

# 3M™ 100 Series

High Performance Liquid Filter Bags

## 3M™ 100 Series - High Performance Liquid Filter Bags

The 3M™ 100 series high performance liquid filter bag is constructed of polypropylene melt blown microfibers, allowing for very fine particle capture at high efficiencies. All 3M 100 series 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 100 series 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.



### Applications

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

### Prefilters or Final Filters for:

#### 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 "A" - Stainless Steel, and "B" - Polypropylene.

### Performance Data

#### Loading Capacity

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

**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)

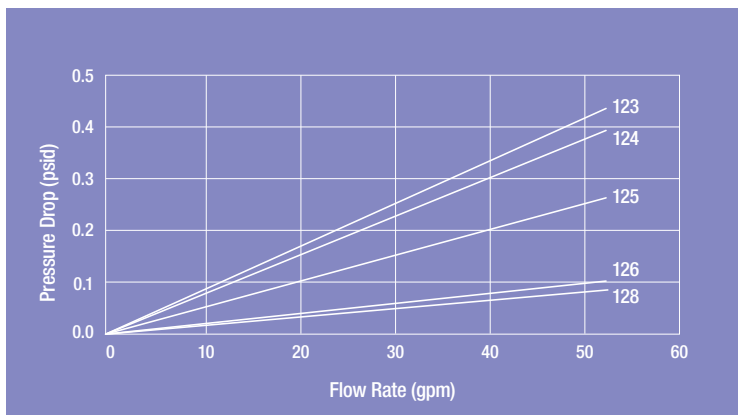
Product Number	123	124	125	126	128
Efficiency @95%	1.5	2.5	7.5	10.0	34.0
Efficiency @90%	1.3	1.3	6.5	8.0	29.0
Efficiency @75%	0.9	1.0	2.5	7.0	21.0
Efficiency @50%	<0.7	<1.0	<1.0	4.5	7.0

**Efficiency:** The Series 100 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.

### Operating Conditions

Maximum Operating Temperature:	180° F (82° C)
Recommended Flow (in water):	180° F (82° C)
Suggested Maximum Flow (in water):	180° F (82° C)
Suggested Maximum Differential Pressure:	180° F (82° C)

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



**Pressure Drop:** The Series 100 High Performance Filter Bags have low initial pressure drop ( $\Delta p$ ) in water as the chart indicates. The chart includes the pressure drop of a typical single vessel to assist you in sizing your filter system.

### Disposal

Disposal of used filter bags must comply with applicable federal, state and local laws and regulations.

### Product Specifications

Product Model Number	Micron Rating Initial Efficiency	Part Number	Length	Outer Diameter	Cartridges per Case
113	1.5 micron @ 95%	70-0701-7185-8	110 Series #1 size: 16 in (41 cm)	7 in (18 cm)	10
114	2.5 micron @ 95%	70-0700-9691-5			
115	7.5 micron @ 95%	70-0700-9692-3			
116	10 micron @ 95%	70-0700-9693-1			
118	34 micron @ 95	70-0701-9021-3			
123	1.5 micron @ 95%	70-0701-3358-5	120 Series #2 size: 32 in (81 cm)	7 in (18 cm)	10
124	2.5 micron @ 95%	70-0700-9694-9			
125	7.5 micron @ 95%	70-0700-9689-9			
126	10 micron @ 95%	70-0700-9690-7			
128	34 micron @ 95%	70-0701-3322-1			

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#### 3M Purification Inc.

400 Research Parkway  
Meriden, CT 06450  
U.S.A.

Phone (800) 243-6894

(203) 237-5541

Fax (203) 630-4530

www.3Mpurification.com

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70-0708-1287-3 REV 1111b