

An Improved Apparatus for

Laboratory Vacuum Filtration



A safer, more stable solution to Vacuum Filtration from Ace Glass. Out with silicone stoppers, collars and clamps. In with Ace-Thred™ funnel to filter flask couplings and Ace-Safe™ hose connections. Not only does the threaded connection between the funnel and the filter flask increase the effectiveness of the vacuum seal, it also offers a rigidity between the two that will increase the safety aspect of the entire apparatus if chain clamped to a stand.

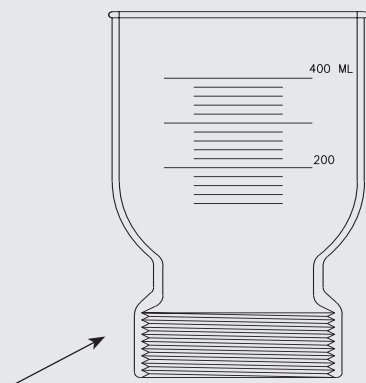
The funnel to filter flask couplings are designed to accept 25mm, 47mm or 75mm filter membranes. Choose the apparatus size that fits your need.

The complete unit is supplied with a porosity B (70-100 micron) fritted glass filter membrane support, however one may optionally order from a variety of glass, polypropylene, nylon or PTFE supports.

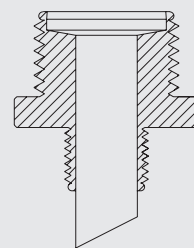
Features:

- *No Clamps, no leakage, no misalignment*
- *Easy to remove filter support, simple to clean, simple to change porosity*
- *Better membrane surface area utilization, e.g. 45mm of 47mm membrane will be exposed*
- *Funnel/flask coupling is available in either Nylon or PTFE*
- *Designed for 25mm, 47mm and 75mm membrane filters*

A Unique Concept in Lab Filtration Apparatus



Nylon adapters are standard, PTFE is optional.



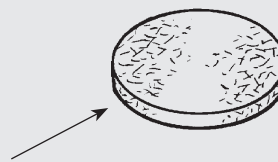
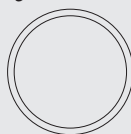
No clamp, no leakage!

Using Ace-Thred design, filter funnel and filter flask thread together without the silicone stopper and troublesome clamping device.

Better membrane utilization!

Accommodates the 47mm and 25mm membranes and uses 45mm of the 47mm grid vs. only 35-40mm in older designs.

Nylon membrane retaining ring completes seal.



Removable frits!

Unit disassembles completely for easy cleaning. Uses removable frits of different porosities, from extra coarse to extra fine, instead of expensive, sealed-in frits.

ACE Designation	Porosity Maximum Pore Dia. Range (micron)	Corning, Kimble & ChemGlass Equivalent	Most Frequent Uses
A	145-174	EC (170-220)	Coarse filtration. Gas Dispersion
B	70-100	—	Coarse filtration. Gas Dispersion
C	25-50	C (40-60)	Filtration. Gas Dispersion
D	10-20	M (10-15)	Filtration and extraction
E	4-8	F (4-5.5)	Filtration and extraction

Fritted Glass Discs Filtration Apparatus ♦

Fritted filter disks for Ace Membrane Filtration Apparatus. Special tight outside diameter and tolerance to fit 3702-10 and 3700-10 filter adapters.

Disc O.D.	Porosity A (145-174 microns)	Porosity B (70-100 microns)	Porosity C (25-50 microns)
	Order Code	Order Code	Order Code
25mm	3703-23	3703-25	3703-29
47mm	3703-45	3703-47	3703-49
75mm	—	—	3703-75



New size and design, 75mm OD filtration apparatus. Can be used with membranes or filter paper with 75mm OD. Design gives 99% utilization of the surface area for membranes or filter paper. Can be used with just Porosity C “Coarse” fritted glass disc for solvent recycling. Glass components are all borosilicate and the center adapter is all inert PTFE. The entire assembly threads apart easily for cleaning and filter paper insertion. Available with either a 2L Erlenmeyer flask or a 5L Duran® GL80 bottle. Choose PTFE Ace-Safe™ option for a fully autoclavable apparatus.



75mm Membrane Filters *Filtration Flask Apparatus*

Erlenmeyer flask version. Easily threads together and apart for ease of use and easy cleaning. The contents can be easily captured or poured out of the flask. The frit is easily interchanged. Apparatus has #15 Ace-Safe™ connection with 1/2” hose connection for vacuum hook-up.

Description	Size	Order Code
Components		
Filter Flask w/#50 Ace-Thred™ & #15 Ace-Thred™ Connector	2000mL	3708-20 ♣
PTFE Adapter w/#80 Ace-Thred™ top w/75mm filter support & #50 Ace-Thred™ bottom, w/drip tip		3708-14 ★
PTFE Ring	75mm	3708-16 ★
Funnel w/#80 Ace-Thred™ bottom, graduated	1000mL	3708-10 ♣
Fritted Disk, Porosity C (25-50 micron)	75mm	3703-75 ♣

Complete Apparatus

2L Erlenmeyer Flask w/Ace-Thred™; #15 Ace-Thred™ connector; PTFE Adapter w/#50 Ace-Thred™ bottom & #80 Ace-Thred™ top; 75mm Porosity C (25-50 micron) fritted disc; 75mm PTFE ring; 1000mL graduated funnel w/#80 Ace-Thred™ bottom		3708-02 ♣
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Optional Accessories

Nylon Filter Support, (137) 1/8” holes		5814-334 ★
PTFE Filter Support, (137) 1/8” holes		5814-338 ★
PTFE #15 Ace-Safe™ Hose Connection		5858-14 ★



75mm Membrane Filters *Filtration Bottle Apparatus*

Bottle version has a 5L, Duran®, GL80 wide mouth, bottle as the base, 1L graduated funnel, and all-PTFE bottle adapter. The GL80 polypropylene cap is included to seal off the bottle after filtering. Bottle has #15 Ace-Thred™ vacuum port with 1/2” hose connection, and 75mm Porosity C “coarse” glass fritted disc.

Description	Size	Order Code
Components		
Duran Bottle w/wide mouth GL80 & #15 Ace-Thred™ Connector	5000mL	3709-18 ♣
PTFE Adapter w/#80 Ace-Thred™ top w/75mm filter support & GL80 bottom, w/drip tip		3709-16 ★
PTFE Ring	75mm	3708-16 ★
Funnel w/#80 Ace-Thred™ bottom, graduated	1000mL	3708-10 ♣
Fritted Disk, Porosity C (25-50 micron)	75mm	3703-75 ♣

Complete Apparatus

5L Duran® Bottle w/GL80 thread; #15 Ace-Thred™ connector; PTFE Adapter w/#80 Ace-Thred™ to GL80 thread; 75mm Porosity C (25-50 micron) fritted disc; 75mm PTFE ring; 1000mL graduated funnel w/#80 Ace-Thred™ bottom		3709-05 ♣
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Optional Accessories

Nylon Filter Support, (137) 1/8” holes		5814-334 ★
PTFE Filter Support, (137) 1/8” holes		5814-338 ★
PTFE #15 Ace-Safe™ Hose Connection		5858-14 ★

ACE-SAFE™ Connections *Tubing*

Tubing connector, used to connect flexible tubing to Ace-Thred™ for easy, safe connect/disconnect. 5029/7506 Nylon bushing slides over serrated end and secures polypropylene connector in thread with O-Ring in front groove to make vacuum tight compression seal. Always add or remove tubing from the hose barb while the connector is unthreaded from the glass.

Note: Temperature range for Polypropylene is -20 to 110°C. Temperature range for PTFE is -40 to 200°C.



Description	Qty	PTFE Stem / PTFE Bushing		Polypropylene Stem / Nylon Bushing	
		#7 Ace-Thred to 1/4" I.D. Tubing	#15 Ace-Thred to 1/2" ID Tubing	#7 Ace-Thred to 1/4" I.D. Tubing	#15 Ace-Thred to 1/2" ID Tubing
		Order Code	Order Code	Order Code	Order Code
Components					
Stem, only, w/O-Ring	1	—	—	5853-03 ♠	5853-21 ♠
Bushing, only	1	—	—	5029-05 ♠	7506-05 ♠
Complete Connection					
	1	5858-03 ★	5858-14 ★	5853-06 ♠	5853-26 ♠
Replacement O-Rings					
	12	7855-707 ♠	7855-710 ♠	7855-207 ♠	7855-210 ♠

Filter Flask *Standard Taper Neck, Heavy Wall ♠*

Heavy wall Erlenmeyer style flask with 1/4" side hose barb and reinforced 24/40 top joint. Use with 3/8" I.D. tubing, size D.

Note: Flask and nylon adapter are optional equipment used in place of the Ace-Thred Filter Flask.

Capacity, mL	Joint, Standard Taper	Ace-Thred #	Order Code
Flask			
500	24/40	—	6979-10
1000	24/40	—	6979-15
Nylon Adapter (Standard Taper to Ace-Thred)			
for 500	24/40	50	3702-05
for 1000	24/40	25	3700-04



Vacuum Pump *Aspirator ★*

Portable, vacuum aspirator pump ideal for use is gel drying, vacuum filtering, distillation and in conjunction with rotary evaporators. Vacuum is created via a pressed recirculation system by water-jet pump.

Maximum vacuum: 8.7mbar @ 5°C, 12.3mbar @ 10°C, 23.mbar @ 20°C. 10L polypropylene tank, 19L/min max flow rate, 3/8" barbed vacuum ports, 3/4" drain and overflow nozzles. Wetted materials: polypropylene, nickel coated brass, 304 stainless steel and silicone. Available in 115v or 230v.



Order Code
14030-25

Vacuum Pump *Mini, ILMVAC ★*

Compact model designed with a small, twin-head, diaphragm pump, enclosed in robust housing and a wide voltage range power adapter. Extremely quiet with low vibration and a small footprint for lab bench use. Standard duty for most applications in water and wastewater sampling and testing and for biological testing and sampling. It matches very well to the ACE filtration apparatus units 3700 and 3702. PTFE diaphragm and PEEK valve for wear resistance and minimal maintenance. Selectable voltage from 90-240 volt. 60mBar maximum vacuum, 10L/min. flow rate.



Head Material Aluminum
ILMVAC Model MP060E

Order Code
14125-01

