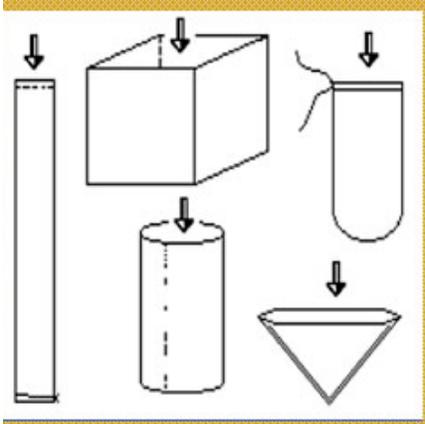
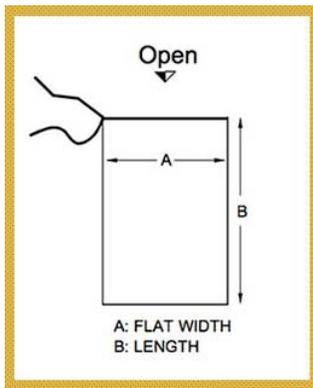


Universal Filters, Inc.

Custom Filter Bags and Products



Universal Filters will design and fabricate any type of bag or media filtration product to meet your air or liquid filtration requirements. We continuously manufacture all types of filters including socks, waste and scrap bin liners, drum liners, filter cones, and special application supported and unsupported filter bags of all sizes and shapes.



Tie-On Filter Bags are specifically designed to be tied or clamped directly to an outlet pipe, for high quality, low-pressure filtration without costly filter baskets or housings. Construction is usually of Multifilament mesh or Monofilament mesh.

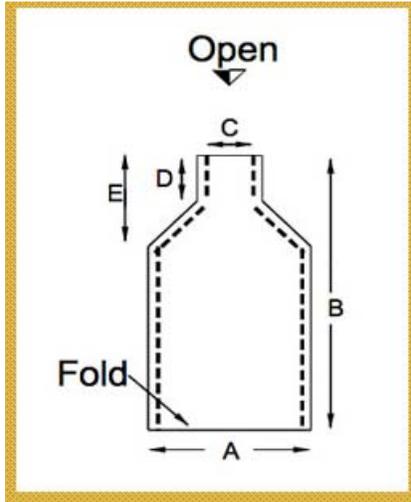
Multifilament Mesh materials offer filtration from 100 to 1500 microns, are less expensive, and are popular in “batch” filtration where the filters cannot be reused. Polyester is the most common Multifilament material. Monofilament Mesh materials offer precise filtration from 1 to 1200 microns. These materials are more expensive

but are significantly stronger and sometimes can be washed and reused. Other materials can be used depending upon the application. Tie-On Filter Bags can be constructed with or without a drawstring top. The drawstring can be deleted if the bag is to be clamped to the pipe with a hose clamp. All seams are double stitched for superior strength. Tie-On Filter Bag Size factors include surface area, micron rating desired, and pipe size to which the filter bag

Pipe Size	Actual OD	Pipe Size	Actual OD
1/8"	0.405	2-1/2"	2.875
1/4"	0.540	3"	3.500
3/8"	0.675	3-1/2"	4.000
1/2"	0.840	4"	4.500
3/4"	1.050	5"	5.563
1"	1.315	6"	6.625
1-1/4"	1.660	8"	8.625
1-1/2"	1.900	10"	10.750
2"	2.375	12"	12.750

will be tied or clamped. The “stated” pipe size is not the actual outside diameter of the pipe. Chart A shows the actual OD for pipe 12” and smaller.

Tie-On Filter Bags can be manufactured in a very wide range of sizes. Bags with flat widths of less than 1” can be made, and bags with flat widths of 72” are not unheard of. Bag lengths can be extremely long as well. The only real limitation to bag size is the strength of the material itself, A large Tie-On Filter Bag full of particulate can get very heavy and tear.

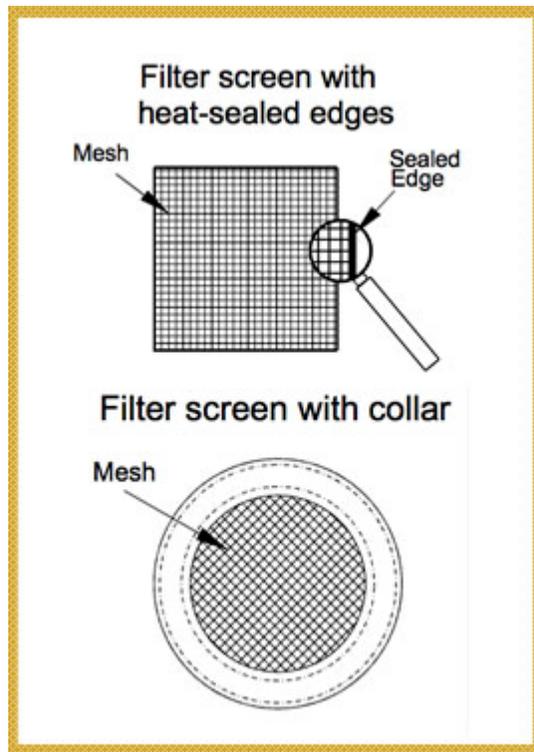


Bottle Shaped Filter Bags can be custom made from any media, with or without drawstrings. Five dimensions to are required.

- A: Flat Width
- B: Bag Length
- C: Neck Opening (flat width)
- D: Neck Length
- E: Shoulder Length

Filter Screens

We fabricate various types of filter screens in a variety of shapes and sizes for filtering, screening, and other processes. Products can be supplied with various edgings as required. Applications requiring heat-sealed edges to eliminate the possibility of fiber contamination are one of our specialties.



Universal Filters, Inc.

Mesh to Micron Conversion Chart

Comparative Particle Size:		
U.S. Mesh	Inches	Microns
10	0.0787	2000
12	0.0661	1680
14	0.0555	1410
16	0.0469	1190
18	0.0394	1000
20	0.0331	841
25	0.0280	707
30	.0232	595
35	.0197	500
40	.0165	420
45	.0138	354
50	.0117	297
60	.0098	250
70	.0083	210
80	.0070	177
100	.0059	149
120	.0049	125
140	.0041	105
170	.0035	88
200	.0029	74
230	.0024	63
270	.0021	53
325	.0017	44
400	.0015	37
550	.00099	25
625	.00079	20
1250	.000394	10
1750	.000315	8
2500	.000197	5
5000	.000099	2.5
12000	.0000394	1

Linear Equivalents:

1 micron = .0000394 inches

25,400 microns = 1 inch

1,000 microns = 1 millimeter

Micron Size Comparisons

Radius of a hydrogen atom = 0.00005 microns

Bacteria = 2 microns

Diameter of a red blood cell = 8 microns

Talcum powder = 10 microns

Diameter of a white blood cell = 25 microns

Naked-eye visibility threshold = 40 microns

Pollen = 60 microns

Diameter of a typical human hair = 70 microns

Table salt = 100 microns

Openings in window screen, typical screen = 1475 microns (or .058 inches)

Distance needed for first down in football, "1st and ten" = 9,144,000 microns

Distance to the moon = 382,000,000,000 microns

Conversions:

cubic cm = .06102 cubic inches

1 cubic foot = 1,728 cubic inches

1 cubic foot = 7.48 gallons

1 cubic foot water = 62.42 lbs.

1 gallon = 3,785 cubic cm

1 gallon = 231 cubic inches

1 gallon water = 8.34 lbs.

1 gallon/min = .002228 cubic ft./sec

1 kg/sq. meter = .2048 lbs./sq. ft.

Universal Filters, Inc.



Universal Filters, Inc. products are found in widely varying systems and product applications. Often, the only common factors are the need for quality and consistent, predictable performance. Some industries that use our filtration products are listed here. Perhaps, you will find your own industry listed, or can use the list for reference.

- | | | | |
|----------------------|---------------------------|-----------------------------|------------------|
| Abrasives | Cosmetic Oils | Leather Tanning | Photo Chemicals |
| Adhesives | Cutting Fluids | Lens Polishing and Cleaning | Plastics |
| Aquariums | Dairy Products | Liquid Cleaners | Polishing |
| Automotive E coats | Degreasing Systems | Lube Oil Systems | Printing Ink |
| Automotive Top Coats | Dip Coating Tanks | Mineral Oils | Resins |
| Beer | Drilling Fluids | Mix Tanks | Sugar Solutions |
| Paper Coatings | Foods | Nuclear Power Plants | Syrup Processing |
| Beverages | Glass Cutting | Oil Removal | Utilities |
| Car Washes | Grain Sifters | Paints | Varnishes |
| Chemicals | Hot Melts | Paper Products | Waste Streams |
| Chemical Processing | Industrial Metal Cleaners | Powder Coatings | Waste Water |
| Coatings | Industrial Washers | Pharmaceuticals | Water Processing |
| Cosmetics | Lacquers | Phosphate Baths | Waxes |