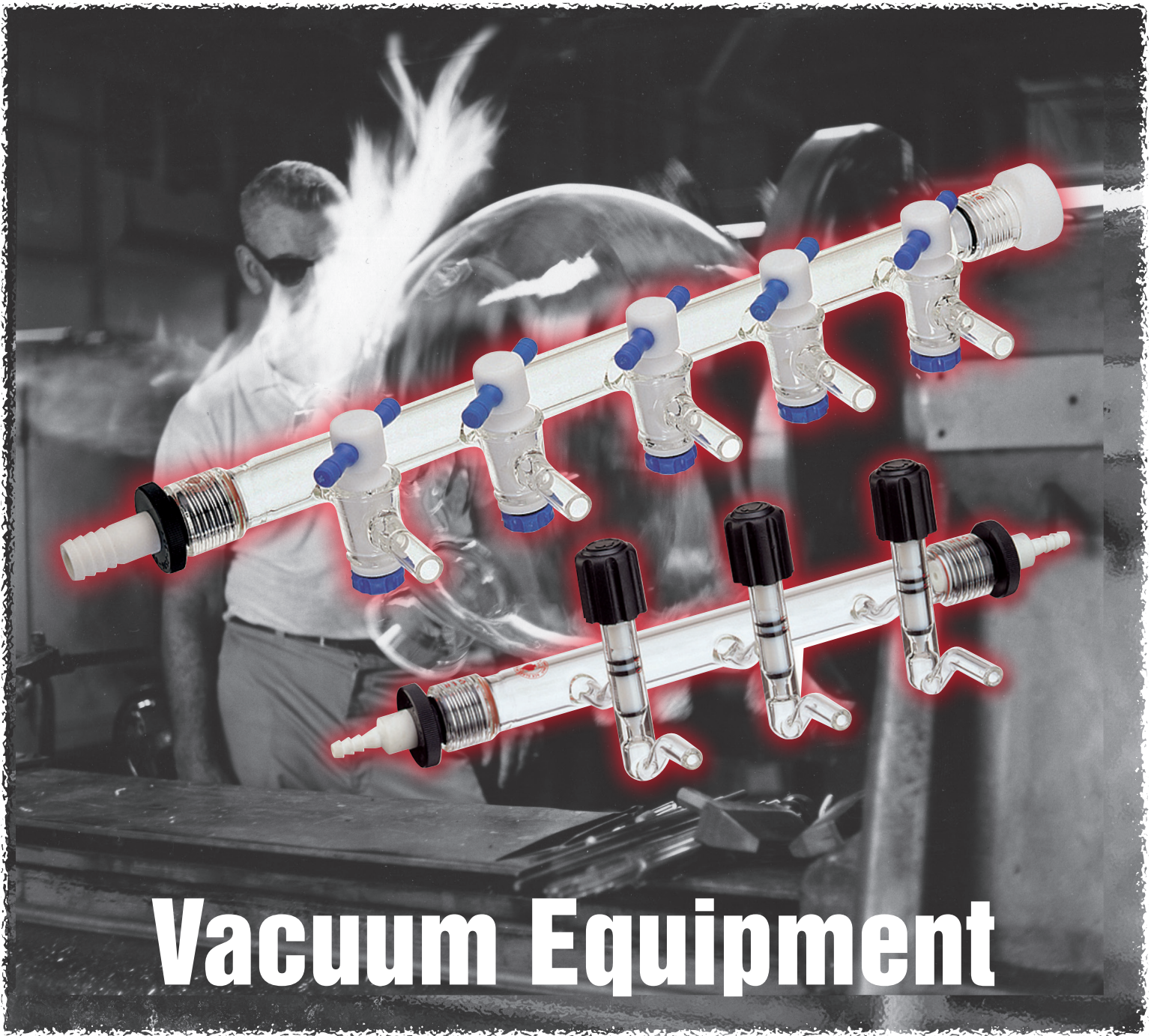


**Adapters ■ Pumps ■ Traps**



# **Vacuum Equipment**

## **Manifolds**

**Easy to assemble Ace-Safe connector versions**

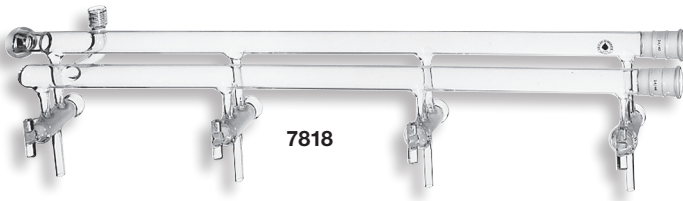
**O-Ring connections**

**Added safety and versatility**

**Compact**

# Vacuum Manifolds

## 7818 Vacuum Manifold *Double Tube*



7818

Double tube manifold with four double oblique high-vacuum glass stopcocks, 4mm bore. Takeoff ports are 10mm O.D. tube. Two  $\frac{3}{4}$ "/40 outer joints on right end for easy cleaning. Upper manifold tube has a  $\frac{3}{4}$ "/25 ball joint for connection to trap, supplemental vacuum manifold with McLeod Gauge (available from ACE), or vacuum. Lower tube has a #11 Ace-Thred extending toward the rear and bent 90° to the vertical for connecting a 10mm O.D. gas line using **7506-02** bushing with FETFE o-ring. Manifold NOT supplied with bushing or o-ring or  $\frac{3}{4}$ "/40 stoppers and clamps. For bushing and o-ring, order **7506-02**; for stoppers, order **8250-12**; for stopper clamps, order **7600-25**. Distance between ports, 200mm; overall length, approximately 670mm.

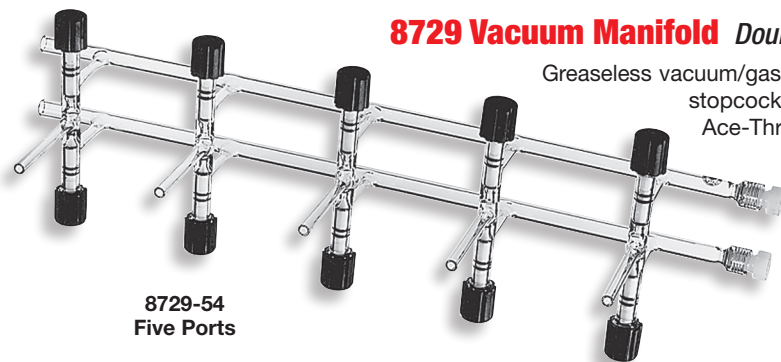
### ACCESSORIES



### Order Code

Manifold, only	<b>7818-24</b>
<b>Accessories:</b>	
Adapter, PTFE, #11 Ace-Thred, 1/8-inch FNPT	<b>5844-60</b>
Bushing, Nylon, #11 Ace-Thred, w/O-Ring	<b>7506-02</b>
Clamp, S-S, $\frac{3}{4}$ "/40, Pkg/12	<b>7600-25</b>
Stopper, $\frac{3}{4}$ "/40	<b>8250-12</b>
Adapter, Conn. Hose $\frac{3}{4}$ "/40	<b>5216-10</b>

## 8729 Vacuum Manifold *Double Tube, with Threaded Stopcocks*

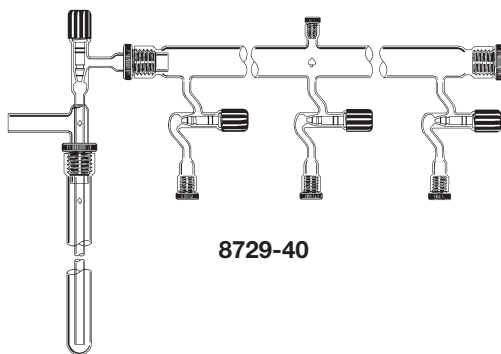
8729-54  
Five Ports

Greaseless vacuum/gas manifold with 0-4mm high-vacuum, Easy-Action PTFE three-way stopcocks for takeoffs. One end of bottom and top manifold tube has a #7 Ace-Thred for easy cleaning. Ends are supplied with **5846-04** nylon stopper/plugs with FETFE o-rings. Port connections are 8 mm O.D. tubing; vacuum and gas connections are 1/2-inch O.D. tubing.

Distance between takeoffs is 100mm. For replacement plugs, order **8194-266**.

No. of Ports	Approx. overall Distance, mm	Order Code
3	300	<b>8729-50</b>
5	500	<b>8729-54</b>

## 8729 Vacuum Manifold *Walters*



8729-40

Greaseless vacuum line fabricated from Ace-Threds and Easy-Action PTFE stopcocks. Three ports are 0-5mm high vacuum PTFE stopcocks with #11 Ace-Thred bushing connection to working vessel. Stopcocks are positioned parallel to main body to allow operation from front or back. Main body can be reversed for convenience of left-handed operation.

On top of main body is a #7 Ace-Thred with a 1/8-inch NPT nylon adapter for connection to thermocouple for vacuum regulator. Each end of main body has a #25 Ace-Thred for easier cleaning. One end stoppered with nylon plug. Other end has a bushing connection to a vacuum trap. The vacuum trap features an Easy-Action, 0-10mm, high vacuum stopcock with removable trap. This permits cleaning of trap without removing vacuum line tubing. Vacuum tubing connection on trap is 25mm O.D. Length of main body is approximately 24 inches. Vacuum trap is approximately 16 inches.

**Systems made to order**  
Choose more or fewer takeoffs, joints or Ace-Thred connections.

### Order Code

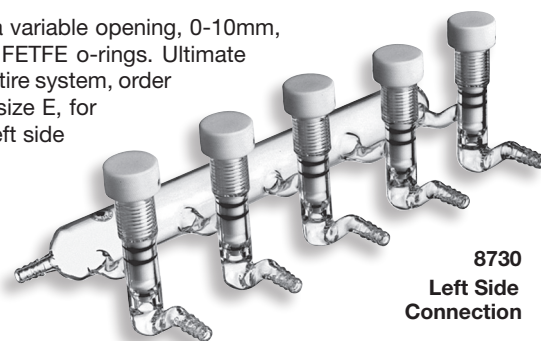
Main Body, only, w/Stopcocks	<b>8729-03</b>
Vacuum Trap Inner Tube, w/Stopcock	<b>8729-25</b>
Vacuum Trap Body, only	<b>8729-26</b>
Bushing, Nylon, #25 Ace-Thred (2)	<b>7506-10</b>
Bushing, Nylon, #11 Ace-Thred (3)	<b>7506-02</b>
Stopper, Nylon, #25 Ace-Thred	<b>5846-16</b>
Stopper, Nylon, #7 Ace-Thred	<b>5846-04</b>
Adapter, Swagelok, #7 Ace-Thred to 1/8-inch	<b>5844-16</b>
<b>Complete</b>	<b>8729-40</b>



# Vacuum Manifolds

## 8730 Vacuum Manifold

All glass and PTFE vacuum manifold with three, four, or five stopcock ports. Each port is a variable opening, 0-10mm, high vacuum threaded stopcock. Plugs are PTFE, with handles of PTFE or UHDPE, and FETFE o-rings. Ultimate vacuum of  $10^{-7}$  can be realized with o-rings as supplied. In the event you need to bake the entire system, order bakeable plugs with PTFE handles. Hose connections on stopcocks and vacuum line are size E, for 13-15mm O.D. tubing. For replacement plugs, order **8194-270** or **8194-97**. Available with left side (shown at right) or right side connection.



8730  
Left Side  
Connection

Plug Handle Material	No. of Ports	Approx. End-to-End Length, mm	Left Side Connection	Right Side Connection
			Order Code	Order Code
UHDPE*	3	235	<b>8730-12</b>	<b>8730-27</b>
PTFE	3	235	<b>8730-14</b>	<b>8730-29</b>
UHDPE	4	320	<b>8730-16</b>	<b>8730-31</b>
PTFE	4	320	<b>8730-18</b>	<b>8730-33</b>
UHDPE	5	375	<b>8730-20</b>	<b>8730-35</b>
PTFE	5	375	<b>8730-22</b>	<b>8730-37</b>

\*UHDPE – Ultra High Density Polyethylene, max. temperature limit, 130°C.

**NOTE:** 8730 manifold can be altered to your special needs, i.e. joint or thread on takeoff, more or fewer takeoffs, etc. Call for quotation.

**Complete system  
bakeable when  
ordered with  
PTFE plug handles**

## 8734 Vacuum Manifold Ace-Threds

Glass manifold with #15 Ace-Thred at either end to allow switching 5853 vacuum connection to left or right side. Supplied with three or five 0-4mm high-vacuum, Easy-Action stopcocks for sample ports (additional ports can be ordered). Plugs are PTFE with nylon hooded handles and FETFE o-rings. Ultimate vacuum of  $10^{-7}$  can be realized with standard three o-rings. Overall length of glass manifold is: 9-1/8-inch (232mm) for three ports; 13-5/8-inch (346mm) for five ports. Supplied with Ace-Safe serrated connector for one end to connect vacuum line. Complete item consists of **8734** glass manifold, **5846-48** end plug with FETFE o-ring, and **5853** Ace-Safe connectors with bushing for 1/4-inch or 1/2-inch tubing connection.

	Three Ports Order Code	Five Ports Order Code
Glass Manifold, only	<b>8734-07</b>	<b>8734-14</b>
End Plug, PTFE with o-ring	<b>5846-48</b>	<b>5846-48</b>
Connector, with o-ring, for 1/4-inch	<b>5853-18</b>	<b>5853-18</b>
Connector, with o-ring, for 1/2-inch	<b>5853-21</b>	<b>5853-21</b>
Connector bushing	<b>7506-05</b>	<b>7506-05</b>
<b>COMPLETE</b>	<b>8734-10</b>	<b>8734-20</b>
Replacement FETFE o-rings for 5838 connectors (pk./12)		<b>7855-210</b>
Replacement FETFE o-rings for 5846 connectors (pk./12)		<b>7855-716</b>



8734-10

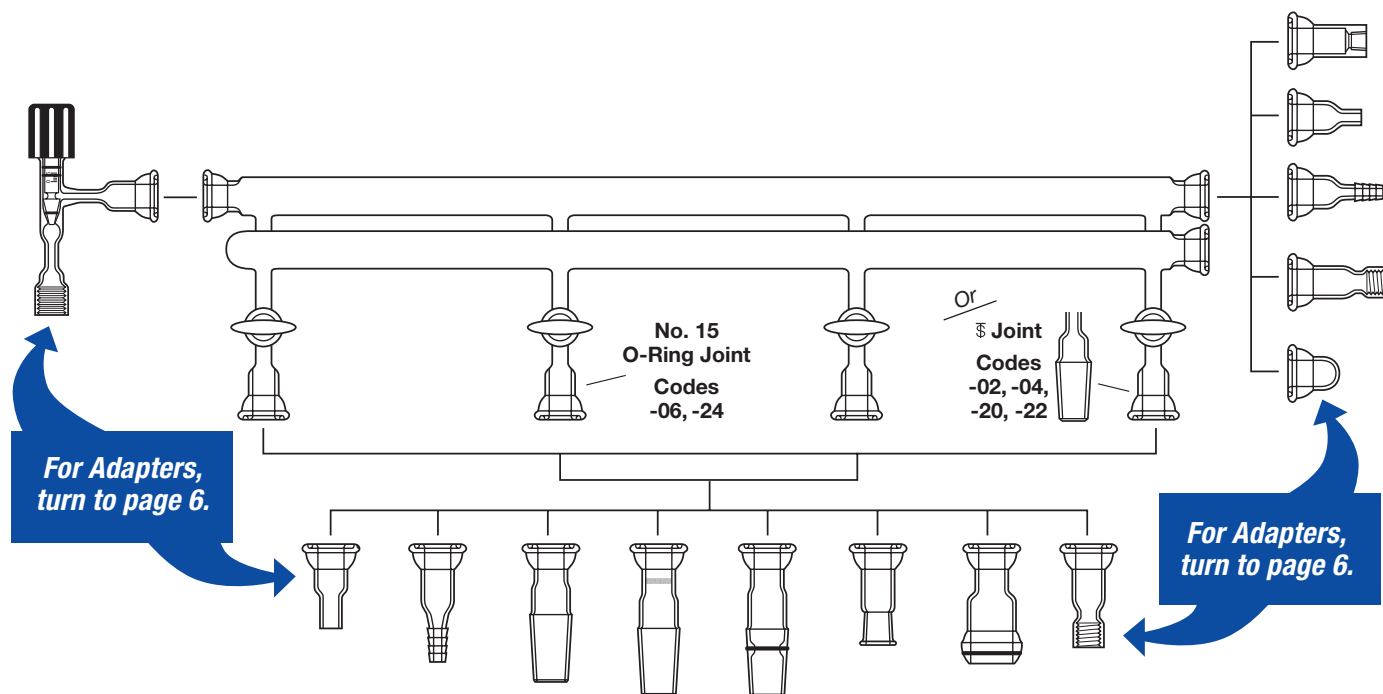
**Ace-Thred connectors and  
end plugs are interchangeable  
...allows for left or right  
vacuum connection**



8734-20

**See back cover for NEW vacuum pumps!**

# Vacuum Manifolds



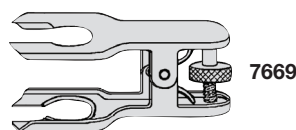
## 8737 Vacuum Manifold Double Tube

No.15 O-Ring joint connections at each end. Three or four ports with **4mm bore glass double oblique stopcocks** and either standard taper inner joints or No. 15 o-ring joint connections off each port. The distance between ports is 210mm, which will accept flasks up to 3000mL. Requires **7669** pinch clamps on o-ring joints. Both 8737-06 and 8737-24 can be used for No-Air™ applications.

### 7669 Clamp Pinch Type

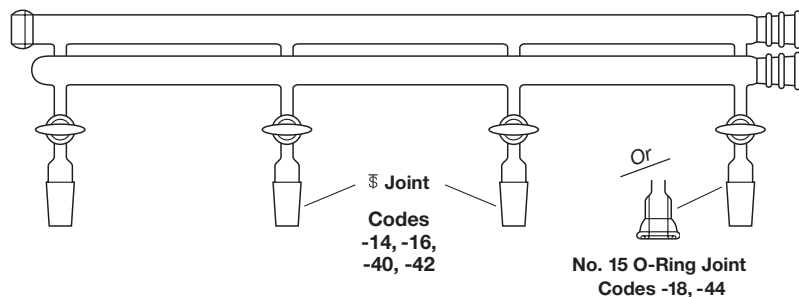
All stainless steel, pinch type clamp for use with spherical ball and socket or o-ring joints. With screw locking feature.

Size No.	For Joint Size	Order Code	Replacement FETFE o-ring for No. 15 o-ring ball joint
28	§ 28/15	<b>7669-12</b>	<b>Order Code</b> <b>7855-726</b>
35	§ 35/25	<b>7669-14</b>	
28	No. 15 o-ring	<b>7669-12</b>	



No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	500	<b>8737-02</b>
3	§24/40	500	<b>8737-04</b>
3	No. 15 O-Ring	500	<b>8737-06</b>
4	§14/20	710	<b>8737-20</b>
4	§24/40	710	<b>8737-22</b>
4	No. 15 O-Ring	710	<b>8737-24</b>

## 8738 Vacuum Manifold Double Tube



With §35/25 spherical ball joint at one end, §24/40 outer standard taper joints at opposite end. Three or four ports with **4mm bore glass double oblique stopcocks** and either standard taper inner joints or No. 15 o-ring joint connections off each port. The distance between ports is 210mm, which will accept flasks up to 3000mL. Both **8738-18** and **8738-44** manifolds can be used for No-Air™ applications.

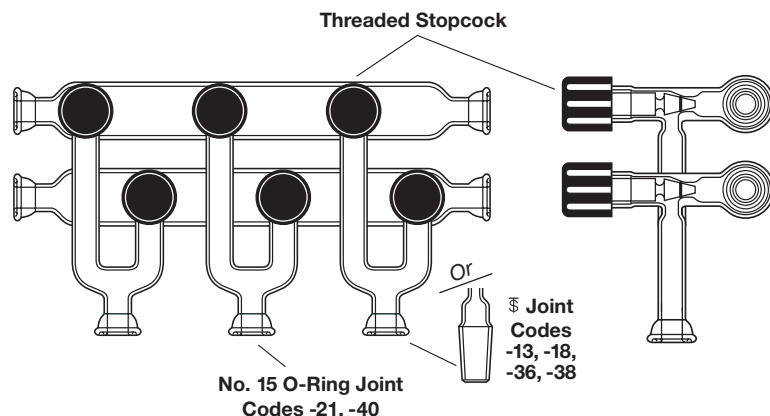
No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	520	<b>8738-14</b>
3	§24/40	520	<b>8738-16</b>
3	No. 15 O-Ring	520	<b>8738-18</b>
4	§14/20	730	<b>8738-40</b>
4	§24/40	730	<b>8738-42</b>
4	No. 15 O-Ring	730	<b>8738-44</b>

# Vacuum Manifolds

## 8739 Vacuum Manifold *Double Tube*

Two No. 15 o-ring joint connections at each end. Three or four outlet ports with six **Easy-Action 0-10mm threaded stopcocks** and either standard taper inner joints or No. 15 o-ring joint connections off each port. The distance between ports is 100mm, which will accept flasks up to 250mL. Both **8739-18** and **8739-40** manifolds can be used for No-Air™ applications.

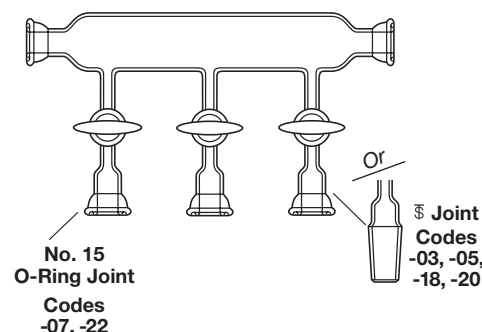
No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	355	<b>8739-13</b>
3	§24/40	355	<b>8739-18</b>
3	No. 15 O-Ring	355	<b>8739-21</b>
4	§14/20	455	<b>8739-36</b>
4	§24/40	455	<b>8739-38</b>
4	No. 15 O-Ring	455	<b>8739-40</b>



## 8740 Vacuum Manifold *Single Tube*

No. 15 o-ring joint connections at each end. Three or four ports with **4mm bore glass high-vacuum stopcocks** and either standard taper inner joints or No. 15 o-ring joint connections off each port. The distance between ports is 95mm, which will accept flasks up to 250mL. Both **8740-07** and **8740-22** manifolds can be used for No-Air™ applications.

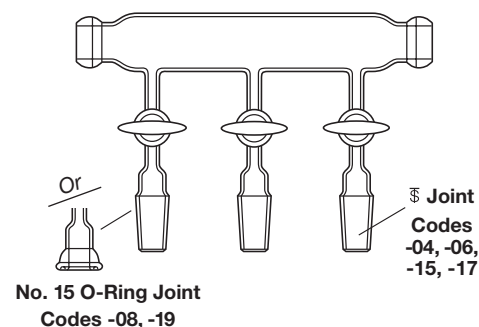
No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	310	<b>8740-03</b>
3	§24/40	310	<b>8740-05</b>
3	No. 15 O-Ring	310	<b>8740-07</b>
4	§14/20	405	<b>8740-18</b>
4	§24/40	405	<b>8740-20</b>
4	No. 15 O-Ring	405	<b>8740-22</b>



## 8743 Vacuum Manifold *Single Tube*

With 35/25 spherical ball joint connections at each end. Three or four ports with **4mm bore glass high-vacuum stopcocks** and either standard taper inner joints or No. 15 o-ring joint connections off each port. The distance between ports is 95mm, which will accept flasks up to 250mL. Both **8743-08** and **8743-19** manifolds can be used for No-Air™ applications.

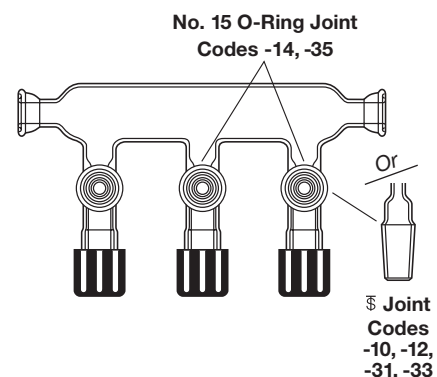
No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	310	<b>8743-04</b>
3	§24/40	310	<b>8743-06</b>
3	No. 15 O-Ring	310	<b>8743-08</b>
4	§14/20	405	<b>8743-15</b>
4	§24/40	405	<b>8743-17</b>
4	No. 15 O-Ring	405	<b>8743-19</b>



## 8745 Vacuum Manifold *Single Tube, O-Ring Joint Connections*

No. 15 o-ring joint connections at each end. Three or four ports with **Easy-Action 0-10mm threaded stopcocks** and either standard taper joints or No. 15 o-ring joint connections off each port. The distance between ports is 95mm, which will accept flasks up to 250mL. Both **8745-14** and **8745-35** manifolds can be used for No-Air™ applications.

No. of Ports	Port Joints	Overall Length, mm	Order Code
3	§14/20	310	<b>8745-10</b>
3	§24/40	310	<b>8745-12</b>
3	No. 15 O-Ring	310	<b>8745-14</b>
4	§14/20	405	<b>8745-31</b>
4	§24/40	405	<b>8745-33</b>
4	No. 15 O-Ring	405	<b>8745-35</b>

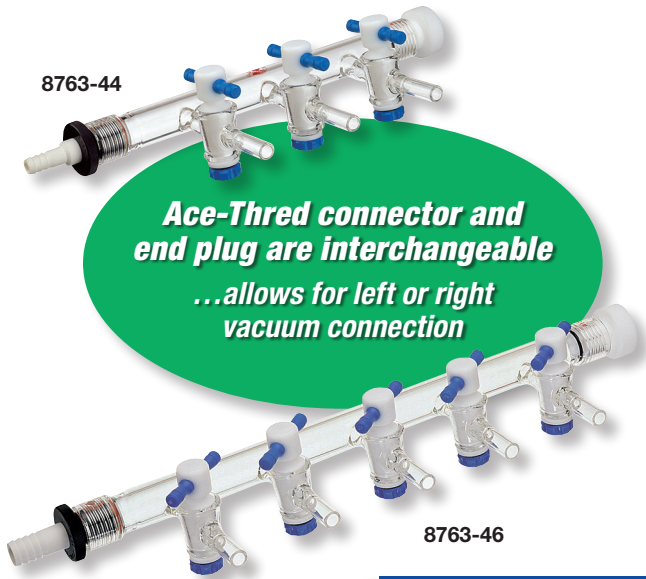


# Vacuum Manifolds

## 8763 Vacuum Manifold *Dual*

Glass manifold with #15 Ace-Thred at either end to allow switching **5853** vacuum connection to left or right side. Supplied with three or five 4mm straight bore PTFE stopcock sampling ports. (Additional ports can be ordered.) Overall length of glass manifold is 230mm.

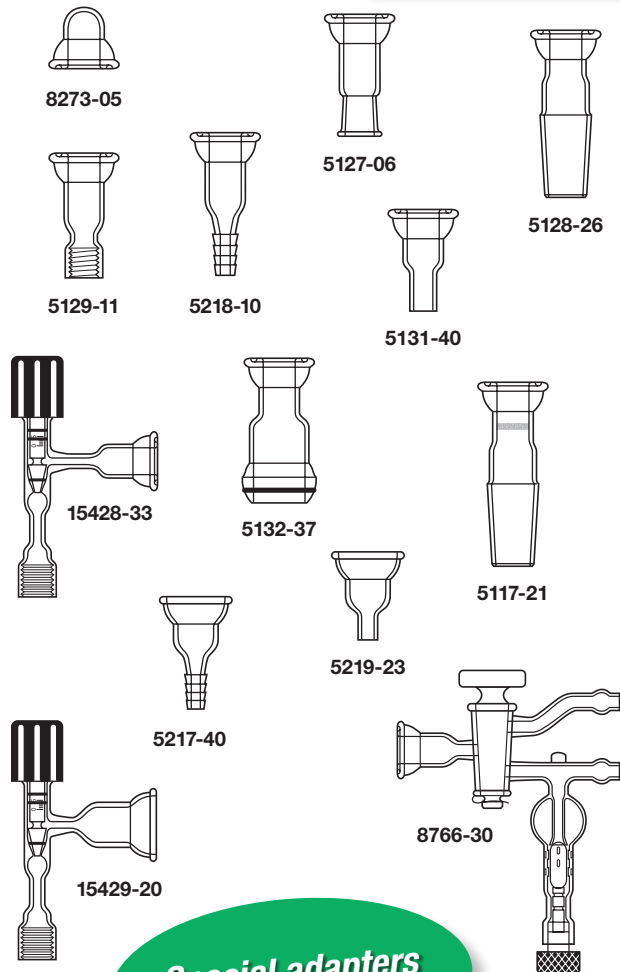
Complete item consists of **8763** glass manifold, **5846-48** end plug with FETFE size -110 o-ring, and **5853-18** and **5853-21** Ace-Safe hose connection for 1/4-inch or 1/2-inch tubing connection.



**Ace-Thred connector and end plug are interchangeable**  
...allows for left or right vacuum connection

	Three Ports Order Code	Five Ports Order Code
Glass Manifold, only	<b>8763-14</b>	<b>8763-16</b>
#15 End Plug, PTFE with o-ring	<b>5846-48</b>	<b>5846-48</b>
#15 Connector, with o-ring, for 1/4-in.	<b>5853-18</b>	<b>5853-18</b>
#15 Connector, with o-ring, for 1/2-in.	<b>5853-21</b>	<b>5853-21</b>
#15 Connector bushing	<b>7506-05</b>	<b>7506-05</b>
<b>COMPLETE</b>	<b>8763-44</b>	<b>8763-46</b>

## Vacuum Manifold Adapters



**Special adapters also available**

Description	Order Code
No. 15 o-ring Joint to Cap (Stopper)	<b>8273-05</b>
No. 15 o-ring Joint to $\text{F}14/20$ Outer Joint	<b>5127-04</b>
No. 15 o-ring Joint to $\text{F}19/22$ Outer Joint	<b>5127-06</b>
No. 15 o-ring Joint to $\text{F}24/40$ Outer Joint	<b>5127-20</b>
No. 15 o-ring Joint to $\text{F}14/20$ Inner Joint	<b>5128-07</b>
No. 15 o-ring Joint to $\text{F}19/22$ Inner Joint	<b>5128-11</b>
No. 15 o-ring Joint to $\text{F}24/40$ Inner Joint	<b>5128-26</b>
No. 15 o-ring Joint to #7 Ace-Thred	<b>5129-07</b>
No. 15 o-ring Joint to #11 Ace-Thred	<b>5129-11</b>
No. 15 o-ring Joint to #15 Ace-Thred	<b>5129-15</b>
No. 15 o-ring Joint to #25 Ace-Thred	<b>5129-25</b>
No. 15 o-ring Joint to Size E Hose Conn. (1/2-inch Tube)	<b>5218-10</b>
No. 15 o-ring Joint to Straight 3/8-inch Tube*	<b>5131-30</b>
No. 15 o-ring Joint to Straight 1/2-inch Tube*	<b>5131-40</b>
No. 15 o-ring Joint to 0-5mm Valve with #7 Ace-Thred	<b>15428-28</b>
No. 15 o-ring Joint to 0-5mm Valve with #11 Ace-Thred	<b>15428-33</b>
No. 15 o-ring Joint to $\text{F}14/20$ o-ring Joint	<b>5132-06</b>
No. 15 o-ring Joint to $\text{F}24/40$ o-ring Joint	<b>5132-09</b>
No. 15 o-ring Joint to $\text{F}28/15$ Ball Joint	<b>5132-34</b>
No. 15 o-ring Joint to $\text{F}35/25$ Ball Joint	<b>5132-37</b>
No. 15 o-ring Joint to $\text{F}14/20$ Outer Joint w/Por B Frit	<b>5117-18</b>
No. 15 o-ring Joint to $\text{F}19/22$ Outer Joint w/Por B Frit	<b>5117-21</b>
$\text{F}35/25$ Socket Joint to Size F Hose Conn. (1/2-inch Tube)	<b>5217-40</b>
$\text{F}35/25$ Socket Joint to Straight 3/8-inch Tube	<b>5219-23</b>
$\text{F}35/25$ Socket Joint to Straight 1/2-inch Tube	<b>5219-26</b>
$\text{F}35/25$ Socket Joint to 0-5mm Valve with #7 Ace-Thred	<b>15429-17</b>
$\text{F}35/25$ Socket Joint to 0-5mm Valve with #11 Ace-Thred	<b>15429-20</b>
No. 15 o-ring Joint to 1/8-inch Female NPT, 316 Stainless Steel	<b>8877-14</b>
Firestone Purge Valve with No. 15 o-ring Joint	<b>8766-30</b>
FETFE Replacement o-ring for No. 15 o-ring Joint	<b>7855-726</b>

\*Sized for use with *Cajon*<sup>®</sup> or *Swagelok*<sup>®</sup> Compression Fittings

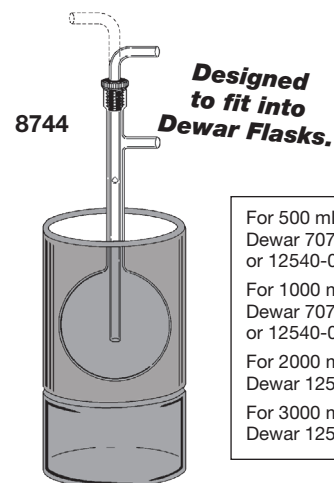
## 8744 Vacuum Trap Threaded

Round bottom with adjustable inner tube and #15 or #25 nylon bushing with 7855 FETFE o-ring. Optional threaded adapters (8746-75 and 8746-78) allow safe, easy tubing connect/disconnect. Attach tubing to serrated end of tubing adapter, then connect adapter via 7506 bushing to inlet and outlet of trap. Serrated end of adapter has six rings; smallest 14mm O.D., largest 16mm O.D. Adapter NOT supplied with complete unit. Order same 7506 bushing as supplied with trap for use with adapter.

Cap., mL	Body Dia., mm	Length, Bottom to Side Arm, mm	Inner Tube O.D., mm	Flask Order Code	Inner Tube Order Code	Nylon Bushing Order Code	Complete Order Code
500	100	235	14	8744-06	8744-09	7506-06	8744-11
1000	125	315	14	8744-08	8744-09	7506-06	8744-13
2000	160	410	24	8744-10	8744-20	7506-10	8744-23
3000	180	410	24	8744-14	8744-20	7506-10	8744-25

### Replacement Items

FETFE O-Rings for #15 Ace-Thred Bushing	Order Code	7855-716
FETFE O-Rings for #25 Ace-Thred Bushing	Order Code	7855-734



For 500 mL, use Dewar 7075-20 or 12540-07.  
 For 1000 mL, use Dewar 7075-25 or 12540-09.  
 For 2000 mL, use Dewar 12540-11.  
 For 3000 mL, use Dewar 12540-11

## 8746 Vacuum Trap Threaded Body, Vacuum/No-Air

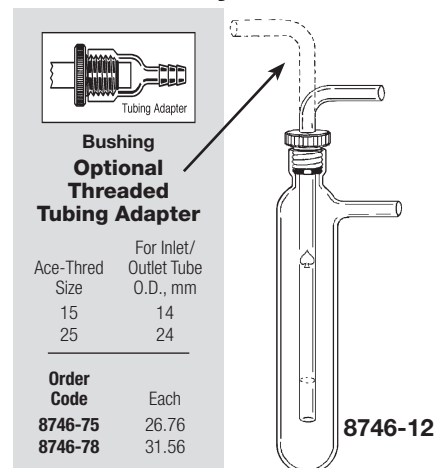
Consists of body with Ace-Thred, adjustable inner tube and #15 or #25 nylon bushing with 7855 FETFE o-ring. Optional threaded tubing adapters (8746-75 and 8746-78) allow safe, easy tubing connect/disconnect. Attach tubing to serrated end of adapter, then connect adapter via 7506 bushing to inlet/outlet of trap. Serrated end has six rings; smallest is 14mm O.D., largest is 16mm O.D. Adapter NOT supplied with complete item. Order same 7506 bushing as supplied with trap for use with adapter.

Body Dia., mm	Body Lgth., mm	Inner Tube O.D., mm	Body, Only Order Code	Inner Tube Order Code	Nylon Bushing Order Code	Complete Order Code
32	250	14	8746-08	8746-10	7506-06	8746-12
38	250	14	8746-20	8746-10	7506-06	8746-24
51	250	14	8746-32	8746-10	7506-06	8746-36
60	250	14	8746-38	8746-10	7506-06	8746-42
90	350	24	8746-50	8746-52	7506-10	8746-54

### Replacement Items

FETFE O-Rings for #15 Ace-Thred Bushing	Order Code	7855-716
FETFE O-Rings for #25 Ace-Thred Bushing	Order Code	7855-734

Depth of inner tube is adjustable



## 8746 Vacuum Trap Threaded Body, with Ace-Threds on Inlet/Outlet

Consists of body with Ace-Thred that accepts an adjustable inner tube secured by a nylon bushing and 7855 FETFE o-ring. Unit has been modified with the addition of #15 Ace-Threds on the inlet/outlet for use with PTFE Ace-Safe tubing connectors, 5853, to make an easy, safe connect/disconnect of tubing. Simply attach tubing to the connector and tighten connector in Ace-Thred with 7506-05 bushing to compress silicone o-ring, supplied with connector, to make a leak-tight seal. Use 7506-06 bushing to secure inner tube in codes -11 thru -44; use 7506-10 in code -60. Complete item consists of body, inner tube, (2) 7506-05, (2) 5853-21, and one 7506-06 or 7506-10.

Body Dia., mm	Body Lgth., mm	Inner Tube O.D., mm	Body, Only Order Code	Inner Tube Order Code	Nylon Bushing Order Code	Complete Order Code
32	250	14	8746-11	8746-13	7506-06	8746-15
38	250	14	8746-23	8746-13	7506-06	8746-27
51	250	14	8746-35	8746-13	7506-06	8746-39
60	250	14	8746-44	8746-13	7506-06	8746-47
90	350	24	8746-60	8746-56	7506-10	8746-68

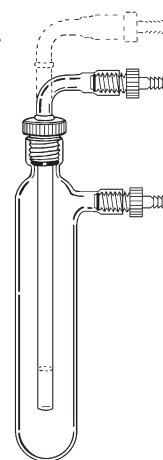
### Replacement Items

Tubing Connector, 9.5mm I.D., for 1/2-inch Tubing	Order Code	5853-21
Tubing Connector, 6.4mm I.D., for 1/4-inch Tubing	Order Code	5853-18
Silicone O-Rings	Order Code	7855-210
FETFE O-Rings for #15 Ace-Thred Bushing	Order Code	7855-716
FETFE O-Rings for #25 Ace-Thred Bushing	Order Code	7855-734

Depth of inner tube is adjustable

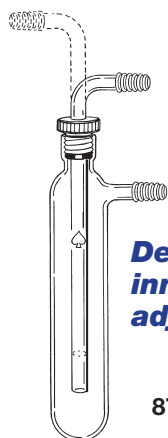


8746-15





# Vacuum Traps



**Depth of inner tube is adjustable**

8747

## 8747 Vacuum Trap Threaded, with Serrated Hose Connections

Same as **8746** except adjustable inlet and outlet tubes have six-ring serrated hose connections. O.D. of smallest ring is 14mm; largest is 16mm.

Body Dia., mm	Body Lgth., mm	Inner Tube O.D., mm	Body, Only Order Code	Inner Tube Order Code	#15 Nylon Bushing Order Code	Complete Order Code
51	250	14	8747-33	8747-11	7506-06	8747-37
60	250	14	8747-39	8747-11	7506-06	8747-43

### Replacement Items

FETFE O-Rings for #15 Ace-Thred Bushing

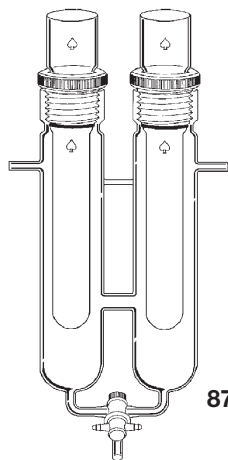
### Order Code

7855-716

## 8748 Vacuum Trap Double, Ace-Thred Top

Twin chambered dry ice vacuum trap for use with rotary evaporators, including ACE **6714** Firestone evaporator, or any other large solvent evaporation applications. Squatty design is 18 inches high, using two chambers, offering increased condensing capacity that would be attained only with a much taller single chambered condenser.

Vacuum traps are secured in main body chambers via #50 Ace-Thred using bushings and o-rings. This type of connection allows for easy removal for cleaning. Two ports located on sides of chambers; one for connecting to evaporator, the other to vacuum source, are 10mm O.D. for 3/8-inch I.D. tubing. Stopcock at bottom is 4mm PTFE 90° bore, for draining condensate one chamber at a time. Normally, condensate will collect in chamber connected nearest to evaporator until filled to crossover between chamber, then second chamber will fill. Capacity of inner vacuum traps is 450mL each. Capacity of outer chambers with trap inserted is approximately 600mL each. Overall height of unit is 18 inches. Complete item includes twin chamber, two vacuum traps, and two #50 nylon bushings with **7855-244** silicone o-rings.



8748-40

Vacuum Trap, only (2)

### Order Code

8748-04

Twin Chamber, only

8748-12

Bushing, Nylon, #50, w/o-ring (2)

7506-15

**Complete**

8748-40

### Replacement Items

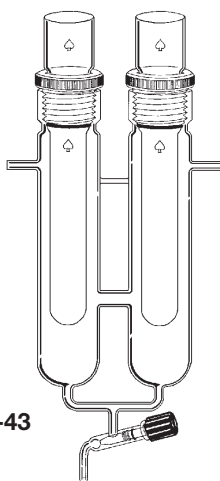
Silicone O-Rings for #50 Ace-Thred Bushing

### Order Code

7855-244

## 8748 Vacuum Trap Double, Ace-Thred Top

Similar to **8748-40** except stopcock at bottom is 0–5mm Easy-Action threaded style with double PTFE ring seals on plug for draining both chambers simultaneously. Overall height, approximately 20 inches.



8748-43

Vacuum Trap, only (2)

### Order Code

8748-04

Twin Chamber, only

8748-10

Bushing, Nylon, #50 with o-ring (2)

7506-15

**Complete**

8748-43

### Replacement Items

Silicone O-Rings for #50 Ace-Thred Bushing

### Order Code

7855-244

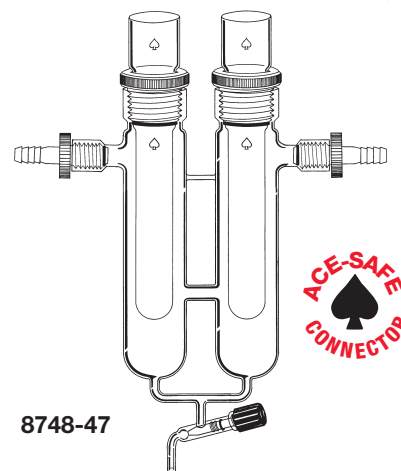


## 8748 Vacuum Trap with Ace-Threds on Inlet/Outlet

Twin chambered dry ice vacuum trap for use with rotary evaporators, including ACE 6714 Firestone evaporator, or any other large solvent evaporation applications. Squatty design is 18 inches high, using two chambers offers increased condensing capacity. Dry ice vacuum traps are secured in main body chambers via #50 Ace-Thred using bushings and 7855-244 silicone o-rings. This type of connection allows easy removal for cleaning. Inlet and outlet ports have been modified with #15 Ace-Threds for use with PTFE Ace-Safe tubing connectors, 5853, to make an easy, safe connect/disconnect of tubing; one to evaporator, the other to a vacuum source. Simply attach 1/2-inch I.D. tubing to the connector and tighten connector in Ace-Thred with 7506-05 bushing to compress 7855-216 silicone o-ring, supplied with connector, to make a leak-tight seal. Stopcock at bottom is 0–5mm Easy-Action threaded style with double PTFE ring seals to drain both chambers simultaneously. Overall height is approximately 20 inches. Complete item includes chamber, (2) 7506-15, (2) 7506-05 and (2) 5853-21.

	Order Code
Vacuum Trap, only (2)	8748-04
Twin Chamber, only	8748-08
Bushing, Nylon, #50, w/o-ring (2)	7506-15
Tubing Connector, w/Silicone o-ring (2)	5853-21
Bushing, Nylon, #15, only (2)	7506-05
<b>Complete</b>	<b>8748-47</b>

Replacement Items	Order Code
Silicone O-Rings for #50 Ace-Thred Bushing	7855-244
Silicone O-Rings for #15 Ace-Thred Bushing	7855-216

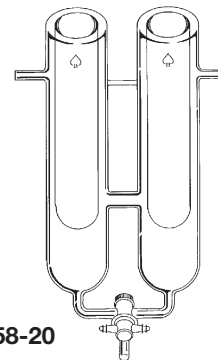


8748-47

## 8758 Vacuum Trap Twin

Twin chambered dry ice condenser-trap similar to 8748 except dry ice finger condensers in this unit are NOT removable. Tubing outlets on sides of chambers, for connecting to rotary evaporator and vacuum source, are 10mm O.D. for 3/8-inch I.D. tubing. Condensate stopcock at bottom is 4mm PTFE, 90° bore, that allows draining each chamber individually. Overall height is approximately 13-1/2 inches. Capacity of dry ice finger condensers is 200mL each. Capacity of outer chambers is approximately 500mL each.

	Order Code
	8758-20

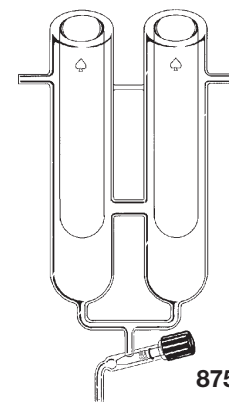


8758-20

## 8758 Vacuum Trap Twin

Same as 8758 except stopcock at bottom is 0–5mm Easy-Action threaded style with double PTFE ring seals on plug for draining both chambers simultaneously. Overall height is approximately 15-1/2 inches.

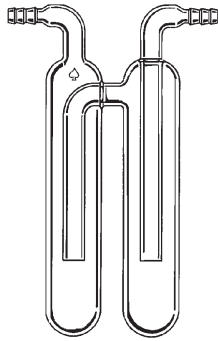
	Order Code
	8758-42



8758-42

**See back cover for NEW vacuum pumps!**

# Vacuum Traps

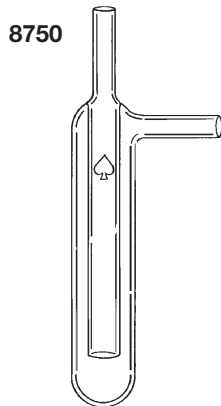


8749

## 8749 Vacuum Trap *Twin Chamber*

Twin chamber vacuum trap for double protection against undesired vapors entering into a vacuum system. Trap can be used in a two liter Dewar flask such as [12540-07](#). Distance from outside of one body to outside of other is approximately 97mm; height is 250mm. Inlet and outlet have serrated hose connections; O.D. of smallest ring is 14mm, largest is 16mm.

Order Code  
8749-20

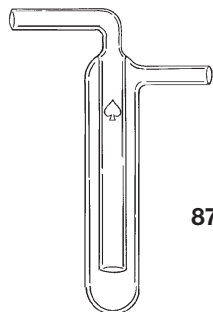


8750

## 8750 Vacuum Trap *Vacuum/No-Air*

Used for freezing out undesired vapors from entering into the vacuum system. Can be used in conjunction with a Dewar flask.

Body Diameter, mm	Body Length, mm	O.D. of Inner & Side Tube, mm	Order Code
25	200	10	8750-04
32	250	13	8750-08
35	250	16	8750-12
38	250	18	8750-16
45	350	25	8750-20

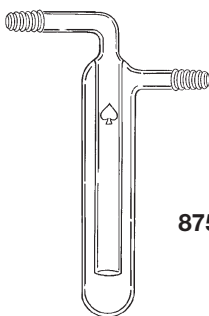


8751

## 8751 Vacuum Trap *Vacuum/No-Air*

Same as [8750](#) except top is bent in line with side tube.

Body Diameter, mm	Body Length, mm	Overall Length, mm	O.D. of Inner & Side Tube, mm	Order Code
25	200	223	10	8751-04
32	250	282	13	8751-08
35	250	282	16	8751-12
38	250	295	18	8751-16
45	350	397	25	8751-20



8752

## 8752 Vacuum Trap

Same as [8751](#) except with six-ring serrated hose connections on inlet and outlet tubes. O.D. of smallest ring is 14mm; largest is 16mm.

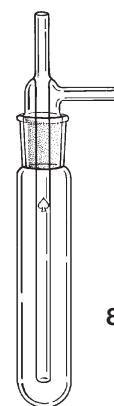
Body Diameter, mm	Body Length, mm	O.D. of Inner & Side Tube, mm	Order Code
25	200	10	8752-05
38	250	18	8752-17

# Vacuum Traps

## 8753 Vacuum Trap

With  $\text{F}$  joint to facilitate cleaning. Straight glass tube connections.

$\text{F}$ Joint	O.D. of Inner & Side Tube, mm	O.D. of Outer Body, mm	Lgth. of Outer Body Below Joint	<i>Outer Body</i>	<i>Inner Tube</i>	<i>Complete</i>
				Order Code	Order Code	Order Code
24/40	10	28	200	8753-02	8753-04	8753-06
29/42	13	32	250	8753-08	8753-10	8753-12
34/45	16	38	250	8753-14	8753-16	8753-18
40/50	19	45	250	8753-20	8753-22	8753-24
45/50	22	51	250	8753-21	8753-23	8753-25
55/50	25	60	140	8753-60	8753-62	8753-64
50/50	30	54	110	8753-70	8753-72	8753-74

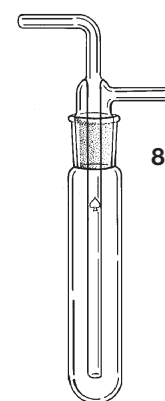


8753-06

## 8753 Vacuum Trap Modified

Same as 8753-06 except top tube is bent in line with side tube, but in opposite direction.

$\text{F}$ Joint	O.D. of Inner & Side Tube, mm	O.D. of Outer Body, mm	Lgth. of Outer Body Below Joint	<i>Outer Body</i>	<i>Inner Tube</i>	<i>Complete</i>
				Order Code	Order Code	Order Code
24/40	10	28	200	8753-02	8753-35	8753-37
29/32	13	32	250	8753-07	8753-09	8753-11
29/42	13	32	250	8753-08	8753-39	8753-40
34/45	16	38	250	8753-14	8753-42	8753-43
40/50	19	45	250	8753-20	8753-47	8753-49
45/50	22	51	250	8753-21	8753-52	8753-54

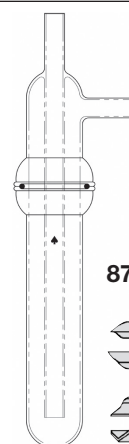


8753-37

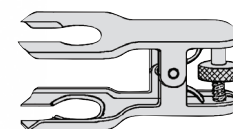
## 8755 Vacuum Trap O-Ring Flange Connection, No-Air

Vacuum trap assembly with a Viton o-ring flange connection. This style has flexibility and ease of assembly and disassembly for cleaning. Utilizes a stainless steel, locking pinch clamp. For replacement o-rings, see 7855 Vitron o-rings.

O.D. of Inner & Side Tube, mm	O.D. of Outer Body, mm	Lgth. of Outer Body Below Joint	Clamp #	Viton O-Ring Size	Order Code
10	28	215	7669-14	-217	8755-05
16	25	280	7669-18	-223	8755-10
19	45	280	7669-20	-226	8755-13
22	57	280	7669-22	-229	8755-17



8755



7669

# Vacuum Traps

## 8756 Vacuum Trap *Single, with Reservoir*

Dry ice vacuum trap that features a 1000mL reservoir flask with 3mm bore, 1:5 PTFE stopcock off bottom for easy draining. Chamber body is 125mm O.D. with 25mm annular space. Dry ice chamber is 250mm deep with 9.5mm (3/8-inch) inlet and outlet connections, 3/8-inch I.D. tubing, size D hose connection. Overall height, approximately 54.6cm (21.5 inches). Code -212 comes complete with plastic lid and is plastic coated for safety. Code -12 is also available plastic coated by special request.

Uncoated, Glassware only  
Plastic Coated, with Plastic Lid

Order Code

8756-12

8756-212



## 8756 Vacuum Trap *with Reservoir & Ace-Thred Inlet/Outlet*

Dry ice vacuum trap that features a 1000mL reservoir flask with 3mm bore, 1:5 PTFE stopcock or 0-5 PTFE Easy-Action valve off bottom for easy draining. Unit has been modified with the addition of #15 Ace-Threds on the inlet and outlet for use with Ace-Safe Tubing Connectors, **5853**, to make an easy, safe connect/disconnect of tubing. Simply attach 1/2-inch I.D. tubing to the connector and tighten connector in Ace-Thred with **7506-05** bushing to compress silicone o-ring, supplied with connectors, to make a leak-tight seal. Chamber body is 125mm O.D. with 25mm annular space. Dry ice chamber is 250mm deep. Overall height, approximately 54.6cm (21.5 inches). Complete item consists of body only, (2) **5853** tubing connectors, and (2) **7506-05** bushings. Body available plastic coated via special request.

Body only, with stopcock off bottom  
Body only, with 0-5 PTFE valve off bottom  
Tubing Connector, w/Silicone o-ring (2)  
Bushing, Nylon, #15, without o-ring (2)  
**Complete**, with stopcock off bottom  
**Complete**, with 0-5 PTFE valve off bottom

Order Code

8756-32

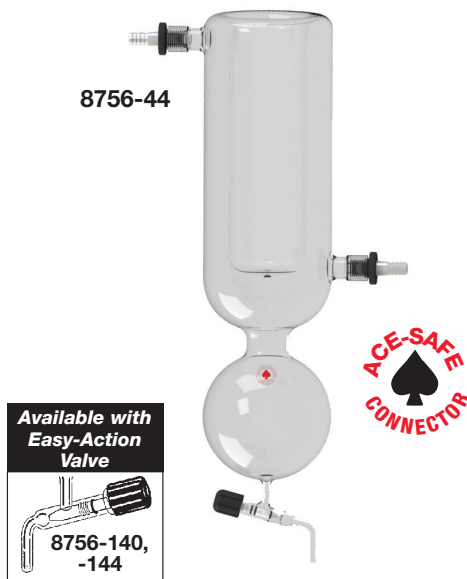
8756-140

5853-21

7506-05

8756-44

8756-144



## 8757 Vacuum Trap *Dewar Type*

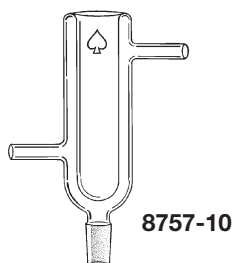
With a  $\text{J}$  24/40 joint at the bottom. Inside diameter of coolant section is 50mm and length is approximately 250mm O.D. of inlet and outlet is 22mm.

$\text{J}$  Joint

24/40

Order Code

8757-10

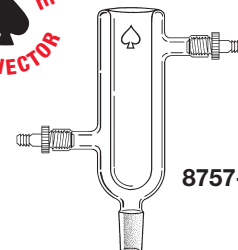




## 8757 Vacuum Trap Dewar Type, with Ace-Thred Inlet/Outlet

With a  $\text{F}$  24/40 joint at the bottom. Inside diameter of coolant section is 50mm and length is approximately 250mm. Unit has been fitted with #15 Ace-Threds on the inlet and outlet for use with Ace-Safe tubing connectors, **5853**, to make an easy, safe connect/disconnect of tubing. Simply attach 1/2-inch I.D. tubing to the connector and tighten connector in Ace-Thred with **7506-05** bushing to compress silicone o-ring, supplied with connectors, to make a leak-tight seal. Complete item consists of body only, (2) **5853** tubing connectors, and (2) **7506-05** bushings.

	Order Code
Body, only	<b>8757-22</b>
Tubing Connector, w/Silicone o-ring (2)	<b>5853-21</b>
Bushing, Nylon, #15, without o-ring (2)	<b>7506-05</b>
<b>Complete</b>	<b>8757-35</b>



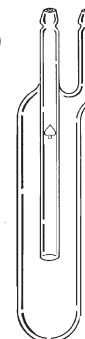
8757-35

## 8759 Vacuum Trap

With both arms in vertical position. 60mm O.D. x 250mm long. Side arms are 12mm O.D. Available with or without serrated connections on arms. Serrated connectors have six rings: the smallest, 14mm O.D.; largest, 16mm O.D.

	Order Code
Without Serrated Connectors	<b>8759-04</b>
With Serrated Connectors	<b>8759-26</b>

8759



## 8760 Vacuum Trap

Two piece vacuum trap design facilitates easy cleaning. Stopper features hose connection ends and a bent vertical tube. Use with 3/8-inch or 5/16-inch I.D. tubing, size C. See Ace **8753** family for the outer trap bodies only.

$\text{F}$ Joint	O.D. of Inner & Side Tube, mm	O.D. of Outer Body, mm	Lgth. of Outer Body Below Joint	Inner Tube	Complete
				Order Code	Order Code
29/32	13	32	250	<b>8760-06</b>	<b>8760-08</b>
29/42	13	32	250	<b>8760-10</b>	<b>8760-12</b>
34/45	16	38	250	<b>8760-16</b>	<b>8760-18</b>
40/50	19	45	250	<b>8760-22</b>	<b>8760-24</b>
55/50	25	60	140	<b>8760-62</b>	<b>8760-64</b>
50/50	30	54	110	<b>8760-72</b>	<b>8760-74</b>

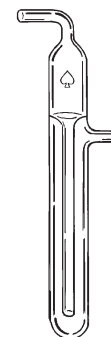


8760

## 8761 Bubbler Mineral Oil, Vacuum/No-Air

Used to make a vent to the atmosphere. May also be used with mercury when adequate ventilation is available. Reservoir head prevents oil from being sucked back into the system. With 8mm O.D. tubing connections. Volume approximately 40mL below side arm.

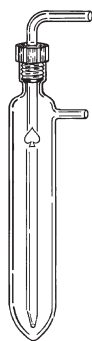
Order Code
<b>8761-10</b>



8761

# Vacuum Traps

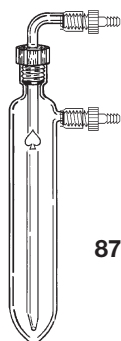
8762-14



## 8762 Bubbler Mineral Oil, Adjustable, Vacuum/No-Air

With completely adjustable 7mm inner tube. Tube has a pulled tip and is secured by a #7 Ace-Thred. Volume approximately 40mL. Tapered bottom of vessel allows for use with small volumes. Nylon bushing supplied with FETFE o-ring.

	Order Code
Vessel Only	8762-03
Inner Tube	8762-07
Bushing Only	5029-10
<b>Complete</b>	<b>8762-14</b>



8762-20



## 8762 Bubbler Mineral Oil, Adjustable with Ace-Safe

Same item as listed above, except with the addition of #7 Ace-Threds on the inlet and outlet for use with Ace-Safe tubing connectors, 5853, to make an easy, safe connect/disconnect of tubing. Simply attach 1/4-inch I.D. tubing to the connector and tighten connector in Ace-Thred with 7506-05 bushing to compress silicone o-ring, supplied with connectors, to make a leak-tight seal. With completely adjustable 7mm inner tube. Tube has a pulled tip and is secured by a #7 Ace-Thred. Volume approximately 40mL. Tapered bottom of vessel allows for use with small volumes. Nylon bushing supplied with FETFE o-ring.

	Order Code
Vessel Only	8762-05
Inner Tube	8762-08
Bushing Only	5029-10
Connector, only (2)	5853-03
Bushing, Nylon (2)	5029-05
<b>Complete</b>	<b>8762-20</b>

### Optional Item:

Inner Tube with check valve (Fits either 8762-03 or 8762-05)	8762-35
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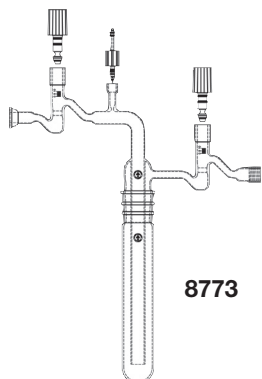


8764

## 8764 Vacuum Trap Vertical Side Arm, Vacuum/No-Air

Modified version of 8750 series of vacuum traps, with side arm bent 90° upward for easier attachment of vacuum tubing. For use with vacuum systems to capture undesirable vapors. Fits easily into Dewar flasks.

Body Diameter, mm	Body Length, mm	O.D. of Inner & Side Tube, mm	Order Code
25	200	10	8764-04
32	250	13	8764-08
35	250	16	8764-12
38	250	18	8764-16
45	350	25	8764-20



8773

## 8773 Vacuum Apparatus Trap/Manifold

Special vacuum apparatus that can be used as a complex trap with the bottom tube or as a small manifold by itself. Can be joined to ACE 8737, 8738 or 8739 manifolds or as a stand alone manifold. The code -23 consists of the -03 manifold and our 8753-21 tube, making a trap unit. It has a 15mm o-ring joint with a 0-10mm PTFE stopcock on one end and a #15 Ace-Thred with a 0-10mm PTFE stopcock on the other end. In the center, we have an air-inlet needle valve. Bottom tube length is 220mm.

Manifold, only	Tube, only	Complete
Order Code	Order Code	Order Code
8773-03	8753-21	8773-23

Thanks to Dr. Simon Humphrey, Chemistry Department, University of Texas, Austin, for this design.

## 14063 Precision Vacuum Regulator *J-Kem Model DVR-1000*

Perfect for vacuum distillation, this unit automatically compensates for leaks in the equipment under test and maintains precise pressure, even in systems with a continuous gas purge. This computer (built-in) controlled vacuum regulator maintains pressure in the range of 0.1 to 760 Torr (atm pressure) in test instruments with volumes as small as 1 mL. Standard features include 16-step programmable pressure ramp and serial communications for PC control and data logging. **Specifications:** Transducer — diaphragm is stainless steel, accuracy to 0.1%, proof pressure 200%. Controller — regulation 0.015% of range; Resolution 0.1 Torr of 0.01 psi; Vapor path materials are stainless steel and PTFE; Ramp Rates are 100 Torr/sec to 0.1 Torr/hr.; Serial communications, RS232 (RS485 or USB upon request).



Order Code  
14063-10

14063

## 14066 Proportioning Valves *J-Kem, Stainless Steel*

Select one for use with digital vacuum regulator **14063-10**.

J-Kem Model	For Reactor Volumes	Cv	Orifice Size	Order Code
PSV-2	1 mL to 2 L	0.033	0.040 in.	14066-01
PSV-3	25 mL to 4 L	0.055	0.055 in.	14066-02
PSV-4	100 mL to 22 L	0.068	0.063 in.	14066-03
PSV-5	1 L to 50 L	0.12	0.093 in.	14066-04
PSV-6	Large Capacity	0.37	0.147 in.	14066-05
PSV-7	Large Capacity	0.7	0.234 in.	14066-06
PSV-8	Large Capacity	1.3	0.316 in.	14066-07
PSV-9	Large Capacity	2.0	0.375 in.	14066-08
DVR-PNV	Stainless Steel Needle Valve, improves regulation			14066-20



14066

## 14061 Vacuum Regulator *J-Kem, No Mercury*

Connect to any vacuum pump or vacuum source, and then to any piece of equipment, to regulate pressure, in most cases to  $\pm 1$  Torr. A standard pressure ramp feature evacuates equipment at a user-defined rate to eliminate bumping due to solvent degassing or over-evacuation. Ideally suited for large volume distillations, rotary evaporators and vacuum chambers. Not recommended for small volume distillations or applications which involve a continuous purge with gas. Designed for vacuum systems that run continuously, such as oil-filled vacuum pumps, aspirators, or with systems that are "always on," like in-house vacuum systems. The unit regulates pressure by opening and closing a valve that separates the vacuum source from the system being evacuated.



J-Kem Model	VAC	Order Code
DVR-200	120	14061-08
DVR-300	230	14061-20

14061

## 14062 Vacuum Regulator *J-Kem, No Mercury*

Designed for use with diaphragm vacuum pumps. In some systems, pressure is regulated by turning the vacuum pump itself on and off. This unit extends the life of diaphragm pumps by never forcing the pump to start against an established vacuum, which can increase pump life by 100%. Not pictured.

J-Kem Model	VAC	Order Code
DVR-280	120	14062-10
DVR-380	230	14062-20

### Recovers >99% of solvent from rotary evaporators

Solvent	DVR Pressure (mm Hg)	Solvent Volume	Time To Dryness	Percent Recovery
Ether	475 Torr	340 mL	14.6 min.	99.6%
CH <sub>2</sub> Cl <sub>2</sub>	300 Torr	360 mL	21.9 min.	99.8%
CH <sub>2</sub> Cl <sub>2</sub>	100 Torr	255 mL	5.9 min.	99.5%
EtOAc	90 Torr	316 mL	17.0 min.	99.9%
Toluene	50 Torr	273 mL	15.7 Min.	99.4%

## 14065 Digital Vacuum Monitor *J-Kem*

Continuous, no regulation.

J-Kem Model	VAC	Order Code
DVM-100	120	14065-05
DVW-140	230	14065-20

## New from Ace Glass — Lab-Scale Pumps by KNF!

A perfect compliment to ACE vacuum apparatus.

### 14098 Vacuum Pump Aspirator, Diaphragm

KNF Model N920 Series. Adjustable speed, aspirator type, vacuum pump. Available in standard (-08) and chemical and corrosion resistant, (-04) models. Easily transportable due to 10Kg weight and small size. Dimensions: 133mm W x 324mm L x 226mm H. Oil free, diaphragm type pumps. Extremely quiet and low-vibration operation. Ideal for aspirator vacuum applications such as bench filtration apparatus, small vacuum manifolds, low pressure chromatography or small bench rotary evaporators. Brushless DC Motor with IP20 protection rating with thermal switch. Temperature range, 5°C to 40°C. Variable power supply 90-264VAC, 50-60 Hz. Barb connection is for 3/8-in ID tubing.

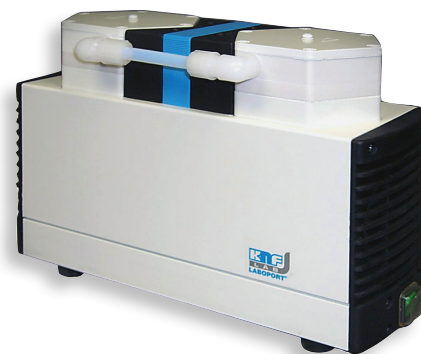
Flow Rate, Lpm	Vacuum Rate, mBar	Pressure Max., psig	Head Material	Diaphragm Material	Valve Material	Order Code
1-20	2.0	7	PPS	PTFE-Coated	FFPM	14098-04



### 14100 Vacuum Pump Diaphragm

KNF LABOPORT Series, PTFE-coated diaphragm type vacuum pumps. Clean, oil-free performance. All chemically resistant wetted parts can tolerate wet vapors without damage. PTFE heads, PTFE-coated diaphragms and FFPM valves. All two-stage head design for smooth, efficient vacuum performance. Temperature range ambient +5°C to 40°C. Ideal for bench rotavaps, gel drying, distillation of solvents, and large scale evaporation for vessels up to 15L. Electric 115V, 60 Hz motor with IP44 protection rating. Hose barb connections for 3/8-in ID tubing, except 1/2-in ID for code -12.

Flow Rate, Lpm	Vacuum Torr (In.Hg)	Pressure Max., psig	Weight, Kg	Order Code
10	6.0 (29.7)	15.0	7.2	14100-04
20	6.0 (29.7)	15.0	9.5	14100-06
34	6.0 (29.7)	15.0	12.6	14100-08
34	1.5 (29.9)	15.0	13.3	14100-10
60	1.5 (29.9)	15.0	14.8	14100-12



### 14101 Vacuum Pump Diaphragm

KNF LABOPORT Filtration Series, PTFE-coated diaphragm type vacuum pumps. Clean, oil-free performance. Pumps have both pressure and vacuum capability. All chemically resistant wetted parts can tolerate wet vapors without damage. PPS heads, PTFE-coated diaphragms and either FPM or FFPM valves. All two-stage head design for smooth, efficient performance. Temperature range ambient +5°C to 40°C. Ideal for larger bench rotavaps, 4 or 6 port vacuum manifolds, gel drying, bottle top, and glass filtration apparatus. 115V, 60 Hz. Outlet barb connections on codes -02, -04, -06 and -08 are for 1/4-in ID tubing; connection for codes -10 and -12 are for 3/8-in ID tubing. (Also available with vacuum gauge). Electric 115V, 60 Hz motors with IP100 protection code.

Flow Rate, Lpm	Vacuum Torr (In.Hg)	Pressure Max., psig	Weight, Kg	Valve Material	Order Code
5.5	120 (25.2)	1.9	35.0	FFPM	14101-02
13.0	75 (27.0)	2.5	15.0	FPM	14101-04
30.0	120 (25.2)	4.0	7.4	FFPM	14101-06
16.0	15 (29.3)	4.0	7.4	FFPM	14101-08
37.0	113 (25.7)	6.8	7.4	FFPM	14101-10
22.0	11 (29.5)	6.8	7.4	FFPM	14101-12



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