

R **FILTER BAG** **Design Details**

Standard Filter Bag Types

MOLDED ROSEDALE TOP BAGS are stocked with polypropylene tops in sizes 1, 2, 3, 4, 8 & 9.

RING TOP BAGS are stocked in sizes 1, 2, 3, 4, 8, 9 & 12 with galvanized steel, rings.

HANDLES are standard on all bags.

ALL STANDARD STOCK BAGS have sewn construction.

FILTER BAG FINISH

Felt filter bags are supplied with a glazed finish to reduce fiber migration. Mesh filter bags are supplied with a plain finish as woven.

Microfiber filter bags have spunbonded covers to prevent fiber migration.

CONSTRUCTION

Standard filter bags are typically manufactured with a metal ring, either galvanized carbon steel or stainless steel, sewn in the top of the filter bag. Woven fabric handles are also sewn.

Another design incorporates a molded plastic top. These tops typically are polypropylene or polyester with molded lifting handles. Various types of tops are available to fit specific manufacturers' housings.

All Welded Construction

All seams and the collar are sonically welded, enhancing filtration quality, eliminating leaks and bypass that may have occurred with sewn seams.



Bag With Metal
Ring Top



Bag With Molded
Rosedale Top

Nominal Micron Rating- 50%	High Efficiency Micron Rating- 95%
1	35
5	48
10	55
25	65
50	70
100	110
200	200

Felt Filter Bag Micron Rating

For years filter bag manufacturers have used nominal ratings, i.e., about 50% efficiency for polyester and polypropylene felt filter bags. The table gives the micron ratings at about 95% efficiency.

Filter Bag Pressure Drop

The graphs give the clean pressure drop through a number 2 size bag for water, 1 CPS @ 68°F

To determine the pressure drop caused by the filter bag, follow these steps:

Step 1 Select the type of bag, micron rating and flow rate, determine the pressure drop for water, 1 cps @ 68°F, for a size #2 bag.

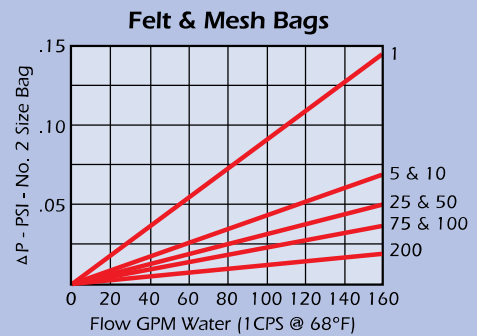
Step 2 Correct for bag size from the Bag Size Correction table at the right if the bag size is different than a #2 size.

Step 3 If the viscosity of the liquid is greater than 1 cps (water@ 68°F), multiply the result from step 2 by the proper correction factor from the Viscosity Correction table at the right.

The value obtained in Step 3 is the clean pressure drop caused by the filter bag.

SUMMARY

For new applications, the clean pressure drop of the system, housing and bag should be 2.0 PSI or less. The lower the value is, the more contaminant a bag will hold. For applications with low dirt loading, this value can go to 3.0 PSI or more. Consult the factory for recommendations when the clean pressure drop of the system exceeds 3.0 PSI.



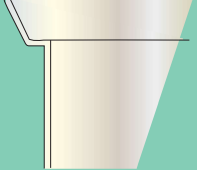
Bag Size Correction

Bag Size	Dia. x Length	Multiply By
1	7.2 x 16	2.25
2	7.2 x 32	1.0
3	4.3 x 8	9.0
4	4.3 x 14	4.5
8	5.7 x 21	2.25
9	5.7 x 37	1.50

Viscosity Correction

Viscosity CPS	Correction Factor
50	4.5
100	8.3
200	16.6
400	27.7
800	50.0
1000	56.2
1500	77.2
2000	113.6
4000	161.0
6000	250.0
8000	325.0
10,000	430.0

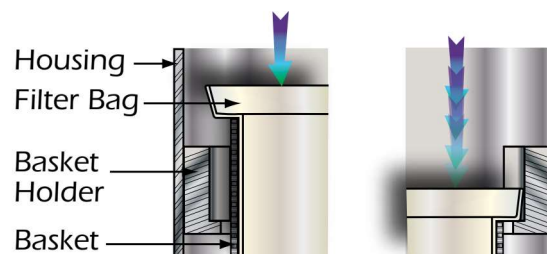
Construction	Fiber	Available Micron Ratings																			
		1	2.5	5	10	20	25	30	40	50	75	100	150	200	250	300	400	600	800	1000	1500
Felts	Polyester																				
	Polypropylene																				
Multifilament Meshes	Polyester																				
Monofilament Meshes	Nylon																				
High-Efficiency Microfiber	Polypropylene																				
Oil Removal	Polypropylene																				

Size	Diameter (Inches)	Length (Inches)	Area Ft ²	Metal Ring Type	Available In Sizes	Molded Rosedale Type	Available In Sizes
1	7.2	16	2.0	Fits Housings Brands: Rosedale Krystil Strainrite Micron Technologies Filtration Systems Parker "G" Style Eaton Filtration Others 		Fits Housings Brands: Rosedale Strainrite Micron Technologies 	
2	7.2	32	4.5				
3	4.3	8	0.5				
4	4.3	14	1.0				
5	4.3	24	2.8				
7	5.7	15	1.5				
8	5.7	21	2.0				
9	5.7	32	3.0				
12	8.4	34	5.5				
X01	5	20	2.0				

MOLDED ROSEDALE TOPS - RPO STYLE

Filter bags with molded Rosedale tops require no filter bag hold down devices. As the differential pressure in the application increases, the integrity of the seal improves. Polypropylene tops are standard with polyester optional for temperatures over 200°F, or for chemical compatibility.

THE MOLDED ROSEDALE TOP OFFERS THE BEST BAG-TO-HOUSING SEAL IN TODAY'S MARKETPLACE, IN ADDITION TO BEING THE EASIEST TO INSTALL AND REMOVE.



FILTER BAG WITH MOLDED ROSEDALE TOP JUST PRIOR TO INSTALLATION IN BASKET HOLDER

FILTER BAG WITH MOLDED ROSEDALE TOP INSTALLED IN HOUSING

	FELT filter bag materials are made from synthetic fibers in polypropylene or polyester. The proper combination of fiber diameters, weights and thickness results in an economical depth type filter media. Polypropylene and polyester bags are supplied with a glazed finish to reduce fiber migration. These bags have a nominal micron rating. Filter efficiency is about 50%.	
	MULTIFILAMENT MESH materials are offered in polyester and are woven from threads made of small fibers twisted together. Bags made of this material are low cost and considered disposable. They have lower efficiencies than the monofilament mesh. Filter efficiencies are about 80%.	
	MONOFILAMENT MESH is offered in nylon and is a woven material. Each thread is a single filament. The openings are square. They have excellent strength and are considered to be cleanable. Filter efficiency is 90% or more.	- Operates on the principle of surface filtration - Wide range of micron ratings - Reusable or disposable - Non-fiber releasing - Good efficiencies - High contaminant quantities under correct conditions
	MICROFIBER filter bags provide high efficiency and high contaminant holding capacity at low ratings. Bags are available in polypropylene. Filter efficiency is 95% or more. MICROFIBER polypropylene filter bags also can remove oil from water and other liquids. Optimized designs are called "OIL REMOVAL BAGS".	

OTHER BAG TYPES AND DESIGNS

500 SERIES 3M TYPE multiple layer filter bags with microfiber filter layers and felt prefilter layers. Up to 5 layers of felt. See page 162.

DOUBLE & TRIPLE LAYER felt bags where the micron rating of the layers are designed to optimize service life.

SPECIAL SIZE & DESIGN bags are available in all materials and most micron ratings.

OIL REMOVAL BAGS require a special design to obtain to result in the largest surface area of fibers in a bag for maximum oil removal capacity. These are standard in micron ratings of 10 and 25. See page 166.

FILTER BAG HOLD-DOWNS

Adjustable filter bag hold-downs for Size #1 and #2 bags are available for side entry housings manufactured by:

Filter Specialists, Inc. / Micron Technologies / Krystil Klear / Strainrite / Other Side Entry Brands

Available in polypropylene, they provide additional positive filter bag hold-down capabilities for critical applications where necessary. It is suitable for ring top bags and bags with molded plastic tops. It is necessary for many bags with molded tops and ring bags if the bag manufacturer improperly designs and manufactures them.

A FILTER BAG HOLD-DOWN IS NOT REQUIRED WHEN USING FILTER BAGS WITH MOLDED ROSEDALE TOPS.

See page 215.

How To Order Build an ordering code as shown in the example

Example: PE - 25 - G - 2 - RPO - WE

MATERIALS & MICRON RATING

Beta (Polyester) = **BB**
 Microns = **1, 10, 12**
 Polyester Felt = **PE**
 Microns = **1, 5, 10, 25, 50, 100, 200**
 Polypropylene Felt = **PO**
 Microns = **1, 5, 10, 25, 50, 100**
 Polyester Multifilament Mesh = **PEM**
 Microns = **75, 100, 150, 200, 250, 300, 400, 600, 800**
 Nylon Monofilament Mesh = **NMO**
 Microns = **5, 10, 25, 50, 75, 100, 150, 200, 250, 300, 400, 600, 800**
 Polypropylene Microfiber = **POMF**
 Microns = **1, 3, 8, 19**
 Polyester Microfiber = **PEMF**
 Microns = **1, 3, 8, 19**
 Oil Removal = **OA**
 Microns = **10, 25**

BAG CONSTRUCTION

WE = Welded Construction
 (Not available on POMF or PEMF)
No Symbol = Sewn (BB)

BAG STYLES

S = Galvanized Carbon Steel Ring
S-SS = 304 Stainless Steel Ring
RPO = Molded Polypropylene Rosedale Top
RPE = Molded Polyester Rosedale Top

BAG SIZES (Inches)

	Dia.	x	Length
1	= 7.2	x	16
2	= 7.2	x	32
3	= 4.3	x	8
4	= 4.3	x	12
7	= 5.7	x	15
8	= 5.7	x	21
9	= 5.7	x	32
12	= 8.4	x	34

BAG FINISH

G = Felt - Glazed or Singed
 (Standard with RPO and RPE top)
P = Plain Finish