICAL BOTTOM SAFETY COATED with SIDE ARM

NDS HPLC reservoirs are designed to maximize solvent withdraw and mixing. Additional side neck allows addition of solvent with out removing delivery cap. The autoclavable **Safety** coating is standard. This coating will protect light sensitive mobile phases up to 385nm. Both threads are a heavy wall GL-45.

Article No.	Capacity [ml]	Approx. OAL Diameter x Height	Price [ea]
2261-06	1000	120 x 230	<b>305.00</b>
2261-08	2000	150 x 280	<b>325.00</b>
2261-10	5000	195 x 400	<b>480.00</b>
2261-12	10000	240 x 475	<b>850.00</b>
2261-14	20000	305 x 565	<b>1500.00</b>

2261



### 2248- INLET FILTER, STAINLESS STEEL

Filters connect directly to 1/8" PTFE tubing. The diameter is 6mm height 25mm

Article No	Description	Price [ea]
2248-02	2 Micron Filter 1/8" tubing	<b>76.40</b>
2248-04	10 Micron Filter 1/16" tubing	<b>72.30</b>

2248

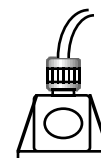


### 2249- INLET FILTER, LOW PROFILE BIOCOMPATIBLE

This special filter has filter cross section of 0.188" housed in a peek body. Easily connects to 1/8" PTFE tubing. Mobile phase is drawn up from bottom assuring maximum solvent use.

Article No	Description	Price [ea]
2249-00	10 micron filter	<b>36.15</b>

2249

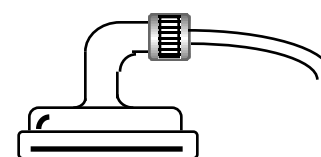


### 2264- ADAPTER, MOBILE PHASE PICKUP

This all glass adapter is designed specifically for use with the four valve Mobile Phase Filtration/ Delivery cap system. Because there is no need to purchase a solvent pickup adapter with a stopcock when using a four valve system you can save the added expense. This adapter holds a membrane filter securely in place while providing for continuous in-line filtration of mobile phase. Supplied complete with PTFE connector and 3' of 1/4" PTFE tubing.

Article No	Description	Price [ea]
2264-00	47mm Mobile Phase Pick up Adapter w/o Valve	<b>102.00</b>
2264-90	90mm Mobile Phase Pick up Adapter w/o Valve	<b>155.00</b>

2264

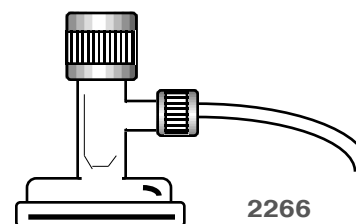


### 2266- ADAPTER, MOBILE PHASE PICKUP with VALVE

This all glass adapter is designed specifically for use with Mobile Phase Filtration/ Degassing cap and all 2282 and 2267 filtration caps. This adapter holds a membrane filter securely in place while providing for continuous in-line filtration of mobile phase. Supplied complete with PTFE connector and 3' of 1/4" PTFE tubing and 4mm PTFE stopcock.

Article No	Description	Price [ea]
2266-00	47mm Mobile Phase Pick up Adapter	<b>150.00</b>
2266-90	90mm Mobile Phase Pick up Adapter	<b>205.00</b>

2266



### 2295- STIRRER BAR, PTFE "Hi Vortex"

These special PTFE stirrers are designed to provide maximum stirring of mobile phase solvents with NDS mobile phase

Article No	Diameter	Reservoir Size [ml]	Price [ea]
2295-02	19 x 19	250-500	<b>18.55</b>
2295-04	32 x 32	1000-20000	<b>26.35</b>

2295



# Anatomy of a HPLC Reservoir

