

# 3M

# High Performance Liquid Filter Bags Series 100

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*Creative Answers Shaping Cleaner Environments*

## Technical Data



### Features, Advantages and Benefits

The 3M™ Series 100 High Performance Liquid Filter Bag is constructed of polypropylene melt blown microfibers, allowing for very fine particle capture at high efficiencies. All 3M Brand Series 100 Liquid Filter Bags are over 90% efficient at their suggested application rating. The 3M Filter offers an excellent balance of high efficiencies with very low initial pressure drops. The bag construction makes this filter an easy to use, convenient, high performance alternative to filter cartridges.

The 3M Series 100 Liquid Filter Bag can also adsorb unwanted trace oils that frequently occur in processed fluids. The high amount of surface area due to the polypropylene microfiber construction, results in oil holding capacities from 10-20 times the filter's own weight.

For more information, please call your 3M sales or technical service representative toll free, (800) 648-3550.

### Materials of Construction

#### Filter Media:

Meltblown polypropylene microfiber filter media provides high particle removal efficiency for high quality filtration with broad chemical compatibility.

No silicone is intentionally used in materials of construction or in manufacturing.

The raw materials composing these filters are FDA compliant according to CFR Title 21.

#### Sealing Ring:

Available in the following:

“A” - Stainless Steel

“B” - Polypropylene

### Applications

#### Prefilters or final filters for:

- Acids and bases
- Amines
- Carbon beds
- Completion fluids
- Deep wells
- Desalination
- DI resins
- EDM fluids
- Glycol
- Groundwater clean-up
- Laundry water
- Machine coolants
- Magnetic media
- Makeup water
- Organic solvents
- Photo chemicals
- Plating solutions
- RO membranes
- Storm water
- UF membranes
- Wastewater
- Waterflood
- Workover fluids

## Performance Data

### Loading Capacity

Product Number	123	124	125	126	128
Dirt—Grams at 25 gpm (5.6 cu m/hr)	125	121	146	155	351
Oil*—Grams at saturation	1385	2280	2050	1640	2845

\*mineral oil

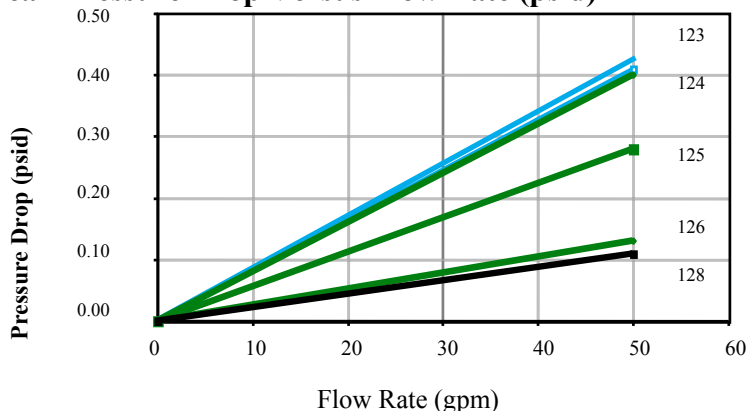
**Loading:** The data above shows typical loading capacities of the different micron rated filters. Loading capacity is determined by challenging a filter with a dispersion of silica test dust in water at the recommended flow rate. Pressure drop is monitored and testing is terminated at 35 psid (2.4 bar). The loading capacity reported is the dry weight gain of the bag.

### Particle Removal Efficiency (microns)

Product Number	123	124	125	126	128
Efficiency @95%	1.5	2.5	7.5	10.0	34.0
Efficiency @90%	1.3	1.3	6.5	8.0	29.0
Efficiency @75%	0.9	1.0	2.5	7.0	21.0
Efficiency @50%	<0.7	<1.0	<1.0	4.5	7.0

**Efficiency:** The 3M™ High Performance Filter Bags are rated using a silica test challenge in water at 25 gpm (5.7 cu m/hr). The results reported are typical initial efficiencies taken within ten minutes of the start of the test and are cumulative data. For more information on how 3M conducts its filter efficiency testing, please contact Filtration Products Technical Service at 1-800-648-3550.

### Clean Pressure Drop Versus Flow Rate (psid)



**Pressure Drop:** The 3M High Performance Filter Bags have low initial pressure drop ( $\Delta p$ ) in water as the chart indicates. The chart does include the pressure drop of a typical single vessel to assist you in sizing your filter system.

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## Product Specifications

### Micron Ratings:

Product Number	Initial Efficiency
113 & 123	1.5 micron @ 95%
114 & 124	2.5 micron @ 95%
115 & 125	7.5 micron @ 95%
116 & 126	10 micron @ 95%
118 & 128	34 micron @ 95%

### Dimensions (Nominal):

#### Outer Diameter:

7 inches 18 cm

#### Length:

16 inches 40 cm

(110 Series #1 size)

32 inches 81 cm

(120 Series #2 size)

### A & D Sealing Ring:

Available in "A" ring and "B" ring sizes. Check with your local distributor for proper size to fit your vessel.

### Operating Conditions:

#### Maximum Operating Temperature:

180F 82C

#### Recommended Flow: (in water)

25 gpm 5.7 cu m/hr

#### Suggested Maximum Flow: (in water)

50 gpm 11 cu m/hr

#### Suggested Maximum Differential Pressure:

35 psid 2.4 bar

**Disposal of used filters must comply with applicable federal, state and local laws and regulations.**

### Order Information

To order contact your local 3M Filtration Products distributor or call toll free 1-800-648-3550.

warranty does not apply to damage or defects resulting from improper use, storage or maintenance of these products. User must determine whether the 3M products described in this literature are fit for a particular purpose, suitable for user's application and meet user's performance expectations. 3M IS NOT LIABLE FOR ANY LOSS OR DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL, ARISING OUT OF THE USE OF OR INABILITY TO USE ANY OF THESE PRODUCTS REGARDLESS OF LEGAL THEORY.

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