Whatman

WHATMAN GRADE 934-AH® GLASS FIBER FILTERS

Grade 934-AH® is approved by Standard Methods and will work for both Total Suspended Solids and Volatile Solids.
Retention size: 1.5 microns. Packs of 100 circles.

Diameter (cm)	NCL #	Price/pk
2.1	**F-93421**	**20.15**
2.4	**F-93424**	**22.10**
3.2	**F-93432**	**25.90**
3.5	**F-93435**	**28.85**
3.7	**F-93437**	**28.85**
4.25	**F-93442**	**31.75**
4.7	**F-93447**	**39.35**
5.5	**F-93455**	**47.50**
7.0	**F-93470**	**51.85**
9.0	**F-93490**	**86.45**
11.0	**F-93411**	**97.40**
12.5	**F-93412**	**118.75**

PRE-WASHED, PRE-WEIGHED FILTERS

Whatman 934-AH®, one of the most widely used filters for Total Suspended Solids analysis, is now available in a time-saving, Ready-To-Use (RTU) format: pre-washed and pre-weighed. Each RTU filter is packaged within an aluminum pan with the filter weight clearly printed on a heat resistant label.
The 934-AH® RTU meets the requirements under the latest edition of Standard Methods 2540D.
100 per pack.

Each pre-treated filter comes in an aluminum pan with the filter weight clearly noted.

First, place the 934-AH® RTU on the funnel of the vacuum filtration apparatus and seal the filter to the funnel by wetting with a small amount of water. Then, filter your sample. Finally, wash the filter with three aliquots of 10 ml reagent grade water.

Remove the filter, return it to the aluminum weigh pan and dry it to constant weight at 103°C to 105°C. To obtain the weight of total suspended solids, subtract the weight of the filter indicated on the pan label from the final weight.

Diameter	NCL #	Price/pk
42.5 cm	**RTU-93442**	**84.50**
47 cm	**RTU-93447**	**72.50**
55 cm	**RTU-93455**	**79.00**

GLASS FIBER FILTERS

The following Glass Fiber Filters are approved by Standard Methods and will work for both Total Suspended Solids and Volatile Solids.
Retention size: 1.5 microns. Packs of 100 circles.

NCL GRADE 934-AH® GLASS FIBER FILTERS

Retention size: 1.5 microns. Packs of 100 circles.
Absolutely guaranteed to be identical to other manufacturer's grade 934-AH® glass fiber filters. Save a ton of money if you can live without the fancy packaging.
934-AH® is a registered trademark of Whatman, Inc.

Diameter (cm)	NCL #	Price/pk
2.1	**FN-93421**	**15.40**
2.4	**FN-93424**	**16.15**
3.2	**FN-93432**	**19.40**
3.7	**FN-93437**	**21.00**
4.25	**FN-93442**	**27.40**
4.7	**FN-93447**	**30.60**
5.5	**FN-93455**	**32.75**
7.0	**FN-93470**	**43.15**
9.0	**FN-93490**	**56.35**
11.0	**FN-93411**	**83.00**
12.5	**FN-93412**	**103.10**
15.0	**FN-93415**	**131.15**

GLASS FIBER FILTERS

The following Glass Fiber Filters are approved by Standard Methods and will work for Total Suspended Solids. They may not work for Volatile Solids.
Retention size: 1.5 microns. Packs of 100 circles.

NCL TYPE A-E GLASS MICROFIBER FILTERS

Save money on your Type A-E glass fiber filters by buying NCL brand instead of the other guys. Guaranteed to be absolutely the same in particle retention, size, and performance. These filters meet the requirements for TSS testing as defined in Standard Methods. 100 filters per pack.

Diameter (cm)	NCL #	Price/pk
2.1	**AE-21**	**17.40**
2.4	**AE-24**	**17.40**
2.5	**AE-25**	**17.40**
3.2	**AE-32**	**18.60**
3.7	**AE-37**	**18.60**
4.25	**AE-42**	**30.50**
4.7	**AE-47**	**33.90**
5.5	**AE-55**	**39.60**
7.0	**AE-70**	**46.55**
9.0	**AE-90**	**48.50**
10.2	**AE-102**	**72.45**
11.0	**AE-110**	**69.70**
12.5	**AE-125**	**99.60**

PREWASHED FILTERS

Many of you have requested these. As you know Standard Methods requires you to wash and dry TSS filters until they are of constant weight. This takes time and time is money.

Prewashed filters are vacuum rinsed with 3 aliquots of deionized water. This step removes any loose fibers which could affect the filters constant weight. The filters are then dried at 105°C, cooled and desiccated for 24 hours. For those of you willing to spend the extra money, we offer these as follows. All are grade 934AH. Packs of 100.

Diameter (cm)	NCL #	Price/pk
4.7	**PWF-47**	**49.75**
9.0	**PWF-90**	**64.50**

MILLIPORE GLASS FIBER FILTERS

AP40-047-05. Glass fiber filters without binder. Retains structural integrity without weight loss when ignited at 550°C.
47 mm diameter. Packs of 500.

FM-147 229.50/pk

GLASS FIBER FILTERS

The following Glass Fiber Filters are not mentioned by Standard Methods.

OTHER WHATMAN GLASS FIBER FILTERS

Listed below are the most popular sizes and grades.
Please call if you don't see what you need.
Pack quantities are as indicated.

Diameter (cm)	Type	NCL #	Price/pk
3.7	GF/A	**F-500**	**28.85/100**
5.5	GF/A	**F-510**	**35.55/100**
9.0	GF/A	**F-520**	**64.30/100**
11.0	GF/B	**F-523**	**40.35/100**
2.4	GF/C	**F-526**	**50.90/100**
4.25	GF/C	**F-532**	**58.55/100**
4.7	GF/C	**F-533**	**77.75/100**
5.5	GF/C	**F-534**	**92.20/100**
9.0	GF/C	**F-536**	**140.10/100**
2.1	GF/D	**F-539**	**28.85/100**
2.4	GF/D	**F-540**	**28.85/100**
3.5	GF/D	**F-542**	**32.65/100**
4.7	GF/D	**F-545**	**43.25/100**
9.0	GF/D	**F-550**	**28.85/25**
11.0	GF/D	**F-551**	**38.40/25**

FILTER PAPER

WHATMAN #1: Qualitative, medium to fast. Retention size: 11 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-107**	**7.70**
9.0	**FW-109**	**9.70**
11.0	**FW-111**	**11.50**
12.5	**FW-112**	**11.50**
15.0	**FW-115**	**17.25**
18.5	**FW-118**	**24.05**
24.0	**FW-124**	**38.40**

WHATMAN #2: Qualitative, medium speed. Retention size: 8 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-207**	**10.60**
9.0	**FW-209**	**12.55**
11.0	**FW-211**	**12.55**
12.5	**FW-212**	**15.40**
15.0	**FW-215**	**20.15**

WHATMAN #4: Qualitative, fast speed. Retention size: 25 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-407**	**8.65**
9.0	**FW-409**	**10.60**
11.0	**FW-411**	**13.45**
12.5	**FW-412**	**17.25**
15.0	**FW-415**	**22.10**
18.5	**FW-418**	**32.65**

WHATMAN #5: Slow speed. Retention size: 2.5 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-507**	**10.60**
9.0	**FW-509**	**13.45**
11.0	**FW-511**	**17.25**
12.5	**FW-512**	**22.10**
15.0	**FW-515**	**31.75**

WHATMAN #40: Ashless, medium speed. Retention size: 8 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-4007**	**22.10**
9.0	**FW-4009**	**30.70**
11.0	**FW-4011**	**36.45**
12.5	**FW-4012**	**41.30**
15.0	**FW-4015**	**54.75**
18.5	**FW-4018**	**80.60**
24.0	**FW-4024**	**128.05**

WHATMAN #41: Ashless, fast speed. Retention size: 25 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-4107**	**22.10**
9.0	**FW-4109**	**28.85**
11.0	**FW-4111**	**34.60**
12.5	**FW-4112**	**40.35**
15.0	**FW-4115**	**54.75**

WHATMAN #42: Ashless, slow speed. Retention size: 2.5 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-4207**	**23.00**
9.0	**FW-4209**	**30.70**
11.0	**FW-4211**	**37.50**
12.5	**FW-4212**	**43.25**
15.0	**FW-4215**	**54.75**

WHATMAN #541: Hardened, ashless, fast speed. Retention size: 25 microns. Packs of 100.

Diameter (cm)	NCL #	Price/pk
7.0	**FW-54107**	**24.05**
9.0	**FW-54109**	**31.75**
11.0	**FW-54111**	**36.45**
12.5	**FW-54112**	**43.25**
15.0	**FW-54115**	**62.45**

WHATMAN GRADE 1PS PHASE SEPARATION FILTER PAPER

For filtering water-solvent extractions, such as in the Oil & Grease procedure. Packs of 100.

Diameter (cm)	NCL #	Price/pk
11.0	**FW-1PS11**	**44.15**
12.5	**FW-1PS12**	**54.75**
15.0	**FW-1PS15**	**71.05**

COLIFORM FILTERS

GRID FILTERS ONLY (NO PADS)					
Manufacturer	**Manufacturer #**	**Pore Size**	**Description**	**NCL#**	**Price**
HPG	66278	0.45 µm	Individually wrapped, sterile	**FG-690**	**85.00/pk of 200**
HPG	66068	0.45 µm		**FG-690B**	**325.00/cs of 1000**
Millipore	HCWG	0.70 µm		**FM-150**	**72.00/pk of 150**
Millipore	HCWG	0.70 µm		**FM-150B**	**242.40/cs of 600**
Millipore	HAWG	0.45 µm		**FM-151**	**63.00/pk of 150**
Millipore	HAWG	0.45 µm		**FM-151B**	**212.10/cs of 600**
MFS	A045	0.45 µm		**FM-454A**	**44.05/pk of 100**
MFS	A045	0.45 µm		**FM-454B**	**243.25/cs of 1000**
GRID FILTERS WITH PADS					
Manufacturer	**Manufacturer #**	**Pore Size**	**Description**	**NCL#**	**Price**
HPG	63077	0.45 µm	10 bags, each containing 10 filters & 10 pads	**FG-680**	**90.80/pk of 100**
Whatman	7141-104	0.45 µm	100 individual bags, each containing one filter & one pad	**FW-999**	**68.20/pk of 100**

FILTER FUNNELS

MAGNETIC FILTER FUNNEL

Unbreakable polysulfone 300 ml funnel body accommodates 47 mm (4.7 cm) filters. Comes with rubber stopper to fit 1000 or 2000 ml suction flasks, or can be used with a filtration manifold.

FG-710 263.15/ea

KIMBLE GLASS FILTER FUNNEL ASSEMBLY

Supplied with a coarse fritted glass support base, 300 ml graduated funnel, anodized aluminum clamp, and #8 silicone stopper.

FK-937 154.15/ea

REPLACEMENT PARTS FOR KIMBLE FILTER ASSEMBLY

Description	NCL #	Price/ea
glass funnel, 47 mm, 300 ml	**FK-937A**	**63.00**
glass support base	**FK-937B**	**89.70**
clamp	**FK-937C**	**74.65**
silicone stopper with hole	**FK-937D**	**18.75**

MFS GLASS FILTER FUNNEL ASSEMBLY

Supplied with stainless steel screen support base, 300 ml graduated funnel, anodized aluminum clamp, and #8 silicone stopper.

FS-315 206.00/ea

MFS POLYSULFONE FILTER FUNNELS

300 ml graduated polysulfone funnel with recessed filter support to provide sufficient clearance so it will not twist or tear membrane filter.
Comes with #8 stopper to fit 1000 ml suction flasks or MFS vacuum manifold.
For use with 47 mm filters.

Funnel top locks onto base with 1/4 turn.

Probably not as nice as the magnetic version, but a lot cheaper!

FS-5010 55.70/ea

DISPOSABLE FILTER FUNNELS WITH RECEIVER BASE

Sterile, individually wrapped, 150 ml graduated filter funnel with receiver. Includes 47 mm membrane filter. After filtering the sample, upper section twists off for easy removal of membrane filter. For use in coliform determinations where autoclaving is not an option.

Pore Size	Membrane	NCL #	Price/cs
0.2 µm	Plain	**FN-120**	**490.80/72**
0.45 µm	Grided	**FN-130**	**490.80/72**

DISPOSABLE FILTER FUNNELS

Sterile, individually wrapped graduated funnel with 47 mm, 0.45 µm, grided membrane filter. Each case includes 50 funnels and 6 funnel adapters (for use with NCL# R-777, rubber stopper). After filtering the sample, upper section twists off for easy removal of membrane filter.

Funnel Size	NCL #	Price/cs
100 ml	**FN-145A**	**208.00**
250 ml	**FN-145B**	**229.20**

PVC FILTER MANIFOLDS

3-STATION PVC VACUUM MANIFOLD

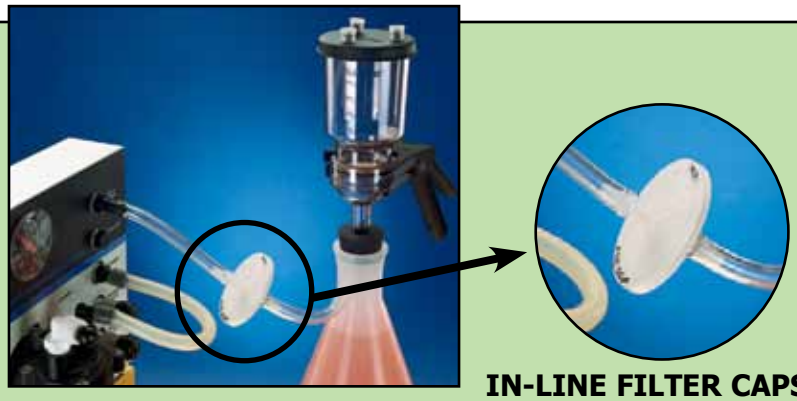
Lightweight, acid resistant; standard cup accepts a #8 stopper to adapt microanalysis units and other devices. A 2-way valve with Teflon (PTFE) stopcock in PVC body. 1/4" male NPT to hose barb fittings connects main manifold to 3/8" ID vacuum tubing. Maximum temperature: 60°C (140°F). Not autoclavable.

MS-534 **763.85/ea**

3-STATION STAINLESS STEEL VACUUM MANIFOLD

Autoclavable, with 2-way valves. Outlet connection: 1/4" male NPT to hose barb fitting connects main manifold to 3/8" ID vacuum tubing. Standard cup accepts a #8 stopper to adapt microanalysis units and other devices. Exterior taper accepts a 40/35 female joint.

MS-531 **1012.70/ea**



IN-LINE FILTER CAPSULE

Protects vacuum pumps from damage by aqueous solutions. Polypropylene housed 50 mm filter capsule has teflon membrane with 0.45 micron pore size. Stepped hose barb accepts 1/4″ to 3/8″ ID tubing. Non-sterile.

FN-440 **116.00/pk of 10**

VAC-RING™ FILTER SEAL

The Vac-Ring™ seal fits Buchner funnel stems and seals the filter flask mouth to prevent air leaks during vacuum filtration. The tapered bore fits funnel stems up to 7/8″ diameter. Made of black neoprene synthetic rubber, the 3″ OD ring also supports standard funnels on beakers.

VR-100 **39.00/ea**