

**CLOSED SYSTEMS** 

for SOLVENT CONTAINMENT

Vapor Handling Solutions for Fluid Delivery and Solvent Waste

міско**социми** www.coleparmer.com Cole-Parmer VALELCK

**Cole-Parmer® VAPLOCK™** products are a safety solution for scientists, chemical hygienists, and researchers worldwide, designed to ensure proper delivery and waste containment of industrial chemicals and solvents. A versatile product solution, Vaplock conforms to a broad spectrum of laboratory and industrial applications, useful wherever safety protocol for chemical handling is required or preferred, and through closed-system technology reduces harmful emissions which are potentially hazardous to employees and the environment. Our mission is to create a safer, healthier and cleaner workplace by providing unique, effective and price sensitive solutions to fluid handling problems in the laboratory.

### **Closed Systems Introduction**

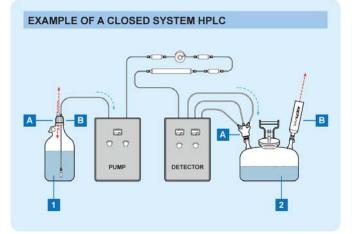
Through leaks, spills, and ventilation, an "open" solvent system will release chemical exhaust directly into the laboratory environment. This introduction may be reduced by adding several key components to the typical instrument. These items are:

**1A** a properly sealed solvent reservoir with secure fluid connections

**1B** a ventilation control valve at the solvent reservoir to displace vacuum while minimizing evaporation

2A a properly sealed solvent waste container with secure fluid connections

2B an exhaust filter at the waste container to capture escaping fumes.



#### 1A SOLVENT RESERVOIR FLUID CONNECTIONS

For a closed-system solvent reservoir, the container first requires a bottle cap with ports to fit the specific tubing sizes removing solvent from the bottle. Vaplock solvent caps provide versatile, leak-resistant connections where mobile phase tubing may be attached securely.

### 1B SOLVENT RESERVOIR VENTILATION CONTROL

In reservoirs where fluid is actively removed and no new solvent or gas pressure is simultaneously added, to complete the closed system the container requires a device to control solvent evaporation. With use of an automatic control valve, air may still enter the bottle as a pump moves the liquid phase out to the instrument. Vaplock solutions for closed-system solvent delivery includes both standalone vent control valves and built-in valved cap options.

#### 2A WASTE CONTAINER FLUID CONNECTIONS

Containers to collect solvent waste vary in size and in the specific means required to convert them to closed system. By selecting an appropriate container, waste may be sealed effectively, allowing effluent tubing to drain into the container without leaks or venting, forcing exhaust fumes through a single aperture where solvent vapors may be captured before entering the laboratory. Vaplock waste collection manifolds and kits are designed to conform to a wide range of common laboratory and industrial containers, with versatile connection types and a uniquely modular system allowing reconfiguration and addition of new manifold components as required.

#### 2B WASTE CONTAINER VENTILATION CONTROL

As solvents draining to waste may volatilize rapidly, the waste container can be the most significant generator of hazardous chemical vapor in an HPLC system. Available in several cartridge formats, Vaplock exhaust filters mitigate health hazards and reduce harmful chemical emissions and odors from laboratory waste containers. Developed and tested specifically for HPLC organic solvents, they may be used in conjunction with Vaplock breakthrough color indicators to determine longevity and establish a replacement schedule.









# **GL45 CAP WITH STAINLESS THREAD INSERT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### **Durable Port Threads**

Designed to accept industry-standard 1/4-28 threaded fittings, these caps include robust stainless steel thread inserts to minimize cross-threading and damage to soft PTFE ports. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-00	BOTTLE CAP, GL45, (2) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(2) 1/4-28	PTFE, PP, SS
VN-12018-01	BOTTLE CAP, GL45, (3) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(3) 1/4-28	PTFE, PP, SS
VN-12018-02	BOTTLE CAP, GL45, (4) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(4) 1/4-28	PTFE, PP, SS









# **GL45 CAP WITH THREADED PORT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-03	BOTTLE CAP, GL45, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-04	BOTTLE CAP, GL45, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP
VN-12018-05	BOTTLE CAP, GL45, (4) 1/4-28 ports, PTFE with PP collar.	(4) 1/4-28	PTFE, PP





### **GL45 CAP WITH INTEGRATED AIR INLET VALVE**

### **Closed System Design**

Reduce exposure to hazardous chemical vapors with Vaplock solvent reservoir caps. Minimizing evaporation, an integrated check valve permits air to enter the bottle for vacuum displacement while solvent is pumped to the instrument. A 50µm PTFE Filter covers the valve assembly to reduce particulates.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. The air inlet valve is assembled with PTFE and 300-series stainless steel components, with Viton, inert FFKM, or white USP class VI EPDM seal options. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

### **Solvent Bottle Caps**

Catalog Number	Description	# Ports	Valve Seal Material
VN-12018-08	BOTTLE CAP, GL45, (2) 1/4-28 ports, PTFE with yellow PP collar, FFKM air inlet valve.	(2) 1/4-28	FFKM
VN-12018-06	BOTTLE CAP, GL45, (2) 1/4-28 ports, PTFE with green PP collar, EPDM air inlet valve.	(2) 1/4-28	EPDM
VN-12018-10	BOTTLE CAP, GL45, (2) 1/4-28 ports, PTFE with blue PP collar, Viton air inlet valve.	(2) 1/4-28	Viton
VN-12018-09	BOTTLE CAP, GL45, (4) 1/4-28 ports, PTFE with yellow PP collar, FFKM air inlet valve.	(4) 1/4-28	FFKM
VN-12018-07	BOTTLE CAP, GL45, (4) 1/4-28 ports, PTFE with green PP collar, EPDM air inlet valve.	(4) 1/4-28	EPDM
VN-12018-11	BOTTLE CAP, GL45, (4) 1/4-28 ports, PTFE with blue PP collar, Viton air inlet valve.	(4) 1/4-28	Viton
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12018-12



12018-13



12018-14

# **GL38 CAP WITH STAINLESS THREAD INSERT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### **Durable Port Threads**

Designed to accept industry-standard 1/4-28 threaded fittings, these caps include robust stainless steel thread inserts to minimize cross-threading and damage to soft PTFE ports. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-12	BOTTLE CAP, GL38, (2) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(2) 1/4-28	PTFE, PP, SS
VN-12018-13	BOTTLE CAP, GL38, (3) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(3) 1/4-28	PTFE, PP, SS
VN-12018-14	BOTTLE CAP, GL38, (4) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(4) 1/4-28	PTFE, PP, SS





12018-15



12018-16



12018-17

# **GL38 CAP WITH THREADED PORT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-15	BOTTLE CAP, GL38, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-16	BOTTLE CAP, GL38, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP
VN-12018-17	BOTTLE CAP, GL38, (4) 1/4-28 ports, PTFE with PP collar.	(4) 1/4-28	PTFE, PP





### **GL38 CAP WITH INTEGRATED AIR INLET VALVE**

### **Closed System Design**

Reduce exposure to hazardous chemical vapors with Vaplock solvent reservoir caps. Minimizing evaporation, an integrated check valve permits air to enter the bottle for vacuum displacement while solvent is pumped to the instrument. A 50µm PTFE Filter covers the valve assembly to reduce particulates.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. The air inlet valve is assembled with PTFE and 300-series stainless steel components, with Viton, inert FFKM, or white USP class VI EPDM seal options. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Valve Seal Material
VN-12018-18	BOTTLE CAP, GL38, (2) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(2) 1/4-28	FFKM
VN-12018-19	BOTTLE CAP, GL38, (2) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(2) 1/4-28	EPDM
VN-12018-20	BOTTLE CAP, GL38, (2) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(2) 1/4-28	Viton
VN-12018-21	BOTTLE CAP, GL38, (4) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(4) 1/4-28	FFKM
VN-12018-22	BOTTLE CAP, GL38, (4) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(4) 1/4-28	EPDM
VN-12018-23	BOTTLE CAP, GL38, (4) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(4) 1/4-28	Viton









# THERMO SCIENTIFIC NALGENE™ 38-430 CAP WITH STAINLESS THREAD INSERT

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### **Durable Port Threads**

Designed to accept industry-standard 1/4-28 threaded fittings, these caps include robust stainless steel thread inserts to minimize cross-threading and damage to soft PTFE ports. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-24	BOTTLE CAP, for Nalgene 38-430, (2) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(2) 1/4-28	PTFE, PP, SS
VN-12018-25	BOTTLE CAP, for Nalgene 38-430, (3) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(3) 1/4-28	PTFE, PP, SS
VN-12018-26	BOTTLE CAP, for Nalgene 38-430, (4) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(4) 1/4-28	PTFE, PP, SS









### THERMO SCIENTIFIC NALGENE™ 38-430 CAP WITH THREADED PORT

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-27	BOTTLE CAP, for Nalgene 38-430, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-28	BOTTLE CAP, for Nalgene 38-430, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP
VN-12018-29	BOTTLE CAP, for Nalgene 38-430, (4) 1/4-28 ports, PTFE with PP collar.	(4) 1/4-28	PTFE, PP





### **Closed System Design**

**INTEGRATED AIR INLET VALVE** 

Reduce exposure to hazardous chemical vapors with Vaplock solvent reservoir caps. Minimizing evaporation, an integrated check valve permits air to enter the bottle for vacuum displacement while solvent is pumped to the instrument. A 50µm PTFE Filter covers the valve assembly to reduce particulates.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. The air inlet valve is assembled with PTFE and 300-series stainless steel components, with Viton, inert FFKM, or white USP class VI EPDM seal options. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

### **Solvent Bottle Caps**

Catalog Number	Description	# Ports	Valve Seal Material
VN-12018-32	BOTTLE CAP, for Nalgene 38-430, (2) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(2) 1/4-28	FFKM
VN-12018-30	BOTTLE CAP, for Nalgene 38-430, (2) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(2) 1/4-28	EPDM
VN-12018-34	BOTTLE CAP, for Nalgene 38-430, (2) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(2) 1/4-28	Viton
VN-12018-33	BOTTLE CAP, for Nalgene 38-430, (4) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(4) 1/4-28	FFKM
VN-12018-31	BOTTLE CAP, for Nalgene 38-430, (4) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(4) 1/4-28	EPDM
VN-12018-35	BOTTLE CAP, for Nalgene 38-430, (4) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(4) 1/4-28	Viton
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# **38mm-WAKO CAP WITH STAINLESS THREAD INSERT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### **Durable Port Threads**

Designed to accept industry-standard 1/4-28 threaded fittings, these caps include robust stainless steel thread inserts to minimize cross-threading and damage to soft PTFE ports. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-36	BOTTLE CAP, for Wako 38mm, (2) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(2) 1/4-28	PTFE, PP, SS
VN-12018-37	BOTTLE CAP, for Wako 38mm, (3) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(3) 1/4-28	PTFE, PP, SS
VN-12018-38	BOTTLE CAP, for Wako 38mm, (4) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(4) 1/4-28	PTFE, PP, SS











# **38mm-WAKO CAP WITH THREADED PORT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-39	BOTTLE CAP, for Wako 38mm, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-40	BOTTLE CAP, for Wako 38mm, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP
VN-12018-41	BOTTLE CAP, for Wako 38mm, (4) 1/4-28 ports, PTFE with PP collar.	(4) 1/4-28	PTFE, PP





### **38mm-WAKO WITH INTEGRATED AIR INLET VALVE**

### **Closed System Design**

Reduce exposure to hazardous chemical vapors with Vaplock solvent reservoir caps. Minimizing evaporation, an integrated check valve permits air to enter the bottle for vacuum displacement while solvent is pumped to the instrument. A 50µm PTFE Filter covers the valve assembly to reduce particulates.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. The air inlet valve is assembled with PTFE and 300-series stainless steel components, with Viton, inert FFKM, or white USP class VI EPDM seal options. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Valve Seal Material
VN-12018-44	BOTTLE CAP, for Wako 38mm, (2) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(2) 1/4-28	FFKM
VN-12018-42	BOTTLE CAP, for Wako 38mm, (2) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(2) 1/4-28	EPDM
VN-12018-46	BOTTLE CAP, for Wako 38mm, (2) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(2) 1/4-28	Viton
VN-12018-45	BOTTLE CAP, for Wako 38mm, (4) 1/4-28 ports, PTFE with PP collar, FFKM air inlet valve.	(4) 1/4-28	FFKM
VN-12018-43	BOTTLE CAP, for Wako 38mm, (4) 1/4-28 ports, PTFE with PP collar, EPDM air inlet valve.	(4) 1/4-28	EPDM
VN-12018-47	BOTTLE CAP, for Wako 38mm, (4) 1/4-28 ports, PTFE with PP collar, Viton air inlet valve.	(4) 1/4-28	Viton









# **GL32 CAP WITH STAINLESS THREAD INSERT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### **Durable Port Threads**

Designed to accept industry-standard 1/4-28 threaded fittings, these caps include robust stainless steel thread inserts to minimize cross-threading and damage to soft PTFE ports. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-48	BOTTLE CAP, GL32, (2) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(2) 1/4-28	PTFE, PP, SS
VN-12018-49	BOTTLE CAP, GL32, (3) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(3) 1/4-28	PTFE, PP, SS
VN-12018-50	BOTTLE CAP, GL32, (4) 1/4-28 ports with stainless steel thread inserts, PTFE with PP collar.	(4) 1/4-28	PTFE, PP, SS









# **GL32 CAP WITH THREADED PORT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-51	BOTTLE CAP, GL32, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-52	BOTTLE CAP, GL32, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP
VN-12018-53	BOTTLE CAP, GL32, (4) 1/4-28 ports, PTFE with PP collar.	(4) 1/4-28	PTFE, PP







# **GL25 CAP WITH THREADED PORT**

### **Closed System Design**

Reduce chemical evaporation and exposure to hazardous vapors with Vaplock solvent reservoir caps. Combine with secure fluid connections and Vaplock air inlet or relief valves to maintain pressure equilibrium within the bottle.

### 1/4-28 Port Threads

Designed to accept industry-standard 1/4-28 threaded fittings. For use with semi-rigid tubing equal to or less than 1/8" (3.2mm) outside diameter. Ports are angled 10° for more accessible tubing connections.

### **Anti-Twist Design**

To prevent twisting of tubing when the cap is removed or attached, the inner body rotates independently of the outer collar.

### **Chemically Compatible**

Constructed of inert PTFE, the body of the cap provides ideal chemical compatibility with laboratory solvents. Under normal use, the outer Polypropylene collar is non-wetted. Caps may be autoclaved to 140°C. Please inquire for other material options and custom designs.

Catalog Number	Description	# Ports	Materials
VN-12018-54	BOTTLE CAP, GL25, (2) 1/4-28 ports, PTFE with PP collar.	(2) 1/4-28	PTFE, PP
VN-12018-55	BOTTLE CAP, GL25, (3) 1/4-28 ports, PTFE with PP collar.	(3) 1/4-28	PTFE, PP

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12018-58

# **GL38** WASTE CAPS

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard GL38 threaded lab bottles.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-59	WASTE MANIFOLD for GL38 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-61	WASTE MANIFOLD for GL38 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-58	WASTE MANIFOLD for GL38 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl- ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12018-60	WASTE MANIFOLD for GL38 threaded container, 10-port with (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



### Cole-Parmer V/J/PL

VAPLE

# **GL38 WASTE KITS**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold

- (3) 1/4" NPT Polypropylene Plugs
- (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs
- (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug
- (1) Organic Vapor Filter
- (2) 2.2mm OD hard wall tubing connections
- (1) 2.5mm OD hard wall tubing connection
- (3) 1/8" OD hard wall tubing connections
- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene
- (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing
- (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene
- (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12018-56	HPLC WASTE ACCESSORY KIT for GL38 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
VN-12018-57	HPLC WASTE ACCESSORY KIT for GL38 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

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12018-56

Waste Kits

Cole-Parmer VALE CLOSED SYSTEMS



12018-64



# THERMO SCIENTIFIC NALGENE™ 38-430 WASTE CAPS

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard plastic 38-430 threaded lab bottles.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-65	WASTE MANIFOLD for Nalgene 38-430 threaded container, 4-port with (3) 1/4″ NPT, (1) 1/2″ NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-67	WASTE MANIFOLD for Nalgene 38-430 threaded con- tainer, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-64	WASTE MANIFOLD for Nalgene 38-430 threaded container, 10-port with (1) 1/2″ NPT, (3) 1/4″ NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
	VN-12018-66	WASTE MANIFOLD for Nalgene 38-430 threaded container, 10-port with (1) 1/2″ NPT, (3) 1/4″ NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Cole-Parmer V/A/FLCCOSED SYSTEMS

VAPLE

### THERMO SCIENTIFIC NALGENE™ 38-430 WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams

### **Kit Contents**

10-port Waste Manifold
(3) ¼" NPT Polypropylene Plugs
(6) ¼-28 PTFE Plugs
(1) ½ NPT Polypropylene Plug
(1) 0rganic Vapor Filter
(2) 2.2mm OD hard wall tubing connections
(1) 2.5mm OD hard wall tubing connections
(2) 1/16" OD hard wall tubing connections
(3) 1/8" OD hard wall tubing connections
(2) 1/16" OD hard wall tubing connections
(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12018-62	HPLC WASTE ACCESSORY KIT for Nalgene 38-430 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	
VN-12018-63	HPLC WASTE ACCESSORY KIT for Nalgene 38-430 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

### Waste Kits

Cole-Parmer VALPLECOSED SYSTEMS



12018-70



12018-71

### WAKO 38mm WASTE CAPS

### **Vapor Tight Connection**

Waste manifolds are designed to fit Wako 38mm threaded lab bottles.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

<	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-71	WASTE MANIFOLD for Wako 38mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-73	WASTE MANIFOLD for Wako 38mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-70	WASTE MANIFOLD for Wako 38mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
	VN-12018-72	WASTE MANIFOLD for Wako 38mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE





VAPLE

# WAKO 38mm WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold (3) ¼" NPT Polypropylene Plugs

(6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs

(1) ½ NPT Polypropylene Plug

(1) Organic Vapor Filter

(2) 2.2mm OD hard wall tubing connections

(1) 2.5mm OD hard wall tubing connection

(3) 1/8" OD hard wall tubing connections

(2) 1/16" OD hard wall tubing connections

(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene

(1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12018-68	HPLC WASTE ACCESSORY KIT for Wako 38mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP	W
VN-12018-69	HPLC WASTE ACCESSORY KIT for Wako 38mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

### Waste Kits

Cole-Parmer VALELCOSED SYSTEMS



12018-76



12018-77

### **GL45 WASTE CAPS**

#### **Vapor Tight Connection**

Waste manifolds are designed to fit standard GL45 threaded lab bottles.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-79	WASTE MANIFOLD for GL45 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-76	WASTE MANIFOLD for GL45 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-78	WASTE MANIFOLD for GL45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl-ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
	VN-12018-74	WASTE MANIFOLD for GL45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Cole-Parmer Var Locates

VAPLE

# **GL45 WASTE KITS**

Cole-Parmer® Vaplock™ Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock™ kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock™ products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold (3) ¼" NPT Polypropylene Plugs

(6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs

(1) ½ NPT Polypropylene Plug

(1) Organic Vapor Filter

(2) 2.2mm OD hard wall tubing connections

(1) 2.5mm OD hard wall tubing connection

(3) 1/8" OD hard wall tubing connections

- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene

(1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12018-75	HPLC WASTE ACCESSORY KIT for GL45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12018-75	HPLC WASTE ACCESSORY KIT for GL45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Waste Kits

Cole-Parmer VALLE



12018-82



12018-83

### **DIN 45 WASTE CAPS**

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard DIN 45 threaded lab bottles.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-83	WASTE MANIFOLD for DIN 45 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-85	WASTE MANIFOLD for DIN 45 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-82	WASTE MANIFOLD for DIN 45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12018-84	WASTE MANIFOLD for DIN 45 threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Cole-Parmer V/A/PLECOSED SYSTEMS

VAPLE

# **DIN 45 WASTE KITS**

Cole-Parmer® Vaplock™ Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock™ kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock™ products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold (3) ¼″ NPT Polypropylene Plugs

(6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs

(1) 1/2 NPT Polypropylene Plug

(1) Organic Vapor Filter

(2) 2.2mm OD hard wall tubing connections

(1) 2.5mm OD hard wall tubing connection

(3) 1/8" OD hard wall tubing connections

- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene

(1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12018-80	HPLC WASTE ACCESSORY KIT for DIN 45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
VN-12018-81	HPLC WASTE ACCESSORY KIT for DIN 45 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

Waste Kits

Cole-Parmer VALPLECOSED SYSTEMS



12018-88



12018-89

### **DIN 50 WASTE CAPS**

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard DIN 50 threaded lab bottles.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-89	WASTE MANIFOLD for DIN 50 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-91	WASTE MANIFOLD for DIN 50 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-88	WASTE MANIFOLD for DIN 50 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
	VN-12018-90	WASTE MANIFOLD for DIN 50 threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE





# **DIN 50 WASTE KITS**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock™ kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock™ products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** VAPL 10-port Waste Manifold (3) <sup>1</sup>/<sub>4</sub>" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12018-86	HPLC WASTE ACCESSORY KIT for DIN 50 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	
VN-12018-87	HPLC WASTE ACCESSORY KIT for DIN 50 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

### Waste Kits

Cole-Parmer V/J/J/J/L



12018-94



12018-95

### **51mm WASTE CAPS**

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard 51mm threaded lab bottles.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12018-95	WASTE MANIFOLD for 51mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12018-97	WASTE MANIFOLD for 51mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12018-94	WASTE MANIFOLD for 51mm threaded container, 10-port with (3) 1/4" NPT, (1) 1/2" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12018-96	WASTE MANIFOLD for 51mm threaded container, 10- port with (3) 1/4" NPT, (1) 1/2" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



### Cole-Parmer V/A/PLECOSED SYSTEMS

# **51mm WASTE KITS**

Cole-Parmer® Vaplock™ Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock™ kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock™ products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold (3) ¼" NPT Polypropylene Plugs (6) ¼-28 PTFE Plugs (1) ½ NPT Polypropylene Plug

- (1) Organic Vapor Filter
- (2) 2.2mm OD hard wall tubing connections
- (1) 2.5mm OD hard wall tubing connection
- (3) 1/8" OD hard wall tubing connections
- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene
- (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing
- (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene
- (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12018-92	HPLC WASTE ACCESSORY KIT for 51mm threaded container, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
VN-12018-93	HPLC WASTE ACCESSORY KIT for 51mm threaded container, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

Waste Kits

Cole-Parmer VALLECOSED SYSTEMS



12019-00



### THERMO SCIENTIFIC NALGENE™ 53B WASTE CAPS

Vapor Tight Connection

Waste manifolds are designed to fit standard 53B threaded lab bottles.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-01	WASTE MANIFOLD for 53B threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-03	WASTE MANIFOLD for 53B threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-00	WASTE MANIFOLD for 53Bthreaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl- ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-02	WASTE MANIFOLD for 53Bthreaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Cole-Parmer V/J/J/J/

VAPL

### THERMO SCIENTIFIC NALGENE™ 53B WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### Kit Contents

10-port Waste Manifold

- (3) ¼" NPT Polypropylene Plugs
- (6) ¼-28 PTFE Plugs
- (1) 1/2 NPT Polypropylene Plug
- (1) Organic Vapor Filter
- (2) 2.2mm OD hard wall tubing connections
- (1) 2.5mm OD hard wall tubing connection
- (3) 1/8" OD hard wall tubing connections
- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene
- (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing
- (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene
- (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12018-98	HPLC WASTE ACCESSORY KIT for 53B threaded contain- er, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	Waste Kits
VN-12018-99	HPLC WASTE ACCESSORY KIT for 53B threaded contain- er, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

Cole-Parmer V/J/J/



12019-06

# **DIN 60 WASTE CAPS**

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard DIN 60 threaded containers.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-07	WASTE MANIFOLD for DIN 60 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-09	WASTE MANIFOLD for DIN 60 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-06	WASTE MANIFOLD for DIN 60 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-08	WASTE MANIFOLD for DIN 60 threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE





# **DIN 60 WASTE KITS**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** 10-port Waste Manifold (3) <sup>1</sup>/<sub>4</sub>" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) 1/2 NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-04 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-04	HPLC WASTE ACCESSORY KIT for DIN 60 threaded container, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-05	HPLC WASTE ACCESSORY KIT for DIN 60 threaded container, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

Waste Kits

Cole-Parmer VALLECTOSED SYSTEMS



12019-12

### **61mm WASTE CAPS**

### **Vapor Tight Connection**

Waste manifolds are designed to fit standard 61mm threaded containers.

### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
•	VN-12019-13	WASTE MANIFOLD for 61mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PP Manifold	(3) 1/4 NPT (1) 1/2 NPT	PP
	VN-12019-15	WASTE MANIFOLD for 61mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-12	WASTE MANIFOLD for 61mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	12019-14	WASTE MANIFOLD for 61mm threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



12019-13

**Manifold Caps** 



## **61mm WASTE KITS**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** VAPL 10-port Waste Manifold (3) 1/4" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-10 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

l	Catalog Number	Description	# Ports	Manifold Material	
	VN-12019-10	HPLC WASTE ACCESSORY KIT for 61mm threaded container, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	Waste Kits
	VN-12019-11	HPLC WASTE ACCESSORY KIT for 61mm threaded container, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

Cole-Parmer VALECOSEDSYSTEMS



12019-18



12019-19

## 63mm WASTE CAPS (RIEKE/NOWPAK)

#### **Vapor Tight Connection**

Waste manifolds are designed to fit standard 63mm threads, including Rieke and Nowpak. Note: Some 63mm industrial threads differ. Please contact us regarding your particular container requirements.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-19	WASTE MANIFOLD for 63mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PP Manifold	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-21	WASTE MANIFOLD for 63mm threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-18	WASTE MANIFOLD for 63mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-20	WASTE MANIFOLD for 63mm threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



## **63mm WASTE KITS (RIEKE/NOWPAK)**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** VAPL 10-port Waste Manifold (3) 1/4" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-16 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12019-16	HPLC WASTE ACCESSORY KIT for 63mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	
VN-12019-17	HPLC WASTE ACCESSORY KIT for 63mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

#### **Waste Kits**

Cole-Parmer VALELESSED SYSTEMS



#### 12019-24

## 70mm WASTE CAPS (8TPI RIEKE/HEDWIN)

#### **Vapor Tight Connection**

Waste manifolds are designed to fit standard 70mm 8TPI threaded containers. Note: Please enquire for 70mm 6TPI options.



12019-25

**Manifold Caps** 

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with HDPE spin collar.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

Catalog Number	Description	# Ports	Manifold Material
VN-12019-25	WASTE MANIFOLD for 70mm threaded Hedwin/ Rieke container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
VN-12019-27	WASTE MANIFOLD for 70mm threaded Hedwin/Rieke container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
VN-12019-24	WASTE MANIFOLD for 70mm threaded Hedwin/Rieke container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-26	WASTE MANIFOLD for 70mm threaded Hedwin/Rieke container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



## 70mm WASTE CAPS (8TPI RIEKE/HEDWIN)

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** VAPL 10-port Waste Manifold (3) 1/4" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-22 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12019-22	HPLC WASTE ACCESSORY KIT for 70mm threaded container, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP	Waste Kits
VN-12019-23	HPLC WASTE ACCESSORY KIT for 70mm threaded container, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

Cole-Parmer VALLECOSED SYSTEMS



12019-30

### 70mm WASTE CAPS (THERMO SCIENTIFIC NALGENE™)

**Vapor Tight Connection** 

Waste manifolds are designed to fit standard 70mm Nalgene lab containers.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-31	WASTE MANIFOLD for 70mm threaded Nalgene con- tainer, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypro- pylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-33	WASTE MANIFOLD for 70mm threaded Nalgene con- tainer, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-30	WASTE MANIFOLD for 70mm threaded Nalgene container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-32	WASTE MANIFOLD for 70mm threaded Nalgene container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



12019-31

### Cole-Parmer V/A/PLECOSEDSYSTEMS

### 70mm WASTE KITS (THERMO SCIENTIFIC NALGENE™)

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- · Collect solvent waste from multiple effluent streams

#### **Kit Contents**

10-port Waste Manifold
(3) ¼" NPT Polypropylene Plugs
(6) ¼-28 PTFE Plugs
(1) ½ NPT Polypropylene Plug
(1) Organic Vapor Filter
(2) 2.2mm OD hard wall tubing connections
(1) 2.5mm OD hard wall tubing connections
(2) 1/16" OD hard wall tubing connections
(3) 1/8" OD hard wall tubing connections
(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene
(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-28	HPLC WASTE ACCESSORY KIT for 70mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-29	HPLC WASTE ACCESSORY KIT for 70mm threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

#### **Waste Kits**

12019-28

Cole-Parmer VALLE



#### 12019-36



12019-37

## **GL80** WASTE CAPS

#### **Vapor Tight Connection**

Waste manifolds are designed to fit standard GL80 threaded containers.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-37	WASTE MANIFOLD for GL80 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-39	WASTE MANIFOLD for GL80 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-36	WASTE MANIFOLD for GL80 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl- ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-38	WASTE MANIFOLD for GL80 threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### 44 WASTE

### Cole-Parmer Var Locase Systems

## **GL80 WASTE KITS**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** 10-port Waste Manifold (3) <sup>1</sup>/<sub>4</sub>" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-34 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-34	HPLC WASTE ACCESSORY KIT for GL80 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
VN-12019-35	HPLC WASTE ACCESSORY KIT for GL80 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Waste Kits

Cole-Parmer V/J/J/



12019-42

12019-43

### THERMO SCIENTIFIC NALGENE™ 83B WASTE CAPS

Vapor Tight Connection

Waste manifolds are designed to fit standard 83B threaded lab containers.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-43	WASTE MANIFOLD for 83B threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-45	WASTE MANIFOLD for 83B threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-42	WASTE MANIFOLD for 83B threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl- ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-44	WASTE MANIFOLD for 83B threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



### THERMO SCIENTIFIC NALGENE™ 83B WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams

#### **Kit Contents**

10-port Waste Manifold VAPL (3) <sup>1</sup>/<sub>4</sub>" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) 1/2 NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) HARDWALL IUBE EXTENSION Includes union connections and 51 (1) FILTED ADAPTED 1 (4 NPT + 1/2 NPT + shows or shows of the second second second second second second second

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-40	HPLC WASTE ACCESSORY KIT for 83B threaded contain- er, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-41	HPLC WASTE ACCESSORY KIT for 83B threaded con- tainer, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### **Waste Kits**

12019-40

Cole-Parmer V/J/J/J/LCOSED SYSTEMS



12019-48

### THERMO SCIENTIFIC NALGENE™ 100-415 WASTE CAPS

#### **Vapor Tight Connection**

Waste manifolds are designed to fit standard 100-415 threaded containers.

12019-49

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and insert with Polypropylene spin collar.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-49	WASTE MANIFOLD for 100-415 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-51	WASTE MANIFOLD for 100-415 threaded container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-48	WASTE MANIFOLD for 100-415 threaded container, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-50	WASTE MANIFOLD for 100-415 threaded container, 10- port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

### Cole-Parmer VALLESSED SYSTEMS

### THERMO SCIENTIFIC NALGENE™ 100-415 WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams

### **Kit Contents**

10-port Waste Manifold
(3) ¼" NPT Polypropylene Plugs
(6) ¼-28 PTFE Plugs
(1) ½ NPT Polypropylene Plug
(1) Organic Vapor Filter
(2) 2.2mm OD hard wall tubing connections
(1) 2.5mm OD hard wall tubing connection
(3) 1/8" OD hard wall tubing connections
(2) 1/16" OD hard wall tubing connections
(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-46	HPLC WASTE ACCESSORY KIT for 100-415 threaded container, 10-port; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
VN-12019-47	HPLC WASTE ACCESSORY KIT for 100-415 threaded container, 10-port; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

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12019-46

Waste Kits





12019-57

## JUSTRITE<sup>®</sup> CONTAINER QUICK DISCONNECT WASTE CAPS

#### **Vapor Tight Connection**

Waste manifolds are designed to fit Justrite HPLC quick disconnect safety containers.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold with Polypropylene or stainless steel quick disconnect.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. To complete the closed system, attach a Vaplock emissions filter to the separate exhaust port quick disconnect using the appropriate adapter.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Caps	VN-12019-56	WASTE MANIFOLD for Justrite container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene Manifold, Polypropylene disconnect	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-58	WASTE MANIFOLD for Justrite container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene Manifold, Stainless Steel disconnect	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-60	WASTE MANIFOLD for Justrite container, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE Manifold, Stainless Steel disconnect	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-55	WASTE MANIFOLD for Justrite container container, 10-port with (3) 1/4" NPT, (1) 1/2" NPT, (6) 1/4-28, Polypropylene Manifold,Polypropylene disconnect	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-57	WASTE MANIFOLD for Justrite container container, 10-port with (3) 1/4" NPT, (1) 1/2" NPT, (6) 1/4-28, Polypropylene Manifold, Stainless Steel disconnect	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-59	WASTE MANIFOLD for Justrite container container, 10-port with (3) 1/4" NPT, (1) 1/2" NPT, (6) 1/4-28, PTFE Manifold, Stainless Steel disconnect	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



12019-55

Manifold (

## Cole-Parmer VALELCOSED SYSTEMS

VAPLE

### JUSTRITE® CONTAINER QUICK DISCONNECT WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold

(3) ¼" NPT Polypropylene Plugs

- (6) 1/4-28 PTFE Plugs
- (1) 1/2 NPT Polypropylene Plug
- (1) Organic Vapor Filter
- (2) 2.2mm OD hard wall tubing connections
- (1) 2.5mm OD hard wall tubing connection
- (3) 1/8" OD hard wall tubing connections
- (2) 1/16" OD hard wall tubing connections
- (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene
- (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene
- (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene
- (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing
- (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene
- (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material
VN-12019-52	HPLC WASTE ACCESSORY KIT for Justrite container, 10- port; includes Polypropylene Manifold, Polypropylene Disconnect, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-53	HPLC WASTE ACCESSORY KIT for Justrite container, 10- port; includes Polypropylene Manifold, Stainless Steel Disconnect, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP
VN-12019-54	HPLC WASTE ACCESSORY KIT for Justrite container, 10-port; includes PTFE Manifold, Stainless Steel Disconnect, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE

Waste Kits

12019-53

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Cole-Parmer VALELCOSED SYSTEMS



12019-61

## **DRUM WASTE CAPS (2" FINE THREAD)**

#### **Vapor Tight Connection**

Waste manifolds are designed to fit US standard 2" drum bung with fine threads.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold with Polypropylene drum thread adapter.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-62	WASTE MANIFOLD for Drum 2" Fine thread, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-64	WASTE MANIFOLD for Drum 2" Fine thread, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-61	WASTE MANIFOLD for Drum 2" Fine thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropyl- ene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-63	WASTE MANIFOLD for Drum 2" Fine thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



VAPLE

## **DRUM WASTE KITS (2" FINE THREAD)**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

### **Kit Contents**

10-port Waste Manifold (3) ¼" NPT Polypropylene Plugs

(6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs

(1) <sup>1</sup>/<sub>2</sub> NPT Polypropylene Plug

(1) Organic Vapor Filter

(2) 2.2mm OD hard wall tubing connections

(1) 2.5mm OD hard wall tubing connection

(3) 1/8" OD hard wall tubing connections

(2) 1/16" OD hard wall tubing connections

(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene

(1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Nu	ımber	Description	# Ports	Manifold Material	
VN-1201	10-port with includes Pol	EACCESSORY KIT for Drum 2" Fine (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4 ypropylene Manifold, Fittings Kit dapter and color indicator	4-28; (3) 1/4 NPT	РР	W
VN-12019	10-port with includes PTF	ACCESSORY KIT for Drum 2" Fine (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4 E Manifold, Fittings Kit, Exhaust color indicator	4-28; (3) 1/4 NPT	PTFE	

### Waste Kits

12019-65

Cole-Parmer VALLECTOSED SYSTEMS



12019-67

## **DRUM WASTE CAPS (2" COARSE THREAD)**

#### **Vapor Tight Connection**

Waste manifolds are designed to fit US standard 2" drum bung with fine threads.

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold with Polypropylene drum thread adapter.

#### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator.

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
<b>Manifold Caps</b>	VN-12019-68	WASTE MANIFOLD for Drum 2" course thread, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	PP
	VN-12019-70	WASTE MANIFOLD for Drum 2" course thread, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-67	WASTE MANIFOLD for Drum 2" course thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-69	WASTE MANIFOLD for Drum 2" course thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



VAPL

## **DRUM WASTE KITS (2" COARSE THREAD)**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents**

10-port Waste Manifold
(3) ¼" NPT Polypropylene Plugs
(6) ¼-28 PTFE Plugs
(1) ½ NPT Polypropylene Plug
(1) Organic Vapor Filter
(2) 2.2mm OD hard wall tubing connections
(1) 2.5mm OD hard wall tubing connections
(2) 1/16" OD hard wall tubing connections

(3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene

(1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene

(1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene

(1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing

(1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene

(1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12019-71	HPLC WASTE ACCESSORY KIT for Drum 2" course thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР	Waste Kits
VN-12019-72	HPLC WASTE ACCESSORY KIT for Drum 2" course thread, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

12019-71





12019-73

## **PANEL MOUNT WASTE CAPS**

#### **Vapor Tight Connection**

Waste manifolds are configured to fit an aperture drilled to 1-1/4" ID, with panel thickness of 1/16" - 1/2". An area 1-3/4" diameter free of obstruction around the aperture is required for use. Manifold drains to a 1/2" NPT common port at the base.

\*Inquire for cam lock and quick disconnect options

#### **Chemical Resistance**

Materials of construction include your choice of Polypropylene or PTFE manifold and lock nut.

### **Versatile Configuration**

Manifolds can be configured for barbed connections, compression fittings, 1/4-28 fitting and ferrule sets. All manifolds are designed to accommodate our 12019-79 Filter and indicator

\*See the emissions and filter section of our catalog

	Catalog Number	Description	# Ports	Manifold Material
Manifold Caps	VN-12019-74	WASTE MANIFOLD, Panel-mount, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, Polypropylene	(3) 1/4 NPT (1) 1/2 NPT	РР
	VN-12019-76	WASTE MANIFOLD, Panel-mount, 4-port with (3) 1/4" NPT, (1) 1/2" NPT, PTFE	(3) 1/4 NPT (1) 1/2 NPT	PTFE
	VN-12019-73	WASTE MANIFOLD, Panel-mount, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, Polypropylene	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	РР
	VN-12019-75	WASTE MANIFOLD, Panel-mount, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28, PTFE	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE



12019-74



## PANEL MOUNT WASTE KITS

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> Closed Systems for solvent containment minimize leaks, spills, and vapor escape from solvent waste and supply containers. Use Vaplock<sup>™</sup> kits to provide an effective means of sealed solvent delivery, and select from waste containment kits to collect effluents while minimizing harmful solvent exhaust. All Vaplock<sup>™</sup> products are designed for ease of use and adaptability, and will conform to a broad range of standard laboratory solvent containers. Waste Accessory Kits include a solvent collection manifold, an organic solvent exhaust filter with breakthrough indicator, and adapters, plugs, and tubing connections required for installation on typical HPLC instruments.

- Minimize exposure to harmful chemical vapors
- Collect solvent waste from multiple effluent streams
- Highly adaptable and conforms to a broad range of containment types

#### **Kit Contents** VAPL 10-port Waste Manifold (3) <sup>1</sup>/<sub>4</sub>" NPT Polypropylene Plugs (6) <sup>1</sup>/<sub>4</sub>-28 PTFE Plugs (1) 1/2 NPT Polypropylene Plug (1) Organic Vapor Filter (2) 2.2mm OD hard wall tubing connections (1) 2.5mm OD hard wall tubing connection (3) 1/8" OD hard wall tubing connections (2) 1/16" OD hard wall tubing connections 12019-77 (3) BARBED TUBING CONNECTION 1/4 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 1/8 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/16 ID tubing x 1/4 NPT Polypropylene (1) BARBED TUBING CONNECTION 3/8 ID tubing x 1/4 NPT Polypropylene (1) BARB TO BARB Y CONNECTOR with 1/4" (6.25mm) Barbs, Polypropylene (1) HARDWALL TUBE EXTENSION includes union connections and 5 feet 1/8 OD PTFE tubing (1) FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene (1) BREAKTHROUGH COLOR INDICATOR for Vaplock™ organic vapor filter

Container Not Included.

Catalog Number	Description	# Ports	Manifold Material	
VN-12019-77	HPLC WASTE ACCESSORY KIT for Panel Mount, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes Polypropylene Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PP	W
VN-12019-78	HPLC WASTE ACCESSORY KIT for Panel Mount, 10-port with (1) 1/2" NPT, (3) 1/4" NPT, (6) 1/4-28; includes PTFE Manifold, Fittings Kit, Exhaust Filter with adapter and color indicator	(1) 1/2 NPT (3) 1/4 NPT (6) 1/4-28	PTFE	

**Waste Kits** 





## **CHEMICAL EXHAUST FILTERS**

#### **Emission Reduction**

Use Vaplock exhaust filters to mitigate health hazards and reduce harmful chemical emissions and odors from laboratory solvent containers. Developed and tested specifically for HPLC organic solvents, they may be used in conjunction with Vaplock break-through color indicators to determine longevity and establish a replacement schedule.

#### **Adaptable Design**

Available in 75g and 300g cartridge sizes, Vaplock filters include activated media for organic solvents and are constructed of an HDPE housing with 1/4" NPT female receiving port. Attach to various point emission sources with Vaplock Filter Adapters. Please inquire for other sizes and formats.

### **Filter Details**

Catalog Number	Description	Indicator Included
VN-12019-79	VAPLOCK EXHAUST FILTER, 75g with 1/4" NPT female port	NO
VN-12019-81	VAPLOCK EXHAUST FILTER, 75g with 1/4" NPT female port, 5/PK	NO
VN-12019-80	VAPLOCK EXHAUST FILTER KIT with indicator, 75g with 1/4" NPT female port	YES
VN-12019-84	VAPLOCK EXHAUST FILTER, 300g with 1/4" NPT female port	NO



## **BREAKTHROUGH INDICATORS**

#### **Colorimetric Change**

Designed to detect the end-of-service life for Vaplock exhaust filters, breakthrough indicators respond under exposure to organic solvent vapors. Final effects display within minutes or hours of exposure. Color saturation varies by solvent. Replace the exhaust filter when a variation occurs. Housing is acrylic, with borosilicate glass option available.

#### **Multiple Solvent Detection**

Breakthrough Indicators may be used with the following chemicals. This list is not comprehensive. Please inquire for detection of other organic solvents: Acetone, Acetonitrile, Acids (i.e. Acetic Acid, Hydrochloric Acid, Trifloroacetic Acid, Trichloroacetic Acid), Acrylonitrile, Aliphatic hydrocarbons (i.e. Hexane), Aromatic Hydrocarbons (i.e. Benzene, Toluene and Xylenes), Chlorinated hydrocarbons (i.e. Carbon Tetrachloride, Chloroform and Methylene Chloride), Ethanol, Ethyl Acetate, Ethyl Acrylate, Ethyl Ether, Gasoline, HFIP (Hexafluoroisopropanol), Methanol, Methyl Acrylate, Naphtha, Phenol, Sulfolane, THF (Tetrahydrofuran).

#### **Product Usage**

Not for use in the presence of basic vapors in high concentrations (i.e. Pyridine and aliphatic amines), which impair performance of the indicator. Does not respond to gaseous aliphatic hydrocarbons or aldehydes. Avoid Exposure to heat or direct sunlight. Use only at room temperature. Shelf life is 12 months. For analytical research purposes only.

### **Indicator Details**

Catalog Number	Description	Filter Included
VN-12019-82	BREAKTHROUGH INDICATOR for Vaplock exhaust filters	NO
VN-12019-83	BREAKTHROUGH INDICATOR for Vaplock exhaust filters , 5/PK	NO
VN-12019-80	VAPLOCK EXHAUST FILTER KIT with indicator, 75g with 1/4" NPT female port	YES

### Cole-Parmer V/J/PLCOSED SYSTEMS











12019-85

12019-86

12019-87

12019-88





12019-91





12019-93

## **FILTER ADAPTERS**

#### **Versatile Configurations**

Vaplock<sup>™</sup> 12019-79 and 12019-81 exhaust filters may be attached to various point-source emissions by use of the appropriate adapter. Each filter includes a 1/4" female NPT port; select from the list below to adapt filters to a typical system, or inquire for assistance with special requirements. All adapters are reusable. Please note that options for Justrite<sup>®</sup> safety containers are made to fit either stainless steel or polypropylene quick disconnects, but are not interchangeable.

### Carbon Filter Adapters (page 1 of 2)

Catalog Number	Description	Adapter Type	Material
VN-12019-85	FILTER ADAPTER luer lock x 1/4 NPT natural Polypropylene	Straight	Polypropylene
VN-12019-86	FILTER ADAPTER 1/4 NPT x 1/4 NPT polypropylene	Straight	Polypropylene
VN-12019-87	FILTER ADAPTER 1/4 NPT x 1/2 NPT polypropylene	Straight	Polypropylene
VN-12019-88	FILTER ADAPTER with PP and EPDM Quick Disconnect for Justrite Centura <sup>®</sup> containers	Straight	Polypropylene EPDM
VN-12019-89	FILTER ADAPTER, 90 degree elbow, 1/4" NPT x 1/2" NPT, polypropylene	90 Degree Elbow	Polypropylene
VN-12019-90	FILTER ADAPTER with SS and PTFE quick disconnect for Justrite Centura <sup>®</sup> containers	Straight	Stainless Steel PTFE
VN-12019-91	FILTER ADAPTER 90 degree elbow with Polypropylene and EPDM Quick Disconnect for Justrite Centura <sup>®</sup> containers	90 Degree Elbow	Polypropylene EPDM
VN-12019-92	FILTER ADAPTER, 90 degree elbow, with SS and PTFE Quick Disconnect for Justrite Centura <sup>®</sup> containers	90 Degree Elbow	Stainless Steel PTFE
VN-12019-93	FILTER ADAPTER, 45 degree elbow, 1/4" MNPT x 1/4" MNPT, Nylon	45 Degree Elbow	Nylon





## **FILTER ADAPTERS**

#### **Versatile Configurations**

Vaplock<sup>™</sup> 12019-79 and 12019-81 exhaust filters may be attached to various point-source emissions by use of the appropriate adapter. Each filter includes a 1/4" female NPT port; select from the list below to adapt filters to a typical system, or inquire for assistance with special requirements. All adapters are reusable. Please note that options for Justrite<sup>®</sup> safety containers are made to fit either stainless steel or polypropylene quick disconnects, but are not interchangeable.

### **Carbon Filter Adapters (page 2 of 2)**

Catalog Number	ber Description Adapter Type		Material
VN-12019-94	FILTER ADAPTER, 90 degree elbow, 1/4" MNPT x 1/4" MNPT, Polypropylene	90 Degree Elbow	Polypropylene
VN-12019-95	FILTER ADAPTER, 1/4" NPT male x 1/4-28 male, red PEEK	Straight	PEEK
VN-12019-96	ADJUSTABLE FILTER ADAPTER for 1/4" NPT female port, black acetal	Adjustable	Acetal
VN-12019-97	ADJUSTABLE FILTER ADAPTER for 1/2" NPT female port, black acetal	Adjustable	Acetal
VN-12019-98	ADJUSTABLE FILTER ADAPTER, with PP and EPDM Quick Disconnect for Justrite Centura® containers, black acetal	Adjustable	Polypropylene EPDM, Acetal
VN-12019-99	ADJUSTABLE FILTER ADAPTER, with SS and PTFE Quick Disconnect for Justrite Centura® containers, black acetal	Adjustable	SS , EPDM Acetal
VN-12020-00	FILTER ADAPTER, 1/8" NPT x 1/4" NPT, polypropylene	Straight	Polypropylene





### **TUBING CONNECTIONS**

#### For 1/4-28 and 5/16-24 UNF Ports

Compression fittings designed for liquid-tight connection of semi-rigid tubing to flat-bottom 1/4-28 and 5/16-24 port threads, for tubing diameters 1/16" to 3/16" OD. Each connection is comprised of a two-piece nut and ferrule system, useful for pressurized applications under 500 psi. Make a selection based on your tubing outside diameter (OD); fittings are color-coded by tubing size for easy identification. These bottom-sealing UNF fittings do not require PTFE tape.

### **Fittings for Semi-Rigid Tubing**

Catalog Number	Description	Color	Tubing OD
VN-12020-01	TUBING CONNECTION, 4.0mm OD tubing x 5/16-24, natural Kel-F ferrule.	Brown	4 mm
VN-12020-02	TUBING CONNECTION, 3/16" OD tubing x 5/16-24, natural Kel-F ferrule.	White	3/16 in
VN-12020-03	TUBING CONNECTION, 1/16" OD tubing x 1/4-28, Green Polypro- pylene fitting, Blue Tefzel ferrule. 10/PK	Green	1/16 in
VN-12020-04	TUBING CONNECTION, 1.8-2.0mm OD tubing x 1/4-28, Red Polypropylene fitting, Green Tefzel ferrule. 10/PK	Red	1.8-2.0 mm
VN-12020-05	TUBING CONNECTION, 2.2mm (.085") OD tubing x 1/4-28, Black Polypropylene fitting, White PTFE ferrule. 10/PK	Black	2.2 mm
VN-12020-06	TUBING CONNECTION, 2.5mm OD tubing x 1/4-28, Orange Poly- propylene fitting, Natural Tefzel ferrule. 10/PK	Orange	2.5 mm
VN-12020-07	TUBING CONNECTION, 3.0mm OD tubing x 1/4-28, Yellow Poly- propylene fitting, Orange Tefzel ferrule. 10/PK	Yellow	3.0 mm
VN-12020-08	TUBING CONNECTION, 1/8" OD tubing x 1/4-28, Blue Polypropyl- ene fitting, Yellow Tefzel ferrule. 10/PK	Blue	1/8 in





## **TUBING CONNECTION ADAPTERS**

#### For 1/4" NPT Ports

Compression fittings designed for liquid-tight connection of semi-rigid tubing to 1/4" NPT ports, for tubing diameters 1/16" to 3/16" OD. Each connection is comprised of a two-piece nut and ferrule system with polypropylene thread adapter. Useful for pressurized applications under 500 psi. Make a selection based on your tubing outside diameter (OD); fittings are color-coded by tubing size for easy identification. Wrap NPT threads 3-4 times with PTFE tape and wrench tighten for leak-resistant connections.

### **Fittings for Semi-Rigid Tubing**

Catalog Number	Description	OD	Thread	Material	Color
VN-12020-09	TUBING CONNECTION 4.0mm OD tubing x 1/4 NPT natural PTFE fitting natural Kel-F ferrule PP body.	4 mm	1/4" NPT	Polypropylene  PEEK Tefzel®	Brown
VN-12020-10	TUBING CONNECTION 3/16 OD tubing x 1/4 NPT white Delrin fitting blue Tefzel ferrule PP body.	3/16 in	1/4" NPT	Polypropylene  Tefzel® Derlin	White
VN-12020-11	TUBING CONNECTION, 1/16" OD tubing x 1/4" NPT, green Polypropylene fitting, Blue Tefzel ferrule, PP adapter.	1/16 in	1/4" NPT	Polypropylene Tefzel®	Green
VN-12020-12	TUBING CONNECTION, 1.8-2.0mm OD tubing x 1/4" NPT, red Polypropylene fitting, Green Tefzel ferrule, PP adapter.	1.8-2 mm	1/4" NPT	Polypropylene Tefzel®	Red
VN-12020-13	TUBING CONNECTION, 2.2mm OD tubing x 1/4" NPT, black Polypropylene fitting, natural Tefzel ferrule, PP adapter.	2.2 mm	1/4" NPT	Polypropylene Tefzel®	Black
VN-12020-14	TUBING CONNECTION, 2.5mm OD tubing x 1/4" NPT, orange Polypropylene fitting, Natural Tefzel ferrule, PP adapter.	2.5 mm	1/4" NPT	Polypropylene Tefzel®	Orange
VN-12020-15	TUBING CONNECTION, 3.0mm OD tubing x 1/4" NPT, yellow 3 mm Polypropylene fitting, Orange Tefzel ferrule, PP adapter.	3 mm	1/4" NPT	Polypropylene Tefzel®	Yellow
VN-12020-16	TUBING CONNECTION, 1/8" OD tubing x 1/4" NPT, blue Polypropylene fitting, Yellow Tefzel ferrule, PP adapter.	1/8 in	1/4" NPT	Polypropylene Tefzel®	Blue

### FITTINGS / ADAPTERS 63





### **BARBED TUBING CONNECTIONS**

### For 1/8", 1/4", and 1/2" NPT Ports

A semi-permanent connection for soft-walled tubing only, barbed fittings are an economical means of connecting tubing to Vaplock manifold ports with NPT threads . For tubing diameters 1/16" to 1/2" ID. All fittings are Polypropylene. Make a selection based on your tubing inside diameter (ID). Wrap NPT threads 3-4 times with PTFE tape and wrench tighten for leak-resistant connections.

### Fittings for Soft-Wall Tubing (page 1 of 2)

Catalog Number	Description	Tubing ID	Thread
VN-12020-17	BARBED TUBING CONNECTION, 1/16" ID tubing x 1/4" NPT, Polypropylene 10/PK	1/16 in	1/4" NPT
VN-12020-18	BARBED TUBING CONNECTION, 1/8" ID tubing x 1/4" NPT, Polypropylene 10/PK	1/8 in	1/4" NPT
VN-12020-19	BARBED TUBING CONNECTION, 3/16" ID tubing x 1/4" NPT, Polypropylene 10/PK	3/16 in	1/4" NPT
VN-12020-20	BARBED TUBING CONNECTION, 1/4" ID tubing x 1/4" NPT, Polypropylene 10/PK	1/4 in	1/4" NPT
VN-12020-21	BARBED TUBING CONNECTION, 5/16" ID tubing x 1/4" NPT, Polypropylene 10/PK	5/16 in	1/4" NPT
VN-12020-22	BARBED TUBING CONNECTION, 3/8" ID tubing x 1/4" NPT, Polypropylene 10/PK	3/8 in	1/4" NPT
VN-12020-23	BARBED TUBING CONNECTION, 1/2" ID tubing x 1/4" NPT, Polypropylene 10/PK	1/2 in	1/4" NPT
VN-12020-24	BARBED TUBING CONNECTION, 5/32" ID tubing x 1/4" NPT, Polypropylene 10/PK	5/32 in	1/4" NPT
VN-12020-25	BARBED TUBING CONNECTION, 1/16" ID tubing x 1/8" NPT, Polypropylene 10/PK	1/16 in	1/8″ NPT
VN-12020-26	BARBED TUBING CONNECTION, 1/8" ID tubing x 1/8" NPT, Polypropylene 10/PK	1/8 in	1/8″ NPT





### **BARBED TUBING CONNECTIONS**

#### For 1/8", 1/4", and 1/2" NPT Ports

A semi-permanent connection for soft-walled tubing only, barbed fittings are an economical means of connecting tubing to Vaplock manifold ports with NPT threads . For tubing diameters 1/16" to 1/2" ID. All fittings are Polypropylene. Make a selection based on your tubing inside diameter (ID). Wrap NPT threads 3-4 times with PTFE tape and wrench tighten for leak-resistant connections.

### Fittings for Soft-Wall Tubing (page 2 of 2)

Catalog Number	Description	Tubing ID	Thread
VN-12020-27	BARBED TUBING CONNECTION, 3/16" ID tubing x 1/8" NPT, Polypropylene 10/PK	3/16 in	1/8″ NPT
VN-12020-28	BARBED TUBING CONNECTION, 1/4" ID tubing x 1/8" NPT, Polypropylene 10/PK	1/4 in	1/8″ NPT
VN-12020-29	BARBED TUBING CONNECTION, 5/16" ID tubing x 1/8" NPT, Polypropylene 10/PK	5/16 in	1/8″ NPT
VN-12020-30	BARBED TUBING CONNECTION, 3/8" ID tubing x 1/8" NPT, Polypropylene 10/PK	3/8 in	1/8″ NPT
VN-12020-31	BARBED TUBING CONNECTION, 1/4" ID tubing x 1/2" NPT, Polypropylene 10/PK	1/4 in	1/2″ NPT
VN-12020-32	BARBED TUBING CONNECTION, 3/8" ID tubing x 1/2" NPT, Polypropylene 10/PK	3/8 in	1/2″ NPT
VN-12020-33	BARBED TUBING CONNECTION, 1/2" ID tubing x 1/2" NPT, Polypropylene 10/PK	1/2 in	1/2″ NPT
VN-12020-34	BARBED TUBING CONNECTION, 5/8" ID tubing x 1/2" NPT, Polypropylene 10/PK	5/8 in	1/2″ NPT
VN-12020-35	BARBED TUBING CONNECTION, 3/4" ID tubing x 1/2" NPT, Polypropylene 10/PK	3/4 in	1/2″ NPT





12020-36

12020-37



12020-38

12020-39





12020-41

12020-42



## **LARGE-BORE TUBING CONNECTIONS**

### For 1/4" NPT and 1/2" NPT Ports

Compression fittings designed for liquid-tight connection of semi-rigid tubing to NPT ports, for tubing diameters 1/4" to 3/4" OD. Useful for pressurized applications under 100 psi. Make a selection based on your tubing outside diameter (OD). All fittings are comprised of 2-piece molded Polypropylene components and do not include a separate ferrule. Wrap NPT threads 3-4 times with PTFE tape and wrench tighten for leak-resistant connections.

### Fittings for Semi-Rigid Tubing

Catalog Number	Description	OD	Thread	Material	Color
VN-12020-36	TUBING CONNECTION 1/4 and 6mm OD tubing x 1/4 NPT Polypropylene 5-pack.	1/4 in	1/4" NPT	Polypropylene	Natural
VN-12020-37	TUBING CONNECTION 5/16 OD tubing x 1/4 NPT Polypropylene 5-pack.	5/16 in	1/4" NPT	Polypropylene	Natural
VN-12020-38	TUBING CONNECTION 3/8 OD tubing x 1/4 NPT Polypropylene 5-pack.	3/8 in	1/4" NPT	Polypropylene	Natural
VN-12020-39	TUBING CONNECTION 1/2 OD tubing x 1/4 NPT Polypropylene 5-pack.	1/2 in	1/4" NPT	Polypropylene	Natural
VN-12020-40	TUBING CONNECTION 3/8 OD tubing x 1/2 NPT Polypropylene 5-pack.	3/8 in	1/2" NPT	Polypropylene	Natural
VN-12020-41	TUBING CONNECTION 1/2 OD tubing x 1/2 NPT Polypropylene 5-pack	1/2 in	1/2" NPT	Polypropylene	Natural
VN-12020-42	TUBING CONNECTION 5/8 OD tubing x 1/2 NPT Polypropylene 5-pack.	5/8 in	1/2" NPT	Polypropylene	Natural
VN-12020-43	TUBING CONNECTION 3/4 OD tubing x 1/2 NPT Polypropylene 5-pack.	3/4 in	1/2" NPT	Polypropylene	Natural





12020-44





12020-49





12020-46

12020-50

12020-51

# **PORT PLUGS**

#### **For NPT and UNF Ports**

Available in multiple materials, use the following plugs to seal unused manifold and bottle cap ports. Options for NPT ports are 1/8", 1/4", 3/8", and 1/2" NPT, and should be wrapped 3-4 times with PTFE tape for leak-resistant connections. Bottom-sealing UNF thread options include 1/4-28 and 5/16-24 and do not require PTFE tape.

### Plugs

Catalog Number	Description	Thread	Material
VN-12020-44	PLUGS, 1/4" NPT, Polypropylene, 10/PK	1/4" NPT	Polypropylene
VN-12020-45	PLUG, 1/2" NPT, Polypropylene 10/PK	1/2" NPT	Polypropylene
VN-12020-46	PLUG, 1/4-28, black Delrin 10/PK	1/4-28	Delrin
VN-12020-47	PLUG, 1/4-28, PTFE 10/PK	1/4-28	PTFE
VN-12020-48	PLUG, 1/4 NPT Male, PTFE	1/4"NPT	PTFE
VN-12020-49	PLUG, 3/8" NPT male, Polypropylene 10/PK	3/8″ NPT	Polypropylene
VN-12020-50	PLUG, 1/8" NPT, Polypropylene 10/PK	1/8″ NPT	Polypropylene
VN-12020-51	PLUG, 5/16-24, PTFE	5/16-24	PTFE

### FITTINGS / PLUGS 67







## **VENTILATION CONTROL VALVES**

### For 1/4-28 and 1/4" NPT Ports

Although Vaplock solvent supply caps are available with built-in check valve elements, ventilation control valves may also be purchased as stand-alone units. With Air Inlet, Relief, and Reversible configurations, vent control valves may be selected in two cracking pressures and with Viton, EPDM, and FFKM seal materials. Air inlet valves permit air to enter a bottle to displace vacuum while solvent is pumped out to an instrument. Relief valves allow pressurized bottle contents to escape above the cracking pressure. Reversible valves may serve either purpose, air inlet or relief, depending on the orientation once installed.

### **Evaporation Control and Relief Valves**

Catalog Number	Description	Thread	Cracking Pressure	Seal Material
VN-12020-52	AIR INLET VALVE, 1/4-28 male, PTFE with Viton check element	1/4-28	0.1 - 0.25 psi	Viton
VN-12020-53	AIR INLET VALVE, 1/4-28 male, PTFE with EPDM check element	1/4-28	0.1 - 0.25 psi	EPDM
VN-12020-61	AIR INLET VALVE, 1/4-28 male, PTFE with FFKM check element	1/4-28	0.1 - 0.25 psi	FFKM
VN-12020-54	RELIEF VALVE, 1/4-28 male, PTFE with Viton check element	1/4-28	0.1 - 0.25 psi	Viton
VN-12020-55	RELIEF VALVE, 1/4-28 male, PTFE with EPDM check element	1/4-28	0.1 - 0.25 psi	EPDM
VN-12020-62	RELIEF VALVE, 1/4-28 male, PTFE with FFKM check element	1/4-28	0.1 - 0.25 psi	FFKM
VN-12020-56	RELIEF VALVE, 1/4-28 male, PTFE with Viton check element	1/4-28	1 - 2.5 psi	Viton
VN-12020-57	RELIEF VALVE, 1/4-28 male, PTFE with EPDM check element	1/4-28	1 - 2.5 psi	EPDM
VN-12020-63	RELIEF VALVE, 1/4-28 male, PTFE with FFKM check element	1/4-28	1 - 2.5 psi	FFKM
VN-12020-59	REVERSIBLE CONTROL VALVE, 1/4" MNPT x 1/4" MNPT, Polypropylene with EPDM check element	1/4" NPT	0.1 - 0.25 psi	EPDM
VN-12020-58	REVERSIBLE CONTROL VALVE, 1/4" MNPT x 1/4" MNPT, Polypropylene with Viton check element	1/4" NPT	0.1 - 0.25 psi	Viton
VN-12020-60	REVERSIBLE CONTROL VALVE, 1/4" MNPT x 1/4" MNPT, Polypropylene with FFKM check element	1/4" NPT	0.1 - 0.25 psi	FFKM

Cole-Parmer VALLECTORED SYSTEMS

- CAPTURE WASTE and hazardous solvents securely
- **REDUCE FUMES** and harmful vapor exhaust

### • QUICK CONNECT

to Justrite® Centura safety containers

12020-64 SAFETY FUNNEL ON JUSTRITE® PP12752

## **Safety Funnel**

#### **Versatile Configurations**

Cole-Parmer<sup>®</sup> Vaplock<sup>™</sup> "SF Series" funnels allow for safer disposal of pourable laboratory waste. A locking, hinged lid minimizes leaks and spills when the funnel is closed. If used in tandem with other Vaplock products, such as a manifold and exhaust filter, a closed system may be maintained for passive wastes while the funnel is sealed.

Justrite Centura containers are available with two quick disconnect materials, Polypropylene (with EPDM o-ring) and Stainless Steel (with PTFE o-ring), select a safety funnel according to the type of disconnect material present on the safety container. SF-series funnels are constructed of high density Polyethylene (HDPE) and Polypropylene, with a Viton<sup>®</sup> sealing gasket. As with all solvent applications, chemical compatibility of the solvent and product should be noted prior to purchase.

### **Safety Funnels**

l	Catalog Number	Safety Funnel Options
	VN-12020-64	WITH POLYPROPYLENE DISCONNECT AND EPDM O-RING
	VN-12020-65	WITH STAINLESS STEEL DISCONNECT AND PTFE O-RING
	VN-12020-66	NO QUICK DISCONNECT, WITH 1/2" NPT MALE THREAD







### NOTES 71

### SOLVENT CAPS and MANIFOLDS



**GL25 GL32 GL38** 38mm **GL45** DIN45 **DIN50** 51mm 53B **DIN60** 63mm 70mm **GL80** 100mm 83**B** ...



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