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Rosedale will not save or contact your email address unless requested

ROSEDALE FILTRATION PRODUCTS Filters / Strainers / Bags / Cartridges



Master Catalog 5





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ROSEDALE

Filtration Products, Inc.

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☐ Welcome

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Rosedale Products, Inc. is a leading technology developer in the field of liquid filtration systems and waste minimization products for customers around the globe. Its engineering achievements over the last 25 years have produced an exceptional product line that includes high performance filtration solutions for multiple industries.

Rosedale technicians help customers find high-performing, low cost approaches to filtration needs, maximizing the performance of Rosedale's product and creating much higher returns on investment compared with other products.

Rosedale Products, Inc. is headquartered in Ann Arbor, Michigan, and has a worldwide sales and distribution network in place.

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Application Worksheet

TEL 800-821-5373 OR 734-665-8201 FAX 734-665-2214 fiilters@rosedaleproducts.com http://www.rosedaleproducts.com or http://www.giardiafilter.com

Company:	Date:
Contact:	
Liquid:	
Flow Rate (gpm):	Batch/Continuous:
Batch Size or Total Volume of Liquid:	
%/Contaminants (ppm):	Temperature:
Pipe Size:	NPT/Flange:
Outlet Style:	Max PSI:
ASME Code:	Housing Construction:
Gasket Material:	Simplex/Duplex:
Basket/Bags:	Bag Material:
Efficiency Rating:	
Notes:	



General Rules of Thumb:

Examples: Model 4-6 = 15 gpm

Model 4-12 = 25 gpm Model 6-12 = 25 gpm Model 6-18 = 50 gpm Model 6-30 = 75 gpm Model 8-15 = 50 gpm

Model 8-30 = 100 gpm



Available Media for the Above Housings See Cartridges Page xiv-xv and Bags Page xvi













X-Tend



Standard

Polypro Top

Beta Rated

CARTRIDGES







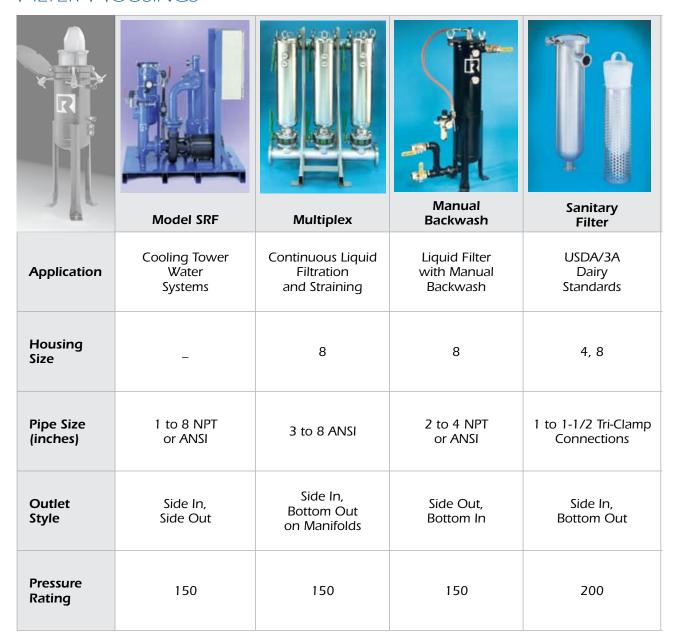


OE

Page vi







Available Media for the Above Housings See Cartridges Page xiv-xv and Bags Page xvi













X-Tend



Standard

Polypro Top

Beta Rated

CARTRIDGES





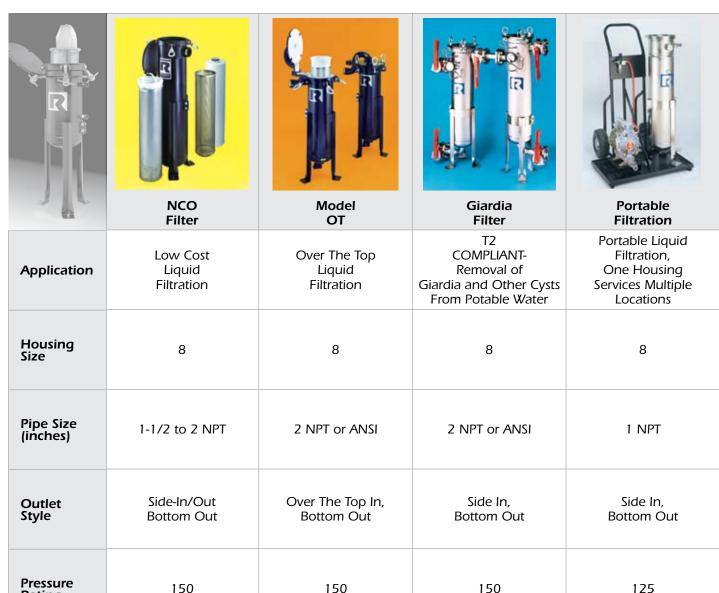




Disposable

Platinum 500

Rating







Available Media

See Cartridges Pages xiv-xv and Bags Page xvi

Holds all media from page vi





Holds all media from page vi plus the following

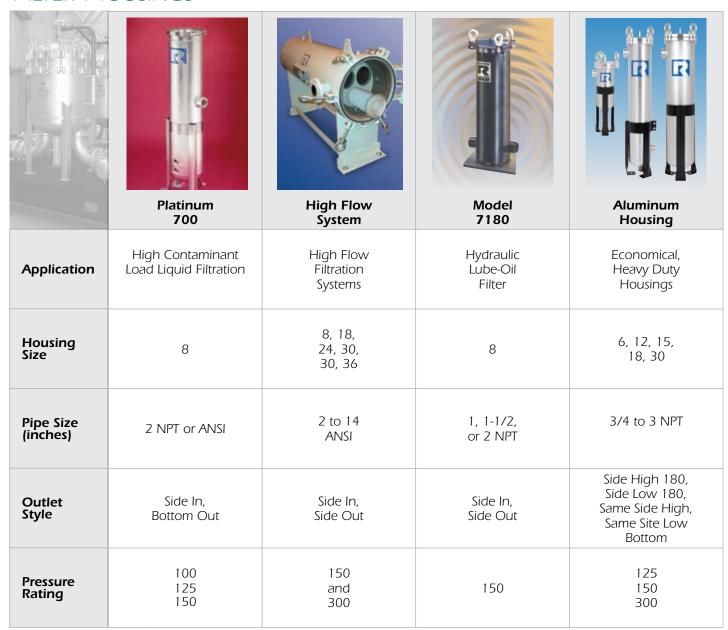












Available
Media

See Cartridges Pages xiv-xv and Bags Page xvi





High Flow Element



718 or 736 Cartridge

Holds all media from page vi



Available Media
See Cartridge
Pages vivey

See Cartridges Pages xiv-xv and Bags Page xvi



Stainless Steel Wire Cloth-Wedge Wire or Glass Fiber-Wound Elements



M101/M102



Sorbent

None Required



Available
Media

See Cartridges Pages xiv-xv and Bags Page xvi



Stainless Steel Wire Cloth-Wedge Wire



Mesh Lined and Perforated Baskets



Platinum 900/2040

Holds all media from page vi

FILTER CARTRIDGES AND STRAINER BASKETS



Fits Housings	4-6-8	LCO	Indicating	8-125	82		
	Multi-Bag	Duplex	SRF	Multiplex	Manual B/W	Sorbent	
	Sanitary	NCO	OT	Giardia	Portable	Containment	None
	Cool	I	ertible Poly		inum		

FILTER CARTRIDGES AND STRAINER BASKETS



Fits Housings					
			R		30
	Cartridge Filter	Convertible Filter	Platinum 700	Platinum 900/2040	High Flow System

Bags







ROSEDALE PRODUCTS INCORPORATED

3730 W. Liberty Road, Ann Arbor, MI 48103 Tel: 800-821-5373 or 734-665-8201 Fax: 734-665-2214

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http://www.rosedaleproducts.com or http://www.giardiafilters.com





Rosedale Filter Housings

Rosedale Filter Housings come in many sizes and styles, and can serve as bag filters, cartridge filters or basket strainers. Lids are easily removed without special tools, and the element is easily cleaned or replaced.

Features

- Housings NSF 61 listed on most models
- Single, multi-basket, cartridge, duplex and multiplex units available
- All units are available in U.S. standard and metric connections
- Low pressure drops
- Permanently piped housings
- Sure-sealing covers, opened without special tools
- Carbon steel, stainless steel (304 or 316), or all-plastic (polypropylene or PVDF) construction
- Large-area, heavy-duty baskets
- Easy to clean!
- Adjustable-height legs (single units) or low profile (multi units)
- Differential pressure indicators (optional)
- ASME code stamp available
- Liquid displacers that minimize product loss during basket or bag removal (optional)
- Dual stage straining/filtering (optional)

MULTI-BAG MODELS offer a wide range of flow capacities and contaminant-holding capabilities. They contain 2 to 23 bags and can handle flows to 4500 gpm. Multi-cartridge housings contain 2-205 cartridges.



Model QII 18





Duplex Model 18 Bag System



Model 12 Cartridge Housing



Low Pressure Model 4

High Pressure Model 4

DUPLEX MODELS are two housings that are piped together for alternate use providing continuous operation, reducing operating costs. Flow is switched between the filter housings, allowing one side to be serviced while the other is in use. One lever actuates all valves simultaneously. All Duplex Models are also available in a trouble-free automatic service system.

CONSTRUCTION MATERIALS

All housings specified can be ordered in carbon steel, 304 or 316 stainless steel. Special alloy materials or teflon lined housings are optional. Various seal materials, including Buna, Ethylene Propylene, Viton®, and Teflon are available for most filter housings.

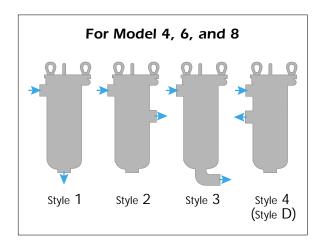
All baskets and cartridge internals are made of stainless steel. 304 stainless will be supplied with carbon and 304 housings, 316 stainless with 316 housings.

NOTE: For the anatomy of Single-bag filter see page 3. For the anatomy of Multi-bag filter see page 35.

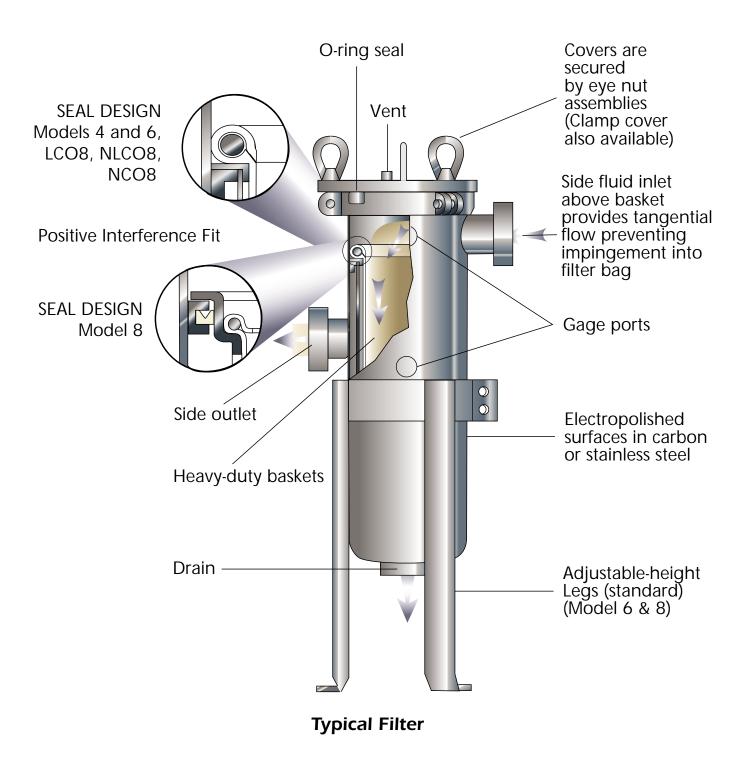
COVERS for high capacity basket strainers, cartridge filters and bag filters are secured by eyenut assemblies. Some models can be ordered with a quick-opening clamp cover.

CONVENIENT PIPING ARRANGEMENTS are

available to fit most piping situations. Below are standard options for Models 4, 6, and 8. Flange or NPT connections are standard on all housings, and are also available in metric.



Single-Bag Filter Features



Model 4 Basket Strainer and Bag Filters

Strainers or Bag Filters: Your Choice!

Model 4 strainer/filter housings are made in 2 sizes and 4 pressure ratings. In all cases, covers are easily removed without special tools, and the basket or bag is easily cleaned or replaced.

Features

- Low pressure drops
- Permanently piped housings
- Covers are O-ring sealed
- Carbon steel, or stainless steel (304 or 316) construction for housings
- All housings are electropolished to resist adhesion of dirt and scale
- Easy to clean!
- Adjustable-height legs, optional
- O-ring seals: Buna N, EPR, Viton®, Teflon®
- ASME code stamp available on select models
- Liquid displacers for easier servicing
- Four pressure ratings: 200 psi (with clamp cover) and 150, 300, or 500 psi (with eyenut cover)
- Duplex units are available
- Pipe sizes 3/4 thru 2-inch, NPT or flanged (standard 150 class flange)
- Two basket depths: 6, or 12 inches (nominal)

Options

- Bag filter hold-down devices
- Sanitary construction
- Different outlet connections
- Higher pressure ratings
- Extra-length legs
- Heat jacketing
- Epoxy coating
- Displacers
- Magnets



Covers are secured by three eyenut assemblies. One of them acts as a hinge, when the cover is opened.

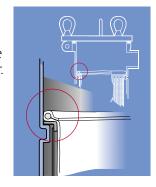
Choosing A Basket Strainer Or Bag Filter

Choose between straining (removing particles down to 74 micron size) or filtering a fluid (removing particles down to 1 micron). This will direct you to choose the correct basket when ordering.

Operation

Unfiltered liquid enters the housing above the bag or basket and flows through. Solids are contained inside the bag or basket, where they're easily and completely removed when the unit is serviced.

Fluid bypass around the basket is prevented because the filter bag seals radially against the housing inside diameter. A single cover gasket is used to seal the opening, and covers can be installed and removed without tools.



Pressure Drop Data

Basket strainers and bag filters are usually selected so that the pressure drop does not exceed 2 psi when they are clean. Higher pressure drops may be tolerated when contaminant loading is low. Bag changeout should occur at 15 psid.

The pressure drop data is accurate for all housings with strainer or bag filter baskets. When filter bags are added, total pressure drop becomes the sum of the pressure drop as determined by the steps below.

Follow these easy steps:

- 1. Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the appropriate graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table. This is the adjusted (clean) pressure drop for all baskets, without filter bags.
- 3. Add the pressure drop for the bag filter.

Note: Filter bags are specified separately. See page 144.



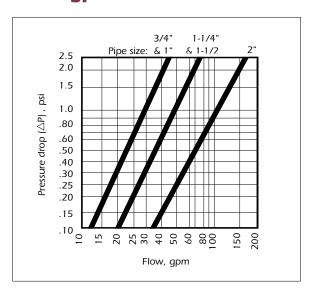
Clamp covers to the left and center, and eyenut cover to the right.

	Viscosity, cps								
Bag Style and	1 (H ₂ 0)	50	100	200	400	600	800	1000	2000
All unlined baskets	.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80
40-mesh lined	.73	.95	1.20	1.40	1.50	1.80	1.90	2.00	2.30
60-mesh lined	.77	1.00	1.30	1.60	1.70	2.10	2.20	2.30	2.80
80-mesh lined	.93	1.20	1.50	1.90	2.10	2.40	2.60	2.80	3.50
100-mesh lined	1.00	1.30	1.60	2.20	2.40	2.70	3.00	3.30	4.40
200-mesh lined	1.30	1.70	2.10	3.00	3.40	3.80	4.40	5.00	6.80

Basket Data

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)	Bag Size No.
6 12	3.9 3.9	0.5 1.0	65 130	3 4

Model 4–For flow rates to 50 gpm*



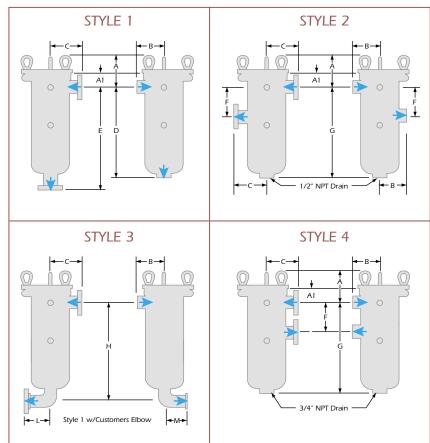
^{*}Based on housing only. Fluid viscosity, bag filter used, and expected dirt loading should be considered when sizing a filter.

Dimensions (IN)

Cover Types

Outlet Styles

Flanged 150 lb. ANSI Threaded NPT Flanged 150 lb. ANSI Threaded NPT



A clearance distance equal to basket depth must be available above housing for basket removal.

Legs for Model 4 are optional at extra cost.

Dimensions (IN)

9.50-

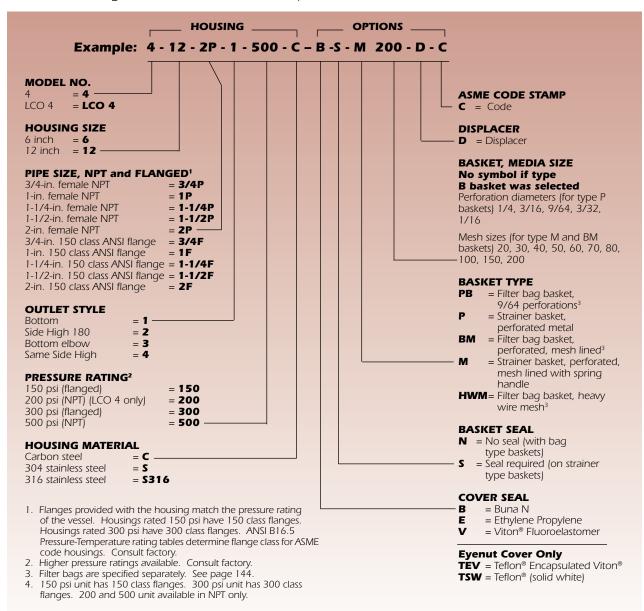
(3) 5/16 dia. holes on

6.75 dia. Bolt Circle

	1310113	(11.4)											
Model Size	Pipe	Α	A1	A2	В	С	D	Е	F	G	Н	L	М
4-6	3/4	5.5	1.9	2.3	3.5	5.0	10.1	12.0	4.5	10.1	10.5	4.0	2.0
	1	5.5	1.9	2.3	3.5	5.0	10.3	12.0	4.5	10.1	10.9	4.0	2.5
	1-1/4	6.1	2.5	2.9	3.5	5.0	9.7	12.0	4.5	9.4	10.6	4.0	2.9
	1-1/2	6.1	2.5	2.9	3.5	5.0	9.6	12.0	4.5	9.4	10.9	4.0	3.3
	2	6.1	2.5	2.9	3.5	5.0	9.6	12.0	4.5	9.4	11.6	5.0	4.1
4-12	3/4	5.5	1.9	2.3	3.5	5.0	16.1	18.0	4.5	16.1	16.5	4.0	2.0
	1	5.5	1.9	2.3	3.5	5.0	16.3	18.0	4.5	16.1	16.9	4.0	2.5
	1-1/4	6.1	2.5	2.9	3.5	5.0	15.7	18.0	4.5	15.4	16.6	4.0	2.9
	1-1/2	6.1	2.5	2.9	3.5	5.0	15.6	18.0	4.5	15.4	16.9	4.0	3.3
	2	6.1	2.5	2.9	3.5	5.0	15.6	18.0	4.5	15.4	17.6	5.0	4.1

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Build an ordering code as shown in the example



Model 6 Basket Strainer and Bag Filters

Strainers or Bag Filters: Your Choice!

Model 6 strainer/filter housings are made in 3 sizes and 3 pressure ratings, and can serve as basket strainers (for particle retention down to 74 micron size) or as bag filters (for particle retention down to 1 micron size). In all cases, covers are easily removed without special tools, and the basket or bag is easily cleaned or replaced.

Features

- Low pressure drops
- Permanently piped housings
- Covers are O-ring sealed
- Carbon steel, or stainless steel (304 or 316) construction for housings
- All housings are electropolished to resist adhesion of dirt and scale
- Easy to clean!
- Adjustable-height legs, standard
- O-ring seals: Buna N, EPR, Viton®, Teflon®
- ASME code stamp available
- Three pressure ratings: 150, 210 or 300 psi
- Duplex units are available
- Can provide 3.4 square feet of basket or bag surface area without need for ASME code construction
- Three basket depths: 12, 18, or 30 inches (nominal)
- Special alloys

Options

- Sanitary construction
- Different outlet connections
- Higher pressure ratings
- Extra-length legs
- Heat jacketing
- Liquid displacers for easier servicing





Covers are secured by three eyenut assemblies. One of them acts as a hinge, when the cover is opened.

Choosing a Basket Strainer or Bag Filter

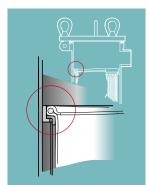
Choose between straining (removing particles down to 74 micron size) or filtering a fluid (removing particles down to 1 micron). This will direct you to the correct basket when ordering.

Operation

Unfiltered liquid enters the housing above the bag or basket and passes down through them. Solids are contained inside the bag or

basket, where they are easily and completely removed when the unit is serviced.

Fluid bypass around the basket is prevented because the outside diameter of the filter bag seals against the housing inside diameter.



A single cover gasket is used to seal the opening, and covers can be installed and removed without tools.

Pressure Drop Data

Basket strainers and bag filters are usually selected so that the pressure drop does not exceed 2 psi, when they are clean. Higher pressure drops may be tolerated, when contaminant loading is low. Bag change should occur at 15psid.

The pressure drop data is accurate for all housings with strainer or bag filter baskets. When bag filters are added, total pressure drop becomes the sum of the pressure drop as determined by the steps below, plus the pressure drop through the bag as defined in Rosedale Filter Bag section.

Follow these easy steps:

- 1. Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the appropriate graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table. This is the adjusted (clean) pressure drop for all baskets, without bag filters.
- 3. Add the pressure drop for the baq filter.

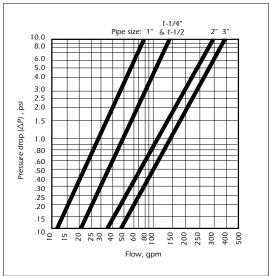
Note: Filter bags are specified separately. See page 144.

				Visc	osity,	cps			
	1 (H ₂ 0)	50	100	200	400	600	800	1000	2000
All unlined baskets	.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80
40-mesh lined	.73	.95	1.20	1.40	1.50	1.80	1.90	2.00	2.30
60-mesh lined	.77	1.00	1.30	1.60	1.70	2.10	2.20	2.30	2.80
80-mesh lined	.93	1.20	1.50	1.90	2.10	2.40	2.60	2.80	3.50
100-mesh lined	1.00	1.30	1.60	2.20	2.40	2.70	3.00	3.30	4.40
200-mesh lined	1.30	1.70	2.10	3.00	3.40	3.80	4.40	5.00	6.80

Basket Data

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)	Bag Size No.
12	5	1.3	235	7
18	5	2.0	350	8
30	5	3.4	630	9

Model 6-For flow rates to 100 gpm*



*Based on housing only. Fluid viscosity, bag filter used, and expected dirt loading should be considered when sizing a filter.

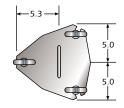


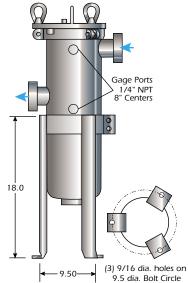
Eyenut covers with bag filter and basket or basket strainer.

Dimensions (IN)

Cover Types

EYENUT COVER

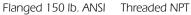


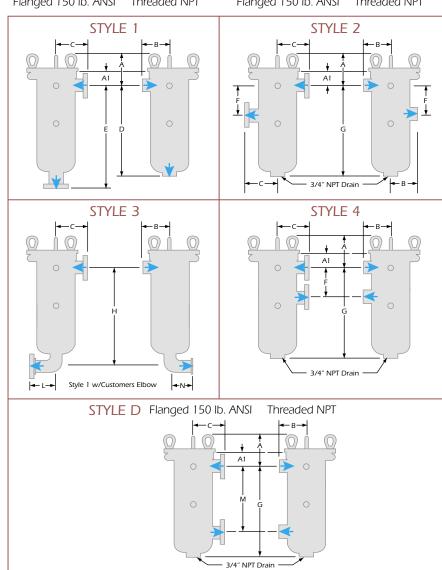


A clearance distance equal to basket depth must be available above housing for basket removal.

Outlet Styles

Flanged 150 lb. ANSI Threaded NPT





Dimensions (IN)

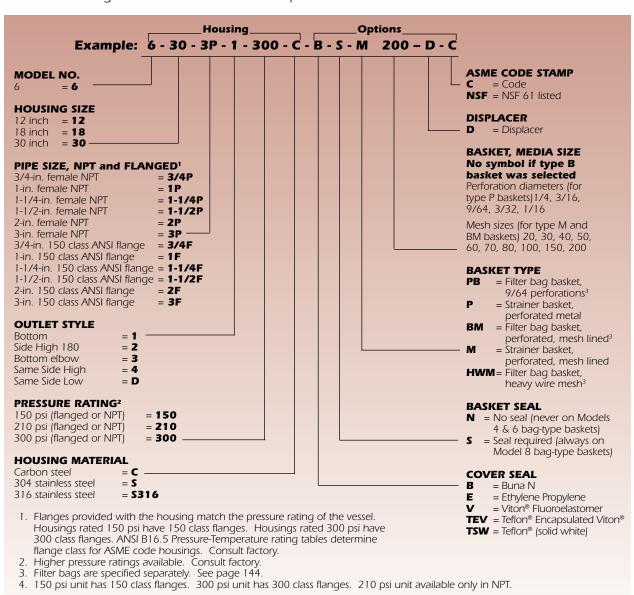
NA - J - I	D:												
Model	Pipe Size	Α	A 1	В	C	D	E	F	G	Н	L	N	М
6-12	1	7.6	3.9	4.3	6.0	16.6	19.0	4.3	17.4	18.1	5.0	2.5	N/A
	1-1/4	7.6	3.9	4.3	6.0	16.6	19.0	4.7	17.4	18.4	5.0	2.9	N/A
	1-1/2	7.6	3.9	4.3	6.0	16.6	19.0	4.7	17.4	18.8	5.0	3.3	N/A
	2	7.6	3.9	4.3	6.0	16.6	19.0	6.6	16.5	18.6	5.0	4.0	N/A
	3	7.9	4.1	4.3	6.0	17.5	19.6	6.6	17.0	20.5	7.3	6.1	N/A
6-18	1	7.6	3.9	4.3	6.0	21.8	24.3	4.3	22.7	23.3	5.0	2.5	15.0
	1-1/4	7.6	3.9	4.3	6.0	21.8	24.3	4.7	22.7	23.7	5.0	2.9	15.0
	1-1/2	7.6	3.9	4.3	6.0	21.8	24.3	4.7	22.7	24.0	5.0	3.3	15.0
	2	7.6	3.9	4.3	6.0	21.8	24.3	6.6	21.8	23.8	5.0	4.0	15.0
	3	7.9	4.1	4.3	6.0	23.0	25.1	6.6	22.5	26.0	7.3	6.1	17.0
6-30	1	7.6	3.9	4.3	6.0	32.8	34.3	4.3	32.7	33.3	5.0	2.5	15.0
	1-1/4	7.6	3.9	4.3	6.0	32.8	34.3	4.7	32.7	33.7	5.0	2.9	15.0
	1-1/2	7.6	3.9	4.3	6.0	32.8	34.3	4.7	32.7	34.0	5.0	3.3	15.0
	2	7.6	3.9	4.3	6.0	32.8	34.3	6.6	31.8	33.8	5.0	4.0	15.0
	3	7.9	4.1	4.3	6.0	33.0	35.1	6.6	32.5	36.0	7.3	6.1	17.0

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Material	Carbon Steel	304 Stainless Steel	304L Stainless Steel	316 Stainless Steel	316L Stainless Steel						
Temperature		Class 1	50 ANSI, B16.5 FI	anges							
400°F@150 PSI	•	•	•	•	•						
325°F@210 PSI	•			•							
275°F@210 PSI		•									
155°F@210 PSI			•		•						
		Class 300 ANSI, B16.5 Flanges									
400°F@300 PSI	•	•	•	•	•						

How To Order

Build an ordering code as shown in the example



Model 8 Basket Strainer and Bag Filters

Strainers or bag filters: Your choice!

Model 8 strainer/filter housings are made in 2 sizes and 2 pressure ratings, and can serve as basket strainers (for particle retention down to 74 micron size) or as bag filters (for particle retention down to 1 micron size). In all cases, covers are easily removed, without tools, and the basket or bag is easily cleaned or replaced.

Features

- NSF 61 listed
- Low pressure drops
- Permanently piped housings
- Covers are O-ring sealed
- Carbon steel, or stainless steel (304 or 316) construction for housings
- All housings are electropolished to resist adhesion of dirt and scale
- Easy to clean!
- Adjustable-height legs, standard
- Large-area, heavy-duty baskets
- O-ring seals: Buna N, EPR, Viton®, Teflon®
- ASME code stamp available
- Two pressure ratings: 150 and 300
- Duplex units are available
- Pipe sizes 3/4 thru 6-inch, NPT or flanged
- Two basket depths: 15 or 30 inches (nominal)

Options

- Sanitary construction
- Different outlet connections
- Higher pressure ratings
- Extra-length legs
- Heat jacketing
- Adapters for holding filter cartridges.
- Liquid displacers for easier servicing
- Can be fitted with an adapter to hold cartridge filter elements



Choosing A Basket Strainer Or Bag Filter

Choose between straining (removing particles down to 74 micron size) or filtering a fluid (removing particles down to 1 micron). This will direct you in selecting the correct basket when ordering.



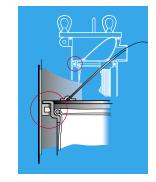
All Rosedale Model 8 housings can be supplied with a second, inner basket, which is supported on the top flange of the regular basket. Both baskets can be strainers (with or without wire mesh linings) or both can be baskets for filter bags. They can also be mixed: one a strainer basket, the other a filter bag basket. Dual-stage action will increase strainer or filter life and reduce servicing needs.

Operation

Unfiltered liquid enters the housing above the bag or basket and flows through. Solids are contained inside the bag or basket, where they are easily removed

when the unit is serviced.

A basket bail is pushed down by the closed cover to hold the basket against a positive stop in the housing. A radial seal prevents bypass of unfiltered liquid.



Pressure Drop Data

Basket strainers and bag filters are usually selected so that the pressure drop does not exceed 2 psi, when they are clean. Higher pressure drops may be tolerated, when contaminant loading is low. Bag change occurs at 15 psid.

The pressure drop data is accurate for all housings with strainer or filter bag baskets. When filter bags are added, total pressure drop becomes the sum of the pressure drop as determined by the steps below.

Follow these easy steps:

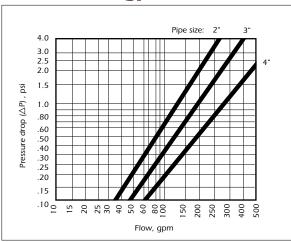
- 1. Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the appropriate graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table. This is the adjusted (clean) pressure drop for all baskets without filter bags.
- 3. Add the pressure drop for the bag. **Note:** Filter bags are specified separately. See page 144.

Basket Data

Depth Nominal (inches)	Diameter (inches)	Surface Area (sq. ft.)	Volume (cu. in.)	Bag Size No.
15	6.7 6.7	2.3	500 1000	1

	Viscosity, cps												
	1 (H ₂ 0)	50	100	200	400		800	1000	2000				
All unlined baskets	.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80				
40-mesh lined	.73	.95	1.20	1.40	1.50	1.80	1.90	2.00	2.30				
60-mesh lined	.77	1.00	1.30	1.60	1.70	2.10	2.20	2.30	2.80				
80-mesh lined	.93	1.20	1.50	1.90	2.10	2.40	2.60	2.80	3.50				
100-mesh lined	1.00	1.30	1.60	2.20	2.40	2.70	3.00	3.30	4.40				
200-mesh lined	1.30	1.70	2.10	3.00	3.40	3.80	4.40	5.00	6.80				

Model 8–For flow rates to 220 gpm*



*Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

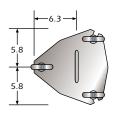


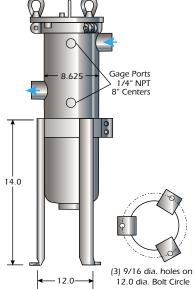
Eyenut covers with filter bag and basket.

Dimensions (IN)

Cover Type

EYENUT COVER 150 PSIG - 3 Bolt Design

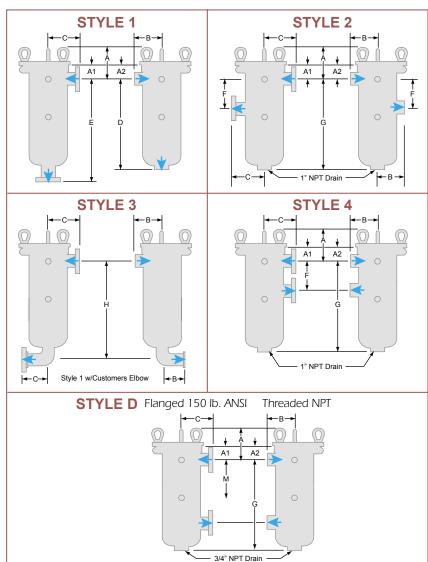




A clearance distance equal to basket depth must be available above housing for basket removal.

Outlet Styles

Flanged 150 lb. ANSI Threaded NPT Flanged 150 lb. ANSI Threaded NPT



Dimensions (IN) 150 PSIG Design

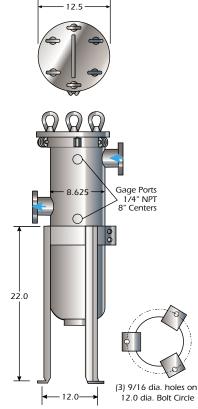
Model	Pipe Size	Α	A1	A2	В	C	D	E	F	G	Н	I	J	K	L	М
8-15	2	9.1	5.4	2.9	5.9	7.5	20.6	23.4	8.0	20.9	22.8	3.25	5.0	4.06	4.25	N/A
	3	9.1	5.4	3.7	6.8	7.5	21.3	23.4	8.0	20.9	24.3	3.25	7.25	6.12	4.25	N/A
	4	9.1	5.4	5.0	6.8	8.6	21.3	23.9	8.0	20.9	25.6	3.25	9.0	7.75	4.25	N/A
	6	9.4	5.6	5.9	7.1	8.6	23.6	27.1	9.0	23.4	30.9	4.12	12.5	11.0	4.5	N/A
8-30	2	9.1	5.4	2.9	5.9	7.5	35.6	38.4	8.0	35.9	37.8	3.25	5.0	4.06	4.25	15.0
	3	9.1	5.4	3.7	6.8	7.5	36.3	38.4	8.0	35.9	39.3	3.25	7.25	6.12	4.25	17.0
	4	9.1	5.4	5.0	6.8	8.6	36.3	38.9	8.0	35.9	40.6	3.25	9.0	7.75	4.25	18.0
	6	9.4	5.6	5.9	7.1	8.6	38.6	42.1	9.0	38.4	45.9	4.12	12.5	11.0	4.5	20.0
20.0																

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Dimensions (IN)

Cover Type

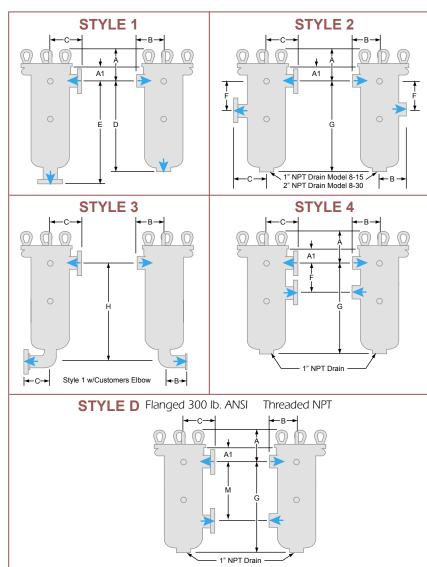
EYENUT COVER 300 PSIG - 6 Bolt Design



A clearance distance equal to basket depth must be available above housing for basket removal.

Outlet Styles

Flanged 300 lb. ANSI Threaded NPT Flanged 300 lb. ANSI Threaded NPT



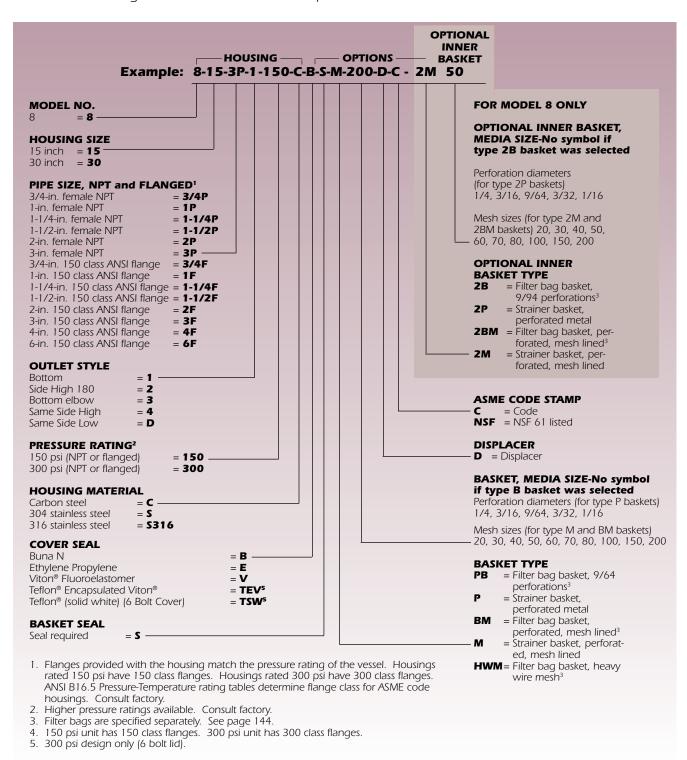
Dimensions (IN) 300 PSIG Design

		'	1 /												
Model Size	Pipe	Α	A1	В	c	D	E	F	G	Н	I	J	K	L	М
8-15	2	9.25	5.4	5.9	7.5	20.6	23.4	8.0	20.9	22.8	3.25	5.0	4.06	4.25	N/A
	3	9.25	5.4	6.8	7.5	21.3	23.4	8.0	20.9	24.3	3.25	7.25	6.12	4.25	N/A
	4	9.25	5.4	6.8	8.6	21.3	23.9	8.0	20.9	25.6	3.25	9.0	7.75	4.25	N/A
	6	9.4	5.6	7.1	8.6	23.6	27.1	9.0	23.4	30.9	4.12	12.5	11.0	4.5	N/A
8-30	2	9.25	5.4	5.9	7.5	35.6	38.4	8.0	35.9	37.8	3.25	5.0	4.06	4.25	15.0
	3	9.25	5.4	6.8	7.5	36.3	38.4	8.0	35.9	39.3	3.25	7.25	6.12	4.25	17.0
	4	9.25	5.4	6.8	8.6	36.3	38.9	8.0	35.9	40.6	3.25	9.0	7.75	4.25	18.0
	6	9.4	5.6	7.1	8.6	38.6	42.1	9.0	38.4	45.9	4.12	12.5	11.0	4.5	20.0

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

How To Order

Build an ordering code as shown in the example



Model LCO Bag Filter Housings

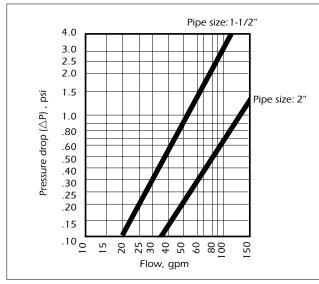
Low cost filter housings for flow rates to 100 gpm*

These high-capacity bag filters are low in cost and offer more dirt holding capacity. These housings are made from carbon steel or stainless steel. They use a clamp cover that is easily removed, reducing time spent on cleaning and bag replacement. Housings also utilize our Unistyle design offering you the option of a side or bottom outlet. There is a 1-1/2-inch or 2-inch inlet and outlet on the side, with a 1-1/2-inch or 2-inch plugged drain at the bottom of the housing. The outlet can easily be changed to the bottom by merely moving the plug from the drain to the side outlet.

Features

- Permanently piped housings are opened without special tools
- Quick opening cover
- Carbon or stainless steel housings
- Large area bag and basket for greater dirt-holding capacity
- O-ring seals: Buna N, EPR and Viton®
- Adjustable-height tripod legs
- 125 psi rated housing
- Basket material is compatible with housing
- Bag surface area is 5.6 square feet (LCO8), and 2.0 square feet (LCO6)
- Uses number 12 size bags (LCO8), and number 8 size bags (LCO6)
- 2-inch NPT ports (LCO8)



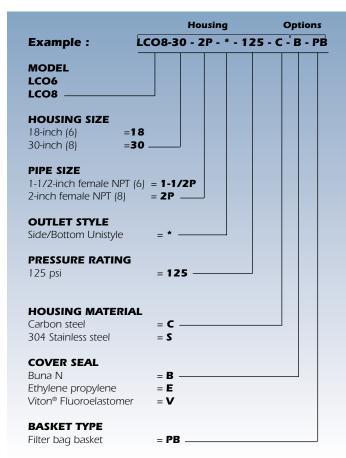


^{*}Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

How To Order

Model LCO

Build an ordering code as shown in the example.



1. Filter bags are specified separately. See page 144.

		/ (!! \ /
	6 TYP.	-
↓	6117	·
3-1/2		_
7-1/2 8 7-1/2	8-5/8-	2" NPT INLET — 1/4" NPT GAGE PORTS 8" CENTERS
0		П
	2" NPT	
/eight lb	DRAIN OR	

OPTIONAL OUTLET 9/16 DIA. HOLES ON 12.0 DIA. BOLT CIRCLE

Dimensions (IN)

MODEL NUMBER & Dim. A	В	C	D	E	F	PSI	Weight, lb (Approx)
6 (6.0)	28.0	4.3	3.0	1.5	9.5	125	50
8 (8.6)	39.2	6.0	4.2	2.0	12.0	125	70

Model NCO and NLCO Bag or Cartridge Filter Housings

Low cost filter housings for flow rates to 100 gpm*

NCO high-capacity bag filters offer an exceptional value in basic filtration applications. Offered in trade sizes 1, 2, and 12, the NCO is also available with our Platinum 700 cartridge series.

NCO housings provide large dirt-holding capacity combined with a rugged design rated to 150 psi. The housings incorporate an eyenut cover that is easily removed, reducing time spent on bag or cartridge change-out. The NCO bag housing offers versatility for any piping arrangement, utilizing our unistyle design (side and bottom outlet). Two connection sizes are available for both bag and cartridge filters.

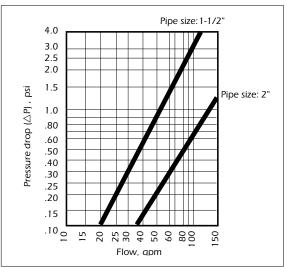
The NCO housings are electropolished creating a smooth, easy-to-clean surface. A variety of filter bags or cartridges (rated 0.5µ absolute to 100µ nominal) can be utilized in this housing. Keep your filtration process cost effective without sacrificing quality.

Features

- Permanently piped housings are opened without special tools
- Carbon or stainless steel housings
- Covers are O-ring sealed
- O-ring seals: Buna N, EPR and Viton®
- 150 psi rated housing
- Heavy-duty basket, over 50% open area
- Uses standard number 1, 2 or 12 size bags and 500 or 700 series cartridges

- Filter selection surface area is:
 2.3 square feet (number 1 size bag),
 4.4 square feet (number 2 size bag),
 5.6 square feet (number 12 size bag)
 50 square feet (500 series cartridge)
 100 square feet (700 series cartridge)
- 1-1/2-inch or 2-inch NPT inlet and outlet
- 1/4-inch NPT vent connection
- Adjustable leg assembly

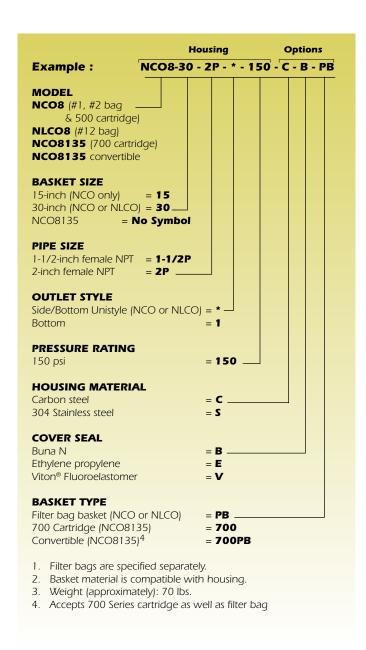


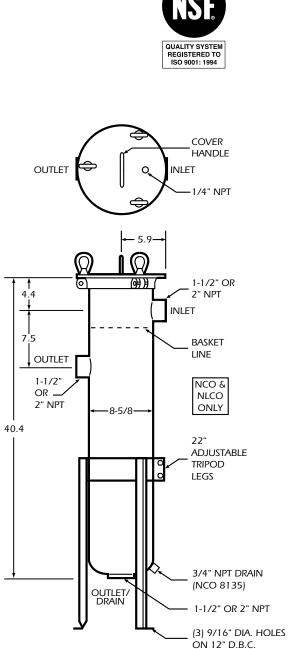


*Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

How To Order

Build an ordering code as shown in the example.





Model 8-125 psi Bag Filters

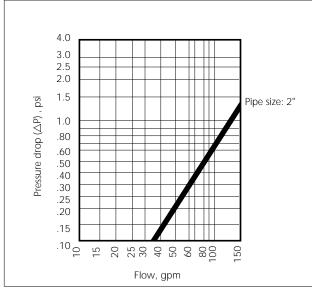
Low cost filter housings for flow rates to 100 gpm*

These high-capacity bag filters are very low in cost and offer large dirt holding capacity. These housings are made from carbon steel or stainless steel. They use a clamp cover that is easily removed, reducing time spent on bag change-out. The O-ring seal on the cover ensures a seal. This housing also utilizes our Unistyle design offering the option of a side or bottom outlet. There is a 2-inch outlet on the side with a 2-inch plugged drain at the bottom of the housing. The outlet can easily be changed to the bottom by merely moving the plug from the drain to the side outlet.

Features

- Permanently piped housings are opened without special tools
- Quick opening cover
- Carbon or stainless steel housings
- Adjustable-height tripod legs
- O-ring seals: Buna N, EPR and Viton®
- 125-psi rated housing
- Basket material is compatible with housing
- Uses standard number 2 size bags and baskets
- Bag/Basket surface area is 4.4 square feet
- 2-inch NPT ports





^{*} Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

How To Order

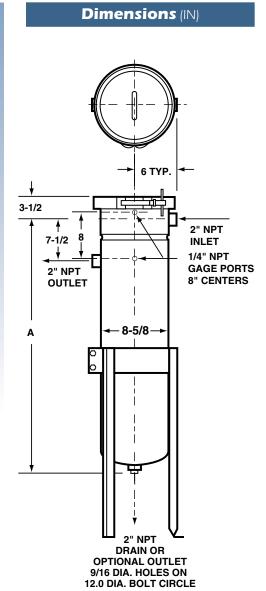
Low Pressure Model 8 Housing

Build an ordering code as shown in the example



Dimensions

Model	A
815	21.1
830	35.9



Aluminum Housings

Spark Free, Heavy Duty Housings!

Economical aluminum AL Series housings for commercial, industrial and process applications. Aluminum can be used in place of carbon steel, stainless steel or plastic in many applications with superior results. It is especially effective in water and water based applications such as machine tool coolants and cooling towers. Also ideal for diesel, oils, and fuels, as well as many others.

FEATURES

- 3/4" through 3" pipes sizes
- NPT connections
- Light weight lid with handle
- O-ring sealed
- Max temp. 250°F
- Pressure ratings to 300 PSI
- Strainer baskets optional
- 5 outlet styles
- Stainless steel filter bag baskets
- Tripod legs

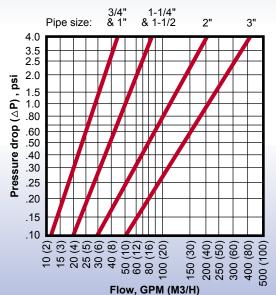
Housing	Bag Size	Sq. Area	Maximu	ım Flow
			GPM	M ³ /H
Model 50	3	0.5	20	4
Model 30	4	1.0	40	8
	7	1.5	60	12
Model 66	8	2.0	80	16
	9	3.0	120	24
Model 80	1	2.0	80	16
WIDGEI 60	2	4.5	180	36

PRESSURE DROP DATA

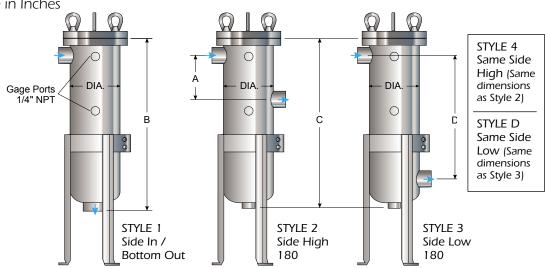
Chart shows clean pressure drop of housing with basket.

		Viscosity CPS														
	1 (H2O) 50 100 200 400 800															
ĺ	1.0	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.8							





Dimensions Approximate in Inches

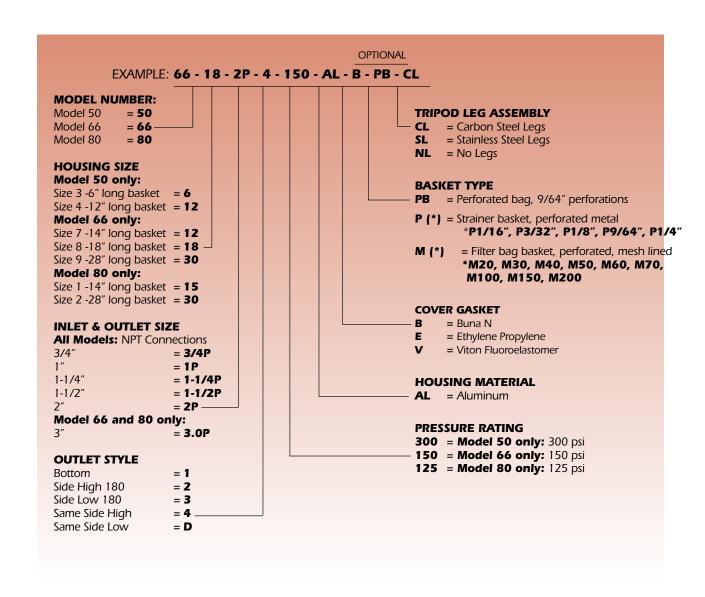


Model 5	0				Size 3			Size 4			Size 3		Size 4		
Dia.	Pipe Size	,	A	В	С	D	В	С	D	В	С	D	В	С	D
Dia.	NPT	IN. MM		INCHES		INCHES				MM		MM			
	0.75	3.0	76.	12.0	11.9		18.0	17.9		304.	302.		457.	454.	
5.0 IN.	1.00	3.0	76.	12.4	12.2		18.4	18.2		314.	309.		467.	462.	
	1.25	4.3	109.	12.8	12.8	6.0	18.8	18.8	12.0	325.	325.	152.	477.	477.	304.
127. MM	1.50	4.3	109.	13.2	12.8		19.2	18.8		335.	325.		487.	477.	
	2.00	4.8	121.	13.8	13.3		19.8	19.3		350.	337.		502.	490.	

Model	66			;	Size 7			Size 8		;	Size 9			Size 7			Size 8			Size 9	
	Pipe	,	A	В	С	D	В	C	D	В	C	D	В	С	D	В	C	D	В	0	D
Dia.	Size NPT	IN.	ММ	ı	NCHES	5	INCHES		5	INCHES			MM			MM			MM		
	0.75	3.0	76.2	19.9	19.9		24.4	24.4		33.9	33.9		505.	505.		619.	619.		861.	861.	
6.625	1.00	3.0	76.2	20.3	20.2		24.8	24.7		34.3	34.2		505.	513.		629.	627.		871.	868.	
IN.	1.25	4.3	109.	20.8	20.6		25.3	25.1		34.8	34.6		528.	523.		642.	637.		883.	878.	
168.	1.50	4.3	109.	21.1	20.8		25.6	25.3		35.1	34.8		535.	528.		650.	642.		891.	883.	
MM	2.00	4.8	121.	21.7	21.3		26.2	25.8		35.7	35.3		551.	541.		665.	655.		906.	896.	
	3.00	6.3	160.	23.0	22.5		27.5	27.0		37.0	36.5		584.	571.		698.	685.		939.	927.	

Model 8	0				Size 1			Size 2			Size 1		Size 2		
	Pipe Size	F	4	B C D		В	С	D	В	C	D	В	С	D	
Dia.	NPT	IN.	MM	INCHES				INCHES			MM			MM	
8.0	0.75	3.0	76.2	19.9	19.9		33.9	33.9		505.	505.		861.	861.	
IN.	1.00	3.0	76.2	20.3	20.2		34.3	34.2		515.	513.		871.	868.	
202	1.25	4.3	109.	20.8	20.6	12.0	34.8	34.8	27.0	528.	523.	220	883.	883.	40E
203 MM	1.50	4.3			13.0	35.1	34.8	27.0	535.	528.	330.	891.	883.	685.	
	2.00	4.8	4.8 121. 21.7 21.3		21.3		35.7	35.3		551.	541.		906.	896.	
	3.00	6.3	160.	23.1	22.5		37.1	36.5		586.	571.		924.	927.	

Build an ordering code as shown in the example



Heat Transfer Fluid Filtration

300°F to 700°F

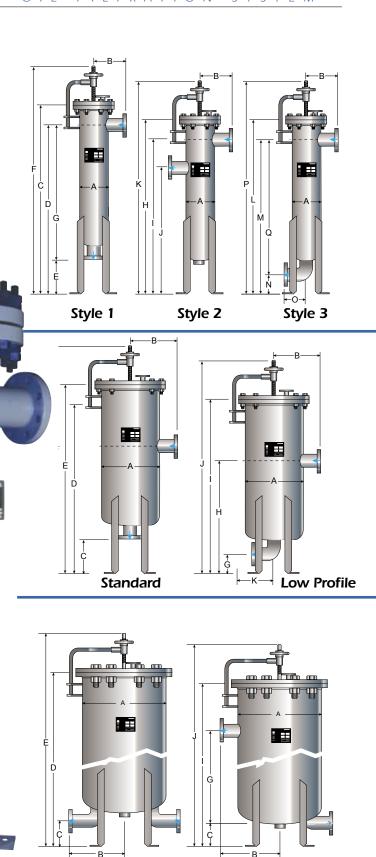
Heat transfer fluids are used for the indirect heating of processes by circulating the fluid between hot oil boilers, molds, tanks, extruders, and reactor vessels. The fluids are subjected to temperatures ranging from 300-700°F. These fluids can become contaminated from system construction, millscale, and oxidization by-products resulting in the formation of sludge. This contamination can cause operational problems such as pump shaft seal leakage, valve stem wear, plugging of heat exchangers and flow passages. Rosedale's HT Line of filters can solve your thermal fluid contamination problems. Particle removal is offered via glass fiber or stainless steel cartridges and wire cloth lined baskets. The filter vessels are offered in a variety of pipe sizes with flows to several hundred gallons per minute. The filter cartridges are accessed through an easily opened lid and can quickly be serviced.

Features

ANSI class 150 design

Duplex and multiplex arrangements are available for uninterrupted operation.

- Temperature ratings of 285 PSI @ 100°F to 85 PSI @ 700°F
- Housings available in carbon steel, 304, and 316 stainless steel
- Covers blind fig



Standard

Low Profile

QUALITY SYSTEM

	Model Pipe a D C D D D							STY	LE 2				STY	LE 3				
Model No.	Pipe Size	Α	В	С	D	E	F	G	Н	I	J	К	L	М	N	0	Р	Q
HT8-30	2	8.62	7.5	57.4	50.4	12.0	68.0	38.4	49.5	42.5	34.5	60.1	49.5	42.5	4.5	5.0	60.1	38.0

						STYLE 1					STY	LE 2				
Model No.	Pipe Size	Α	В	С	D	E	F	G	н	ı	J	К	L	М		
	3/4								44.5	28.5			55.1	24.0		
HT86-30	1								44.9	28.8			55.5	24.3		
	1-1/4	- 8.62 -	7.5	F4.4	20.2	12.0	65.0	26.3	45.2	29.1	4.5	5.0	55.8	24.6		
П100-30	1-1/2		8.62	8.62		54.4	38.3	12.0	05.0	20.3	45.6	29.6			56.2	25.1
	2								46.3	30.3			56.9	25.8		
	3		8.0	_					48.4	32.4	5.3	7.3	59.1	27.1		

				Stan	dard				Low Profile	,		
Model No.	Pipe Size	Α	В	С	D	E	F	G	н	ı	J	
	2		11.1	4.50	42.9	54.4	14.0	15.0	8.0	39.7	51.3	
HT18-30	3	18.0	12.9	5.25	45.3	56.9	15.0	17.0	9.0	40.7	52.3	
	4			14.6	6.0	47.7	59.2	N/A	N/A	N/A	N/A	N/A

					Standard				L	ow Profile	e	
Model No.	Pipe Size	Α	В	С	D	E	F	G	н	ı	J	К
	2							4.5	31.6	47.1	58.6	5.5
HT1825-30	3	18.0	.0 13.0	12.0	39.6	55.1	66.7	5.3	33.8	49.3	60.8	7.3
	4							6.0	36.0	51.5	63.0	9.0

Standard							Low Profile					
Model No.	Pipe Size	Α	В	С	D	E	F	G	н	I	J	К
	2		16.0	12.0	41.1	56.6	68.5	4.5	33.1	48.6	60.5	5.5
HT2447-30	3	24.0						5.3	35.3	50.8	62.7	7.3
H12447-30	4	24.0						6.0	37.5	53.0	64.9	9.0
	6							7.0	41.4	56.9	68.8	12.5

How To Order Housings

Build an ordering code as shown in the example.



Heat Transfer Media

300°F to 700°F

Models 8-30, 18-30, and 24-30

Holds 1 to 6 stainless steel baskets, or wire cloth lined baskets, or glass fiber-wound elements.

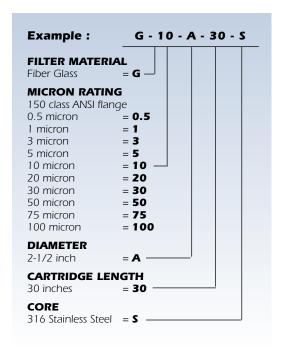
Models 86-30, 1825-30, and 2447-30

Holds 6 to 47 stainless steel cartridges, or wire cloth lined baskets, or glass fiber-wound elements



How To Order

Build an ordering code as shown in the example.



Model 82 Dual Capacity Bag Filter And Basket Strainer

Extra capacity at higher flow rates!

Rosedale dual capacity housings can serve as either basket strainers or bag filters. Covers are easily removed, without tools, and the basket or bag is quickly and easily cleaned or replaced. Rosedale's bag-sized pleated cartridges will provide even greater dirt-holding capacity (see page 144).

Low price, greater dirt holding capacity, and higher flow rates make the Model 82 a very cost-efficient choice!

Features

- Low pressure drops
- Permanently-piped housings
- Covers are O-ring sealed
- Carbon steel or stainless steel (304 or 316) housings
- Housings are electropolished to resist adhesion of dirt or scale
- Adjustable-height legs
- For flow rates to 440 qpm
- ASME code stamp available
- Large-area, heavy-duty baskets
- Dual stage straining/filtering

Options

- Higher pressure ratings
- Extra-length legs
- Heat jacketing
- Liquid displacers for easier servicing

Basket Data

(each basket, two baskets total)

Depth inches (nominal)	Diameter (inches)	Surface Area (sq. ft.)	Bag Size No.
15	6.7	2.3	1
30	6.7	4.4	2



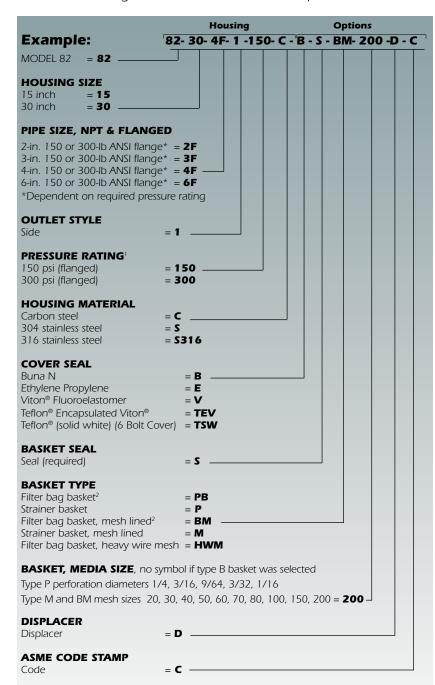
Viscosity Factors

CPS NUMBER

-	l		200					
.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80

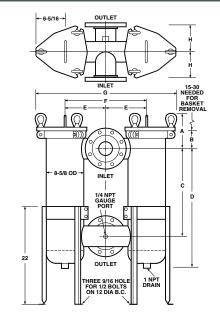
How To Order

Build an ordering code as shown in the example

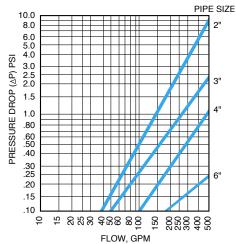


- 1. Higher pressures are available, consult factory.
- Filter bags are specified separately. See pages 144.
 Flanges provided with the housing match the pressure rating of the vessel.
- Housings rated 150 psi have 150 class flanges. Housings rated 300 psi have

Dimensions (IN)



Pipe Size	2	3	4	6
Α	6-5/8	7-1/2	7-1/2	9
В	2-7/8	3-3/4	3-3/4	5-1/4
C (15 in) (30 in)	14-1/2 29-1/2	14-1/2 29-1/2	14-1/2 29-1/2	14-1/2 29-1/2
D (15 in) (30 in)	21-3/16 36-3/16	22-3/32 37-3/32	22-3/32 37-3/32	23-9/16 38-9/16
E	8	8	9	9
F	16	16	18	18
G	28-9/16	28-9/16	30-9/16	30-9/16
Н	4-1/2	5-1/2	6-1/2	8



* Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

The All Plastic PVDF/ Polypro Model 8 Bag Filter Housing

Excellent for use in pure, ultra-pure, and corrosive applications

Rosedale's Generation II filter housings incorporate a unique one piece, seamless body that handles flows to 100 gpm. It is rated to 100 psi at 150°F, and offers excellent resistance to corrosion. In addition Rosedale has added new features:

allow for the use of Rosedale differential pressure indicating equipment that assist in determining bag change-out. This can be accomplished by utilizing our pressure gauges, switches options. It's versatile unistyle design, side or bottom outlet, makes piping easy in any arrangement.

Construction

This durable, corrosion resistant design is constructed from special polymer compounds. The Polypro housing is molded of reinforced chemically coupled polypropylene homopolymer. The addition of a UV stabilizer makes it suitable for outdoor use.

Features

- All molded construction
- 2-inch flat face flange connections
- Unistyle piping configuration (side and/ or bottom outlet)
- Accepts all number 2 sized bags or 500 Series Cartridges (down to 0.5µ absolute)
- Wide selection of cover o-ring materials
- External cover and pressure threads with plug
- Hold down assembly

Options

- Cover vent and drain valve
- Duplex and multiplex arrangements available
- Leg assembly (stainless steel)
- Pressure differential instrumentation
- Convertible 700 Series Cartridge (see page 166)
- Also available in PVDF

Design Details

An easy to remove cover and basket make bag change-out quick, clean and simple. No special tools are needed, and the filter is back in service in a matter of minutes. The cover threads are external, and have no contact with the process fluids to prevent product accumulation. For extra strength the cover features buttress-style threads. The housing is complete with a cover vent, drain and gage port connections. The gauge connections



Plastic model base shown above. Also available for the Platinum 700 Series cartridge - See page 166.

How To Order

Build an ordering code as shown in the example

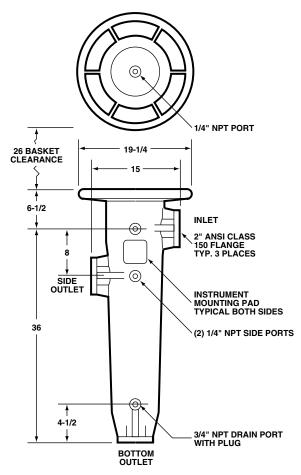
Generation II Polypro housings are designed to accept all number 2 size elements, including our standard bags, bag-sized pleated cartridges, Surfaceplus, and the absolute-rated Platinum 500 series. The elements are rated from 0.5 micron absolute (99.98% efficiency or ß5000) to 800 micron nominal. See page 144 for media selection.



Technical Specifications

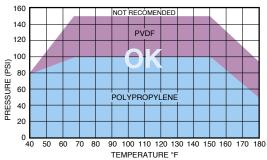
Element Size:	No. 2 Size Elements
Piping Connections:	2" ANSI B16.5 FF Flange
Housing Material :	Glass-reinforced polypropylene with UV stabilizer or PVDF
Basket Material:	Natural polypropylene or PVDF
Recommended Change Out:	15 PSID
Pressure Rating:	100 psi @ 150°F
Shipping Weight:	50lb (approx.)

Dimensions (IN)



Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Temperature vs. Pressure



NOTE: Not for use in conditions under 40°

Model OT Bag Filter Housing

Guarantees a 360° positive seal for flows to 100 gpm*

Performance

The Model OT filter provides optimum filtration performance when combined with our high capacity filter bags. Our unique design ensures a 360-degree positive seal and media compression, eliminating the potential for bypass. Unfiltered liquid and debris does not accumulate above the filter bag and contaminate the clean fluid area during change-out. Fluid passes through the bag from inside to outside. The Rosedale Model OT filter ensures an even flow into the filter bag where contaminate is contained for easy disposal.

Construction

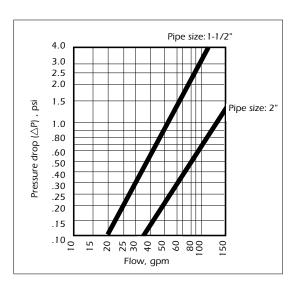
The Model OT housing is a durable, high capacity filter with an uncompromising welded construction to meet ASME Section VIII Code requirements. The cover is hinged and fastened with swing bolts for quick access and easy bag change-out. They have a high quality electropolished finish to resist adhesion of dirt and scale, making routine maintenance fast and simple.

Model OT filters are available in two sizes with flanged or threaded connections. Customize with several options, including gauges and switches. A wide range of filter bags or cartridges (rated 0.5µ absolute to 100µ nominal) with various surface areas can be utilized in this housing.

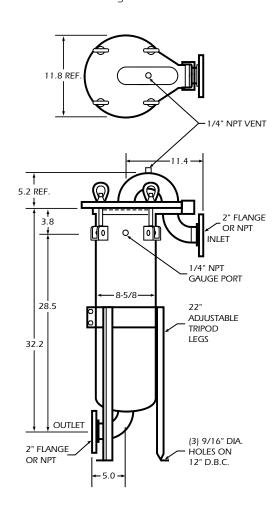


Features

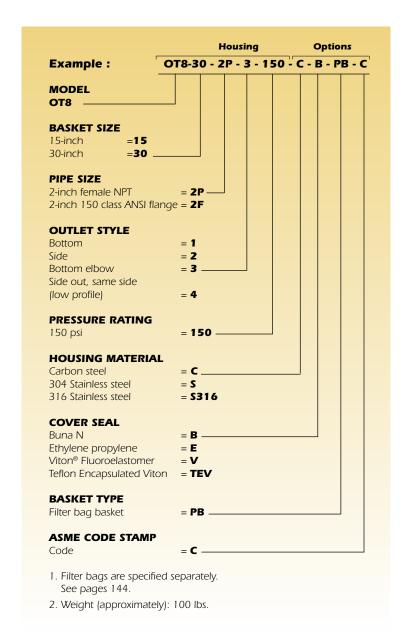
- Accepts all major competitive brands of bags
- Permanently piped housings are opened without special tools
- Carbon or stainless steel housings
- Covers are O-ring sealed
- All sealing surfaces are blancher ground
- O-ring seals: Buna N, EPR, Viton® and Teflon®
- 150 psi rated housing
- ASME Code Stamp available
- Heavy-duty basket with over 50% open area
- Bag/Basket surface area is 2.3 square feet (number 1 size), or 4.4 square feet (number 2 size)
- 2-inch inlet and outlet
- 1/4-inch NPT gauge ports and vent connection
- 1/2-inch NPT drain connection
- Adjustable-height tripod leg assembly



*Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

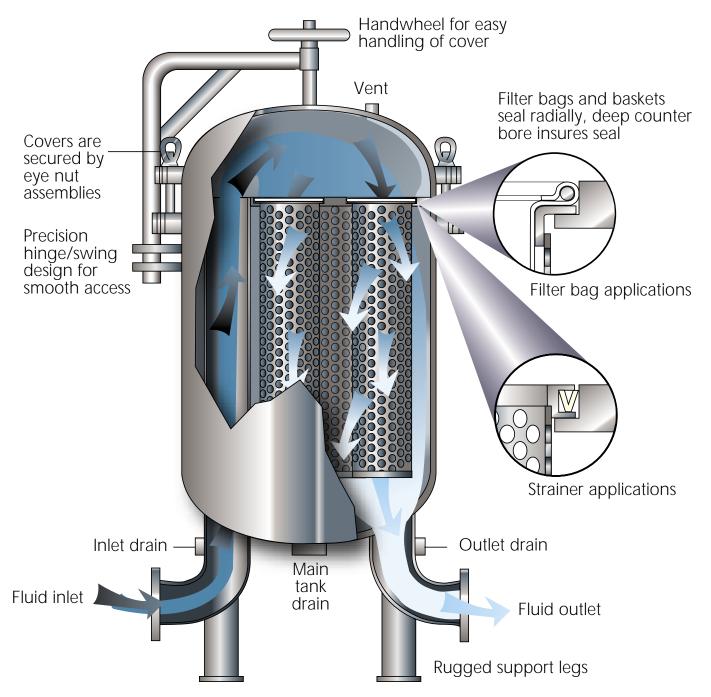


Build an ordering code as shown in the example.





Multi-Bag Filter Standard Features



Typical Multi-basket Strainer and Multi-bag Filter Housing

Unfiltered fluid enters the bottom of the housing and flows into the open area under the dome of the cover. Flow is distributed uniformly through the bags or baskets, where they can be removed easily and completely.

Multi-Basket Strainers and Multi-Bag Filters

These multi-basket strainers and bag filters offer a wide range of flow capacities and contaminant-holding capabilities. They contain from 2 to 23 baskets.

To serve as a strainer, a unit is ordered with perforated stainless steel baskets (mesh-lined if desired). When ordered as a filter, it's fitted with perforated stainless steel baskets designed to hold disposable or cleanable filter bags. Industry-standard size bags are used: the standard 30 inch baskets accept bag size 2, the optional 15 inch baskets take size 1.

The standard pressure rating for all models is 150 psi. All housings can be supplied with an ASME code stamp, if required.

Features

- NSF 61 listed
- Multiple housing styles available (standard, quick access, low profile, hinged)
- Permanently piped housings are opened without tools and without disturbing the piping



- Machined cover gasket groove provides positive O-ring sealing
- Carbon steel, 304 or 316 stainless steel construction housings
- Large-area, 30 inch deep, heavy-duty, 9/64 inch perforated baskets
- Easy to clean
- Low pressure drop
- Four cover seal materials: Buna N, Ethylene Propylene, Viton®, and Teflon®
- Pressure rating 150 psi
- Flanged connections for 2 through 12 inch pipe
- Vent, drain and gage connections

Options

- ASME code stamp
- Higher pressure ratings
- Corrosion allowances
- Steam jackets



- Special connection locations
- Bag hold down assembly (standard on QII design)
- Inner baskets for dual-stage straining or filtering
- Cleanable wire mesh lined or perforated strainer baskets
- Special alloy materials
- Hydraulic cover lifting assembly
- Sanitary fittings
- Differential pressure indicators

Duplex Systems

All multi-basket models described here are also available as duplex systems. Two units come piped together with valves to permit continuous use of either unit while servicing the other. One lever actuates all valves simultaneously or it can be ordered for automatic service. See page 75.

Choose Housing Style

Designed to suit your requirements

The versatility of Rosedale Products provides a choice of several different designs.

- Standard Housing Design (STD) is durable and economic. It includes a davit arm and handwheel to facilitate cover removal. It is our most versatile housing design offering a variety of options, including our low profile design.
- Spring Access Cover Design (HLP) opens and closes without effort. Simply loosen the swing bolts and lift the cover up to open. An automatic cover stop is provided. See page 43 for details.
- **Quick Access Cover (QII)** features a unique counter weight design that makes opening, closing, and change-out, fast, easy, and simple. This will significantly reduce change-out time and lower operating costs. The QAC is rated to 150 PSI and constructed to meet ASME code requirements. Built-in safety features ensure that the cover cannot be opened unless the internal pressure is first released. The QII is offered with our low profile design making bags more accessible and easy to remove.
- Low Profile Design (SLP) Housings are compact and space saving, allowing for ease of bag change-out. Standard operating height is reduced, resulting in a safe design by eliminating platforms and ladders. The SLP is manufactured in any housing version, including our standard davit arm cover, OAC design, and spring assisted hinged cover.



Standard Davit Arm



Spring Access Cover



QII Quick Access Cover



Low Profile Design

Choose Baskets That Strain or Filter

Whatever your needs dictate

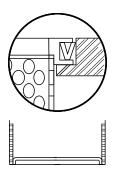
Strainer baskets are cleanable, reusable.

A seal is supplied on any strainer basket. It forms a seal between basket and housing to prevent dirty fluid bypass. Choose between various perforation sizes or wire mesh. Strainer baskets have flat, non-perforated bottoms and contain heavy-duty handles.

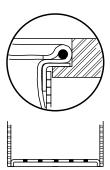


Filter bags have an interference fit between the bags top rim and the housing causing a positive seal to prevent fluid bypass. Filter bag baskets have flat perforated bottoms.

Filter bags are available in a wide variety of felt, micro-fiber, monofilament and multifilament mesh materials. They are detailed completely on pages 144.









DUAL-STAGE— Dual-stage action will increase strainer or filter life and reduce servicing needs. This straining/filtering action can be achieved by ordering a second, inner basket. It is supported on the top flange of the outer basket. Both baskets can be utilized as strainers (with or without wire mesh linings), filter bag baskets, or a combination of strainer and bag basket.

Basket Data

Surface area of each 30 in. basket: 4.4 sq. ft. Volume of each 30 in. basket: 0.6 cu. ft.

Basket Construction

For cleanable strainer baskets, choose from the following perforation diameters: 1/4, 3/16, 9/64, 3/32, or 1/16 inch (for other not shown consult factory).

Any perforated basket can also be ordered lined with wire mesh. Stainless steel wire is used in mesh sizes 20, 30, 40, 50, 60, 70, 80, 100, 150, or 200.

Filter bag baskets, have standard 9/64 inch diameter perforations that are 51% open area. A wire mesh can also be utilized with bag baskets for two advantages:

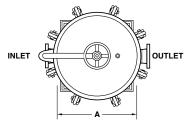
- 1. Fiber migration is minimized.
- 2. In the unlikely event of bag rupture, the wire mesh better contains the contaminant.

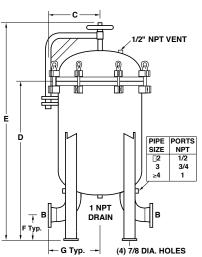


MO	DEL	Pipe	Leg Bolt			Sta	ndard				L	ow Pro	ofile	
NUN	/IBER im. A	Sizes B	Circle Dia.	С	D	E	F	G	Weight, lb (Approx)	н	ı	J	К	L
1	16	2	14.0	10.9	40.1	57.1	4.50	10.5	400	37.9	54.9	8.00	15.0	13.0
		3			42.5	59.5	5.25	12.3	425	38.3	55.3	9.00	17.0	14.0
		4			44.9	61.9	6.00	14.0	450	N/A	N/A	N/A	N/A	N/A
1	8	2	16.0	11.9	40.5	58.0	4.50	11.1	450	39.6	58.5	8.00	15.0	14.0
		3			42.9	60.4	5.25	12.9	475	40.0	58.9	9.00	17.0	15.0
		4			45.3	62.8	6.00	14.6	500	N/A	N/A	N/A	N/A	N/A
2	22	2	20.0	14.0	41.4	60.0	4.50	11.9	485	39.5	58.0	8.00	15.0	16.0
		3			43.9	62.4	5.25	13.7	500	40.0	58.5	9.00	17.0	17.0
		4			46.2	64.7	6.00	15.4	515	39.5	58.0	9.00	19.0	18.0
		6			50.4	69.0	7.00	18.9	560	N/A	N/A	N/A	N/A	N/A
2	24	2	22.0	15.0	41.7	60.7	4.50	13.1	675	41.2	61.6	8.00	15.0	17.0
		3			44.1	63.1	5.25	14.8	700	41.6	62.0	9.00	17.0	18.0
		4			46.5	65.5	6.00	16.6	725	41.1	61.5	9.00	19.0	19.0
		6			50.7	69.7	7.00	20.1	750	N/A	N/A	N/A	N/A	N/A
3	30	2	28.0	18.0	42.8	63.3	4.50	15.2	635	41.3	61.9	8.00	15.0	20.5
		3			45.2	65.7	5.25	17.0	650	41.8	62.4	9.00	17.0	21.0
		4			47.6	68.1	6.00	18.7	665	41.3	61.9	9.00	19.0	22.5
		6			51.9	72.4	7.00	22.2	705	41.2	61.8	10.0	17.0	23.0
		8			56.4	76.8	8.25	25.7	850	N/A	N/A	N/A	N/A	N/A
3	36	3	34.0	21.0	46.4	68.4	5.25	18.8	840	43.3	64.5	9.00	17.0	24.0
		4			48.8	70.8	6.00	20.6	860	43.2	64.5	9.50	19.0	25.0
		6			53.1	75.1	7.00	24.1	870	43.2	64.4	10.5	17.0	26.0
		8			57.6	79.6	8.25	27.6	1010	43.2	64.4	11.5	17.0	27.0
		10			62.1	84.1	9.50	30.6	1150	N/A	N/A	N/A	N/A	N/A
	12	4	40.0	24.0	50.0	73.5	6.00	22.6	1840	45.9	70.7	9.50	19.0	28.0
		6			54.3	77.8	7.00	26.1	1870	45.9	70.6	10.5	17.0	28.0
		8			58.8	82.3	8.25	29.6	1960	45.9	70.6	11.5	17.0	29.5
		10			63.3	86.8	9.50	32.6	2070	45.8	70.5	12.5	17.0	30.0
		12			68.0	91.5	11.0	36.1	2200	N/A	N/A	N/A	N/A	N/A
	18	4	46.0	27.0	51.0	76.0	6.00	24.8	2015	46.5	71.5	9.50	19.0	32.0
		6			55.4	80.4	7.00	28.3	2075	46.4	71.4	10.5	17.0	32.0
		8			60.0	85.0	8.25	31.8	2200	46.4	71.4	11.5	17.0	32.5
		10			64.4	89.4	9.50	34.8	2350	46.4	71.4	12.5	17.0	33.0
		12			69.2	94.2	11.0	38.3	2530	N/A	N/A	N/A	N/A	N/A

Dimensions (IN)

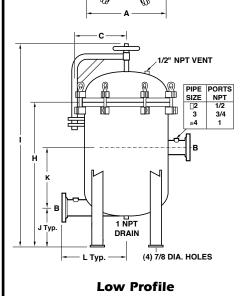
(30-inch deep basket)





Standard

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

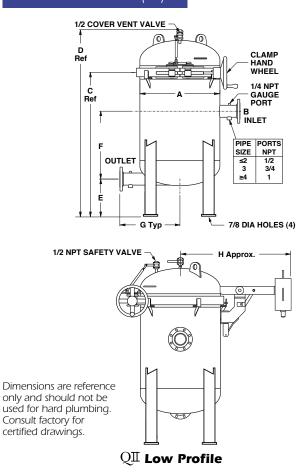


INLET

OUTLET

					QII Low Profile				
MODEL NUMBER & Dim. A	Leg Bolt Circle Dia.	A	Pipe Size B	С	D	E	F	G	н
16 & 18	16.0	18.0	2	40.0	53.2	8.00	15.0	14.0	35.5
			3	40.4	53.6	9.00	17.0	15.0	
22	22.0	24.0	2	41.5	56.2	8.00	15.0	16.0	35.5
			3	41.9	56.6	9.00	17.0	17.0	
			4	41.4	56.1	9.00	19.0	18.0	
24	22.0	24.0	2	41.5	56.2	8.00	15.0	17.0	38.5
			3	41.9	56.6	9.00	17.0	18.0	
			4	41.4	56.1	9.00	19.0	19.0	
30	28.0	30.0	2	43.0	59.2	8.00	15.0	20.5	41.5
			3	43.4	59.6	9.00	17.0	21.0	
			4	42.9	59.1	9.00	19.0	22.5	
			6	42.9	59.1	10.00	17.0	23.0	
36	34.0	36.0	3	44.9	62.6	9.00	17.0	24.0	44.5
			4	44.9	62.6	9.50	19.0	25.0	
			6	44.9	62.6	10.5	17.0	29.5	
40	40.0	42.0	8	44.9	62.6	11.5	17.0	27.0	47.5
42	40.0	42.0	4	46.4	65.6	9.5	19.0	28.0	47.5
			6	46.4	65.6	10.5	17.0	28.0	
			8	46.4	65.6	11.5	17.0	29.5	
40	47.0	40.0	10	46.3	65.5	12.5	17.0	30.0	F0 F
48	46.0	48.0	4	47.9	68.6	9.5	19.0	32.0	50.5
			6	47.9	68.6	10.5	17.0	32.0	
			8	47.9	68.6	11.5	17.0	32.5	
			10	47.8	68.5	12.5	17.0	33.0	

Dimensions (IN)



Model Selection (For all housings)

Model No.	Number of Baskets	Straining, Filtering Area, ft2	Nominal Flow Rate (gpm)**	Inlet/ Outlet Size (in)
16	2	8.8	200	2,3,4*
18	3	13.2	300	2,3,4*
22	4	17.6	400	2,3,4,6*
24	6	26.4	600	2,3,4,6*
30	8	35.2	800	2,3,4,6,8*
36	12	52.8	1200	2,3,4,6,8,10*
42	17	74.8	1700	2,3,4,6,8,10,12*
48	23	101.2	2300	2,3,4,6,8,10,12*

- * Not available on SLP, HLP, and Oll styles.
- ** Nominal flow rate is based on water @ 1 psi ΔP. A lower fluid velocity is best for optimum filtering effectiveness (under 10 ft/sec is recommended).

Pressure Drop Data

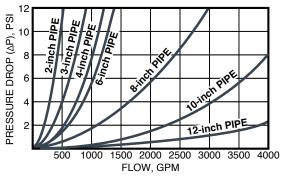
Basket strainers and bag filters are usually selected so that the pressure drop does not exceed 2 psi, when they are clean. Higher pressure drops may be tolerated when contaminant loading is low.

Determining housing pressure drop:

The pressure drops shown on the graph are reliable for all multi-basket housings, including strainer baskets or bag filter (perforated only or mesh lined). The pressure drop of any housing is governed by the size of the inlet and outlet, not the vessel itself.

- 1. Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table.
- 3. You now have the pressure drop for a clean multi-basket unit. If bag filters are employed, you must add the pressure drop they incur to get a true pressure drop for the assembly.

Note: Filter bags are specified separately. See pages 144.



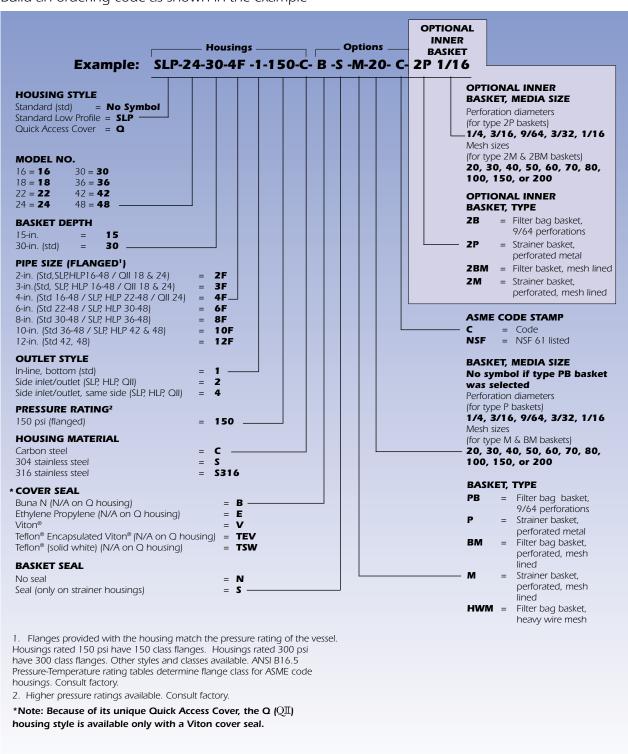
Recommended flow rates are based on housing only. Fluid viscosity, filter bag used, and expected dirt load should be considered when sizing a filter.

Viscosity Factors

	CPS NUMBER									
1	50	100	200	400	600	800	1000	2000		
(H ₂ 0)										
.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80		

☐ How To Order

Build an ordering code as shown in the example



HLP Series Multi-Basket Strainers and Multi-Bag Filters with Spring-Access Cover

These multi-basket strainers and bag filters offer a wide range of flow capacities and contaminant-holding capabilities. They contain from 2 to 23 baskets/bags. Larger units that hold more baskets/bags are available, consult Rosedale.

- Low Profile Design Housings are compact and space saving, allowing for ease of bag change-out. Standard operating height is reduced, eliminating platforms and ladders.
- Spring Assisted Hinged Cover opens and closes without effort. Simply loosen the swing bolts and lift the cover up to open. An automatic cover stop is provided.
- The units meet ASME code requirements for 150 PSI ratings. Rosedale is an ISO 9000 facility.



Features

- Permanently piped housings are opened without disturbing the piping
- Machined cover seal groove provides positive sealing
- Carbon steel, 304 or 316 stainless steel construction housings (wetted parts)
- Large-area, 30-inch deep, heavy-duty, 9/64-inch perforated baskets
- Easy to clean
- Low pressure drop
- Three cover seal materials: Buna N, Ethylene Propylene, and Viton®
- Pressure rating 150 psi
- Flanged connections for 2 through 8-inch pipe
- Vent, drain and gage connections
- Bag hold down assembly





- Special connection locations
- Inner baskets for dual-stage straining or filtering
- Cleanable wire mesh lined or perforated strainer baskets
- Special alloy materials
- Sanitary fittings
- Bag or cartridge design
- Differential pressure indicators
- Safety pressure release
- Steam jackets (body jacket only)













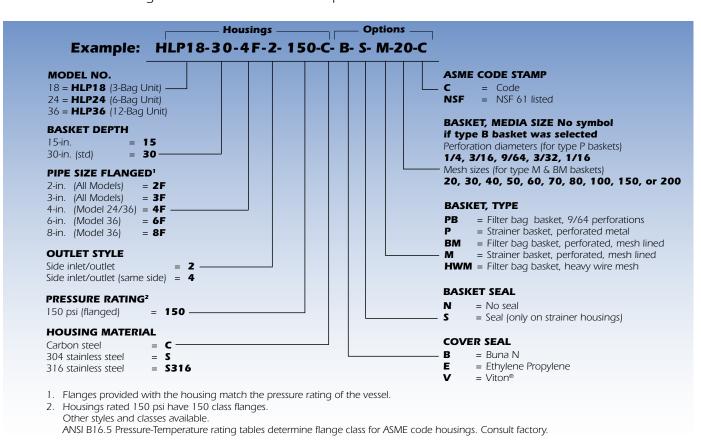




Dimensions - HYDRAULIC LIFT PUMP 1/2" NPT VENT 1/2" NPT VENT 1/2" NPT VENT) DO OØ PIPE PORT INLET NPT INLET INLET[PIPE PORT PIPE PORT 1/2 56 52.2 47.1 SIZE NPT SIZE | NPT 3/4 17 17 OUTLET OUTLET OUTLET 10.5 Model 18 Model 24 Model 36

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Build an ordering code as shown in the example



Rosedale High Flow Filtration Systems

- Flow rates up to 400 gpm per element
- From 1 to 18 elements per unit
- Absolute-rated for consistent product quality
- Operator-friendly cartridge and housing system
- High flow performance in a compact design
- Horizontal mounting configuration



High Flow Housings

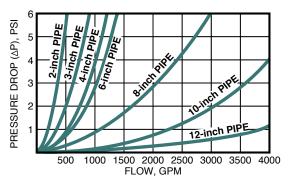
These housings are available in standard and custom configurations to suit your specific needs. All housings are designed, manufactured, tested, and code stamped in accordance with ASME Section VIII, Division 1. They are available in a variety of sizes to accommodate from 1 to 18 filter elements in 40-inch and 60-inch lengths. Larger housings are available upon request. The horizontal style maximizes ease of operation, while minimizing the system's footprint.

Features

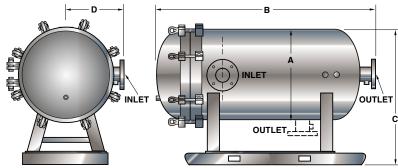
Horizontal mounting configuration
Hinged cover for easy element change-outs
Standard pressure / temperature ratings
to 300 psig and 250 °F
Available in Carbon Steel, 304, or
316 Stainless Steel

40" and 60" element lengths

ASME Code design



Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.





Dimensions - Approximate in Inches

Dia. A	Ele- ment Length	В	C	D	No. of Ele- ments	
8	40	66.9	55.1	7.5	1	
°	60	86.9	55.1	7.5	ı	
18	40	75	/ 2 [1.7	2	
	60	95	62.5	13	3	
2.4	40	79.5	/ F F	1./	7	
24	60	99.5	65.5	16	/	
20	40	85	/ O F	19	1.1	
30	60	105	68.5	19	11	
27	40	93.5	71.5	22	1.7	
36	60		/1.5	22	13	
42	40	100	74.5	25	1.0	
42 Dimon	60 sions are refe	120	74.5	25	18 be used for	

hard plumbing. Consult factory for certified drawings.

High Flow Elements

40" Length / 60" Length

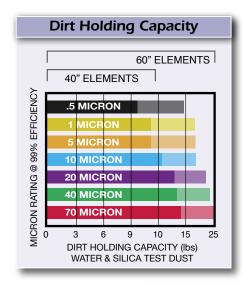
Removal Ratings (microns) 0.5, 1, 5, 10, 20, 40, 70 @ Beta 5000 (99.8% efficiency)

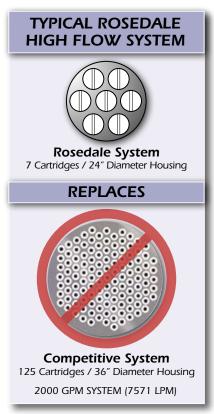
Maximum Operating Temperature (°F / °C) 160 / 71

Maximum Differential Pressure 50 psid @ 68°F (3.4 bar @ 20°C)

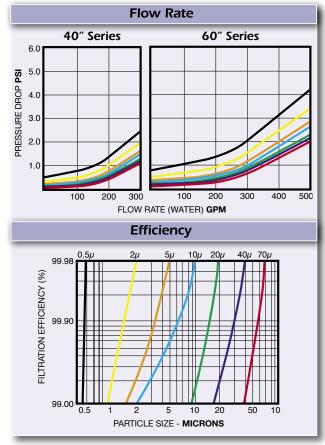
Recommended Change-out Differential Pressure 35 psid @ 68°F (2.4 bar @ 20°C)

Depending on application, systems can be used with 40" or 60" bags or cartridges. Bag restrainer expands bag fully during filtration.

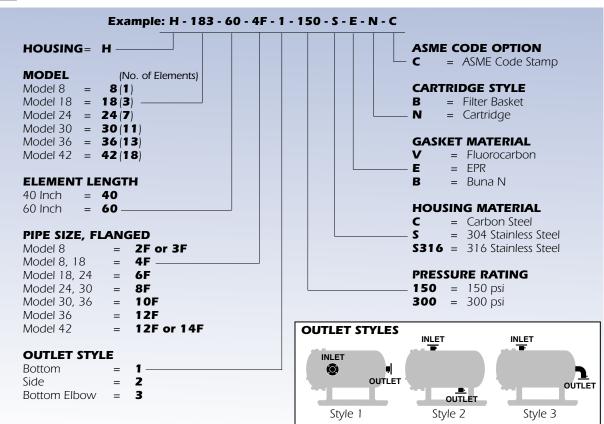




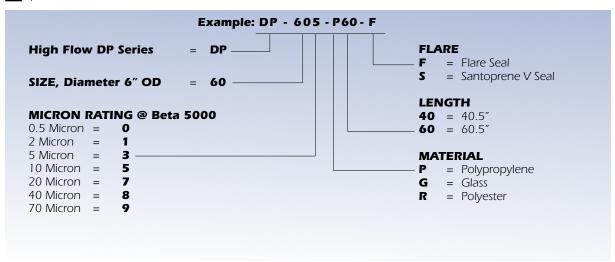




How To Order Housing Build an ordering code as shown in the example



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



Rosedale Model HSS300 and HSS750

Single Cartridge Housings for Liquids

The Rosedale Model HSS single element filter housing is an all stainless steel unit ideal for general industrial service. It features a ring-nut closure (HSS 300) or bolt closure (HSS750) for easy access to the head and cartridge sump.

- The HSS is available in 10″, 20″, 30″, or 40″ cartridge models.
- HSS300 units are rated for 300 PSI service at 200°F.
- HSS750 units are rated for 750 PSI service at 200°F.

Flow rates to 40 GPM are acceptable depending on cartridge selection. Buna-N gaskets are standard, while other materials are available.

Standard Features

- Simple closure for quick cartridge change outs
- In line fittings for easy installation
- Knife edge seal at both cartridge ends to eliminate by-pass
- Housings accept doubleopen-end cartridges







MODEL HSS300

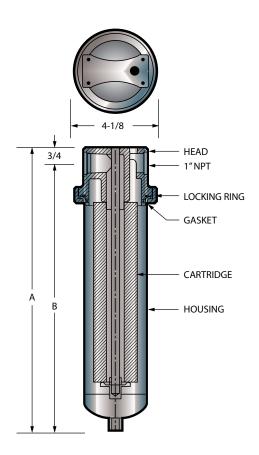


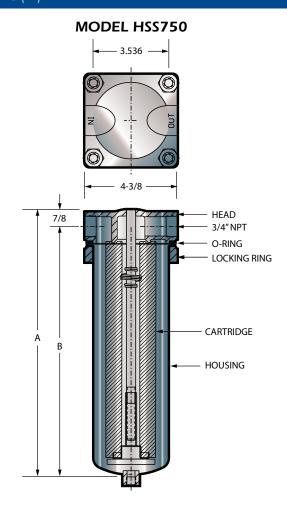
MODEL HSS750



Dimensions (IN)

MODEL HSS300





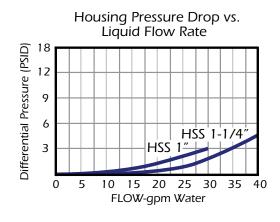
Model	PSI	А	В
HSS300-M101		13-9/16	12-3/4
HSS300-M102	300 PSI -	23-9/16	22-3/4
HSS300-M103		33-9/16	32-3/4
HSS300-M104		43-9/16	42-3/4
HSS750-M101		13	12-1/8
HSS750-M102	7E0 DCI	23	22-1/8
HSS750-M103	750 PSI	33	32-1/8
HSS750-M104		43	42-1/8

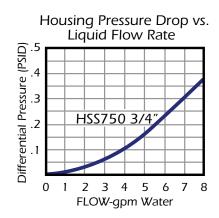
Standard Design Specifications

Model	Oty. (Length) of Cartridges	Flow Rate GPM*	Max Ctg Diameter	Approx. Ship Weight	Box Size
M101	1 (10")	7	2 3/4" OD	10 lbs	4x5x16
M102	1 (20")	14	2 3/4" OD	12 lbs	4x5x25
M103	1 (30")	21	2 3/4" OD	14 lbs	4x5x36
M104	1 (40")	28	2 3/4" OD	16 lbs	4x5x47

Based on 7gpm per 10" length with a 25 micron wound cartridge at 2PSID clean and a viscosity of 1 cps.

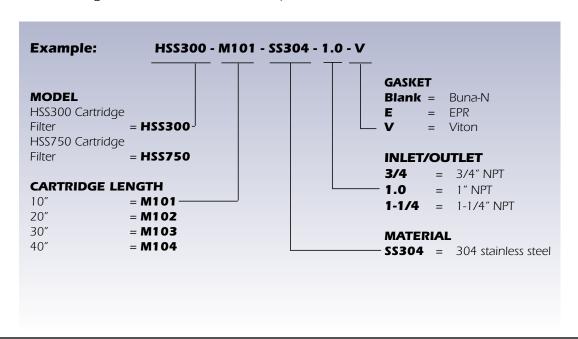
^{*}Flow rates are guide lines only. Actual flow rates are based on fluid, viscosity, cartridge type, micron ratings and other factors.





How To Order

Build an ordering code as shown in the example



Model 7180 Series Hydraulic Lube-Oil Filter

Designed for use with 718 and 736 style filter cartridges. Flows to 100 GPM.

The 7180 series Hydraulic lube filters are ideal for your oil reclamation and maintenance operations.

The 7180 series housings incorporate an eyenut cover that is easily removed, reducing time spent on cartridge change-out. The side-in/side-out piping arrangement is available in 1", 1-1/2", and 2" NPT connection sizes. Housings are electropolished creating a smooth, easy-to-clean surface.

The 7180 series accepts single 718 or 736 style filter cartridges, and are rated at 1µ absolute to 100µ nominal. They seal on the housing's elevated pedestal and are retained by a threaded post and cap assembly.

Keep your filtration process cost effective without sacrificing quality.

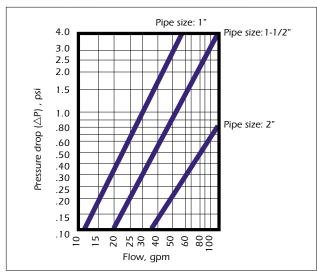
Applications

- Bulk Oil Handling
- Coolants
- Cutting Oils
- Fuels
- Hydraulic Oils
- Lubrication Oils
- Process Liquids
- Quench Oils
- Rolling Mill Oils
- Solvents

Features

- Permanently piped housings are opened without special tools
- Carbon steel housings or 304 and 316 stainless steel
- Covers are O-ring sealed
- 150 psi rated housing
- 1", 1-1/2", or 2" NPT inlet and outlet
- 1/4" NPT vent connection

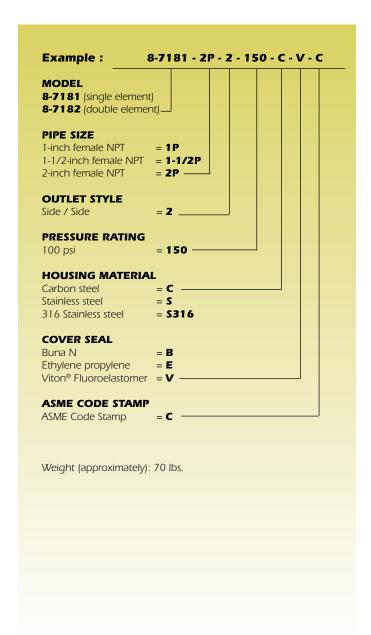




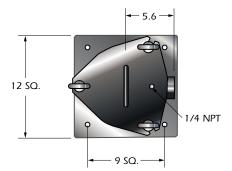
*Based on housing only. Fluid viscosity, filter bag used, and expected dirt loading should be considered when sizing a filter.

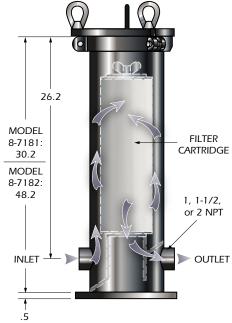
How To Order

Build an ordering code as shown in the example.









718 and 736 Filter Cartridges

For Use With the 7180 Housing. Flows to 100 GPM.

The Rosedale 718 and 736 style filter cartridges, are rated at 1μ absolute to 100μ nominal.

Specifications

Filtration Ratings:

95% at 1, 5, 10, 20, and 30µm

Filter Media:

Phenolic Impregnated Cellulose

Perforated Sleeve & Core, End Caps:

ETP Steel

Adhesive:

Thermosetting PVC

End Seals:

Buna-N Gasket Standard

Recommended Operating Conditions:

Maximum Temperature: 250°F (121°C) Change-Out ΔP: 25 PSID (1.7 BAR)

Maximum Flow Rate: 718 Series: 50 GPM 736 Series: 100 GPM

Size:

718: 6" OD x 18.1" Long 736: 6" OD x 36.1" Long (ID is 2-5/8" or 2-1/8")

Shipping Weight:

718: 20 lb (6 per carton) 736: 40 lb (6 per carton)

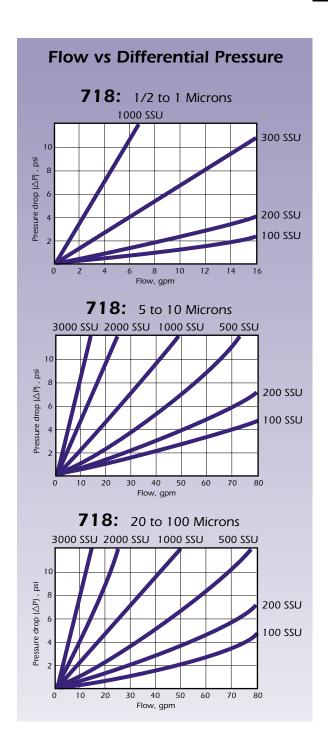


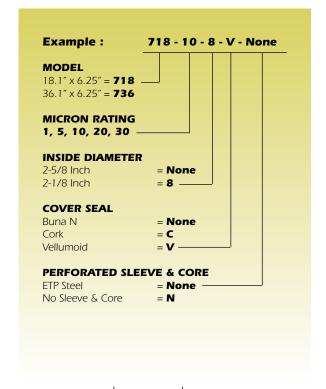
Liquid Particle Retention Ratings (µm) at Removal Efficiencies Of:

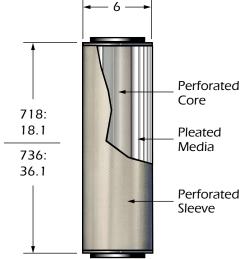
Cartridge	ß=1000 99.9%	ß=75 98.7%	ß=20 95%
1	12	3	1
5	25	18	5
10	40	25	10
20	50	40	20
30	85	60	40

How To Order

Build an ordering code as shown in the example.







Cartridge Filter Housings

These cartridge filters offer a wide range of flow capacities and contaminant holding capabilities. The housings can accommodate from 1 to 205 cartridges around. All housings can be supplied with an ASME code stamp, if required.

Standard Features

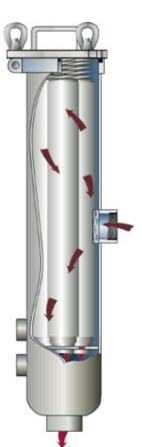
- Low pressure drop
- Permanently piped housings are opened without special tools and without disturbing the piping
- Machined cover gasket groove provides positive O-ring sealing
- Easy to clean
- In-line inlet and outlet
- Stainless steel internals

Standard Options

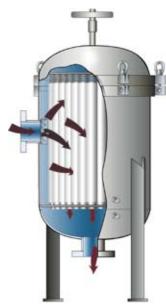
- 2 outlet styles
- Carbon steel, 304 or 316 stainless steel housings
- ASME code stamp
- O-ring seals: Buna N, EPR, Viton®, Teflon®
- Accommodates 10, 20, 30 or 40-inch cartridges
- Flanged connections for 3/4 through 12-inch pipe
- V posts or threaded center posts
- Units accept DOE or 222 style cartridges

How They Work

Unfiltered fluid enters the housing and is distributed evenly around the cartridges, from outside to inside. Solids are collected on the outside for easy removal. The filtered fluid then exits through the outlet pipe.







Center: Models 4, 6 and 8 Bottom Right: Models 12 thru 48

The following table gives the number of cartridges needed for each housing model.

Model Number and Diameter	Cartridge Lengths	Number of Cartridges	Equivalent 10-inch lengths	Available Pipe Sizes
Model 4	10-inch 20-inch 30-inch 40-inch	1 1 1 1	1 2 3 4	3/4, 1, 1-1/4, 1-1/2, 2
Model 6	20-inch 30-inch 40-inch	3 3 3	6 9 12	3/4, 1, 1-1/4, 1-1/2, 2, 3
Model 8	20-inch 30-inch 40-inch	6 6 6	12 18 24	3/4, 1, 1-1/4, 1-1/2, 2, 3
Model 12	20-inch 30-inch 40-inch	12 12 12	24 36 48	2,3,4
Model 16	20-inch 30-inch 40-inch	20 20 20	40 60 80	2,3,4
Model 18	20-inch 30-inch 40-inch	27 27 27	54 81 108	2,3,4
Model 22	20-inch 30-inch 40-inch	40 40 40	80 120 160	3,4,6
Model 24	20-inch 30-inch 40-inch	52 52 52	104 156 208	3,4,6
Model 30	20-inch 30-inch 40-inch	82 82 82	164 246 328	4,6,8
Model 36	20-inch 30-inch 40-inch	116 116 116	232 348 464	6,8,10
Model 42	20-inch 30-inch 40-inch	158 158 158	316 474 632	8,10,12
Model 48	20-inch 30-inch 40-inch	205 205 205	410 615 820	8,10,12

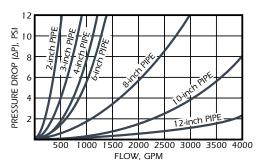
Determining Housing Pressure Drop Only

The pressure drops shown on the graph are reliable for all cartridge housings. The pressure drop of any housing is governed by the size of the inlet and outlet, not the vessel itself.

- 1. Using desired pipe size and approximate flow rate, determine the basic pressure drop from the graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the
- accompanying table.
- 3. You now have the pressure drop for an empty cartridge housing.
- 4. The user selected cartridge pressure drop must then be added to the housing pressure.
- 5. To calculate pressure drop through cartridges, see page 176.

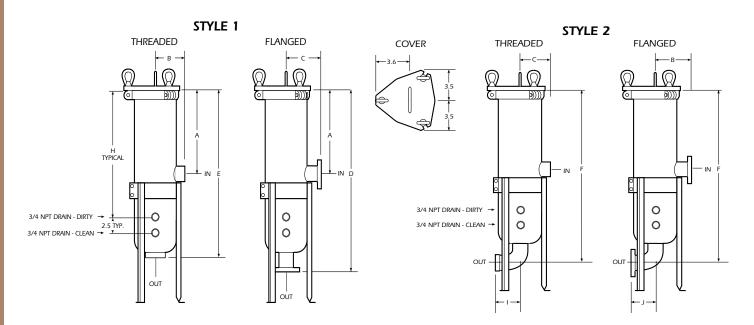
Viscosity Factors

				NUM	. — —			
			200					
.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80



*Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

Dimensions for Models 4, 6, and 8 (IN)



Model No.	Pipe Size	A	В	c	D	E	F	н	1	J
4110	3/4 1 1-1/4 1-1/2 2	6.0 6.0 6.0 6.0 6.0	5.0 5.0 5.0 5.0 5.0	3.5 3.5 3.5 3.5 3.5	20.0 20.0 20.0 20.0 20.0 20.0	18.6 18.8 18.8 18.8 18.7	18.9 19.3 19.7 20.1 20.8	11.8 11.8 11.8 11.8 11.8	1.9 2.5 2.9 3.3 4.0	4.0 4.0 4.0 4.0 5.0
4120	3/4	11.0	5.0	3.5	30.0	28.6	28.9	21.8	1.9	4.0
	1	11.0	5.0	3.5	30.0	28.8	29.3	21.8	2.5	4.0
	1-1/4	11.0	5.0	3.5	30.0	28.8	29.7	21.8	2.9	4.0
	1-1/2	11.0	5.0	3.5	30.0	28.8	30.1	21.8	3.3	4.0
	2	11.0	5.0	3.5	30.0	28.7	30.8	21.8	4.0	5.0
4130	3/4	16.0	5.0	3.5	40.0	38.6	38.9	31.8	1.9	4.0
	1	16.0	5.0	3.5	40.0	38.8	39.3	31.8	2.5	4.0
	1-1/4	16.0	5.0	3.5	40.0	38.8	39.7	31.8	2.9	4.0
	1-1/2	16.0	5.0	3.5	40.0	38.8	40.1	31.8	3.3	4.0
	2	16.0	5.0	3.5	40.0	38.7	40.8	31.8	4.0	5.0
4140	3/4	21.0	5.0	3.5	50.0	48.6	48.9	41.8	1.9	4.0
	1	21.0	5.0	3.5	50.0	48.8	49.3	41.8	2.5	4.0
	1-1/4	21.0	5.0	3.5	50.0	48.8	49.7	41.8	2.9	4.0
	1-1/2	21.0	5.0	3.5	50.0	48.8	50.1	41.8	3.3	4.0
	2	21.0	5.0	3.5	50.0	48.7	50.8	41.8	4.0	5.0

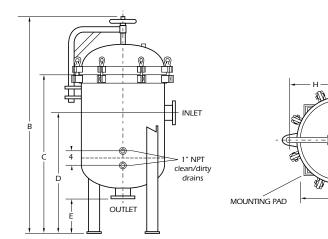
Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Dimensions for Models 4, 6, and 8 (IN) Cont.

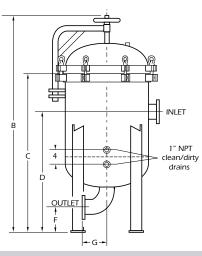
Model No.	Pipe Size	A	В	c	D	E	F	н	1	J	
6310	3/4 1 1-1/4 1-1/2 2 3	6.0 6.0 6.0 6.0 6.0 6.0	6.0 6.0 6.0 6.0 6.0	4.0 4.3 4.3 4.3 4.3 4.3	21.0 21.0 21.0 21.0 21.88 21.88	18.7 18.8 18.8 18.8 18.8 19.1	18.9 19.3 19.7 20.1 20.8 22.1	11.8 11.8 11.8 11.8 11.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 5.0 7.3	
6320	3/4 1 1-1/4 1-1/2 2 3	11.0 11.0 11.0 11.0 11.0	6.0 6.0 6.0 6.0 6.0 6.0	4.0 4.3 4.3 4.3 4.3 4.3	31.0 31.0 31.0 31.0 31.88 31.88	28.7 28.8 28.8 28.8 28.7 29.1	28.9 29.3 29.7 30.1 30.8 32.1	21.8 21.8 21.8 21.8 21.8 21.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 7.3	
6330	3/4 1 1-1/4 1-1/2 2 3	16.0 16.0 16.0 16.0 16.0 16.0	6.0 6.0 6.0 6.0 6.0	4.0 4.3 4.3 4.3 4.3 4.3	41.0 41.0 41.0 41.0 41.88 41.88	38.7 38.8 38.8 38.8 38.8 39.1	38.9 39.3 39.7 40.1 40.8 42.1	31.8 31.8 31.8 31.8 31.8 31.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 7.3	
6340	3/4 1 1-1/4 1-1/2 2 3	21.0 21.0 21.0 21.0 21.0 21.0	6.0 6.0 6.0 6.0 6.0	4.0 4.3 4.3 4.3 4.3 4.3	51.0 51.0 51.0 51.0 51.88 51.88	48.7 48.8 48.8 48.8 48.8 49.1	48.9 49.3 49.7 50.1 50.8 52.1	41.8 41.8 41.8 41.8 41.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 7.3	
8620	3/4 1 1-1/4 1-1/2 2 3	11.0 11.0 11.0 11.0 11.0	7.5 7.5 7.5 7.5 7.5 7.5	5.3 5.3 5.3 5.6 5.8 6.8	32.1 32.1 32.1 32.1 32.1 32.4	29.7 29.8 29.8 29.8 29.8 30.3	30.1 30.4 30.7 30.1 31.8 33.2	21.8 21.8 21.8 21.8 21.8 21.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 7.3	
8630	3/4 1 1-1/4 1-1/2 2 3	16.0 16.0 16.0 16.0 16.0	7.5 7.5 7.5 7.5 7.5 7.5	5.3 5.3 5.3 5.6 5.8 6.8	42.1 42.1 42.1 42.1 42.1 42.1	39.7 39.8 39.8 39.8 39.8 40.3	40.1 40.4 40.7 40.1 41.8 43.2	31.8 31.8 31.8 31.8 31.8 31.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 5.0 7.3	
8640	3/4 1 1-1/4 1-1/2 2 3	21.0 21.0 21.0 21.0 21.0 21.0 21.0	7.5 7.5 7.5 7.5 7.5 7.5	5.3 5.3 5.3 5.6 5.8 6.8	52.1 52.1 52.1 52.1 52.1 52.1	49.7 49.8 49.8 49.8 49.8 50.3	50.1 50.4 50.7 50.1 51.8 53.2	41.8 41.8 41.8 41.8 41.8	1.9 2.5 2.9 3.3 4.0 6.1	5.0 5.0 5.0 5.0 5.0 7.3	

Dimensions for Models 12-24 (IN)









Model No.	No. of Cart.	Cart. Length	-	A	В	STYLI C	E 1 D	E	В	c	D	STYL F	E 2 G	н	ı	Empty Weight (lbs)	Total Volume (cu. ft.)
12	12	20	2	12.0	59.1	43.1	33.1	12.0	50.6	34.6	24.6	4.5	5.5	9.3	10.0	370	2.2
			3						52.9	36.9	26.9	5.3	7.3			385	
			4						55.1	39.1	29.1	6.0	9.0			410	
		30	2	12.0	69.1	53.1	38.1	12.0	60.6	44.6	29.6	4.5	5.5	9.3	10.0	395	2.9
			3						62.9		31.9	5.3	7.3			410	
			4						65.1		34.1	6.0	9.0			425	
		40		12.0	70.1	(2.1	42.1	12.0	70./		24.7	4.5		0.2	10.0	420	2.7
		40	2	12.0	79.1	63.1	43.1	12.0	70.6 72.9		34.6 36.9	4.5 5.3	5.5 7.3	9.3	10.0	420	3.7
			<i>3</i>						75.1	59.1	39.1	6.0	7.3 9.0			455	
			4						75.1	37.1	37.1	6.0	7.0			455	
16	20	20	2	16.0	61.1	44.1	34.1	12.0	52.6	35.6	25.6	4.5	5.5	10.9	12.0	450	3.6
			3						54.9	37.9	27.9	5.3	7.3			465	
			4						57.1	40.1	30.1	6.0	9.0			480	
		30	2	16.0	71 1	54.1	39.1	12.0	62.6	45.6	30.6	4.5	5.5	10.9	12.0	475	4.8
		30	3	10.0	, , , ,	J 1. 1	37.1	12.0	64.9		32.9	5.3	7.3	10.7	12.0	495	1.0
			4						67.1	50.1	35.1	6.0	9.0			510	
									07.1	30.1	33.1	0.0	7.0			310	
		40	2	16.0	81.1	64.1	44.1	12.0	72.6	55.6	35.6	4.5	5.5	10.9	12.0	505	5.9
			3						74.9	57.9	37.9	5.3	7.3			520	
			4						77.1	60.1	40.1	6.0	9.0			540	

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Dimensions for Models 12-24 (IN) Cont.

Model No.	No. of Cart.	Cart. Length		A	В	STYLE C	1 D	E	В	c	ST [*]	YLE 2 F	e G	н	ı	Empty Weight (Ibs)	Total Volume (cu. ft.)
18	27	20	2 3 4	18.0	62.1	44.6	34.6	12.0	53.6 55.9 58.1	36.1 38.4 40.6	26.1 28.4 30.6	4.5 5.3 6.0	5.5 7.3 9.0	11.9	13.0	480 500 515	4.7
		30	2 3 4	18.0	72.1	54.6	39.6	12.0	63.6 65.9 68.1	46.1 48.4 50.6	31.1 33.4 35.6	4.5 5.3 6.0	5.5 7.3 9.0	11.9	13.0	515 530 550	6.1
		40	2 3 4	18.0	82.1	64.6	44.6	12.0	73.6 75.9 78.1	56.1 58.4 60.6	36.1 38.4 40.6	4.5 5.3 6.0	5.5 7.3 9.0	11.9	13.0	550 565 580	7.6
22	40	20	2 3 4 6	22.0	64.1	45.6	35.6	12.0	55.6 57.9 60.1 64.1	37.1 39.4 41.6 45.6	27.1 29.4 31.6 35.6		5.5 7.3 9.0 12.5	13.9	15.0	615 630 645 690	7.3
		30	2 3 4 6	22.0	74.1	55.6	40.6	12.0	65.6 67.9 70.1 74.1	47.1 49.4 51.6 55.6	32.1 34.4 36.6 40.6	5.3 6.0	5.5 7.3 9.0 12.5	13.9	15.0	655 670 690 730	9.5
		40	2 3 4 6	22.0	84.1	65.6	45.6	12.0	75.6 77.9 80.1 84.1	57.1 59.4 61.6 65.6	37.1 39.4 41.6 45.6	4.5 5.3 6.0 7.0	5.5 7.3 9.0 12.5	13.9	15.0	695 710 730 770	11.7
24	52	20	2 3 4 6	24.0	65.1	46.1	36.1	12.0	56.6 58.9 61.1 65.1	37.6 39.9 42.1 46.1	27.6 29.9 32.1 36.1	5.3 6.0	5.5 7.3 9.0 12.5	14.9	16.0	665 680 700 745	8.8
		30	2 3 4 6	24.0	75.1	56.1	41.1	12.0	66.6 68.9 71.1 75.1	49.9 52.1	32.6 34.9 37.1 41.1	6.0	7.3	14.9	16.0	710 725 740 790	11.4
		40	2 3 4 6	24.0	85.1	66.1	46.1	12.0	76.6 78.9 81.1 85.1	59.9 62.1	37.6 39.9 42.1 46.1	5.3 6.0	7.3 9.0	14.9	16.0	750 770 785 830	14.0

Dimensions for Models 30-48 (IN)

				İ			_		l							Empty	Total
		Cart.	_			STYLE		_		_		TYLE -				Weight	Volume
No.	Cart.	Length	Size	A	В	С	D	E	В	С	D	F	G	Н	1	(lbs)	(cu. ft.)
30	82	20	2	30.0	68.1	47.6	37.6	12.0	59.6	39.1	29.1	4.5	5.5	17.9	19.0	955	14.5
			3						61.9	41.4	31.4	5.3	7.3			970	
			4						64.1	43.6	33.6	6.0	9.0			990	
			6						68.1			7.0	12.5			1035	
			8						72.4	51.9	41.9	8.3	16.0			1100	
		30	2	30.0	78.1	57.6	42.6	12.0	69.6	49.1	34.1	4.5	5.5	17.9	19.0	1030	18.6
			3						71.9	51.4	36.4	5.3	7.3			1045	
			4						74.1	53.6	38.6	6.0	9.0			1060	
			6						78.1	57.6	42.6	7.0	12.5			1110	
			8						82.4	61.9	46.9	8.3	16.0			1170	
		40	2	30.0	88.1	67.6	47.6	12.0	79.6	59.1	39.1	4.5	5.5	17.9	19.0	1100	22.7
			3						81.9	61.4	41.4	5.3	7.3			1120	
			4						84.1	63.6	43.6	6.0	9.0			1135	
			6						88.1	67.6	47.6	7.0	12.5			1180	
			8						92.4	71.9	51.9	8.3	16.0			1245	
36	116	20	2	36.0	71.1	49.1	39.1	12.0	62.6	40.6	30.6	4.5	5.5	20.9	22.0	1315	22.0
			3						64.9	42.9	32.9	5.3	7.3			1330	
			4						67.1	45.1	35.1	6.0	9.0			1350	
			6						71.1	49.1	39.1	7.0	12.5			1395	
			8						75.4		43.4	8.3	16.0			1460	
			10						79.6	57.6	47.6	9.5	19.0			1570	
		30	2	36.0	81.1	59.1	44.1	12.0	72.6	50.6	35.6	4.5	5.5	20.9	22.0	1425	27.9
			3						74.9	52.9	37.9	5.3	7.3			1440	
			4						77.1	55.1	40.1	6.0	9.0			1460	
			6						81.1	59.1	44.1	7.0	12.5			1505	
			8						85.4	63.4	48.4	8.3	16.0			1570	
			10						89.6	67.6	52.6	9.5	19.0			1680	
		40	2	36.0	91.1	69.1	49.1	12.0	82.6	60.6	40.6	4.5	5.5	20.9	22.0	1535	33.8
			3						84.9	62.9	42.9	5.3	7.3			1550	
			4								45.1					1570	
			6								49.1					1615	
			8								53.4					1680	
			10						99.6	77.6	57.6	9.5	19.0			1790	
42	158	20	2	42.0	74.1	50.6	40.6	12.0						23.9	25.0	2030	31.6
			3								34.4					2045	
			4								36.6					2060	
			6						74.1	50.6	40.6	7.0	12.5			2110	
				I													

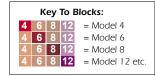
Dimensions for Models 30-48 (IN) Cont.

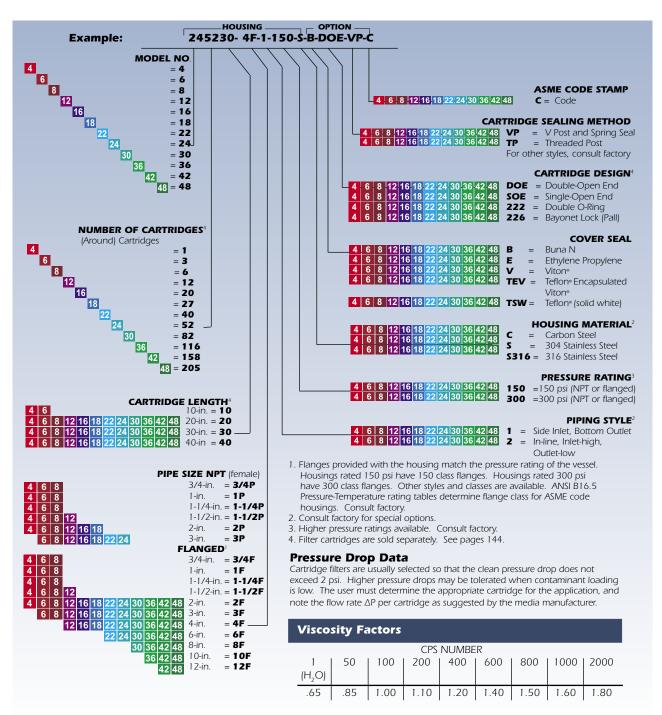
Model	No. of	Cart.	Pipe	1			STYL	E 1	1		s	TYLE	2		Empty	
No.		Length		A	В	C	D	E	В	c	D	F	G	н і	Weight (lbs)	(cu. ft.)
			8						78.4	54.9	44.9	8.3	16.0		2170	
			10						82.6	59.1	49.1	9.5	19.0		2280	
			12						87.1	63.6	53.6	11.0	22.5		2415	
		30	2	42.0	84.1	60.6	45.6	12.0	75.6	52.1	37.1	4.5	5.5 23	.9 25.0	2160	39.6
			3						77.9	54.4	39.4	5.3	7.3		2175	
			4						80.1	56.6	41.6	6.0	9.0		2195	
			6						84.1	60.6	45.6	7.0	12.5		2240	
			8						88.4	64.9	49.9	8.3	16.0		2305	
			10						92.6	69.1	54.1	9.5	19.0		2415	
			12						97.1	73.6	58.6	11.0	22.5		2550	
		40	2	42.0	94.1	70.6	50.6	12.0	85.6	62.1	42.1	4.5	5.5 23	.9 25.0	2285	47.6
			3						87.9	64.4	44.4	5.3	7.3		2300	
			4						90.1	66.6	46.6	6.0	9.0		2320	
			6						94.1	70.6	50.6	7.0	12.5		2360	
			8						98.4	74.9	54.9	8.3	16.0		2430	
			10						102.6		59.1	9.5	19.0		2535	
			12						107.1		63.6	11.0	22.5		2670	
48	205	20	2	48.0	77.1	52.1	42.1	12.0	68.6	44.1	34.1	4.5	5.5 26	.9 28.0	2510	43.2
			3						70.9	46.4	36.4	5.3	7.3		2520	
			4						73.1	48.6	38.6	6.0	9.0		2540	
			6						77.1	52.6	42.6	7.0	12.5		2585	
			8						81.4	56.9	46.9	8.3	16.0		2650	
			10						85.6	61.1	51.1	9.5	19.0		2760	
			12						90.1	65.6	55.6	11.0	22.5		2895	
		30	2	48.0	87.1	62.1	47.1	12.0	78.6	54.1	39.1	4.5	5.5 26	.9 28.0	2655	53.7
			3						80.9	56.4	41.4	5.3	7.3		2670	
			4						83.1	58.6	43.6	6.0	9.0		2685	
			6						87.1	62.6	47.6	7.0	12.5		2730	
			8						91.4	66.9	51.9	8.3	16.0		2800	
			10						95.6	71.1	56.1	9.5	19.0		2905	
			12						100.1	75.6	60.6	11.0	22.5		3040	
		40	2	48.0	97.1	72.1	52.1	12.0	88.6	64.1	44.1	4.5	5.5 26	.9 28.0	2800	64.1
			3								46.4	5.3	7.3		2815	
			4								48.6	6.0	9.0		2830	
			6								52.6	7.0	12.5		2880	
			8								56.9	8.3	16.0		2945	
			10								61.1	9.5	19.0		3050	
			12								65.6				3180	
										55.5	55.0		5		1 3 1 3 3	



How To Order

Build an ordering code as shown in the example. Each available only on the model sizes highlighted in the colored blocks preceding its description



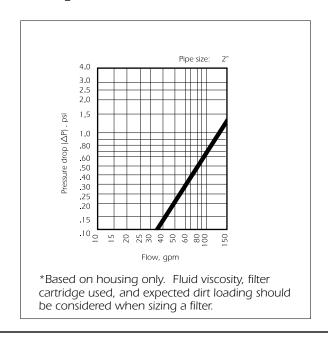


Rugged, low-cost cartridge design for flow rates to 100 gpm*

These cartridge-filter housings are rugged and low in cost. They hold five cartridges, in 10-inch, 20-inch, 30-inch, or 40-inch lengths, using industry standard designs (222, SOE, or DOE). The unique, "quick-opening" clamp design uses a standard O-ring.

Standard Features

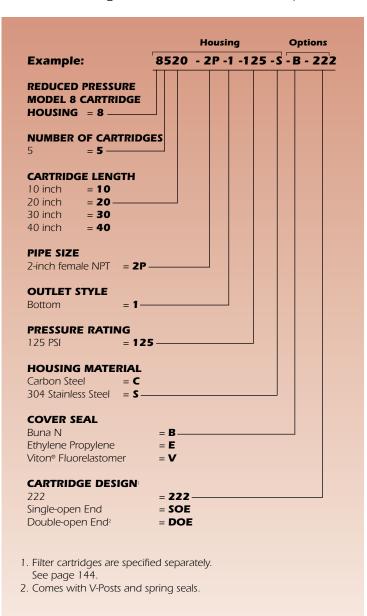
- Low pressure drop
- Permanently piped housings are opened without disturbing the piping or requiring tools
- Quick-opening, clamp-type cover
- Carbon or stainless steel housings
- Adjustable-height tripod legs
- Holds 5 cartridge elements
- Accommodates cartridge elements in four lengths: 10", 20", 30", 40"
- 125-psi rated housing
- 3/4-inch clean-dirty/gage ports
- 2-inch female NPT ports
- V posts or threaded-center posts
- Standard hardware V-post and spring seals are 316 stainless steel.
- O-ring seals: Buna N, EPR, Viton®



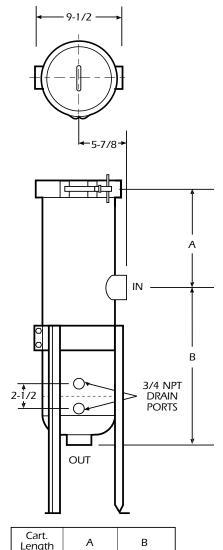


Reduced Pressure Model 8 Cartridge Housing

Build an ordering code as shown in the example



Dimensions (IN)



Cart. Length	А	В
10	6	14-13/16
20	11	19-13/16
30	16	24-13/16
40	21	29-13/16

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Platinum 700 Cartridge Filter Housings

Ultra high capacity filter eliminates maintenance by providing high dirt removal

These new cartridge housings are designed to end the high cost of cartridge change-out. They are offered in three Model 8 styles (LCO, Polypropylene, and Standard Model 8) and Multi-cartridge housings.

Standard Features

- From 1 to 29 cartridges
- Multi-cartridge units are offered in the low profile design, for quick and easy cartridge removal
- Horizontal or vertical mount
- Housings available in carbon steel, 304 or 316 stainless steel and polypropylene
- Pressure ratings in 100, 125, and 150 psi
- ASME code stamp available on selected models
- Flanged or threaded connection sizes from 2-inch through 10-inch
- Covers are o-ring sealed and easy to remove
- Leg assembly (excludes CR8)
- Clean and dirty/gage port connections
- O-ring seals: Buna, Ethylene Propylene, Viton®, and Teflon® Encapsulated Viton®

A single 700 Series cartridge unit will out perform 40 standard wound or 10 pleated cartridges, reducing maintenance. A decrease in cartridge use, reduces labor, inventory, worker exposure and disposal costs. A single cartridge holds as much as 20 pounds of contaminant and flows to 100 gallons per minute. The labor-intensive v-posts and spring seals are eliminated and cartridges are easily removed, requiring no special tools. Elements are approximately 6.25-inch diameter and 35-inch length.







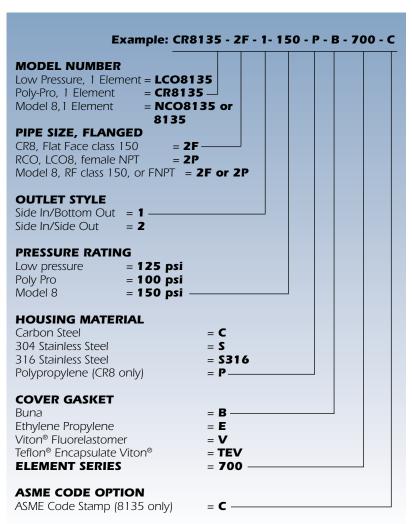
For more detailed design information about the 700 Series cartridge element see page 166.



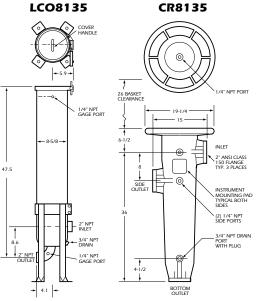
Single Cartridge Platinum 700 Filter Housing

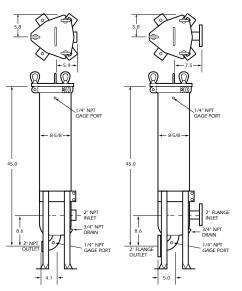
How To Order

Build an ordering code as shown in the example

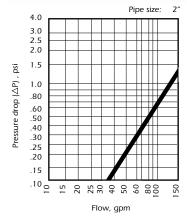


Dimensions (IN)





8135



Viscosity Factors

				NUM				
1 (H ₂ 0)	50	100	200	400	600	800	1000	2000
.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80

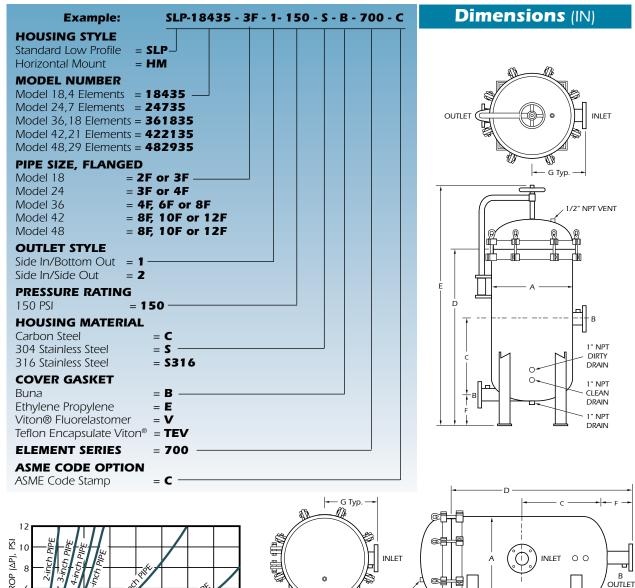
^{*}Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Multiple Cartridge Platinum 700 Filter Housing

How To Order

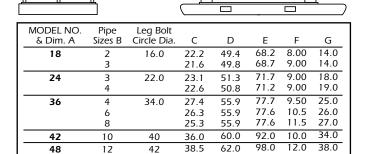
Build an ordering code as shown in the example



2 10 1000 1500 2000 2500 3000 3500 4000 FLOW, GPM

*Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.



B OUTLET

1/2" NPT VENT

The Platinum 900 and 2040 Cartridge Filter Housings

Ultra high capacity filtration system provides maximum dirt holding capacity—eliminating maintenance

End the high cost of element change-out with the Platinum 900 and 2040 cartridge filter system. Imagine changing a filter element only once or twice a year, instead of changing several cartridges on a weekly or daily basis!

Standard Features

- Housings available in carbon steel, 304 or 316 stainless steel.
- Pressure rating 150 psi
- Clean and dirty/gauge port connections
- O-ring seals: Buna, Ethylene Propylene and Viton®
- Covers are o-ring sealed and easy to remove
- ASME code stamp (optional)
- Flange connection sizes from 3-inch through 10-inch
- Cable-hoist assembly for quick and easy removal of element is standard on Model 18 (optional on other models)

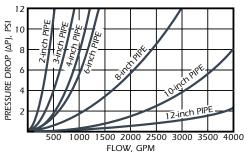
A single cartridge system has the life of hundreds of standard wound or 50 pleated cartridges. This reduces maintenance and cartridge use, labor, inventory, worker exposure, and disposal costs.

Flow rates and contaminant holding capacities vary depending on micron size. A single cartridge element can hold up to 400 pounds of contaminant and flows to 600 gallons per minute. Elements are 13- or 20-inch diameter and 40-inches long.

The 900 Series filter housings contain one, three, four, seven, or eight cartridges. The 2040 Series is available a single cartridge.

By using the cable-hoist assembly changeout is completed in minutes. The element shipping container allows for easy handling and disposal.





* Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

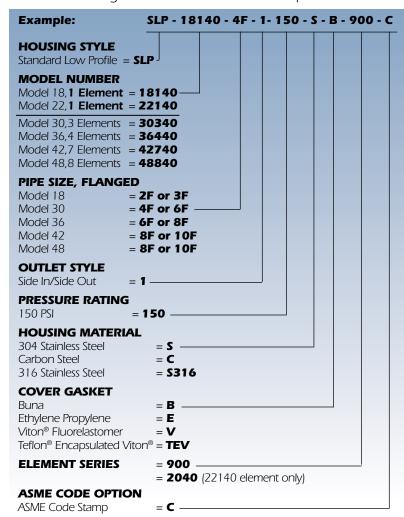
Viscosity Factors

				NUN	. — —			
-			200					
.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80

For more detailed design information and how to order the 900 and 2040 Series cartridge element see page 166.

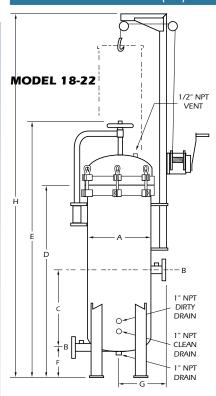
How To Order

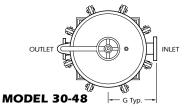
Build an ordering code as shown in the example

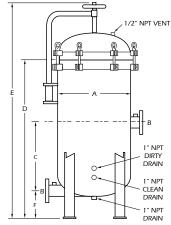


MODEL NUMBER & Dim. A	Pipe Sizes B	Leg Bolt Circle Dia.	C	D	E	F	G	Н
18	2 3	16.0	22.2 21.6	53.4 53.8	72.2 72.7	8.0 9.0	14.0 15.0	101.8 102.3
22	4	14.6	24.0	58.9	76.9	6.0	17.25	107.6
30	4 6	28.0	29.9 28.8	56.2 56.2	76.6 76.6	9.0 10.0	22.5 23.0	
36	6 8	34.0	28.7 27.3	57.7 57.7	79.5 79.5	10.5 11.5	26.0 27.0	
42	8 10	40.0	26.3 25.2	60.0 59.9	83.3 83.2	11.5 12.5	29.5 30.0	
48	8 10	46.0	29.2 28.1	61.2 61.1	86.7 86.6	11.5 12.5	32.5 33.0	

Dimensions (IN)







Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Rosedale Fabricated **Basket Strainers**

Standard or Custom Design

Rosedale Fabricated Strainers are available in standard designs as shown, or can be custom designed and manufactured to fit your specific requirements. The standard strainer is designed and built in accordance with ASME Code Section VIII, Division 1. Available code designs include ANSI B 31.4, ANSI B 31.3, and ANSI B 31.8. Standard housing material is carbon steel, 304 stainless steel, or 316 stainless steel.

Rosedale Fabricated Strainers can be supplied in ANSI flange ratings. We have the design capabilities and manufacturing facilities to handle your straining requirements to 50 microns. Rosedale Fabricated Strainers are available in pipe sizes from 2" to 24".

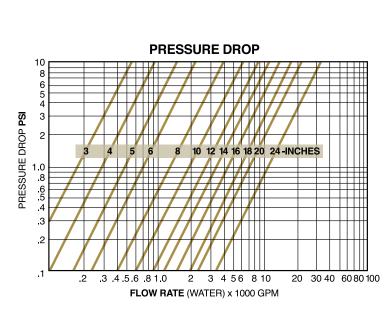
For assistance designing a strainer to fit your application, please contact us.



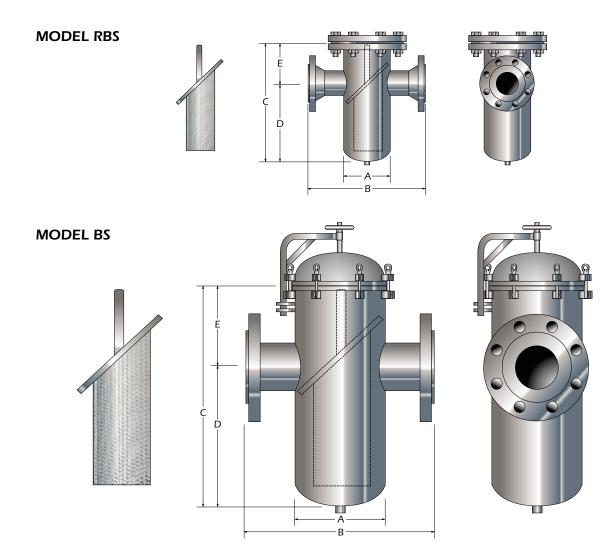
ABOVE: Model RBS Pipeline Strainer and basket

BELOW: Model BS Industrial Strainer

with optional legs





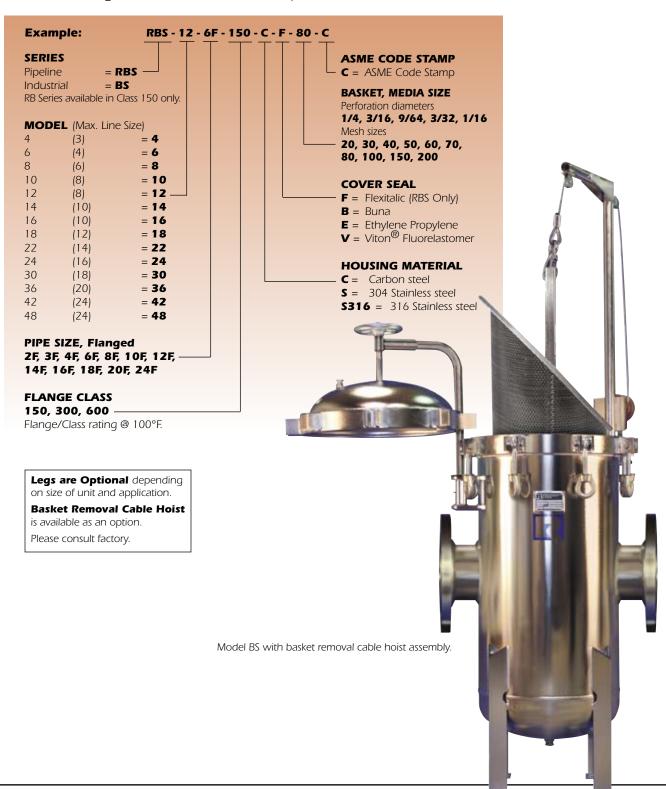


Model*	Line Size (Max.)	А	Din B	nensioi C	ns (Inch D	nes) E	Drain	Basket Surface Area (Sq. In.)	Basket Open Area (Sq. In.)	Open Area Ratio*	Volume Gallon
4	2	4 1/2	17	16	9	7	1	44	17.6	524%	0.20
6	3	6 5/8	20	20	11	9	1	99	39.6	536%	0.60
8	4	8 5/8	23	24	14	10	1 1/2	207	82.8	650%	1.25
10	6	10 3/4	26	29	17	12	1 1/2	330	132	457%	3.00
12	8	12 3/4	30	35	21	14	1 1/2	509	204	408%	4.50
14	10	16	34	42	25	17	1 1/2	792	317	402%	8.50
16	10	18	37	46	28	18	2	1034	414	366%	13.00
18	12	18	37	53	33	20	2	1232	493	358%	15.00
22	14	22	37	54	35	20	2	1528	611	400%	19.00
24	16	24	44	60	36	24	2	1885	754	413%	32.00
30	18	30	45	65	39	26	2	2073	829	355%	70.00
36	20	36	48	71	45	26	2	2512	1005	345%	110.0
42	24	42	56	95	64	31	2	4310	1724	406%	220.0
48	24	48	62	97	66	31	2	6781	2712	600%	260.0

- * Based on Standard Basket perforated 1/8" diameter holes on 3/16" centers.
- ** Davit included on models 10-48.

 Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

Build an ordering code as shown in the example



Duplex Bag Filters And Basket Strainers

Trouble free, continuous operation

Duplex filters permit continuous operation, reducing overall operating costs. Flow can be switched back and forth between two filter vessels, allowing one side to be serviced while the other is in use.

The Rosedale duplex, using a single multi-ported valve operating system, is a better solution, and offers many benefits:

- Four separate valves are used all operated simultaneously by a single lever.
- Valves use the standard butterfly design, known for their effective seal, low pressure drop, and low cost.
- Any of the valves can be serviced individually, without need to disturb the other valves or piping. Replacements are readily available.
- Valves are soft-seated to provide bubble-tight closure.
- A variety of valve seal materials is available for use with a number of hard-to-handle fluids.
- Pressure drop is minimized because the flow path has the equivalent of only four elbows instead of the usual six.
- Mechanical stops assure that the valves are completely open or closed.
- A single-valve pressure balancing vent system is furnished to ease movement of the lever and to fill the just serviced vessel before use.
- Vents in filter covers and drain ports in filter housing speed evacuation and filling.
- Remotely operated power actuators and automatic power actuation (triggered by pressure differential sensing) are offered.
 Air or electric actuation is best if such power is available.







Construction Materials

Available in carbon steel, 304 stainless steel, or 316 stainless steel.

Internal valve parts other than seals are 316 stainless steel.

Four different materials can be ordered for all seals involved.

All baskets and mesh linings are made of stainless steel. 304 stainless will be supplied with carbon and 304 housings, 316 stainless with 316 housings.

Choosing a Basket Strainer or Bag Filter

Choose between straining a fluid (removing particles down to 74 micron size) and filtering it (removing particles down to 1 micron).

Pressure Drop Data

Basket strainers and bag filters are usually selected so that the pressure drop does not exceed 2 psi, when they are clean. Higher pressure drops may be tolerated, when contaminant loading is low.

The pressure drop data are accurate for all housings with strainer or filter bag baskets. When filter bags are added, total pressure drop becomes the sum of the pressure drop as determined by the steps below plus the pressure drop through the bag as defined on pages 77-78.

Follow these easy steps:

- Using the desired pipe size and approximate flow rate, determine the basic pressure drop from the appropriate graph.
- 2. Multiply the pressure drop obtained in step 1 by the viscosity correction factor found in the accompanying table. This is the adjusted (clean) pressure drop for all baskets without filter bags.

Note: Filter bags are specified separately. See page 144.





		Viscosity, cps							
	1 (H ₂ 0)	50	100	200	400	600	800	1000	2000
All unlined baskets	.65	.85	1.00	1.10	1.20	1.40	1.50	1.60	1.80
40-mesh lined	.73	.95	1.20	1.40	1.50	1.80	1.90	2.00	2.30
60-mesh lined	.77	1.00	1.30	1.60	1.70	2.10	2.20	2.30	2.80
80-mesh lined	.93	1.20	1.50	1.90	2.10	2.40	2.60	2.80	3.50
100-mesh lined	1.00	1.30	1.60	2.20	2.40	2.70	3.00	3.30	4.40
200-mesh lined	1.30	1.70	2.10	3.00	3.40	3.80	4.40	5.00	6.80

Selecting A Size

These descriptions and flow charts can aid in size selection. Capacities given are for each of the two vessels in any duplex system.

Model 4–For flow rates to 50 gpm*

- Pipe sizes 1, 2, or 3 inch, flanged
- Basket depth: 12 inches (nominal)

Basket Data

Depth (nominal, inches)	Diameter (inches)	Surface Area	Volume (cu. in.)
12	3.9	1.0	130

Model 6–For flow rates to 100 gpm*

- Delivers 3.4 square feet of basket or bag surface without need for ASME code construction.
- Can be fitted to hold cartridge filter elements
- Pipe sizes 1, 2, 3, or 4 inches (flanged).
- Two basket depths: 18, or 30 inches (nominal)

Basket Data

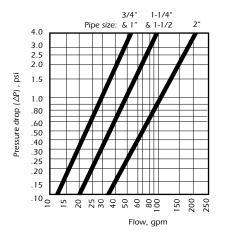
Depth (nominal, inches)	Diameter (inches)	Surface Area	Volume (cu. in.)
18	5	2.0	350
30	5	3.4	630

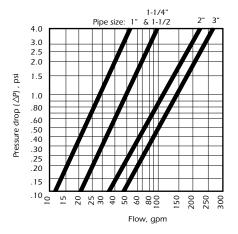
Model 8–For flow rates to 220 gpm*

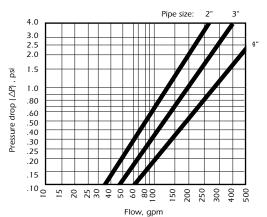
- Can be fitted to hold cartridge filter elements
- Pipe sizes 2, 3, or 4 inch, flanged.
- Two basket depths: 15 or 30 inches (nominal)

Basket Data

Depth (nominal, inches)	Diameter (inches)	Surface Area	Volume (cu. in.)
15	6.7	2.3	500
30	6.7	4.4	1000







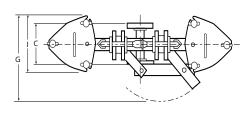
*Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

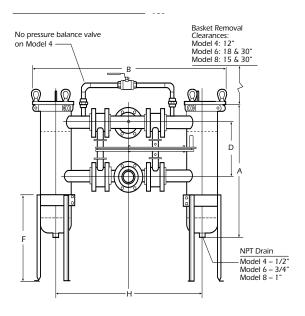
Single-Basket Models (IN)

Model	Flange Size			A Depths		В	B1 (Model 82	С	D	F	G	Н	I	J (Model 82
		12	15	18	30		only)							only)
4	1	18				29.5		9	15	14	19	22.25	7.0	
	2	18				29.5		9	15	14	19	22.25	7.0	
	3	22.125				31.75		11	17	14	19	24.25	7.0	
6	1			25.75	37.75	34.75		9	15	18	20.5	24.25	10.0	
	2			25.75	37.75	34.75		9	15	18	20.5	24.25	10.0	
	3			27.75	39.625	37		11	17	18	20.5	26.25	10.0	
	4			27.625	39.625	41.5		13	18	18	20.5	31	10.0	
8	1		23.75		38.75	44.75	45.75	9	15	22	21.3	32.25	11.6	28.6
	2		23.75		38.75	44.75	45.75	9	15	22	21.3	32.25	11.6	28.6
	3		25.625		40.625	47	48	11	17	22	21.3	34.5	11.6	30.6
	4		25.625		40.625	49.5	50.5	13	18	22	21.3	37	11.6	30.6

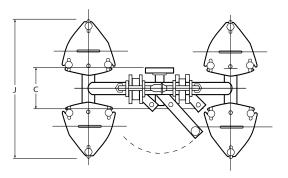
The inlets and outlets on all duplex systems come standard in a horizontal configuration (facing opposite directions). The option of arranging the inlet and outlet is available in three positions, 90° apart.

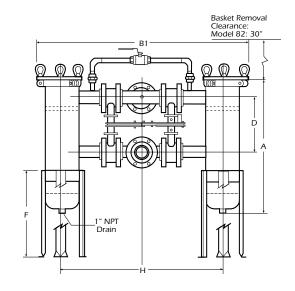
The system is designed with flanged tees, allowing the orientation to be changed in the field.











Duplex Model 82

Duplex Bag Filters With Automatic Sequencing

Continuous, uninterrupted operation is provided by these automatic duplex filters

When the filter bags on one side get to the point of requiring change-out, the incoming flow is automatically diverted to the clean filter bags on the other side. Maintenance personnel are alerted to the need to change the dirty filters so that the system will be ready for the next cycle.

Typical step-by-step operation

- 1. As the filter bags in vessel A become so loaded with particulate that the differential pressure increases to a selected level, a switch actuates an air-operated valve in the loop pipe. This diverts a small flow of fluid to fill vessel B. After enough time to equalize the pressure in the two vessels, the four main valves are actuated by an air cylinder.
- 2. The duplex valve system shifts four valves at once, closing the inlet and outlet on vessel A and opening the two on vessel B.

An indicator light (and remote signal, if desired) shows that vessel B is now being utilized. Another light shows that the shift from one vessel to the other has occurred, and that filter bags need to be replaced, An electrical interlock prevents another shift cycle until the dirty filter bags have been replaced and the operator has pushed a reset button.

3. With the interlock released, the system is ready to cycle whenever the pressure differential again indicates the necessity.

Availability

The automatic duplex valve system can be ordered on any Rosedale filter vessel. The standard multi-bag filter models are shown in the table.

The main inlet and outlet connections can be positioned to accommodate any flow direction within reason.

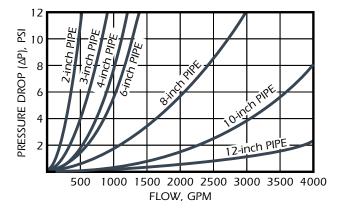
Systems are shipped assembled, ready for use, often on dollies or skids to assist putting them in place.

Rosedale Model No.*	Number of bags	Nominal flow rate, gpm					
16	2	400					
18	3	600					
22	4	800					
24	6	1200					
30	8	1600					
36	12	2000					
42	17	3500					
48	23	4500					
* Model number a	* Model number also indicates vessel diameter in inches.						

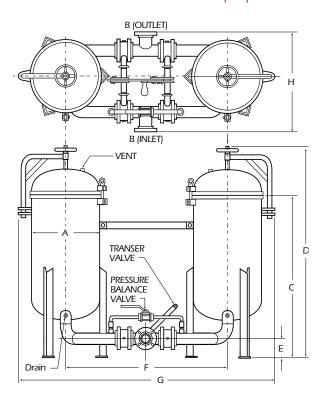


Models 16 through 48 – For flow rates to 4600 gpm

- Contain from 2 to 23 baskets
- Pipe sizes 2 through 12 inches, flanged
- Two basket depths: 15 or 30 inches (nominal) both 6.7 inches in diameter



Multi-Basket Models (IN)



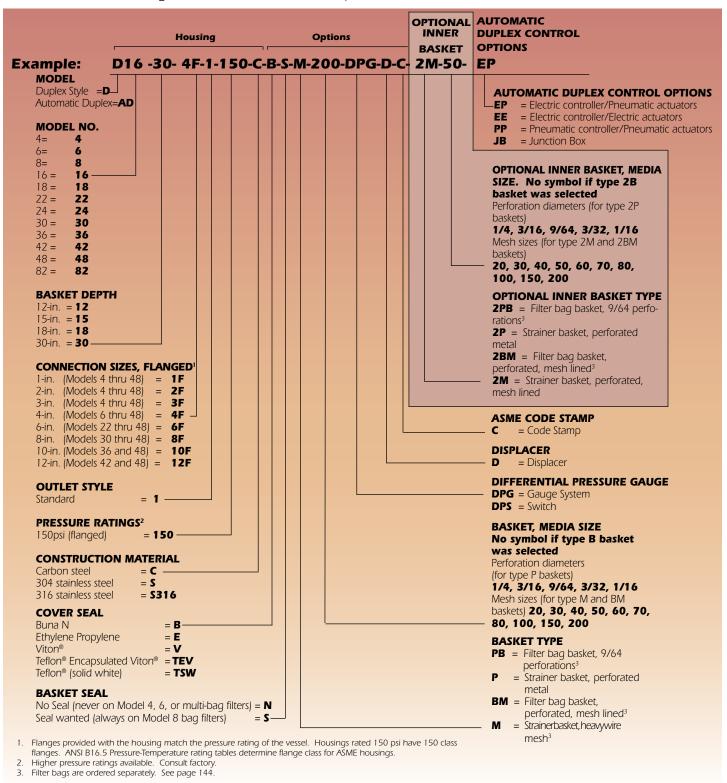
The inlets and outlets on all duplex systems come standard in a horizontal configuration (facing opposite directions). The option of arranging the inlet and outlet is available in three positions, 90° apart. The system is designed with flanged tees, allowing the orientation to be changed in the field.

Model Number	Number of Baskets	Basket Depth (nom.)	Surface Area (sq. ft.)	Flow Rate* (gpm)
16	2	30	8.8	400
18	3	30	13.2	600
22	4	30	17.6	800
24	6	30	26.4	1200
30	8	30	35.2	1600
36	12	30	52.8	2400
42	17	30	74.8	3400
48	23	30	101.2	4600

*Based on housing only. Fluid viscosity, filter cartridge used, and expected dirt loading should be considered when sizing a filter.

					I		1
Model (Dia.) A	Inlet/ Outlet B	c	D	E	F	G	н
16	2	40.1	57.1	4.5	40.3	65.3	25.3
	3	42.5	59.5	5.3	42.5	67.5	30.3
	4	44.9	61.9	6.0	45.0	70.0	35.0
18	2	40.5	58.0	4.5	42.3	69.3	26.4
	3	42.9	60.4	5.3	44.5	71.5	31.4
	4	45.3	62.8	6.0	47.0	74.0	36.3
22	2	41.4	60.0	4.5	46.3	77.3	24.9
	3	43.9	62.4	5.3	48.5	79.5	28.4
	4	46.2	64.7	6.0	51.0	82.0	31.8
	6	50.4	69.0	7.0	54.3	85.3	37.8
24	2	41.7	60.7	4.5	50.3	83.3	24.1
	3	44.1	63.1	5.3	52.5	85.5	28.8
	4	46.5	65.5	6.0	55.0	88.0	34.1
	6	50.7	69.7	7.0	58.3	91.3	40.1
30	2	42.8	63.3	4.5	56.3	95.3	28.4
	3	45.2	65.7	5.3	58.5	97.5	30.4
	4	47.6	68.1	6.0	61.0	100.0	32.4
	6	51.9	72.4	7.0	64.3	103.3	44.4
	8	56.4	76.8	8.3	67.0	106.0	49.4
36	3	46.4	68.4	5.3	64.5	109.5	34.1
	4	48.8	70.8	6.0	67.0	112.0	36.1
	6	53.1	75.1	7.0	70.3	115.3	39.1
	8	57.6	79.6	8.3	73.0	118.0	41.1
	10	62.1	84.1	9.5	77.0	122.0	60.1
42	4	50.0	73.5	6.0	73.0	124.0	40.1
	6	54.3	77.8	7.0	76.3	127.3	43.1
	8	58.8	82.3	8.3	79.0	130.0	45.1
	10	63.3	86.8	9.5	83.0	134.0	49.1
	12	68.0	91.5	11.0	86.0	137.0	69.1
48	4	51.0	76.0	6.0	79.0	136.0	44.5
	6	55.4	80.4	7.0	82.3	139.3	47.5
	8	60.0	85.0	8.3	85.0	142.0	49.5
	10	64.4	89.4	9.5	89.0	146.0	53.5
	12	69.2	94.2	11.0	92.0	149.0	55.5

Build an ordering code as shown in the example.



Automatic Backwashing Filtration System

There are many advantages to our Automatic Backwashing Systems.

- Reduces process/system downtime
- Reduces operator exposure
- Reduces maintenance cost
- Reduces waste fluid
- Reduces filter element disposal and replacement cost
- Increases productivity

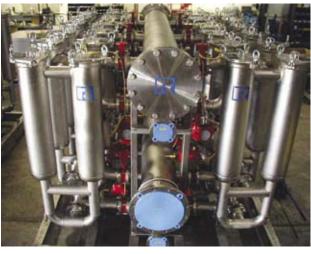
Self-cleaning filters represent the ideal situation and provide the most productive and labor free solution. Rosedale Products' ABW is unique because our patented technology backwashes with the lowest volume of liquid. This is achieved by using air to create the shear velocity needed to effectively clean the filter with the clean liquid inside each housing chamber.

Flexible and Versatile

Flow rates to several thousand GPM can be easily accommodated. To meet space requirements various configurations are available. Micron ratings from 2 microns are possible in sintered porous metal, wedge wire, and nylon filter bags. Continuous flow is maintained by taking one station off line while the rest continue operating.

Single vs Dual Stations

On systems with flow rates less than 400 GPM our standard is "single station" systems which means each housing is a station. Larger systems use a "dual station" approach which has two housings per station. The two housings share a common manifold which allows a reduction in valves and, during backwash, two housings at a time (1 Dual Station) go off-line for cleaning.





Applications

The ABW is being used in many industries throughout the USA as well as overseas in such places as Argentina, Taiwan, Chile and Venezuela.

Industries served include: Automotive - Steel - Petroleum - Chemical - Pharmaceutical - Electronics - Nuclear Power - Superfund Sites - Groundwater & Soil Remediation - Commercial Laundries - Entertainment - Food - Mining - Detergents - Paper

Applications include: Cooling Towers - Coolants - Membrane Protection - Sulfuric and other Acids -Harvesting Steroids - Oil Reclamation - Potable & DI Water - Bottling Plants - Food Processing - Recycling - Decorative Ponds

Turnkey Systems

Our systems have included air compressors, pumps, power distribution boxes, motor starters, climate controlled enclosures, heat trace and air dryers, all skid mounted and ready for installation.



How It Works

Fluid is introduced through the bottom of the filter housing. It is then forced through a filter element where the contaminant is captured on the outside surface of the filter. The clean fluid exits through the outlet. A controller monitors the differential pressure across the filter. When enough contaminant collects on the element and the differential pressure reaches a pre-selected point (^P), the backwash sequence is initiated. The backwash is accomplished by automatically shocking the filter with air and forcing the dirty fluid through the waste outlet. There is no introduction of additional fluids to contaminate the process, and the volume of liquid discharged is held to a minimum, reducing disposal costs. When the backwash operation is completed, the system returns on-line, the controller resets itself, and the whole process begins again.

Media Characteristics

This information is intended to be used as a general guideline. Since some characteristics are very similar from one media to the next, you should choose the media whose advantages best fit your particular filtration requirements. Consult Rosedale for assistance in selecting the proper media for your application.



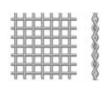
Wedge Wire (WW) or slotted, is the most durable of all backwashable media. They are strictly limited to .001" slot or 25 micron as the lowest retention rating. Wedge wire is particularly suited for critical low maintenance applications. As a result of their construction, they are used in many instances where manual cleaning is necessary but might damage other types of media.

MICRON	OPENING	% OF
RATING	(INCH)	OPEN AREA
25 50 75 150 250 350	.001 .002 .003 .006 .010	



Poroplate® filter media is made from layers of stainless steel wire cloth diffusion-bonded together to form a rigid porous metal laminate structure. Poroplate filter media is corrosion resistant, cleanable, and can withstand high temperature applications up to 800°F. Micron ratings from 2 to 150 are available.

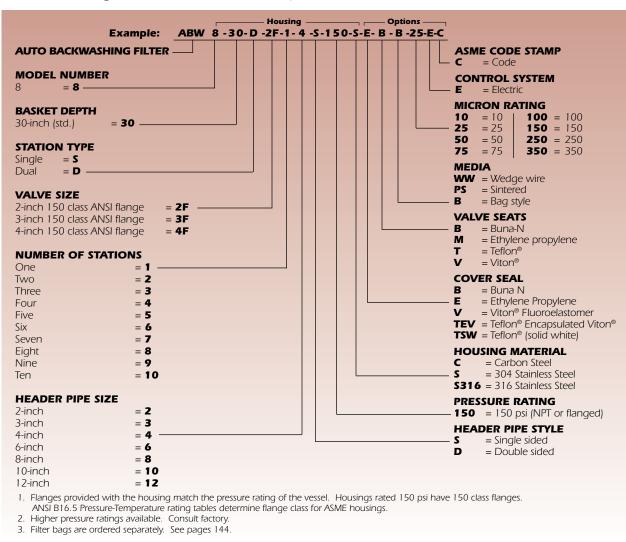
MICRON	NOMINAL	ABSOLUTE
RATING	RATING	RATING
10	2µ	10µ
25	10µ	20µ
50	20µ	40µ
75	40µ	70µ
100	100µ	100µ
150	150µ	150µ

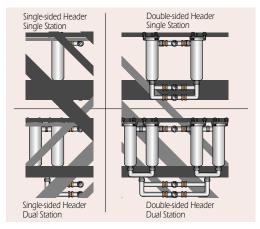


Nylon monofiliment provides exceptional backwash efficiency. It exhibits a wide range of retention ratings. Nylon media should be considered for the filtration ranges of 25-75 microns. Filter bags have a defined cycle life.

MICRON RATING	% OF OPEN AREA
75	43
50	36
25	33

Build an ordering code as shown in the example





Stations and Headers

Rosedale offers both single and double-sided headers to conform to space restrictions. Header pipes have connections on one or on both sides. Each housing is separately controlled, increasing capacity while maintaining a high-level of control. A station has one set of controls, while accepting either one filter housing per station (a single station), or two housings per station (a dual station). Capacity is again increased, but the number of controls are minimized. By minimizing those controls, great savings are realized. For example, everything else being equal, a single-sided header with three dual-stations accommodates the same six housings and flow as a double-sided header with six single-single stations. However, there are three less controls on the dual-station unit, greatly reducing costs, perhaps as much as \$15,000.

Multiplex Filters and Strainers From Rosedale Products

These high-capacity filters and strainers require no flow interruption for servicing

- For use with filter bags for filtering to as fine as one micron, or with perforated strainer baskets
- From 2 to 10 Model 8 housings are mounted in parallel to inlet and outlet manifolds
- Each unit has inlet and outlet valves, gage ports, and a drain port, to permit servicing one at a time
- These are completely packaged free-standing systems in carbon steel and stainless steel

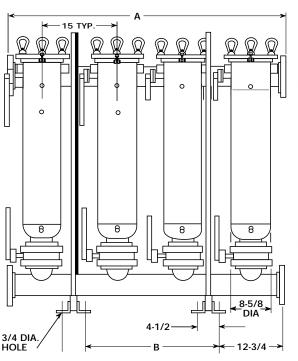
See page 12 for more details on the Model 8 housings used.

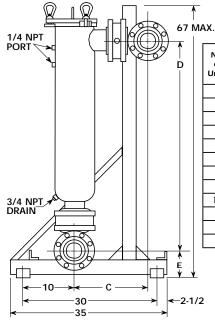
Dimensions (IN)

sings used.



Special Multi-Bag Multiplex

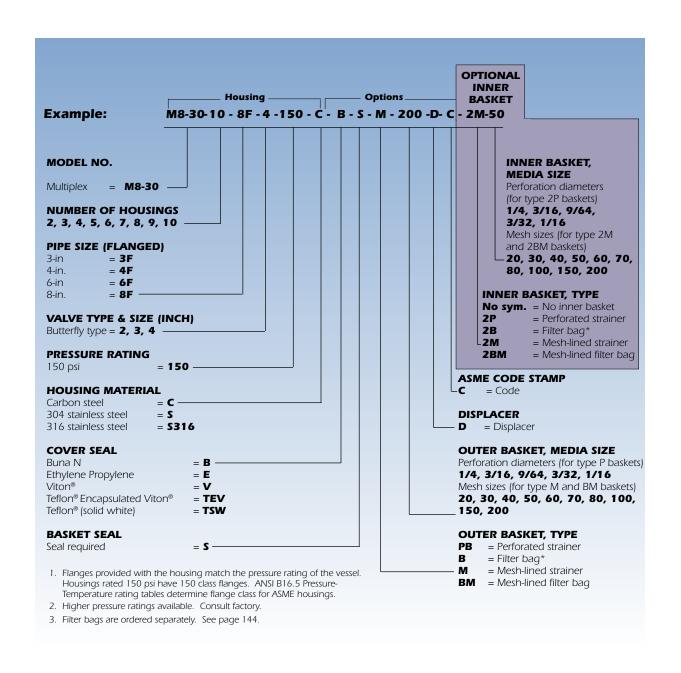




No. of Units	А	В	Inlet- Outlet Header Size	Valve Size	С	D	E
2	40	30	3	2	14.9	45.9	5.5
3	45	15	3	3	15.1	46.4	5.5
4	60	30	3	4	N/A	N/A	N/A
5	75	45	4	2	15.7	46.7	6.0
6	90	60	4	3	15.8	47.1	6.0
7	105	75	4	4	17.2	48.7	6.0
8	120	90	5	2	16.7	47.7	7.1
9	135	105	5	3	16.8	48.1	7.1
10	150	120	6	4	18.2	49.7	7.1
			8	2	17.9	48.9	8.1
			8	3	18.1	49.4	8.1
			8	4	19.4	50.9	8.1

How To Order

Build an ordering code as shown in the example



Solids/Liquids Separators

In-Line Separators for Industrial Applications

Use our centrifugal-action separator to remove grit, sand, metal chips, fines, and other solids from liquids. Perfect for use as a pre-filter to extend the life of fine filtration systems. These units require little or no maintenance, as there are no moving parts to wear out, or filter media to replace. The unit only requires a simple purging, eliminating downtime. For flows from 6 gpm and retention ratings to 50 micron.

How it works:

Fluid enters the pressure vessel tangentially at high velocity. A centrifugal action is created, which forces the solids to separate and enter the sump, while the clean liquid exits up through the standpipe. The solids collect in the sump, and can easily be purged. The operation is so simple, it can be set to automatically purge on a timed interval.

Features

- Low constant pressure drops
- Piped housings
- Carbon steel or stainless steel (304 or 316) construction for housings
- All housings are electropolished to resist adhesion of dirt and scale
- ASME code stamp available
- Pipe sizes 3/8 through 10-inch (larger sizes also available)

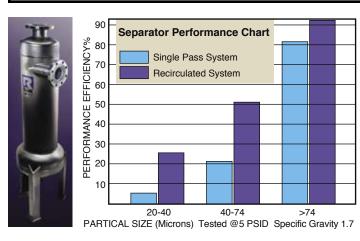
Options

- Different outlet connections
- Special materials

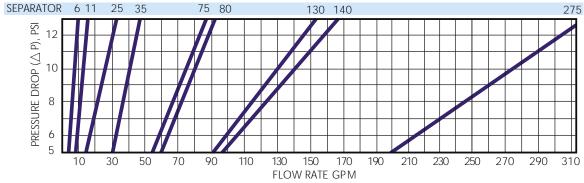
Typical Applications

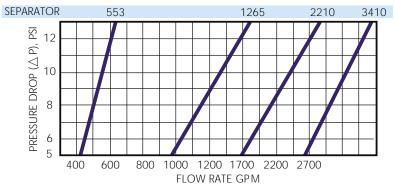
- Cooling towers
- Process water
- Food processing
- Chemical processing
- Well water
- Pulp & paper mills
- Mining operations
- Steel mills
- Petrochemical industry
- Power plants
- Protection of spray nozzles and other small orifices
- Chip removal from cutting coolants
- Car and vehicle wash systems
- Paint spray booths
- Heat exchangers
- Spray nozzle protection
- Industrial laundries
- Solids recovery
- Parts washing systems
- Pump protection
- Domestic Water
- Recirculating cooling water
- Sprinkler systems
- Quench water
- Pre-filter for seawater

FLOW RANGE – GPM					
Model No.	Pipe Size (inch)	5 PSID	10 PSID	Inlet/ Outlet	Drain Size (inch)
SEP-6	3/8	3	6	NPT	1
SEP-11	1/2	7	11	NPT	1
SEP-25	3/4	15	25	NPT	1
SEP-35	1	30	40	NPT	1
SEP-75	1-1/4	55	75	NPT	1
SEP-80	1-1/2	60	80	NPT	1
SEP-130	2	90	130	NPT	1
SEP-140	2-1/2	96	140	NPT	1
SEP-275	3	200	275	NPT or Flanged	1
SEP-553	4	425	553	Flanged	2
SEP-1265	6	985	1265	Flanged	2
SEP-2210	8	1715	2210	Flanged	2
SEP-3410	10	2640	3410	Flanged	2



Specific Gravity of Various Materials							
Material Specific Gravity	Material Specific Gravity						
Aluminum 2.7	Graphite 2.3						
Ashes (Coal) 2.0	Iron 7.8						
Brass 9.0	Lead 11.3						
Bronze/Copper 8.9	Limestone 2.8						
Carbon/Concrete/Lava 1.8-2.5	Manganese 7.4						
Coal (Anthracite) 1.3-1.9	Nickel 8.9						
Earth (Silt/Soil) 1.2-2.0	Sand/Silica/Shale 2.6-2.8						
Glass (Crystal) 3.0	Steel 7.8						
Granite/Gravel 2.5-3.0	Tin Ore 6.4-7.0						





Separator Sizing:

Separators are generally sized so that there is at least a 5 PSID pressure drop across the unit. Separation efficiency increases as pressure drop increases. We've shown flow ranges for each unit based on 5 and 10 PSID. Choose a unit based on a flow/efficiency balance.

Installation

The Separator should be installed in a near vertical position. The unit should be supported by means other than the inlet/outlet piping. First, connect the outlet of the unit to the outlet piping. Then install any supports, such as U-bolts or legs. Next, connect the inlet piping to the inlet. Test for leaks and separation. The unit is now ready for operation.

Purging and Maintenance

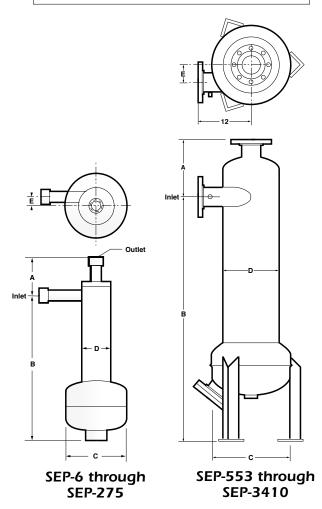
Separators must be purged regularly. If they are not, the separated solids will accumulate and overflow the collection area, affecting performance and contaminating effluent.

You can manually, automatically, or continuously purge the collection area of the separator. Manual purging requires that the operator open a simple valve and empty the contents. Automatic purging can be done many different ways, but the simplest is setting a timer to open and close the valve, purging the contaminant on a regular basis. Continuous purging simply requires leaving a manual valve partially open at all time, letting the contaminant leak out at a controlled rate. For best results, all purging should be done while the separator is in operation. Avoid purging "uphill" which will result in buildup and clogging, affecting performance and operation.

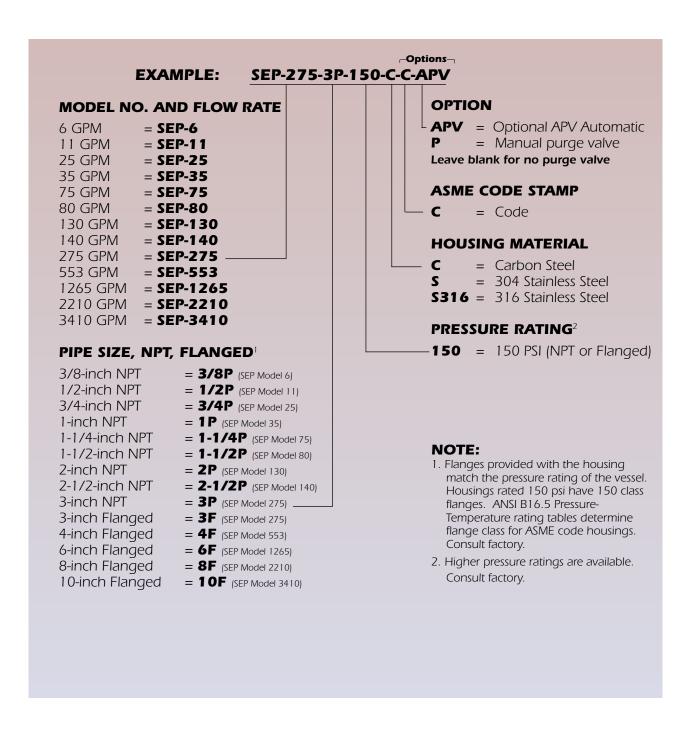
Simple rules of maintenance include checking the purge valve regularly for clogging, scale, and buildup. If the unit is installed in an area where the ambient temperature is below freezing, the collection area and all purge piping should be kept from freezing while operating. If left in idle state under freezing conditions, the entire unit must be drained of liquid, and the collection area must be purged of solids.

Dimensions (IN)

Model	Α	В	C	D	E
SEP-6	3.0	14.8	4.5	1.9	.6
SEP-11	3.0	14.8	4.5	1.9	.6
SEP-25	4.5	17.2	8.6	3.5	1.1
SEP-35	4.5	23.6	8.6	3.5	1.1
SEP-75	4.5	23.5	8.6	4.5	1.4
SEP-80	4.5	23.5	8.6	4.5	1.3
SEP-130 (2	,	22.6	8.6	6.6	2.1
SEP-140 (2		22.6	8.6	6.6	1.9
SEP-275	6.6	25.2	10.7	8.6	2.6
SEP-553	13.	45.2	18.0	12.7	4.1
SEP-1265	16.4	58.0	24.0	16.0	4.7
SEP-2210	21.0	67.2	24.0	16.0	4.7
SEP-3410	21.7	105.6	42.0	30.0	8.0



Build an ordering code as shown in the example



IND CATING BAG



IND



Model 4-8 Indicating Bag Filters

Intelligent, mechanically actuated, Indicating Filters. Filters that tell the whole story.

These filters will let you know when your filter bag needs attention. This allows you to maximize the efficiency of your operations and reduce system downtime by changing filters only when they really need it. You'll save time, money and effort, because you'll use each bag to its maximum capacity, since change-out will be based on the remaining life of the bag, not on someone's best guess.

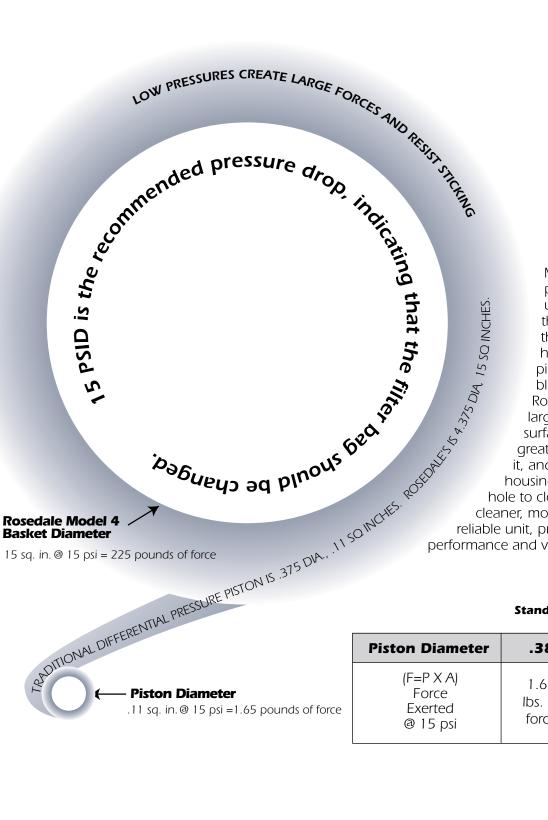
New Features

- Integral Differential Pressure Indicator (non-clogging)
- Electric Micro Switch included 3-wire or 4-wire
- Electric Switch has dual actuation (one for requires attention soon and one for requires immediate attention)
- Optional explosion-proof Pneumatic Switch
- Optional Digital Model available

Features

- Low pressure drops
- Permanently piped housings are opened without disturbing the piping or requiring tools
- Covers are O-ring sealed
- Carbon or stainless (304 or 316) steel housings
- Housings are electropolished to resist adhesion of dirt and scale
- Large-area, heavy-duty baskets
- O-ring seals: Buna N, EPR, Viton® fluorelastomer, and Teflon® fluorocarbon resin
- Two pressure ratings-150 and 300 psi
- Indicating device is mechanical, no tubes or orifices to clog





Most differential pressure indicators use a piston connected through a small hole in the side of the filter. This hole could clog, or the piston could easily be blocked or restricted. Rosedale's piston is much larger in diameter and surface area, requiring a greater blockage to restrict it, and since it is inside the housing, there is no outside hole to clog. It produces a

Rosedale

cleaner, more accurate and reliable unit, providing excellent performance and value.

Standard

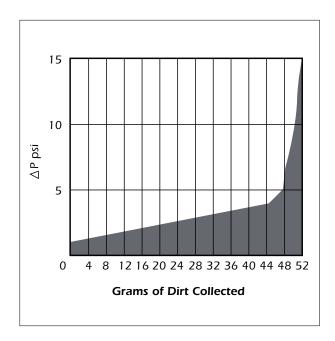
15 sq. in. @ 15 psi = 225 pounds of force

		wodei 4
Piston Diameter	.38	4.38
(F=P X A) Force Exerted @ 15 psi	1.65 lbs. of force	225.00 lbs. of force



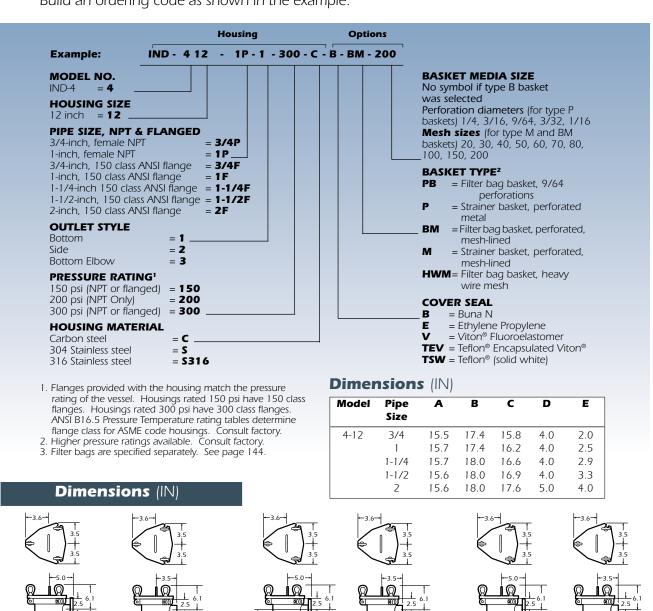
As Amount Of Trapped Dirt Increases, Pressure Drop Increases, And The Remaining Life Of The Filter Decreases

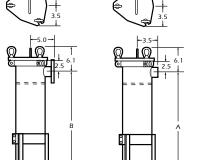
That's right, as the pressure drop across your filter increases, additional dirt-holding capacity decreases. As the chart illustrates, at a 5 psi drop in pressure, over 90 percent of the filter's dirt-holding capacity has been reached. When the pressure drop has increased to 10 psid, it has reached 95 percent of its total dirt-holding capacity. For each additional 5 psi pressure drop, the amount of extra dirt retained decreases dramatically. As a matter of fact, pressure drops greater than 15 psi retain no appreciable amount of additional dirt. Our line of indicating filters automatically and intelligently sense these pressure differences, and will indicate when the optimum time to change the filter element in your system, saving you time, money and effort.



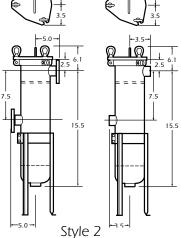
How To Order

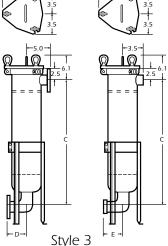
Build an ordering code as shown in the example.





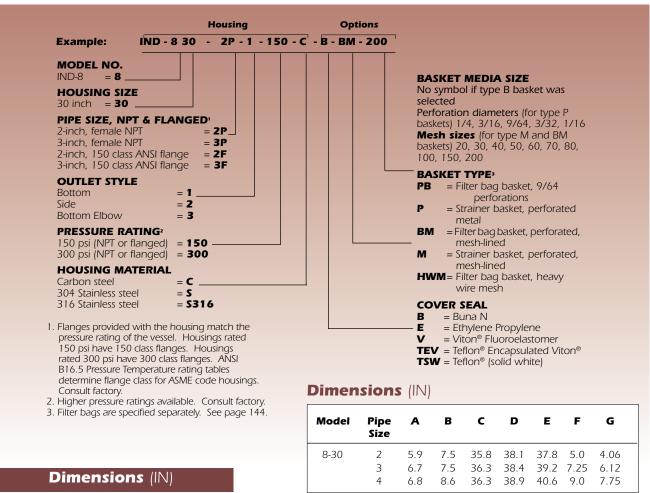
Style 1

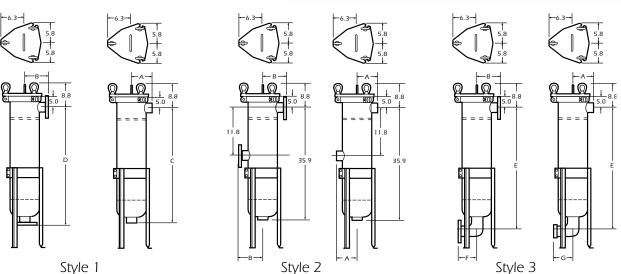




How To Order

Build an ordering code as shown in the example.





Convertible Filter Housings Use Either Bags or Cartridges

You can switch from one to the other instantly

The emergence of new, more effective filter bag materials has challenged the popular filter cartridge. Filter bags are now an attractive, economical alternative to cartridges in many applications. Bags cost less, are easier to install and remove, and require less room in storage and disposal.

The convertible filter housings from Rosedale offer you the ability to use filter bags in place of cartridges without burning your bridges behind you. You can always change back to cartridges, for whatever reason.

Features

- Permanently piped housings-no repiping necessary for change-over
- Covers are O-ring sealed
- Designed for standard double open-end type cartridges. Can also be supplied adapted to other cartridgeend configurations
- Carbon steel, 304 or 316 stainless steel construction for housing
- All housings are electropolished to resist adhesion of dirt and scale
- ASME code stamp is available
- Adjustable-height legs are included
- V-post spring seal for both options are in 316 stainless steel

Options

- Filter bag hold-down devices
- Sanitary construction
- Different outlet connection
- Higher pressure ratings
- Extra-length legs
- Heat jacketing
- Duplex units

Flow Rates

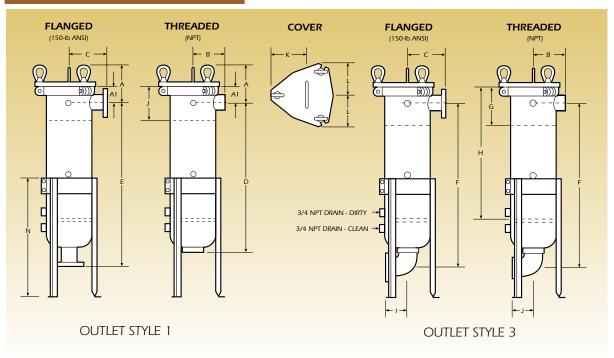
Rosedale's convertible filter housings are offered in two diameters to hold 3 and 5 cartridges, respectively. The 3-cartridge housings are nominally rated at 70 gpm*. The 5-cartridge Series housings are nominally rated at 100 gpm*. These ratings are governed by the restrictive openings in the cartridge support plate. They do not take into account the pressure drops imposed by the bags or cartridges used.



Pictured is a Model 6330. It can hold three 30-in. long cartridges (shown inserted) or a filter bag and support basket (at left). The two 3/4-in. ports at the bottom of the housing are 1) a dirty liquid drain (upper port), and 2) a clean liquid drain (lower port). The dirty liquid drain need not be used when filter bags are employed; if bags are properly removed, no dirt washes off downstream. (The use of a liquid displacer makes this easier to do.)

*30-inch cartridge

Dimensions (IN)



Dimensions (IN)

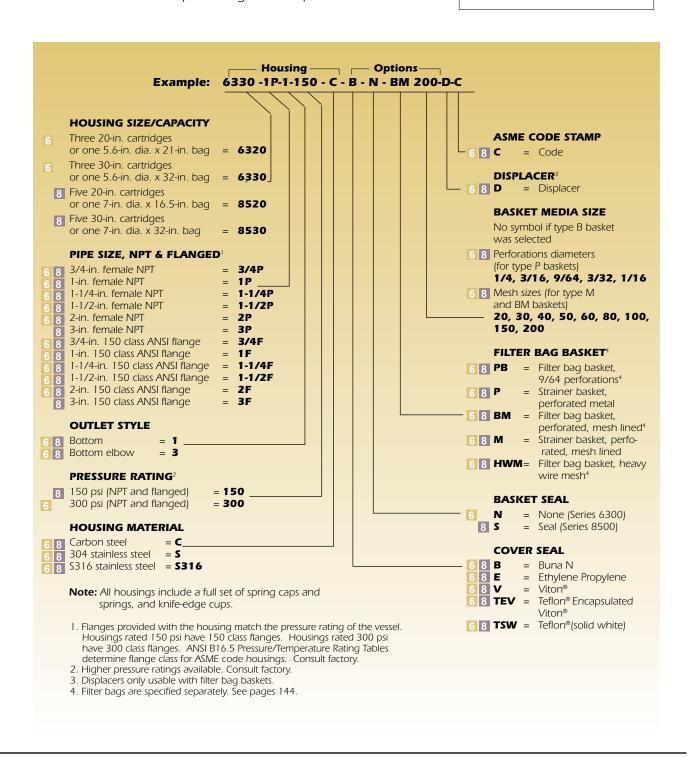
Model	Pipe	A	A1	В	C	D	E	F	G	н	1	J
	Size											
6320	1	6.3	2.5	4.3	6.0	26.3	28.5	21.0	26.8	4.6	22.8	5.0
	1-1/4	6.3	2.5	4.3	6.0	26.3	28.5	21.0	27.2	4.6	22.8	5.0
	1-1/2	6.3	2.5	4.3	6.0	26.3	28.5	21.0	27.6	4.6	22.8	5.0
	2	7.1	3.4	4.3	6.0	25.4	28.5	19.5	27.4	5.8	22.8	5.0
	3	7.1	3.4	4.3	6.0	25.6	28.5	19.0	28.7	5.8	22.8	7.3
6330	1	6.3	2.5	4.3	6.0	36.3	38.5	31.0	36.8	4.6	32.8	5.0
	1-1/4	6.3	2.5	4.3	6.0	36.3	38.5	31.0	37.2	4.6	32.8	5.0
	1-/12	6.3	2.5	4.3	6.0	36.3	38.5	31.0	37.6	4.6	32.8	5.0
	2	7.1	3.4	4.3	6.0	35.4	38.5	29.5	37.4	5.8	32.8	5.0
	3	7.1	3.4	4.3	6.0	35.8	38.5	29.0	38.7	5.8	32.8	7.3
8520	3/4	7.75	4.0	5.3	7.5	30.0	32.3	30.3	4.8	25.8	5.0	1.9
	1	7.75	4.0	5.3	7.5	30.0	32.3	30.6	4.8	25.8	5.0	2.5
	1-1/4	7.75	4.0	5.3	7.5	30.0	32.3	31.0	4.8	25.8	5.0	2.9
	1-/12	7.75	4.0	5.6	7.5	30.0	32.3	31.4	4.8	25.8	5.0	3.3
	2	7.75	4.0	5.88	7.5	30.0	32.3	32.1	4.8	25.8	5.0	4.0
	3	7.75	4.0	6.7	7.5	30.6	31.8	33.5	6.5	25.8	7.3	6.1
8530	3/4	7.75	4.0	5.3	7.5	42.3	42.3	40.3	4.8	35.8	5.0	1.9
	1	7.75	4.0	5.3	7.5	42.3	42.3	40.6	4.8	35.8	5.0	2.5
	1-1/4	7.75	4.0	5.3	7.5	42.3	42.3	41.0	4.8	35.8	5.0	2.9
	1-1/2	7.75	4.0	5.6	7.5	42.3	42.3	41.4	4.8	35.8	5.0	3.3
	2	7.75	4.0	5.88	7.5	42.3	42.3	42.1	4.8	35.8	5.0	4.0
	3	7.75	4.0	6.7	7.5	41.8	41.6	43.5	6.5	35.8	7.3	6.1

How To Order

Build an ordering code as shown in the example. Each option is available only on the model series indicated in the colored blocks preceding its description.

Key To Blocks

= Series 6300 = Series 8500



Manual Backwashing System

Manually-controlled system minimizes operator exposure and backwash fluid - ideal for hazardous environments!

Rosedale Products' Manually-Controlled Backwashing Filter:

- Minimizes backwash fluid
- Increases productivity
- Reduces process/system downtime
- Reduces maintenance costs
- Reduces labor costs
- Reduces filter element disposal and replacement costs
- Reduces operator exposure

Our backwashing filter uses standard 30 inch filter bags and baskets, providing over 600 square inches of filter surface area. The unit can be cycled through hundreds of backwashes before changeout is required. When pressure drop across the system is too great, indicated by the standard pressure gages, the system is easily cycled through the backwash operation. Operation is simple, first closing the valves for the inlet and outlet, then opening the valve for the backwash outlet, which can be piped to a separate, safe location. Once that has been accomplished, simply depress the lever that shocks the system with factory air, causing the fluid in the housing to exit through the backwash outlet, removing the contaminant from the element at the same time. When the element is clean, usually in 30 seconds or so, simply return the three valves to their original positions to resume filtering.

Standard Features

- No-spill cover
- Permanently piped housings are opened without disturbing piping or requiring special tools
- Low-pressure drop
- Adjustable-height tripod legs
- 150 psi rated housing
- Pressure indicators for monitoring system efficiency

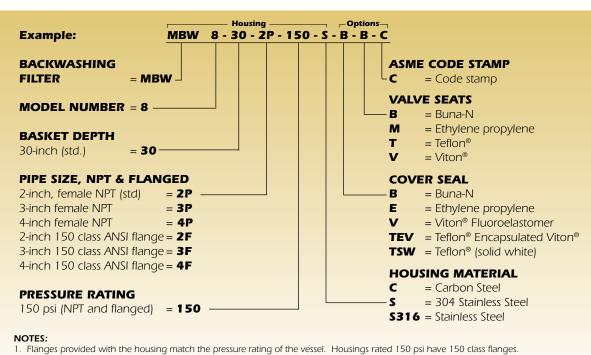
Standard Options

- Carbon or stainless steel housings
- Gaskets of Buna-N, Ethylene Propylene, Viton®, or Teflon®
- Valve Seats of Buna-N, Ethylene Propylene, Viton[®], or Teflon[®]
- 150 psi ASME code stamp
- Air eliminator

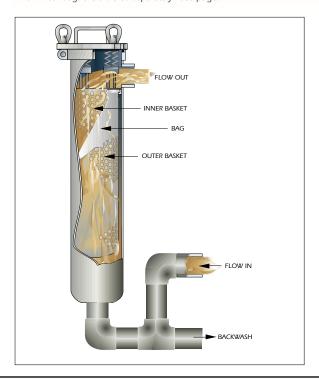


Manually-controlled backwashing filter housing

Build an ordering code as shown in the example



- ANSI B16.5 Pressure-Temperature rating tables determine flange class for ASME housings.
- 2. Higher pressure ratings available. Consult factory.
- 3. Filter bags are ordered separately. See pages 144.



How It Works

Fluid is introduced through the bottom of the filter housing. It is then forced through a filter element consisting of a bag rigidly contained between inner and outer baskets. The contaminant is captured on the outside surface of the outer basket and filter bag, while the clean fluid exits through the upper outlet. When the operator determines the unit needs to be backwashed, all valve positions are reversed, and the system is shocked by the introduction of factory air, causing the fluid in the vessel to exit through the backwash outlet, cleaning the element at the same time. To resume operations, just return the valves to their original positions.

Portable Filtration System

The Perfect choice for batch processing, or filtering from tanks or drums

This cart-mounted filter system has a diaphragm pump, pneumatic components and valves. The housing itself uses a standard size 12 bag. The clamp cover is easily removed and helps to reduce the time spent cleaning or replacing the bag. Rosedale's superior side-entry design does not allow contaminant by pass around the filter bag nor fluid to impinge the filter bag. It also prevents the spills and messes caused when opening. So for efficient, clean filtration, Rosedale is your choice.

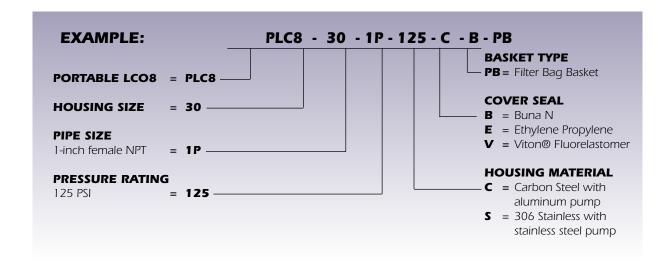
Features

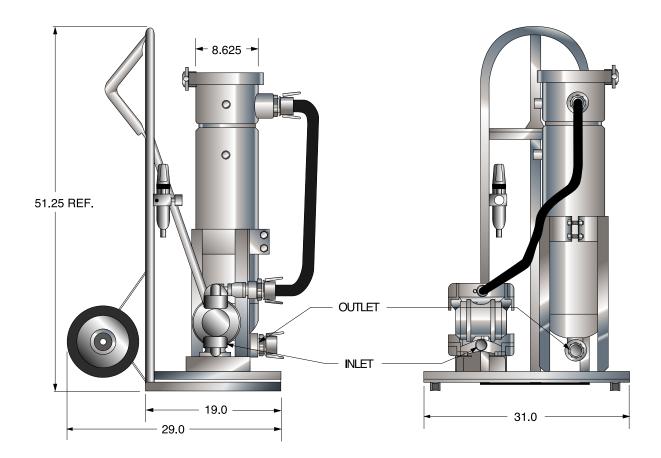
- Quick-opening covers that do not require special tools
- Carbon or stainless steel housings
- Large area bag and basket for greater dirt-holding capacity
- O-ring seals: Buna N, EPR, and Viton®
- 125 psi-rated housing
- Basket material is compatible with housing
- Uses standard number 12 size bags with surface area of 5.6 square feet.
- 1-inch NPT ports
- Air-operated, double-diaphragm pump
- Poly-Pro pump (optional)
- Cart has built-in drip pan and 9" air-filled tires
- Compressed air filter/regulator
- 10-foot inlet/outlet hoses with quick-disconnect couplings
- 25 gpm flow rate
- Four wheel cart optional



How To Order

Build an ordering code as shown in the example.





Portable Filter Cart For Coolants and Metalworking Fluids

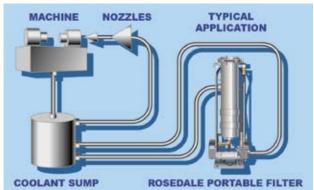
Rugged, Versatile, and On the Move ...

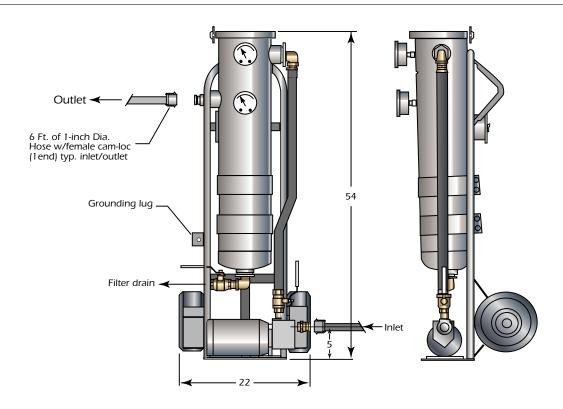
This versatile portable filter cart (PFC), is easily movable from machine to machine, holding tank to reservoir, or drum to tank. These two wheel hand truck systems provide a means for pre-filtering and transferring fluids. They are most effective controlling particulate problems before they cause damage to critical production equipment. Rosedale's PFCs' high-flow, industrial quality centrifugal pumps transfer fluids quickly and economically.

Applications

Portable filter systems can be used with coolants and other fluids with viscosities of 300 ssu or less that are compatible with aluminum and steel. Most new fluids are unfit for use in hydraulic and lube systems. Contamination enters the fluid during processing, mixing, handling and storage. Solid particulate may be present in unacceptable levels. Portable filter carts are the ideal means of pre-filtering and transferring these fluids. With a 1/2 horsepower motor and bag filter housing, this two wheel hand truck system is used for fluids with viscosities of 300 ssu or less







1" Self-Priming Centrifugal Pump Specs						
GPH of Water at Max. Total Feet of Head* Head						
10ft.	20ft.	30ft.	40ft.	50ft.	Ft.	PSI
2280	1920	1440	900	360	57	25
				: flow rate ipe and/or		ssure

Portable Filter Cart -	Order	ing Co	de Exai	npl	e:		
	Н	using		(Options		
Pre-Selected Example Code: PFC8	30	1 P	125	C	В	PB	
Model No. = PFC8							
Housing Size 30 inch = 30)						
Pipe Size 1 inch female NPT =	1	P					
Pressure Rating 125 psi = 12	:5						
Housing Material Carbon Steel = C							
Cover Seal Buna N = B							
Basket Type 30 inch = PB	,						

Model 8 Suggested Bags — General Uses							
Fiber Rating		<u>PE</u>	5	P	12	S	
Felt, Polyester	=	PE					
Micron Rating (g	rade)*						
General Use	= ′	5, 25					
Fine	=	BB-12					
Very Fine	=	BB-10	1				
Ultra Fine	=	BB-1					
Bag Finish							
None		=		Р			
Bag Size and Din	nensions						
8-3/8 x 32		=		12			
Bag Style							
Carbon Steel Plat	ted Rina	=		s			

Filter Selection By Applications





Portable LCO Cart10	Z
Portable Coolant Filter Cart10	4
Coolant Filter Selection Guide10	7
Water Filter Selection Guide11	4
Sorbent Containment Systems12	4
Mini-Bag Filter12	7
Vibrating Filter12	8
Giardia Filtration System13	2
Filter and Bulk Media Tanks 14	. 7

Coolant Filter Selection Guide

For low pressure machine tool coolant applications

Rosedale Filtration Products has installed a wide variety of systems throughout the metalworking and manufacturing industries. Our high quality industrial filters prevent metal chips, fines and other debris from contaminating cutting oils and coolants. Our pre-selected systems include the housing, appropriate seals and a filter bag.

General Requirements and Measurements

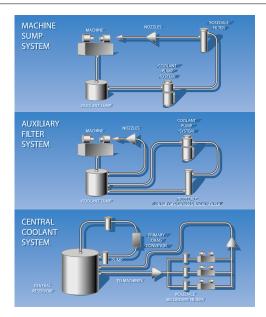
There are important factors that enter into specifying the level of coolant cleanliness that will improve the finish and extend tool life. Variables that affect coolants include: full or partial filtration, single pass or recirculating flow, dirt loading, pressure drop through all components of the filter systems, coolant temperature, flow rate, system pressure, and the presence of tramp oil.

This filtration guide is intended to provide general information about industry specifications. Use the data to compare and evaluate your specific application.

Typical Applications

Our schematics illustrate how Rosedale filters can be easily installed in any coolant circuit. The versatile Rosedale filters can be used in all metalworking machines, including milling, boring, broaching, grinding, drilling, turning, etc.

Methodology



Charts, schematics and other information provided or referred to throughout this guide are intended as examples only. "Nominal" filter ratings are used and monthly throughputs are calculated to include the sizing of filter elements to provide a 30 day minimum life expectancy based on a typical dirt load ingression.

Rosedale offers the widest range of filters and filter bags, including oil-adsorbing, high temperature, high-capacity bags, high-efficiency liquid filter bags, and Beta Bag® filter bags. The term Beta Ratio or Beta Rating refers to the number of particles upstream divided by the number of particles downstream in a given size. For example, if there are 100 five micron particles upstream and 50 five micron particles downstream of the filter bag, then the Beta Rating for this filter in the five micron size is 100/50, or 2. In other words, the filter bag is said to have a Beta 5 of 2. The efficiency is 50% in the five micron range.

Recommended Clarity Levels Of Filtered Coolant Filtered coolant shall meet or exceed the following average clarity levels.	Average Particle Size	Concentration: PPM
Ultra Fine: Honing, microsizing,		less than 10 microns
	larger than 8 microns	5 PPM to 10 PPM
lapping, and polishing	between 1 to 8 microns	25 PPM to 50 PPM
Very Fine: Grinding, gun-drilling,		less than 15 micron
gun-reaming (with tool diameters	larger than 8 microns	10 PPM to 15 PPM
of 0.125 inch or less)	between 1 to 8 microns	50 PPM to 100 PPM
Fine: Tapping, milling, lathe, hobbing,		less than 20 micron
drilling, boring, general machining	larger than 8 microns	15 PPM to 30 PPM
drilling, borning, general macriming	between 1 to 8 microns	100 PPM to 200 PPM

Single-Bag Filters

Model 4 Coolant Filter

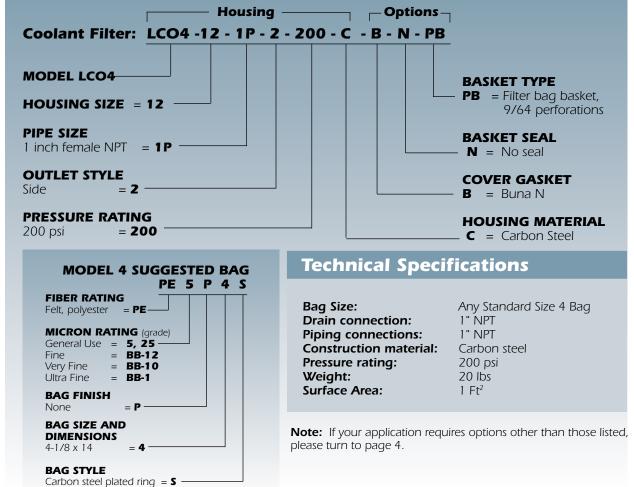
For Flows to 5 gpm

Flows can be higher. These flows are selected to optimize dirt holding capacity.

(For more detail information and other specifications concerning the Model 4, please see page 4 or contact a Rosedale representative.)

These rugged and reliable bag filters are tailored to high-capacity applications yet are relatively low in cost, making these durable filtration devices one of the best values on the market. Choose from among the pre-selected ordering codes listed below for filter flows to 5 gpm with a 200 psi rated housing.





Single-Bag Filters

Model 8 Coolant Filter

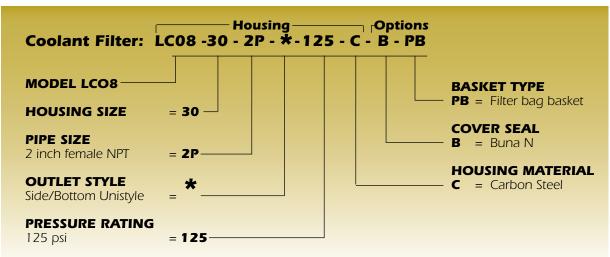
For Flows to 25 gpm

Flows can be higher. These flows are selected to optimize dirt holding capacity.

(For more detail information and other specifications concerning the LCO Model 8, please see page 17 or contact a Rosedale representative.)

These rugged and reliable bag filters are tailored to high-capacity applications yet are relatively low in cost, making these durable filtration devices one of the best values on the market. Choose from among the pre-selected ordering codes listed below for filter flows to 25 gpm with a 125 psi rated housing.







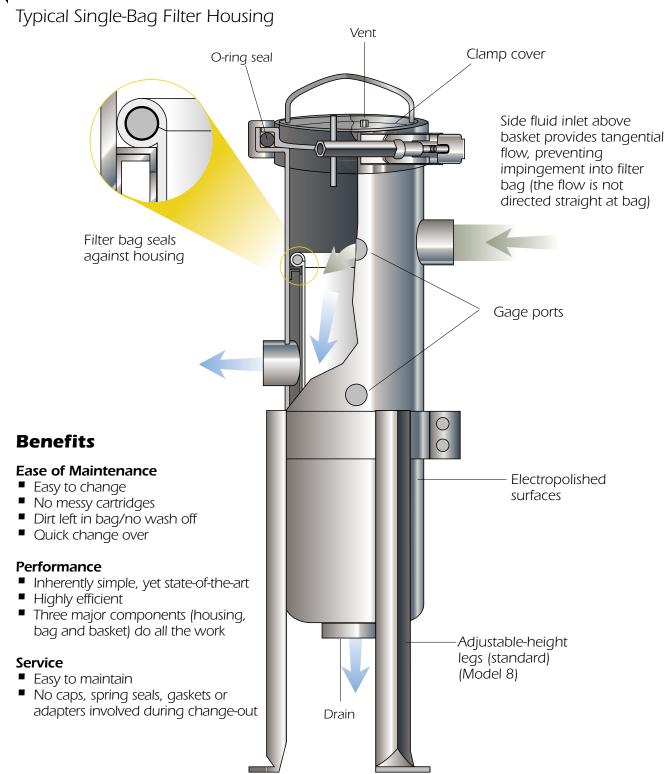
Technical Specifications

Bag Size: Any Standard Size 12 bag

Drain connection:2" NPTPiping connections:2" NPTConstruction Material:Carbon steelPressure rating:125 psiWeight:70 lbSurface Area:5.6 Ft.²

Note: If your application requires options other than those listed, please turn to page 17.

Features



These multi-bag filters offer the widest range of flow capacities and contaminant holding capabilities. With anywhere from 2–23 perforated stainless-steel baskets specially fitted to hold disposable or cleanable filter bags, these high-capacity multi-bag filtration devices are extremely versatile. Bag sizes meet industry-wide standards: conventional 3–inch baskets take bag size 2 while optional 15-inch basket take bag size 1. The standard pressure rating for all models is 150 psi and all housing units can be supplied with a ASME code stamp, if required.

Choose from among the pre-selected ordering codes listed below. If you need assistance determining the size or type of product that suits your application, call a Rosedale representative today for assistance and information.



Benefits

Ease of Maintenance

- Easy to change
- No messy cartridges
- Dirt left in bag/no wash off
- Quick change over

Performance

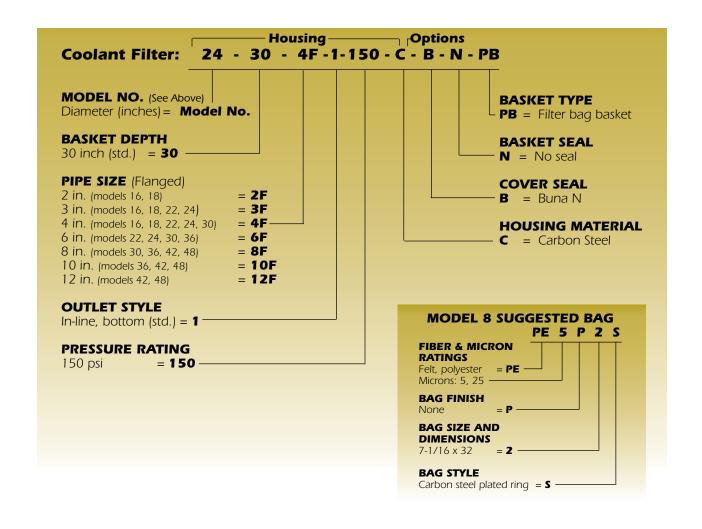
- Inherently simple
- Three major components (housing, bag and basket) do all the work

Service

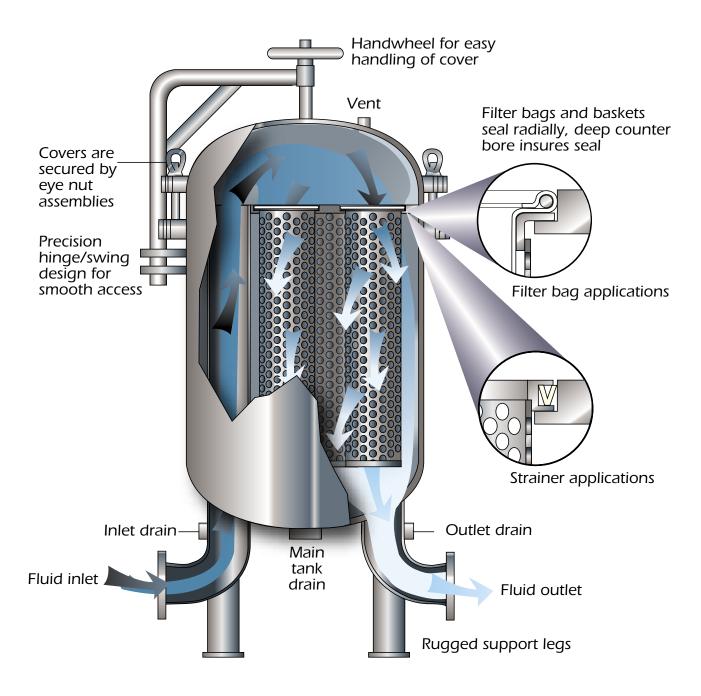
- Easy to maintain
- No caps, spring seals, gaskets or adapters involved during change-out



Model Selection (30-inch deep baskets)					
Model No. (and diameter in inches)	Number of Baskets	Straining, Filtering Area (ft²)	Standard Pipe Sizes Avail. (in.)	Suggested Flow Rate ³ (gpm)	
16	2	8.8	2	50	
18	3	13.2	2	75	
22	4	17.6	2,3	100	
24	6	26.4	3	150	
30	8	35.2	4	200	
36	12	52.8	4	300	
42	17	74.8	6	425	
48	23	101.2	6	575	



Typical Multi-Bag Filter Housing



Water Filter Selection Guide

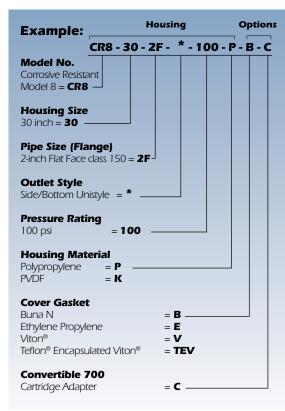
Rosedale has installed many housings for filtering industrial water applications in industries as diverse as automotive, steel, metal fabrication, and paper processing, among many others.

The Generation II All Plastic Model 8 Bag Filter

(For more information on the Generation II, see page 31)

Rosedale's Generation II model 8-sized polypropylene bag filters are made in a one-piece, seamless body that offers excellent resistance to corrosion. It is rated to 100 psi @ 150°F and flows to 100 gpm, choose the pre-selected ordering code listed below.

Pre-Selected Corrosive Resistant Model 8 Ordering Code





Plastic model base shown above. For more information on filter elements see page 138.

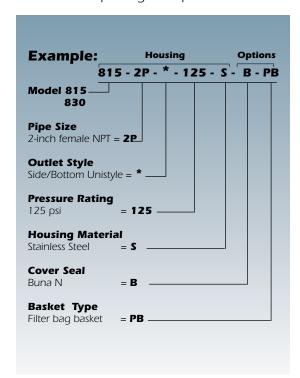
Model 8 Filter **Housing With Quick** Opening Clamp Cover (For more information on the

Model 8-125, see page 21)

These high-capacity bag filters are rugged and low in cost. The Quick Opening Clamp Cover is quick and easy to remove. The housing is rated at 125 psi and flows to 100 gpm, choose the pre-selected ordering code listed below.

For more information on filter bags, see page 144.

Pre-Selected Model 8 Filter Housing with Quick Opening Clamp Cover



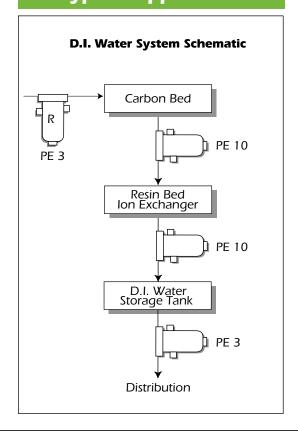


Extra High Capacity Multi-Bag Filters

(For more information on the Multi-Bag Filters, see page 36)

These multi-bag filters offer a wide range of flow capacities and contaminant holding capabilities. They contain from 2 to 23 baskets, all the same size. They are fitted with perforated stainless steel baskets designed to hold disposable or cleanable filter bags. Industry standard size bags are used: the standard 30-inch baskets take bag size 2, and optional 15-inch baskets take size 1. The standard pressure rating for all models is 150 psi. All housings can be supplied with a ASME code stamp, if required. For filter flows to 2300 gpm with a 150 psi rated housing, use the pre-selected ordering code listed on the next page.

Typical Application





Water Flow Rates with 10m Filter Bags

	I
Model	GPM
16	200
18	300
22	400
24	600
30	800
36	1200
42	1700
48	2300

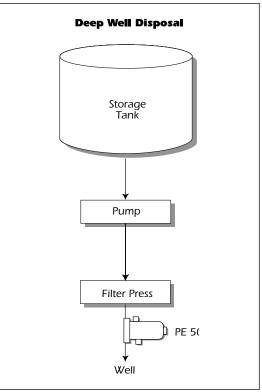
Filters Ordering Code

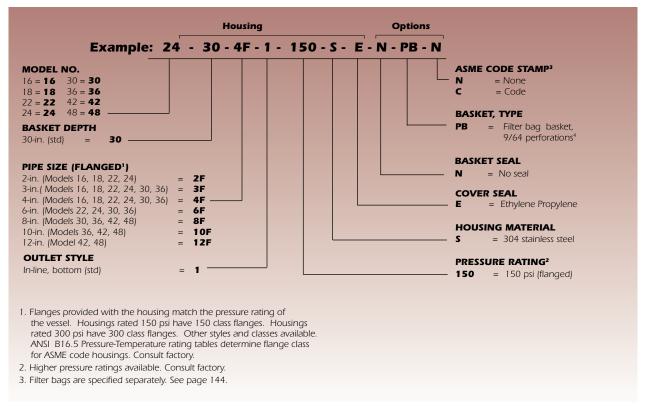
Model Selection (30-inch deep baskets)

Model No. (and dia. in inches)	Number of baskets	Straining, filtering area, ft2	Standard pipe sizes available, in.	Nominal flow rate, gpm
16	2	8.8	2, 3, 4	200
18	3	13.2	2, 3, 4	300
22	4	17.6	3, 4, 6	400
24	6	26.4	3, 4, 6	600
30	8	35.2	4, 6, 8	800
36	12	52.8	6, 8, 10	1200
42	17	74.8	8, 10, 12	1700
48	23	101.2	8, 10, 12	2300

Pre-selected Multi-Bag Filters Ordering Code

Typical Application





New for Sanitary Service-Bag Filters for Fine Filtration

New multilayer, polyester and polypropylene felt filter bags make possible filtration to 1 micron

Rosedale sanitary service filters conform to USDA/3A dairy standards with housings of polished 316 stainless steel. They're rated for 200 psi pressure and have quick-release clamp-type covers. Outlets and inlets have sanitary flange connections. All internal surfaces can be visually inspected (and easily cleaned in place).

The great economy of these filters is in their use of filter bags instead of the more costly filter cartridges. Made of a new filtering media, they carry nominal retention ratings of 1, 10 and 12 microns. They have been evaluated by the Multi-Pass Test Method (OSU-F2). See page 144 for complete information. (Other bags, including some made of monofilament meshes rated as fine as 10 microns, are also available.)

The contaminant-carrying capacity of these bags is equal to that of cartridges of the same flow capacity. Because the filter bags are supported by perforated stainless steel baskets, there is no filter collapse, flow fatigue, or filter end-load problems. Bags are removed more easily than cartridges, and bags hold the contaminant inside, not outside where it can wash off into the system during replacement. Some filter bags can be safely used at temperatures to 325°F.

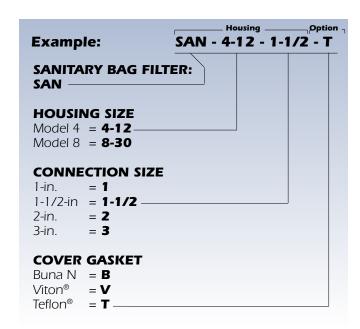
Applications for these filters include dairy, beverage, vegetable oils, and other foods and pharmaceuticals. They also make excellent pre-filters upstream of ultra-fine cartridge and membrane filters removing bacteria, etc.



PRESSURE RATINGS	Maximum Pressure @ 70°F	Maximum Pressure @ 250°F
Model 4	200 PSI	125 PSI
Model 8	100 PSI	50 PSI

How To Order

Build an ordering code as shown in this example



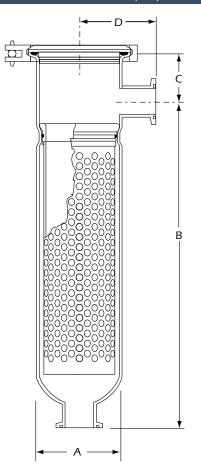
Order filter bags separately. See pages 144.

Construction

Housings are of 316 stainless steel, polished inside and out (unless ordered otherwise). The bags are supported by stainless steel baskets that provide 50% open area and lift out easily. The housing is then completely open with all surfaces visible and cleanable.

The filter bags have stainless steel rings sewn in their openings. Their close fit inside the housing effectively seals against bypass of liquid. They have cloth handles to assist in removal.

Dimensions (IN)



Dimensions (IN)

Model	Connection	Α	В	c	D
Model	Size	^	Ь		J
4	1	4.5	15.5	2	5
	1.5	4.5	15.5	2	5
	2	4.5	15.5	2	5
	2.5	4.5	16.0	2.5	6
	3	4.5	16.0	2.5	6
8	1	8.6	38.0	3.6	7.1
	1.5	8.6	38.0	3.6	7.1
	2	8.6	38.0	3.6	7.1
	3	8.6	38.0	3.6	8.1

T-Type Sanitary Cartridge-Housing

For fine filtration

Rosedale's sanitary service filters for sterile filtration are constructed with housings of electropolished 316 stainless steel. This "T" type sanitary housing is rated for 150 psi pressure and has a quick-release clamp closure which is safe for compressed gas applications. Outlets and inlets have sanitary flange connections. All internal surfaces can be visually inspected and easily cleaned in place. The housing uses an industry standard 222 or 226 style cartridge.

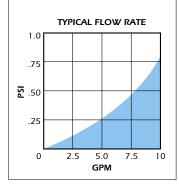
Applications for this sanitary filter housing include dairy, food and beverage processing, sterile filtration for pharmaceuticals, and sterile air/gas filtration. They are also excellent pre-filters used upstream of membrane filters.

Construction

Housings are all welded construction with all wetted parts of 316 stainless steel. All

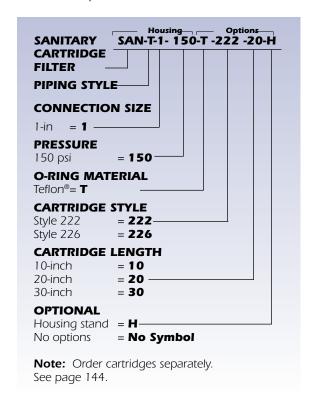
welded attachments are 300 series stainless steel. The materials and manufacturing process exceed industry standards for sterile filtration.

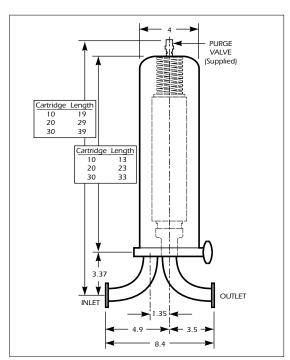




How To Order

Build an ordering code as shown in this example.





In-Line Sanitary Cartridge Housing

Rosedale in-line sanitary cartridge housings are constructed of electropolished 316 stainless steel for sterile filtration. They are rated for 150 psi pressure and have a quick-release, clamp-type closure. A recessed filter connection reduces hold-up volume and ensures a proper O-ring seal.

The in-line design features a sanitary purge valve that ensures proper venting for complete filter wetting. There's also a sanitary drain valve ensuring proper liquid drainage during venting applications.

This sanitary filter housing uses an industry standard 222 or 226 style cartridge.

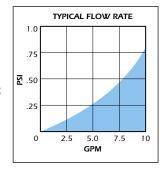
Applications for this housing include sterile venting, sterile air/gas filtration, food and beverage processing, and sanitary applications requiring high purity, non-



reactive surfaces. They are also excellent pre-filters used upstream of membrane filters.

Construction

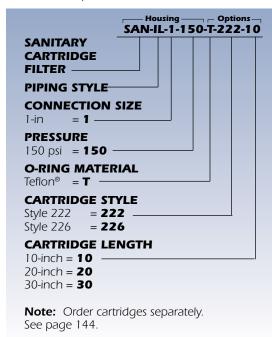
Housings are all welded construction with all wetted parts of 316 stainless steel. All welded attachments are 300 series stainless steel. The materials and manufacturing process exceed industry standards

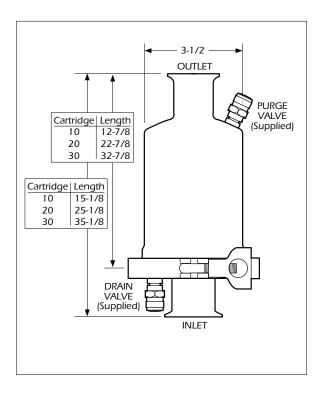


for sterile filtration. A cast clamp closure connects the shell to the base assembly.

How To Order

Build an ordering code as shown in this example





Rosedale Bulk Loading Filters

Know your liquid products are clean upon delivery - and be able to prove it! For flow rates to 50 gpm

Here is a way to ensure that the liquid chemicals or petroleum products you put into bulk containers - from drums to tanks cars - are as clean as they should be.

This final filter uses low-cost filter bags with dirt retention capabilities as fine as one micron. The filter attaches to the end of your loading pipe or hose, so it's the last thing your product touches before being loaded. It will stop any contaminant that has escaped your regular filtering system.

The filter can be attached to your line by a standard quick-connect coupler for easy removal. The cover is held closed by an easy-operating clamp - no tools required. It acts to hold the bag down in proper position, also. The filter bag can be quickly removed after loading for inspection. This will indicate your system filtration condition, and the bag can also serve as proof of the cleanliness of the product delivered. (Just send the bag along with the shipment.)

Description

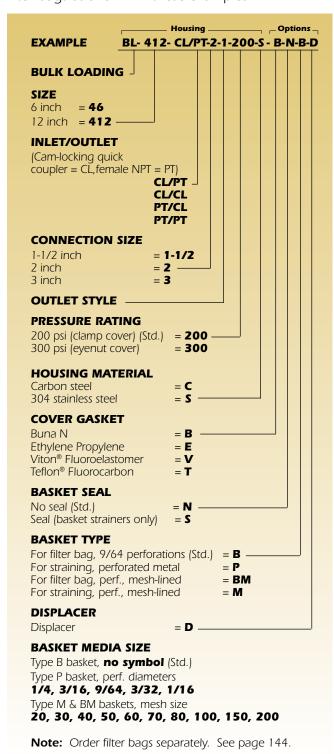
The filter is of welded construction, in carbon or 304 stainless steel. It weighs approximately nine pounds. The filter bag basket is of perforated 304 stainless steel.

It uses standard-sized filter bags, #3 or #4. We offer them in many materials and micron ratings. If filter bags aren't desired, you can order units with strainer baskets, in a wide range of perforation hole sizes and with wire cloth linings as fine as 200 mesh.



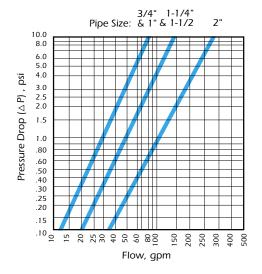
How To Order

Build an ordering code for the filter and the filter bags as shown in these examples



Model 4–For flow rates to 50 gpm

- Pipe sizes 3/4 thru 2-inch, NPT or flanged
- Two basket depths:6 or 12 inches (nominal)
- Three pressure ratings: 200 psi (with clamp cover) and 300 or 500 psi (with eyenut cover)
- ASME code stamp available



Sorbent Containment **Systems**

- Treatment vessels
- Carbon-holding baskets
- Activated carbon packs

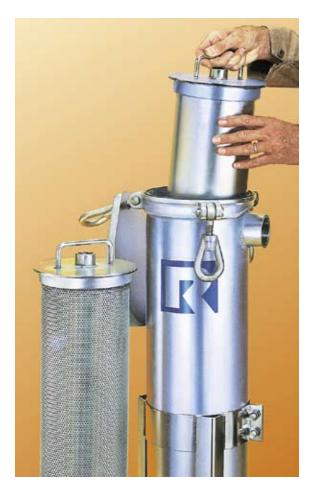
Treatment Vessels are standard Rosedale strainer/filter housings, available in carbon steel, and 304 or 316 stainless steel. They are made in many sizes. Single-basket models are pressure rated from 75 to 500 psi, with pipe connections from 3/4-in.-NPT to 4-in.-flange. Multi-basket models can hold from 2 to 23 baskets and are pressure rated at 150 psi. Pipe sizes are from 2 to 12 inches (flanged).

Sorbent-Holding Baskets are made in two styles: the RS, for recirculating systems, passes liquid (horizontally) through a shallow bed (approximately 2-1/2 inches deep); the SP, for single-pass systems, has a deep (vertical) bed (approximately 29 inches deep).

Baskets are made entirely of 304 stainless steel, and are of high quality construction. They are easily recharged with sorbents such as activated carbon. Turning the large lifting handle opens a cover so that they can be emptied and refilled. The particles are retained by 100-mesh wire screening.

These baskets can also be filled with materials other than activated carbon. Other processing media might include deionizing resin beads, silica gels, alumina, green sand, and odorizing agents.

Activated Carbon Packs are premeasured amounts of 20 x 50-mesh-size activated carbon, packaged to protect against moisture. A universal grade of carbon is used, offering good flow rates.



An SP-style basket being put into a Rosedale Model 8-30 vessel. An RS-style basket is in the foreground.

Designing An Optimum System

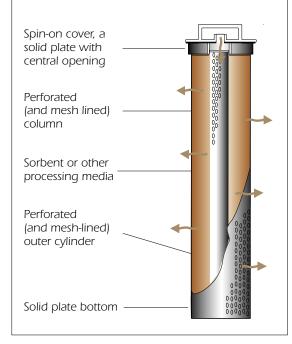
While carbon granules can act as a filtering media to remove solid particulate from a liquid, it is far more economical to pre-filter liquids entering a carbon adsorption vessel to avoid impeding the adsorption process. It is also recommended that a second filter be placed downstream of the carbon unit to catch any carbon particles that might be flushed out by the fluid stream. Rosedale bag filters are excellent in these roles.

A combination carbon adsorption and downstream filtering unit can be ordered. Available in the larger single-basket and all multi-basket vessels, it positions the carbon-

holding basket inside a larger filter bagholding basket. A variety of filter bag media is offered.

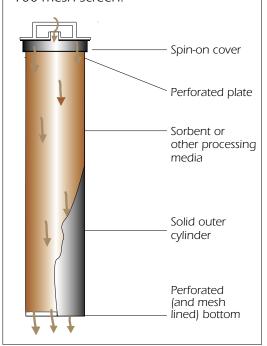
RS Style For Recirculating Systems

Flow enters from the top, into a perforated cylinder around, which is packed activated carbon. Flow moves radially through the carbon and exits through the side wall, which is perforated and lined with 100-mesh screen.



SP Style For Single-Pass (1-Time) Processing

Flow enters from the top through a perforated cover and into the activated carbon bed. Flow moves down through the carbon and exits through the bottom plate, which is perforated and lined with 100-mesh screen.



Activated carbon is a "black magic" material that removes molecules of organic pollutants from various liquids by physical adsorption. (It does not act by chemical bonding.) It is a surface attraction, and the fine porous carbon particles have an incredibly large surface area. (Used carbon can be reactivated by oxidizing the adsorbed contaminant.)

Uses of carbon adsorption include:

- 1. Purification of sugar syrups, liqueurs, glycerine, pharmaceuticals, etc.
- 2. Treatment of water to remove chlorine and odor, and improve color and taste.
- 3. Purification of process effluents, per EPA requirements.
- 4. Drying, degumming, and decolorization of fuel and lubricants, organic solvents, vegetable oil, and animal fats.



Treatment Vessels

Any of Rosedale's standard single or multi-bag housings can be used as the treatment vessel. See pages 4-17, 21-22, 29-44, 75-80, 85-86, 97-99.

Activated Carbon Packs

Order carbon packs by using the basket order number (as shown below) plus the suffix 'CP'.

Example:

To order a replacement pack of carbon in an amount sufficient to fill an O-730-RS basket, order number O-730-RS-CP

Ordering Information

Carbon-l	Holding Basi	cets		Carbon-Holding Baskets					
Flow	Carbon	To fit	Basket	Flow	Carbon	To fit	Basket		
Rate	Capacity	vessel	Order	Rate	Capacity	vessel	Order		
(gpm)	(cu.in.)	(Model No.)	No.	(gpm)	(cu.in.)	(Model No.)	No.		
RS-style	(for recirculatin	g systems)		SP-Style	(for single pass	systems)			
2.5	66	4-6	O-46-RSB-6671	1.25	70	4-6	O-46-SPB-6673		
5.0	130	4-12	O-412-RSB-6675	2.5	140	4-12	O-412-SPB-6677		
4.0	197	6-12	O-612-RSB-4359	4.0	235	6-12	O-612-SPB-4367		
10.0	296	6-18	O-618-RSB-4361	5.0	353	6-18	O-618-SPB-4365		
15.0	494	6-30	O-630-RSB-4363	7.5	589	6-30	O-630-SPB-5046		
15.0	484	8-15	O-715-RSB-1538	5.0	494	8-15	O-715-SPB-1537		
20.0	963	8-30	O-730-RSB-8119	10.0	1020	8-30	O-730-SPB-8432		
To fit Mod	el 8 vessels wi	th backup filte	er bag baskets	To fit Model 8 vessels with backup filter bag baskets					
	249	8-15	I-715-RSB-1617		285	8-15	I-715-SPB-1615		
	574	8-30	I-730-RSB-1625		658	8-30	I-730-SPB-7669		
To fit mult	i-basket vessel	5		To fit mult	ti-basket vessels	;			
15.0*	484	15-in.nom	. O-915-RS	5.0*	494	15-in.nom.	O-915-SP		
20.0*	963	30-in.nom	. O-930-RSB-1534	10.0*	1020	30-in.nom.	O-930-SPB-1215		
To fit mult baskets	i-basket vessels	with backup	filter bag	To fit multi-basket vessels with backup filter bag baskets					
	249	15-in.nom	. I-915-RS		285	15-in. nom.	I-915-SP		
	574	30-in.nom			658	30-in.nom.			
	3, 1	20		*Flow rate is	per basket: Multipl	y by number of b	askets in vessel.		

An All-Stainless Steel Mini-Bag Filter For 3000 psi Service

Ideal for spray nozzle protection

Here's the best answer yet to the need for a small yet rugged final filter for liquids at pressures to 3000 psi. The filter contains a stainless wire mesh "bag" with a 14 square inch area. It can be thrown away when dirty, or cleaned and reused. Flow is from the inside to the outside of the element; contaminant stays trapped



inside. The straight through design has no elbows, turns or internal pockets to create pressure drops or collect sediment, and they're easy to flush out.

The mini-bag filter is very easy to service too. Just spin the knurled collar loose, push the housing out of line a bit, remove the element, slip a new or clean one in, and you're back in business. The seal is a special, Teflon-encapsulated Viton O-ring. It can be tightened by turning the knurled collar, usually by hand.

Specifications

- Pressure rating: 3000 psi
- Differential pressure rating: 25 psi
- Port sizes: 3/8 inch NPT
- Micron retention ratings (absolute): 25, 50, 75, 100 125 and 150

How To Order

Order filter housings separately: Model No. MF-1

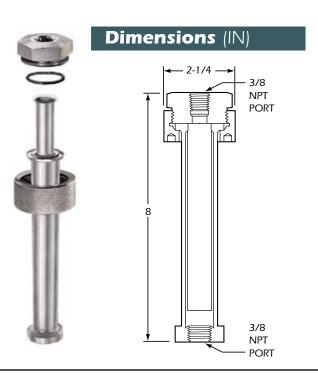
Order element bags separately, according to micron retention desired:

25 micron (absolute), Part No. MB-25 50 micron (absolute), Part No. MB-50 75 micron (absolute), Part No. MB-75 100 micron (absolute), Part No. MB-100 125 micron (absolute), Part No. MB-125 150 micron (absolute), Part No. MB-150

NOTE: A model with 2 collars, to be removed from rigid piping, is also available.

Flow Capacities (gpm) at 2 psi (.14 bar) pressure drop

Viscosity	Element Micron Rating								
(SSU/cSt)	150	75	50	25					
100/20.5	6	6	6	6					
250/55	6	6	5.3	4					
1000/250	4.5	4	3.1	2					
1500/325	3.5	3.5	2.3	1.5					

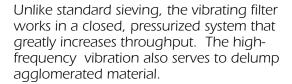


∐ The Vibrating Filter

High-frequency sieving action prevents rapid filter loading

The Rosedale Vibrating Filter

prevents filter cake from forming on the element surface. As in sieving, the screen through which the product passes is rapidly agitated. This prevents the building up of even smaller particles on larger ones stopped at the screen. By keeping over-sized material bouncing off the screen, the smaller particles can reach the screen and pass through. This sieving-type filter is ideal for paints, medicines, paper coatings, foods, or any product containing desirable solids that can be classified by size.

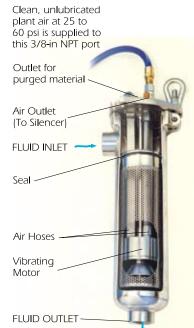


The vibrating filter contains a perforated stainless steel basket lined with either stainless wedgewire or wire cloth. An airdriven vibrating motor at the bottom causes the basket to vibrate. The vibration rate is changed by varying the air pressure. Higher pressures produce higher frequencies. The basket is isolated from the housing, so very little vibration is transmitted to housing and piping.

Cleaning The Filter

- Release system pressure, and close inlet and outlet valves. Turn off the air to the vibrating motor.
- Loosen the eye nuts enough to swing rod ends free of the cover. Open the drain valve at the outlet to remove the remaining clean fluid.

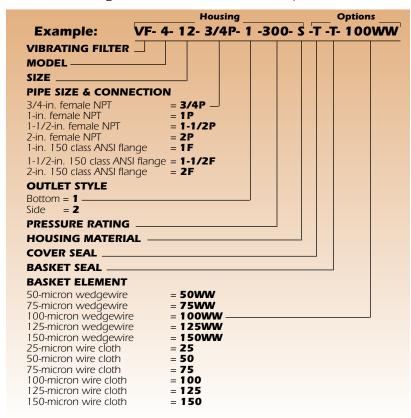


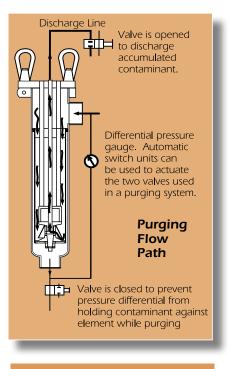


- Remove cover-vibrator-basket assembly straight-up for the housing. (Contaminated fluid will now drain from the housing.)
- The easiest method for cleaning the unit is to run the vibrator while the basket is immersed in solvent. If this isn't effective, the basket must be removed and cleaned by hand.
- Separate the filter basket by removing the cotter pin, castle nut and lock washer. If the basket doesn't break free, tap the top of the basket lightly. If that fails, tap the stem down on a wood board to break the basket loose.
- Use brushes, solvents, compressed air, or other suitable means to remove the contaminant from the wire cloth or wedgewire element. Be careful no to damage the basket with sharp instruments.

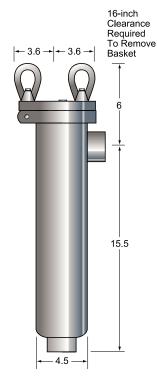
How To Order

Build an ordering code as shown in this example





Dimensions (IN)



Specifications

Unlubricated plant air: 20 psi
Maximum flow: 20 gpm
Maximum pressure: 300 psi
Maximum pressure drop: 50 psi
Pressure drop (clean): 2 psi
Air Consumption: 2 SCFM

Element

Wedgewire baskets are available in micron ratings ranging from 50 to 150 (25 microns equal .001 in.). Wire used has a strong wedge-shaped cross-section. Wire cloth-lined baskets are available with micron openings from 25 to 150. Wire cloth has a much higher percent of open area than wedgewire. A given flow passes through with less pressure drop.

Materials

Housings and metal internals are 304 stainless steel. Air hoses are nylon with nickel-plated steel fittings. Seals are Teflon.

Solids Recovery Filtration System

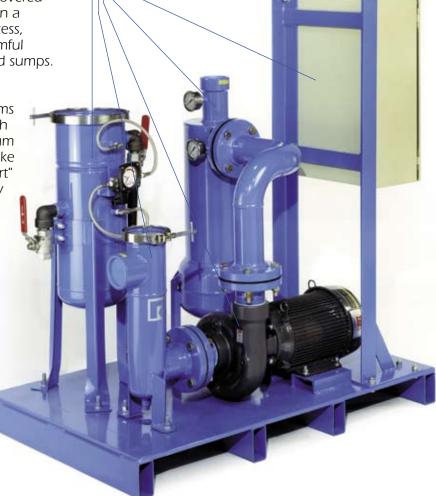
Reduce and recover solids from liquids efficiently and cost-effectively

The Rosedale SRF (Solids Recovery Filtration) system is a self contained, self-purging filtration and separation package. It will remove solids from liquids effectively and economically, reducing problems associated with cooling tower water systems and the heat exchange system. It is excellent for use wherever solids need to be separated, removed, and recovered from liquids. It can be used in a continuous recirculation process, serving as a deterrent to harmful bacteria growth in basins and sumps.

All of our systems use quality components. We offer systems in different sizes to best match flow rates, providing maximum optimization. Our systems take full advantage of being "smart" with controls to automatically clean or purge the filtration and separation components when needed.

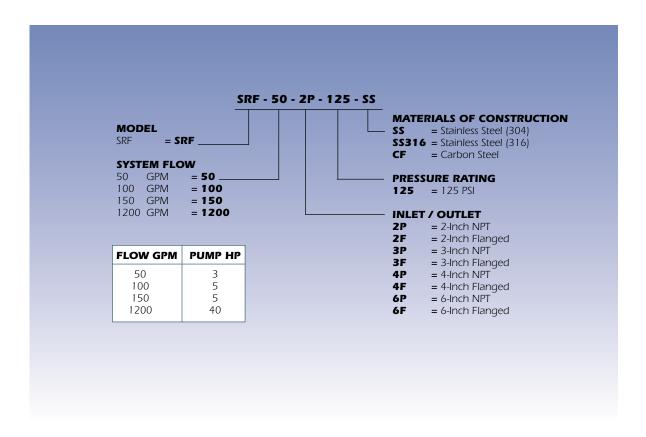
Components specific to the SRF include:

- Bag filter to recover the solids following the purge of the separator
- Basket strainer for coarse filtration
- Centrifugal pump and motor
- Separator achieving 50 to 75 micron solids removal rating
- Nema 4X enclosed electrical control panel with HOA selector switch
- Factory assembled and skid mounted for ease of installation and operation
- Compact design minimizes required floor space



How To Order

Build an ordering code as shown in this example



- Flow rates from 50 GPM to 1200 GPM
- Pressure rated to 125 PSI
- Inlet/outlet sizes from 2-inch to 6-inch

Single Stage Giardia Cryptosporidium Removal

Municipal Drinking Water Filters

THE HOUSING

The Rosedale Model 8302P or Model NCO8135

Stainless Steel Housings

The Model 8302P and NCO8135 high-capacity filters offer an exceptional value in Giardia Cryptosporidium Removal applications. The system is approved for use in Oregon and has met all the EPA LT2 guidelines.

Each housing provides large containment capacity combined with a rugged design rated to 150 psi. It incorporates an eyenut cover that is easily removed, reducing time spent on cartridge change-out.

Features

- NSF 61 listed
- Low pressure drops
- Permanently piped housings
- Covers are O-ring sealed
- 304 stainless steel construction
- All housings are electropolished to resist adhesion of dirt and scale
- Adjustable-height legs, standard
- ASME code stamp available





TYPICAL CREDITS			₀ Removal Credit Cryptosporidium	Filter Loading Rate (gpm/bag)	Max. Pressure Differential (psi)	
Filter Bag: PS-740-PPP-356	0	3	2 Log	10	30	



THE ELEMENT

R PS-740-PPP-356 **Filter Cartridge**

Maximize dirt-holding capacity and meet LT2 requirements

PS-740-PPP-356 elements are manufactured in a unique "Y" pleat arrangement that optimizes physical size and maximizes effective surface area. The large surface area provides a low fluid flux rate maximizing dirt containment.

The element fits into the Rosedale NCO8135 housing or can retrofit 8302P housings with an adaptor basket. The end caps are heat sealed for high efficiency performance. The o-ring seal insures sealing and eliminates bypass.

Features

- 100 sq. ft. of surface area maximum
- 11 lbs. (approx.) of dirt carrying capacity
- 2 log cryptosporidium credit
- Flow rates to 10 gpm
- 6.25-inch diameter and 35-inch length
- Fits into standard Rosedale Model NCO8135 and 8302P
- Double o-ring seals
- NSF 61 listed



Dual Stage Giardia Cryptosporidium Removal

THE HOUSING

Rosedale has developed an effective water filtration system that meets the SWTR and protocols for most states. This system offers a dual-stage design that filters out larger contaminants before filtering out micro-organisms.

The system consists of two high-quality Rosedale **Model 8 housings** (pressure vessels), placed in series.

The first stage is fitted with a PS-520-PPP-241 bag/cartridge.

The second stage is Rosedale's **GLR-PO-825-2** bag/cartridge.

This provides a 2 LOG cryptosporidium credit when used in tandem. The optimum flow rate for the system described is 13 gallons per minute (GPM).

Rosedale manufactures filtration systems for larger applications, that can filter water up to 500 GPM. Multiple designs are available to meet your needs.



STAGE 1 Pre Filter PS-520-PPP-241

STAGE 2 Final Filter GLR-PO-825-P2

TYPICAL CREDITS			Removal Credit Cryptosporidium	Filter Loading Rate (gpm/bag)	Maximum Pressure Differential (psi)	
Filter Bag Prefilter: GD-PO-523-2	0	2	1	10 (w/ prefilter)		
Final Filter: GLR-PO-825-2	0	2	'	3 (w/o prefilter)	. 10	
Prefilter: PS-520-PPP-241	0	2	7	13 (Must be operated w/	PS-520-PPP-241: ΔP = 20	
Final Filter: GLR-PO-825-2			۷	both filters in series)	GLR-PO-825-2: ΔP = 2.5	







THE ELEMENTS

Pre-filter (Optional)

All graded-density bags are constructed of nine-layers of polypropylene micro fibers and standard fibers that are variably calendered. Heavy-duty handles are sewn and turned inside out to avoid leakage and enhance their pressure capacities.



Final Filter (2 Choices)

1-The Rosedale GLR-PO-825-2 element has 26 layers of high-efficiency polypropylene micro fiber material, encased in a rigid support cage. The initial layers are pre-filtration levels, while the next several layers filter the cyst pathogen itself. The final barriers prevent any material from migrating into the effluent. All GLR units have a specially designed gasket to assure a bypassproof seal. All seams and joints are heat sealed to prevent leakage. The inside-out flow design traps contaminants on the inside, reducing the possibility of downstream contamination during changeout and simplifying the service process. NSF 61 listed.



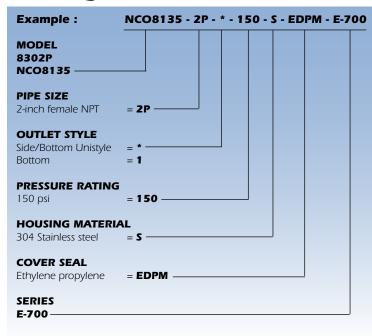
2–The PS-520-PPP-241 filters are manufactured in a "Y" pleat arrangement that optimizes physical size and maximizes effective surface area. The large surface area provides a low fluid flux rate maximizing dirt containment. This means element life is extended. NSF 61 listed.

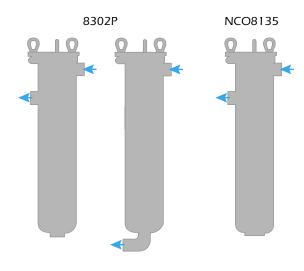
Rosedale Products' Cyst Reduction system provides easy installation, operation, and maintenance for a cost-effective solution to water treatment not previously realized by high-cost conventional systems.

How To Order Single Stage Systems

Build an ordering code as shown in the examples.

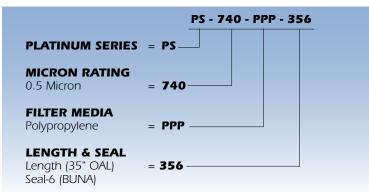
Housings

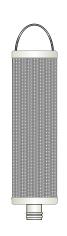




The system is approved for use in Oregon and has met all the LT2 guidelines.

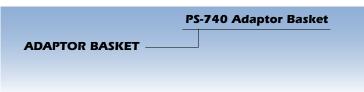
Cartridges







Adaptor Basket

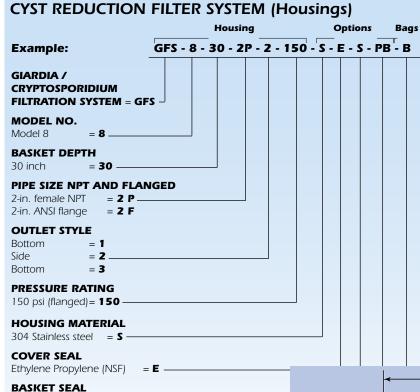




| ₹ | How To Order Dual Stage Systems

Build an ordering code as shown in the examples.

Housings



Typical 2-Stage System — **Included Components**

- 5 2-inch butterfly valve (hand actuated) used for isolation and drainage
- 1 0-60 psid differential pressure gauge (stage 1)rolling diaphragm
- 1 0-30 psid differential pressure gauge with switch, NEMA 4 enclosure (stage 2) rolling diaphragm
- **2** 1/4 inch vent valve (ball valve)

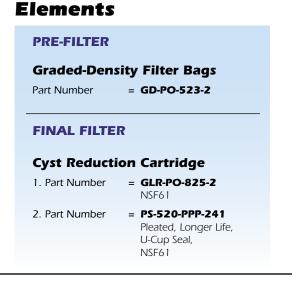
Two stage systems are approved in Alaska, California, Washington, Oregon, Vermont, Maine, and Minnesota. Meets the SWTR and protocols for most states.

1 GDP05232 and 1 GLRPO825P2

Seal Required = S -**BASKET TYPE**

Filter Bag Basket **FILTER ELEMENTS**

= PB





Platinum 520 ABSOLUTE-RATED Bag-Sized Cartridges

Maximum dirt-holding capacity

Features

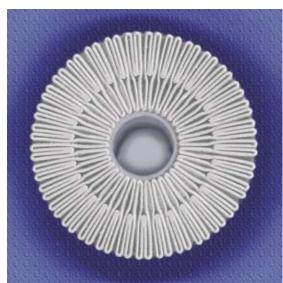
- 50 sq. ft. of surface area
- 8 lbs. (approx.) of dirt carrying capacity
- Rated 0.5 micron, 2 LOG cryptosporidium credit when used in tandem with the Rosedale GLR-PO-825-P2
- Flow rates to 20 gpm
- 6.25-inch diameter and 24-inch length
- Fits into standard Rosedale Model 8, and Multi-cartridge housings
- NSF 61 listed

These elements are manufactured in a unique "Y" pleat arrangement that optimizes its physical size and maximizes effective surface area. A low fluid flux rate maximizes dirt containment. This means element life is extended.

Design Details

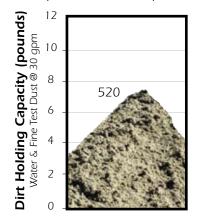
The element fits into Rosedale standard size 2 baskets and functions similar to a bag (dirt is caught inside). The end caps are heat sealed for high efficiency performance. The o-ring seal insures sealing and eliminates bypass.



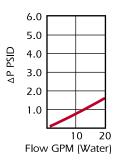


Dirt Holding Capacity

(Platinum Series)

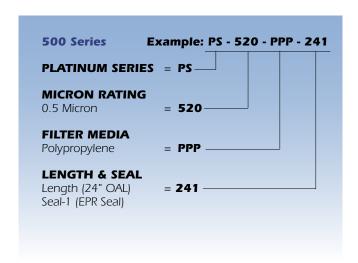


Flow Rate Vs. ΔP

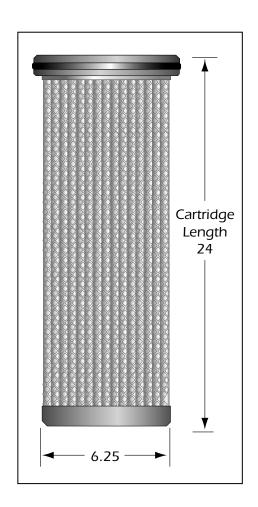


How To Order

Build an ordering code as shown in the example.







TYPICAL SYSTEM SPECIFICATIONS

10 GPM System Consists of 2 ROSEDALE 8-30-2P Bag/Cartridge Filters connected in series with isolation valves and instrumented with differential pressure gages.

Model Number GFS-8-30-2P-2-150-S-FG-B-PB-DPS

Stage 1 Description - Pre Filter

Rosedale Model 8-30-2P Bag/Cartridge Filter - Quantity 1
Design Pressure 150 PSIG @ 400°F
2" ANSI 150# Flanged Connections
1" NPT Drain
1/4" NPT Vent and Gage Connections
304 Stainless Steel Construction
Swing Bolt Cover
Accepts 1 Standard #2 Size Filter Bag or Cartridge
5V-2787 Hold Down Devices
Pressure Differential Switch
Gasket - EPR NSF 61

Stage 2 Description - Final Filter

Rosedale Model 8 Bag/Cartridge Filter - Quantity 1
Design Pressure 150 PSIG @ 400°F
2" ANSI 150# Flanged Connections
1" NPT Drain
1/4" NPT Vent and Gage Connections
304 Stainless Steel Construction
Swing Bolt Cover
Accepts 1 Final Giardia Cartridges
5V-2787 Hold Down Device
Pressure Differential Switch
NSF 61

One Complete Set of Filter Media Rosedale GLR 825 Series Cartridge Giardia/Cryptosporidium Reduction Final Filter

#GLR-PO-825-2 2 LOG Giardia Credit Efficiency Polypropylene Construction 26 Layers Wrapped Depth Element Integral "V" Seal

Rosedale PS 520 Series Cartridge Giardia/Cryptosporidium Reduction Pre Filter

#PS-520-PPP-241
2 LOG Cryptosporidium Credit in Concert with Above Polypropylene Construction
3 Layers Pleated Element Integral "V" Seal

Optional

Rosedale Model 8-30-2P Bag Filter

GFS-8-30-2P-2-150-S-FG-S-PB-HD5V-2787

with Filter Bag

GD-PO-523-2

Tested in series at the USDA Forest Service facility in San Dimas, CA.

Pre Filter: PS-520-PPP-241 Post Filter: GLR-PO-825-2

95th Percentile	1	g Reductic 5-15 um	
First Filter Set	2.01	2.26	2.06
Second Filter Set	3.06	3.44	3.17
Third Filter Set	3.21	3.38	3.25

FINAL FILTER Filtration Unit - Design Information

Item Description	Information
Model Number	GRL-PO-825-2
Filter and System Information Type of Filtration Unit	Polypropylene0.5 MicronsAt the accumulation of approximately 1.2 lbs solids22
Testing Results NSF, ETV, Other 3rd Party Verification Testing? NSF Standard 61, FDA, Certification Pilot Study Data?	Yes
Removal Efficiency and Credits Treatment Log Removal Credits Targeted Removal Efficiency Targeted Turbidity	99%
Flow rate, Pressure, Etc. Flux Rate (gsfd)	4.4 ft ² Final / 50 ft ² Prefilter 20 GPM 13 GPM 10 PSI Min. / 150 PSI Max.
Raw Water Quality Pre-Sediment/Pre-Treatment (screening, oxidation, cartridge/bag filters, dechlorination)	Yes High NTU >5 No Possibly No
Process Flow Description	As Requested ? As Requested Needed Yes Elements, Gaskets

PRE FILTER Filtration Unit - Design Information

Item Description	. Information
Type of Units	.Bag Filters
NSF Standard 61 Certification	.Yes

Filter and Bulk Media Tanks —

Rosedale manufactures standard or custom large vessels up to 10 feet in diameter. They are designed to meet all applicable codes and tested to assure they meet the highest standards. The Tank Quotation Request form on the next page lists many of the available features. For more options and information, please contact Rosedale.

Manufacturing Capabilities

- Plant Management
- Engineering/Drafting
- Quality Control
- Safety, Inspection and Training
- Warehouse, Shipping and Handling
- Vessel Fabrication
- Skid and Manifold Fabrication
- Internals Fabrication
- Pipe Spool Fabrication
- Fitting and Welding
- Sandblasting and Coating
- Complete Production Assemblies

TYPICAL APPLICABLE CODES

- ASME Section VIII, Division I and II, Pressure
- DNV
- Bureau of Veritas

VESSELS

- API Production Equipment Specs
- AWS D1.1
- ASME B31.3
- NACE



PRESSURE TESTING

Hydrostatic (PSI) 2500

NON-DESTRUCTIVE EXAMINATION

- Radiography (RT)
- Magnetic Particle (MT)
- Liquid Penetrant (LT)
- Ultrasonic (UT)

MAXIMUM TANK SIZE

- Diameter 10 Feet
- Thickness 2.75 Inch
- Weight 20 Ton

WELDING PROCESS

- Shielded Metal Arc
- Gas Metal Arc
- Gas Tungsten Arc
- Submerged Arc
- Flux Cored Arc
- STT Welding













Tank Quotation Request

Company: Address: City / State / Zip:	Fax:		Rosedale Products, Inc. 3730 W. Liberty Road Ann Arbor, MI 48103 Tel 800-821-5373 or 734-665-8201 Fax 734-665-2214				
TANK DATA	Reference (item/project):						
Quote Qty: 1 Tank Alignment Vertical Horizontal	ank Size (any two are required) Diameter: Straight Side: End to End: Volume (gal. or cu-ft.):	_ Cone Flat	Type of Bottom				
(wetted parts) Carbon Steel 304 Stainless 304L Stainless 316 Stainless	External Attachments Material (non-wetted parts) Carbon Steel 304 Stainless 316 Stainless		Thickness Per ASME Code Per Mfg. Standard Other Spec'd: Pe:				
316L Stainless Threaded NPT Connections	Flanged Nozzle Connection		°F Manway Access Openings				
(anywhere into tank) NPT Size Quantity 1/4" 1/2" 3/4" 1" 1-1/2" 2" 3"	(anywhere into tank) Flange Size Quantity 1" 1-1/2" 2" 3" 4" 6" 8"	Flange Size Q 10" 12" 14" 16" 18" 20" 24"	uantity Type Quantity 12" x 16" 20" w/ Blind 24" w/ Blind 20" Hinged w/ swing-bolts 24" Hinged w/ swing-bolts				
Exterior Surface Finish	as welded prime painted	d	namel paint other - (describe below)				
=	ed 304 Stainless le-Wall 304L Stainless 304L Stainless 316 Stainless 316L Stainless	Jacket Flanged Flange Size 1" 1-1/2" 2" 3"	Quantity NPT Size Quantity 1/2"				
Jacket Design Pressure: Jacket Design Temp:	PSI °F	ASME Jacket? Yes N	Jacket Insulation Support Rings? No Yes No				

Rosedale Filter Media Index

				Page
	Filter Performance Guide Use this chart to determine the filter performance you require.	Micron, Efficiency, Be	eta Rating Guide	146
		Rosedale Top	Economy	
	Standard Bags	Standard Felt	1-100 Micron	
TO B	High-capacity filter bags with ratings to 1 micron	Standard Mesh	50-800 Micron	
	are available in a wide range of sizes and materials	Standard OA	Oil Adsorbent	148
	for general use. Special-purpose bags for high- temperature service are also available.	Standard Teflon®	High	
	temperature service are also available.	Standard Nomex	Temperature	
		Polypropylene Top	1-110 Micron	
	High Flow Elements Designed specifically for use with our High Flow Housing Systems. Elements in 40-inch and 60-inch lengths.	1 to 18 Elements in Our High Flow Housings	Uo to 400 GPM Per Element	153
J.	Beta Bags Meets the more exacting requirements of fine process filtration and hydraulic and lubricating fluid filtration. Rated by the multi-pass method of filter performance evaluation, allowing direct comparison between Beta Bags and cartridges.	Excellent for Oil and Gas, Hydraulic and Lubrication Industries	8-47 Microns at 98.7 Efficiency	155
1	Graded Density Bags (Membrane Prefilters) Great dirt-carrying capacity is combined with fine filtration efficiency. Excellent prefilters in applica- tions previously requiring cartridges, cutting costs.	Graded Density	1-19 Microns	158
Ì	Series OE (Oil/Water Separation Cartridge) The OE cartridges can be used as stand-alone oil water separators, or to enhance or protect other systems.	Oil / Water Separation	Environmental Applications	159
	The OA Oil Removal Bag All Polypropylene Filter Bag is the perfect answer for removing trace oil and grease from an industrial stream of aqueous-based fluids.	ldeal as a Pre-Filter	Remove from 2 to 16 lb of Oil	161
Ī	Bag-Sized Pleated Cartridges Combines the advantages of bags with the best features of cartridges. Like bags, contaminant is trapped inside. Pleated construction packs more surface area in less cubic space.	Pleated Bag Sized	1-110 Microns	163
	Disposable Pleated Cartridges Easily installed in our housings, providing TEN TIMES the surface as standard filter bags.	Disposable Pleated Cartridges	Low Cost High Capacity Filtra- tion	167



R Beta Rating

Use this chart to determine the filter performance you require.

The Product Groups are listed on the left, Micron Sizes are in red, with corresponding Efficiency (blue), and Beta Rating along the top (green).

	EFFICIENCY % BETA RATING	PAGE NO.
PLATINUM 500	PS-520 PS-521 PS-523 PS-525 PS-527 PS-528 PS-529	163
PLATINUM 700	PS-740 PS-741 PS-743 PS-745 PS-747 PS-748 PS-749	163
PLATINUM 900	PS-940 PS-941 PS-943 PS-945 PS-947 PS-948 PS-949	165
PLEATED HI-E	PL-PEMF/POMF-1 PL-PEMF/POMF-3 PL-PEMF/POMF-8 PL-PEMF/POMF-19	176
PLEATED STANDARD	PL-PE/PO-35 (1 nom.) PL-PE/PO-48 (5 nom.) PL-PE/PO-55 (10 nom.) PL-PE/PO-70 (25 nom.) PL-PE/PO-90 (50 nom.)	160
ні-Е	PEMF/POMF-1 PEMF/POMF-3 PEMF/POMF-8 PEMF/POMF-19	176
STANDARD	PE/PO-1 PE/PO-5 PE/PO-10 PE/PO-25 PE/PO-50	149
GRADED DENSITY	GD-523 GD-525 GD-527 GD-529	152
ВЕТА	BB-1 BB-10 BB-12	149
GIARDIA	PS-520-PPP-241 GLR-825 PS-740-PPP-356	129

30 1.5	50 2	66	80 5	90 10	95 20	98 50	98.7 75	98. 75 80	99 100	99.8 500	99.9 1000	99.95 2000	99.98 5000	99.99 10000	ELEMENT AREA FT ²	FLOW RATE GPM*	DIRT HOLDING CAP. (lbs)
									0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		85	30	8 8 10 10 12
									0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		120	50	12 15 15 17 18 20 20
									0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		600	200	55 75 75 85 90 100 100
				1	1 3 8 19				2 5 19 25					10	25	35	1.5 3 5 6
					35 48 55 70 90										25	50 150	7.5 8 9 10 11
				1	1 3 8 19				2 5 19 25					10	4.4 SINGLE LAYER	20	0.2 0.25 0.35 0.75
10 40		20	30	30	35 48 55 70 90	40									4.4 SINGLE LAYER	50	0.6 0.7 0.8 0.9
					1 3 8 19				2 5 19 25		20	30		40	4.4 SINGLE LAYER	20	0.6 0.65 1.25 2
	1 10 12			3	4 16 37		8 20 47	10							4.4 SINGLE LAYER	20 50	0.15 0.35 0.6
												3			4.4 TWENTY SIX LAYER	10	0.5

*Per No. 2 size

^{**}Based on water and nominal flow rate

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

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.





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

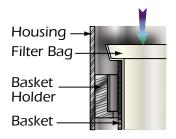
Construction	- Fibor		Available Micron Ratings																		
Construction	Fiber	1	2.5	5	10	20	25	30	40	50	75	100	150	200	250	300	400	600	800	1000	1500
	Polyester																				
Felts	Polypro- pylene																				
Multifilament Meshes	Polyester																				
Monofilament Meshes	Nylon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

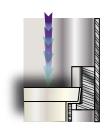
Size	Diameter (Inches)	Length (Inches)	Area Ft ²	Metal Ring Type	Available In Sizes	Molded Rosedale Type	Available In Sizes		
1	7.2	16	2.0						
2	7.2	32	4.5	Fits Housings Brands: Rosedale		Fits Housings Brands: Rosedale			
3	4.3	8	0.5	Krystil Strainrite Micron Technologies		Strainrite			
4	4.3	14	1.0			Micron Technologies			
5	6.1	20	2.8	Filtration Systems					
7	5.7	15	1.5	Parker "G" Style Eaton Filtration					
8	5.7	32	2.0	Others					
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 capatibility.

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 suppled 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%.





- 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.

MONOFILAMENT MESH is offered in nylon

and is a woven material. Each thread is a single

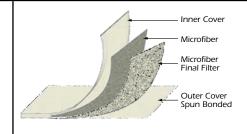
filament The openings are square,. They have

excellent strength and are considered to be

cleanable. Filter efficiency is 90% or more.



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 155.

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 161.

FILTER BAG HOLD-DOWNS

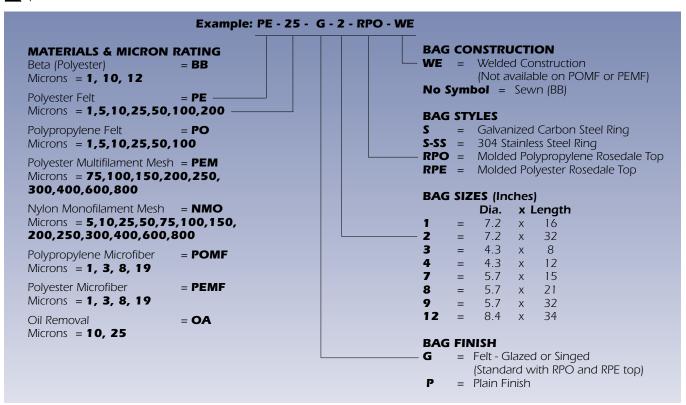
Adjustable filter bag hold-downs for Size #1 and #2 bags are available for side entry housings manufactured by:

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 203.

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



Rosedale High Flow Elements

Designed specifically for use with our High Flow Housing Systems

The housings are available in a variety of sizes to accommodate from 1 to 18 filter elements in 40-inch and 60-inch lengths.

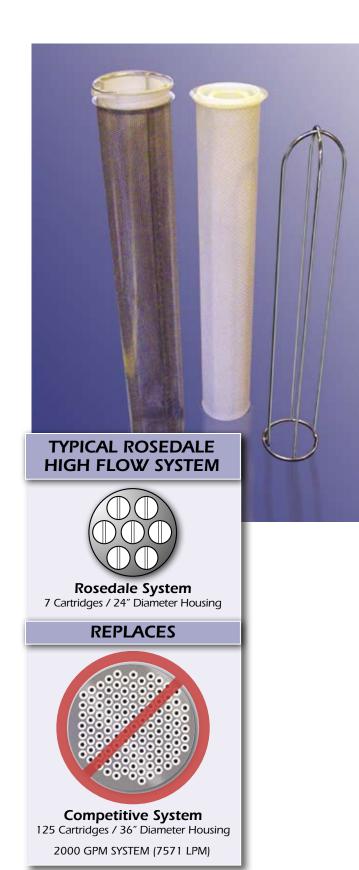
- Flow rates up to 400 gpm per element
- Removal Ratings (microns) 0.5, 1, 5, 10, 20, 40, 70 @ Beta 500 (99.8% efficiency)
- Maximum Operating Temperature 160 °F (71 °C)
- Maximum Differential Pressure
 50 psid @ 68°F (3.4 bar @ 20°C)
- Recommended Change-out
 Differential Pressure
 35 psid @ 68°F (2.4 bar @ 20°C)
- Bag restrainer expands bag fully during filtration.



The High Flow Housings

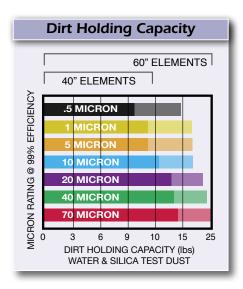
High Flow housings can accommodate from 1 to 18 filter elements. Larger housings are available upon request. The horizontal style maximizes ease of operation, while minimizing the system's footprint.

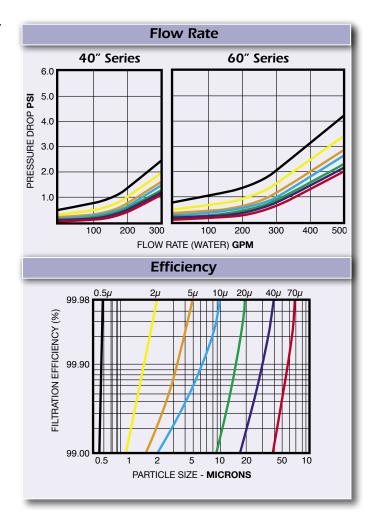
- Horizontal mounting configuration
- Hinged cover for easy element change-outs
- Standard pressure / temperature ratings to 300 psig and 250 °F
- Available in Carbon Steel, 304, or 316 Stainless Steel
- 40" and 60" element lengths
- ASME Code design



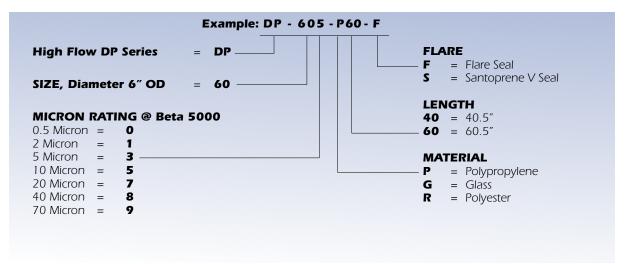
Rosedale High Flow Filtration Systems

- Flow rates up to 400 gpm per element
- Absolute-rated for consistent product quality
- Operator-friendly cartridge and housing system
- Horizontal mounting configuration





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



Rosedale Beta Bag[®] Filters

Filter bags for fine filtration requirements

After years of supplying filter bag products to the process industries, Rosedale has developed a new filter bag that meets even more exacting requirements, extending their use to finer process filtration and to hydraulic and lubricating fluid filtration. Rosedale Beta Bag® filter bags are made of a unique multilayer polyester felt, encased in spunbonded nylon to prevent possible migration of bag material into the fluid stream. They're rated by the multi-pass method of filter performance evaluation, so that direct comparison can be made between Beta Bag® filters and cartridges of rigid construction using cellulose or synthetic elements, pleated or non-pleated. They compare very well:

- Because disposable Rosedale Beta Bags® are fitted into and supported by perforated-metal baskets, you need not be concerned with filter collapse, flow fatigue, or filter end-load problems.
- Beta Bags® can be installed and removed from their housings in a fraction of the time required to service rigid cellulose or synthetic element cartridge filters.
- Beta Bags[®] cost less than cylindrical filter cartridges, and they fold flat for more compact storage.
- Polyester/nylon bag materials are more resistant to the chemical additives in today's hydraulic and lubricant fluids (especially the high water base fluids), as well as the chemicals in Table IV.
- Prevention of possible media migration is assured by the spun nylon cover.

EXCELLENT FOR USE IN THE PROCESS, OIL AND GAS, HYDRAULIC AND LUBRICATION INDUSTRIES



The Multi-Pass Test Method For Evaluating Filter Element Performance

(OSU-F2, ISO 4572, ANSI B93.31-1973, NFPA T3.10.8.8-1973)

In this test procedure ACFTD (AC Fine Test Dust) is put into a reservoir ahead of a test filter. The test dust is comprised of many particle sizes (see Table II).

During the test, the flow rate through the filter is held constant, and test dust is added continuously. Contaminant not stopped by the filter is recirculated (hence the term "multi-pass").

At predetermined pressure drops across the filter, fluid samples are taken upstream and downstream of the filter. Using automatic particle counters (per ANSI B93.28-1973), the samples are analyzed for the number of particles per milliliter greater than a selected size. These counts are used to calculate "Beta ratios". A Beta ratio is an accurate indication of how the filter performs throughout the life of the filter. The Beta ratio is an average filtration rating.

A typical Beta ratio is expressed as B (Beta) 10 (particle size) = 16 (ratio), or B_{10} = 16 to 1 reduction of dirt at selected micron rating. Table I gives the Beta ratios for the three Beta Bag® micron-rated bag materials.

Table I

Rosedale Beta Bag® Beta Ratios

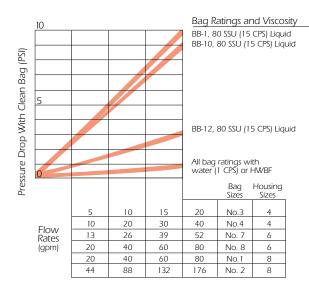
Multi-pass tests are at 20 gpm flow, with terminal pressure drop of 15 psi. Standard sewn bags were tested, in standard housings.

Beta Bag [®] Micron Rating (nominal)	Mean ACFTD retention size Equals 50% filter efficiency (nominal rating)	Effective ACFTD retention size Equals 95% filter efficiency	Maximum ACFTD retention size Equals 98.7% filter efficiency (absolute rating)
BB-1	B ₁ = 2	$B_4 = 20$	B ₈ = 75
	(1um nominal)	(4 um)	(8 um absolute)
BB-10	$B_{10} = 2$	$B_{16} = 20$	$B_{20} = 75$
	(10 um nominal)	(16 um)	(20 um absolute)
BB-12	$B_{12} = 2$	$B_{37} = 20$	$B_{47} = 75$
	(12 um nominal)	(37 um)	(47 um absolute)

Table II

ACFTD Composition

Range of Particle sizes (micrometers)	Distribution by weight (percent)
0-5	39
5-10	18
10-20	16
20-40	18
40-80	9



Selecting A Rosedale Beta Bag®

- 1. Determine the micron rating needed. For hydraulic fluids, the BB-1-rated bags should be considered for high-pressure circuits, the BB-10 for common service, and the BB-12 for low-pressure service. For process liquids, the BB-1 rated bags are recommended for use as pre-filters for membrane filters. Automotive clear coatings are being successfully filtered with BB-10 and BB-12 rated bags.
- 2. The Pressure Drop Versus Flow Chart shows specific flow rates achieved through various sizes of Beta Bags® using 32 (water) and 80 SSU viscosity liquids. Pressure drops can be read directly for these viscosity levels.
- 3. If your liquid viscosity level is higher than 80 SSU, you can use a correction factor to determine what your pressure drop will actually be.
- 4. Using Table III find your actual SSU level and multiply the pressure drop of interest to you by the correction factor shown. You can interpolate easily since the relationship is linear. For example, a viscosity of 280 SSU would have a correction factor of 3.5.
- 5. Example: A clean BB-1 rated No. 8 size Beta Bag® at 20 gpm will impose a pressure drop of 2.7 psi (with 80 SSU liquid). For use with 320 SSU oil, the pressure drop will be 2.7 times 4 (the correction factor), or 10.8 psi.

Table III

Viso	cosity	Correction
SSU	CPS	Factor
80	15	1
160	35	2
240	55	3
320	70	4
400	90	5

Table IV

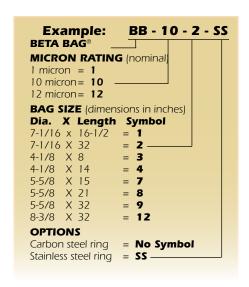
Compatibility With

Bag Materials (Fiber)	Organic Solvents	Animal Vegetable & Petro Oils	Micro- organisms	Alkalies	Organic Acids	Oxidizing Agents	Mineral Acids	Temperature Limitations (max. deg F)
Polyester	Excellent	Excellent	Excellent	Good	Good	Good	Good	325
Nylon	Excellent	Excellent	Excellent	Good	Fair	Poor	Poor	325



How To Order

Build an ordering code as shown in this example



Design Details

All Beta Bags® have a metal retaining ring sewn in their openings. Standard ring material is carbon steel, with a 316 stainless steel optional. They hold the bag in place and prevent fluid bypassing the element.

Heavy-duty handles, sewn to the reinforced bag lip, are a standard feature. They make bag removal faster and easier.



Graded Density

Depth filtration for enhanced clarity-For filtration to 1.0 micron

Rosedale's Graded Density (GD) Fat Bags® bags have approximately four times the dirt holding capacity of standard bags at equivalent filtration levels. These bags have 9 layers of material, each with 4.4 sq. ft. of surface area. GD bags are easier to install and remove, require less room in storage and disposal, and prevent the contaminant wash off downstream associated with cartridges.

They produce excellent results when used as a pre-filter for membrane filtration. They will retain a large quantity of contaminant that will unnecessarily clog the membrane. The bags are available in either all polyester or all polypropylene construction. **Polyester should be used** where oil adsorption is not desirable or where higher temperatures are required.

Filtration Level

These bags have been tested by an independent laboratory to determine the filtration efficiency of the media used in each of the filter bags. The efficiencies for polyester and polypropylene are identical.

Model Number	523	525	527	529
EFFICIENCY		MICRON	RATING	
95.0%	1.0	3.0	8.0	19.0
99.0%	2.0	5.0	19.0	25.0

The test was conducted using AC Fine Test Dirt interfaced into clean water at 20 GPM.

Dirt Carrying Capacity

Tests that were conducted using a size 2 bag and AC fine test dirt at 20 GPM, show dirt holding capacities for the following filtration ratings (at 20 psi).

Micron Rating (95%)	Model	Dirt Holding Capacity (in grams)
1.0	523	267
3.0	525	296
8.0	527	573
19.00	529	870

Pressure drop at 50 gpm flow (water) and specified micron rating using a Rosedale Model 8 (8-30) filter.

Design Details

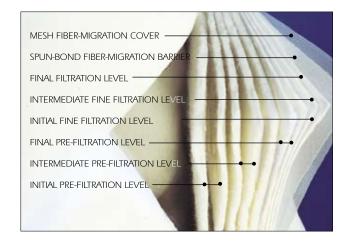
Graded Density Bags have a 304



stainless steel retaining ring sewn in their opening. Heavy-duty handles, sewn to the reinforced bag lip, are a standard feature. They make bag removal faster and easier.

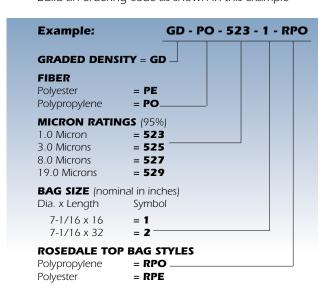
The bags are sewn, then turned inside out to avoid leakage through the threads. They are also made with sewn, fully-shaped bottoms to enhance the pressure capacities of the bags.

There are two sizes available. Size 1 is 7 inches by 16 inches. Size 2 is 7 inches by 32 inches.



How To Order

Build an ordering code as shown in this example



Series OE Oil/Water Separation Cartridge

Oil Eliminator cartridges utilize media that can economically reduce hydrocarbon contamination in aqueous solutions. Our radial flow designs provide the largest possible surface area, reducing the media bed depth. The OE Series is capable of removing very high concentrations of free oil, dispersed oil, as well as surfactant based emulsions, and dissolved hydrocarbons to non-detectable levels.

These cartridges can be used as stand-alone oil water separators, or to enhance or protect other systems.

3 Styles

The Oil Eliminator OE™

Our top performing OE cartridge capable of breaking the IMO 107 (49) surfactant based emulsion in a single pass. The special patented non swelling organic clay allows the cartridge to be filled with 100% active oil absorbing media, providing greater oil holding capacity.

The ECO™

The ECO is our GREEN cartridge, made using a uniquely processed post consumer recycled media. The ECO has the ability to remove soluble oils from water in a single pass. It can be used alone or following our standard Oil Eliminator™ cartridge to bring the effluent down to non-detect levels. US patent pending No. 13/051,872

The Oil Eliminator NF™

The OENF cartridge uses a combination of adsorbing media and nano-technology to remove high concentrations of free and oil emulsions. This high area, pleated cartridges can provide particle removal of 0.2 u @ 99.9% efficiency. The OENF's adsorptive characteristics remove negatively charged particles such as bacteria, organic contaminates, heavy metals such as copper, iron, lead, and tin. US patent pending No. 12/582.684



Specifications

Materials of Construction:

Materials of Construction.
Absorbent: Polypropylene & Proprietary Medias Support Construction: 100% Polypropylene
Seal Material: Buna-N
Maximum Recommended Operating Conditions: Temperature:
Maximum Flow Rate: Series 250: 1 gpm per 10" Series 450: 5 gpm per 10" Series 650: 20 gpm (recommended flow < 50% of max.)
Change Out Pressure Drop:35 psid (2.4 bar)
Approximate Oil Capacity Removal (10" Length):
OE 250
OE 450
OF 650

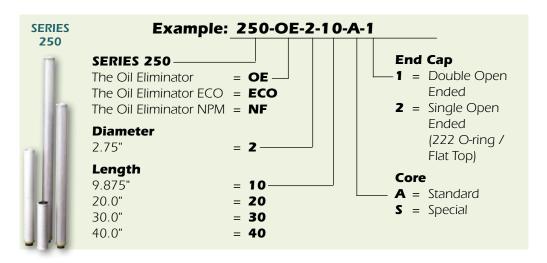
Build an ordering code as shown in the example

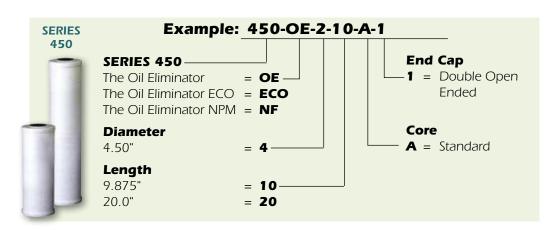
Features

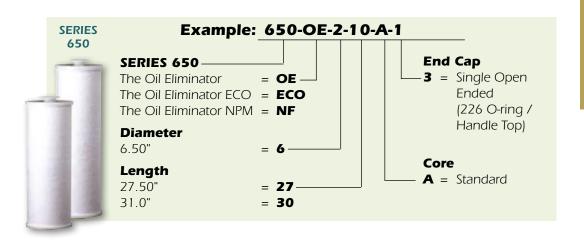
- Meet governmental regulations
- Reduced maintenance due to fouling
- Can be incinerated
- Minimal pressure drop
- Withstands harsh environments
- Industry standard sizes and end caps
- Operating temperature to 65°C
- Withstands high Dp up to 5 bar
- Typically removes better than 99% in a single pass

Applications

- Commercial bilge and ballast water
- Post oil/water separator polishing
- Oil field produced water
- Pipeline maintenance activities
- Hydraulic tramp oil removal
- Parts washing and plating baths
- Compressor condensates
- Boiler blow down
- Membrane pretreatment
- GAC pretreatment
- Pump sump discharge







The OA All Polypropylene Oil Removal Filter Bag

The perfect answer for removing trace oil and grease from an industrial stream of aqueous-based fluids

Bag can be designed to remove from 2 to 161b. of oil by increasing layers or adding strips which add to the surface area and increase efficiency, structural strength, and filter life.

OA Bags are designed with a cover for the prevention of fiber migration and include reinforced lift handles to facilitate its removal, If waste storage is a problem, the OA Bag can be completely disposed of by Incineration.

The Ideal oil removal system is the OA bag as a pre-filter and a high-efficiency bag as the final polish filter.

Features

- Micron rated and able to remove oil from aqueous based fluids.
- Standard with reinforced handles for easy removal.
- Maximum oil absorption with minimum pressure drop.



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



PL Series Bag-Sized Cartridges

Absolute-rated units provide up to 12 times more dirt-holding capacity

Rosedale has combined the best features of filter bags and cartridges into one single unit. Like bags, these bag-sized pleated cartridges are easy to handle and trap contaminant inside, preventing "WASH OFF" when removing spent or dirty cartridges. Like cartridge elements, they provide larger surface areas and greater dirt-holding capacities than standard bags. They are the ideal solution when frequent servicing of filters is a problem.

Construction

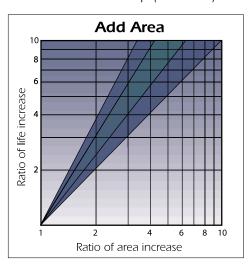
Rosedale bag-sized pleated cartridges are unique. Twenty-five* square feet of high efficiency material is sandwiched between two flow-enhancing, coarse-mesh screens, and then pleated in a supported construction. This supported pleat construction ensures flow cannot be pinched off. It also greatly strengthens the overall integrity of the element. The seams in these units are ultrasonically welded, not sewn, to prevent leakage or contamination bypass. The top sealing ring and cartridge bottom, made of solid molded polypropylene, are sonically welded to the pleated cylinder.

Features

- Eleven micron retention ratings from 1 to 110 at 95% efficiency, are available
- Three different top sealing ring designs one to fit your needs
- Available in standard bag sizes 1 and 2, to fit housings 8-15 and 8-30
- Low pressure drop



R1 Design - Flared RPO Rosedale Top (standard)



^{*}For Size 2 cartridge, Size 1 cartridge has 13 square feet of material.



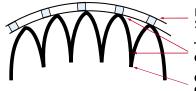
Supported Medium Means No Breakthrough

A. Section of Supported Filter Element



Filter Element
Support Core
Downstream Support
Medium
Upstream Support

B. Unsupported Element Section

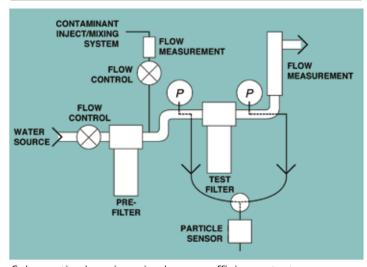


Filter Element Support Core

Typical Location
Of Fatigue Failures

Compressed Pleats Caused By High ΔP

Cyclic flow, cyclic pressures, and increasing ΔP as the element loads with dirt cause unsupported medium to crack through and become a "non-filter."



Schematic showing single-pass efficiency test

Materials

These elements use our unique high-efficiency microfiber material. Polyester or polypropylene microfibers and standard fibers are variably calendered to produce a single layer of our high-efficiency microfiber felt. This unique construction provides filtration to 1 micron at 95% efficiency. A real rating for the real world, consistently giving the same level or performance from batch to batch.

Greater Capacity Means Longer Life

FILTRATION LEVEL

These elements have been tested using the Single-Pass Efficiency Test (see diagram) using water and AC Fine Test Dust. Water is passed through an initial pre-filter (at 0.45 µ), after which contaminant is injected into the water line. An automatic particle counter analyzes the number of particles per milliliter greater than a selected size, before the water enters the filter. The water then passes through the test filter, and the effluent is analyzed for the number of those same-size particles. The number of particles removed provides the efficiency rating. For example, if after the single pass, 95 percent of the particles are removed, then the filter is 95 percent efficient at the specified micron rating.

FILTRATION EFFICIENCY

Using the single pass efficiency test, we've determined the following efficiency ratings for our pleated cartridges. Real ratings are consistently accurate and reliable, time and time again.

MICROFIBER GRADES

Model Number	PL-PEMF-1.0 PL-POMF-1.0	PL-PEMF-3.0 PL-POMF-3.0		PL-PEMF-19.0 PL-POMF-19.0			
EFFICIENCY	MICRON RATING						
95%	1	3.0	8.0	19.0			
99%	2	5.0	19.0	25.0			

RECOMMENDED MAXIMUM FLOW RATE (GPM / ELEMENT) AT 1.0 PSID

	Model Number					
Element	PL-PEMF 1-19	PL-PE 35-110	Viscosity			
Size	PL-POMF 1-19	PL-PO 35-110				
P1	50 GPM	75 GPM	1 CST			
P2	100 GPM	150 GPM	1 CST			

STANDARD FIBER GRADES

Model Number			PL-PE-55.0 PL-PO-55.0		PL-PE-70.0 PL-PO-70.0		PL-PE-110.0 PL-PO-110.0		
EFFICIENCY	MICRON RATING								
95%	35.0	48.0	55.0	65.0	70.0	90.0	110.0		

If fluids with viscosities greater than 1 CST are used, divide the flow by the correction factor obtained below.

If your viscosity is not listed, choose the next highest viscosity from the chart and use that correction factor.

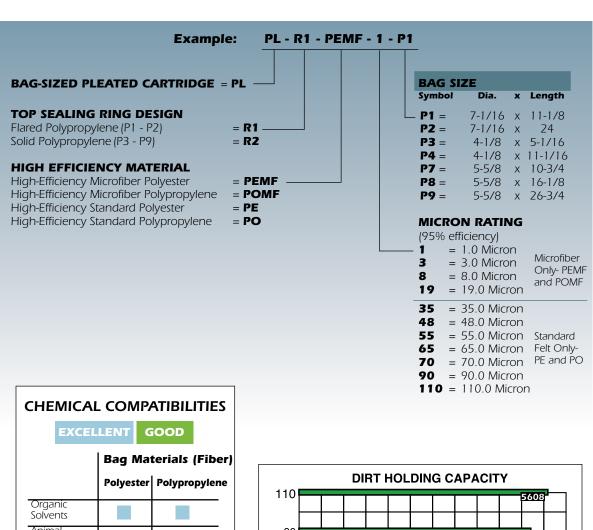
Fluid V	iscosity	Correction
SSU	CPS	Factor
80 160 240 320 400 480 560 640 720 800	15 35 55 70 90 110 130 150 180 260	1.2 2 3 4 5 6 7 8 9

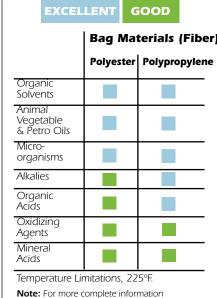
For example, to filter a fluid having a viscosity of 55 cps using a PL-PEMF P2 element the equation is as follows:

Corrected Flow Rate =
$$\frac{\text{Max Flow Rate}}{\text{Correction}}$$
 = $\frac{100}{3}$ = 33 GPM Factor



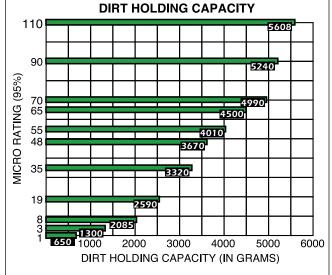
Build an ordering code as shown in the example





on chemical compatibilities, refer to

our web site



Low-Cost, High-Capacity Disposable Bag-Sized Pleated Cartridges

For Models 8, LCO, NCO, and Multi-Bag Filters

These new elements from Rosedale are easily installed in our standard housings. The PLRICU cellulose filter provides 10 TIMES the surface area of standard filter bags, and the PLRIPF polyester felt provides 6 TIMES the area. Also available; a pleated element insert and a self contained cartridge/basket combination. These low cost dirt gluttons provide superb capacity with filtration performance as high as 99% efficiency.

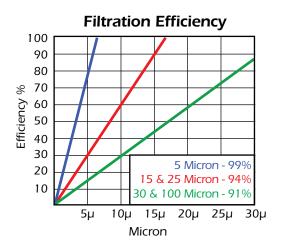
Features

- Available with or without metal cage
- Seals in a standard strainer basket
- Over 50 square feet of surface area
- Beta 100 (99%) Retention Levels
- Longer Element Life provides improved system efficiency

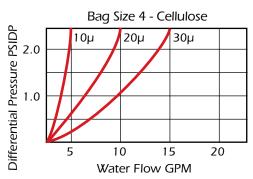
Benefits

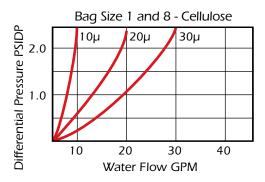
- Fewer Change-outs required
- Less Downtime
- Improved quality due to improved retention ratings
- Lower Maintenance and Labor Costs
- Reduced Operator Exposure
- Recyclable with no metal (optional)

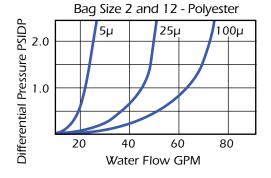




Flow Rate vs. △ P

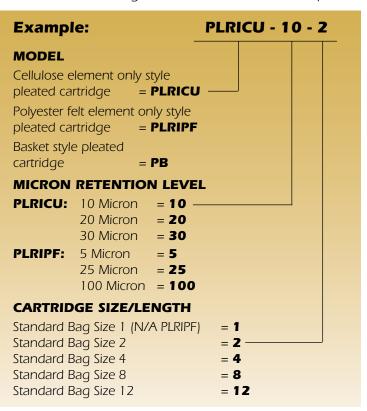








Build an ordering code as shown in the example



Platinum Series ABSOLUTE-RATED Bag-Sized Cartridges

Maximum dirt-holding capacity

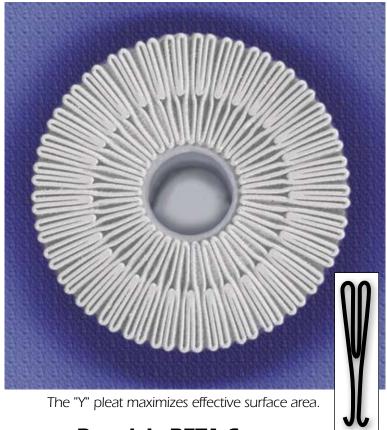
These absolute-rated filter cartridges offer maximum dirt holding capacity coupled with micron retention ratings to 0.5 at 99.98% efficiency.

These elements are manufactured in a unique "Y" pleat arrangement that optimizes its physical size and maximizes effective surface area. A low fluid flux rate maximizes dirt containment. This means element life is extended and productivity is increased, resulting in fewer cartridge change-outs, less labor, and lower replacement costs.

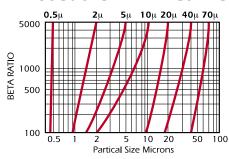
Design Details

This design uses only the highest quality materials and most advanced manufacturing processes. The end caps are heat sealed for high efficiency performance. The o-ring seal insures sealing and eliminates bypass.





Rosedale BETA Curves



The Beta Ratio (ß) at a given particle size can be correlated to the filter efficiency at that particle size according to the following formula:

Filter Efficiency (%) = $[(b-1)/b] \times 100\%$

 Beta Ratio (ß)
 100
 1000
 5000

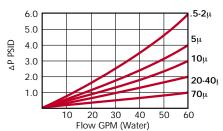
 Filter Efficiency (%)
 99.00
 99.90
 99.98

Each filter element will have a different Beta Ratio for every specified particle size. The determination of a variety of Beta values for the same filter provides a filter efficiency profile commonly referred to as a Beta Curve.

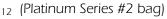
R Platinum 500

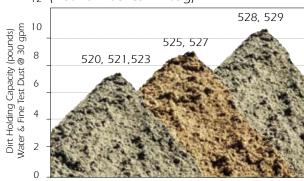
- 68 sq. ft. of surface area maximum
- 12 lbs. (approx.) of dirt carrying capacity
- Rated 0.5 micron to 70 micron @ \$5000 or 99.98% efficiency
- Flow rates to 50 gpm.
- 6.25-inch diameter and 24-inch length
- Fits into Rosedale Model 8-30, Multiple-bag housings, Polypropylene, and Multi-cartridge housings

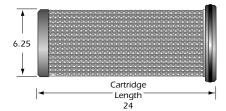
Flow Rate Vs. ΔP



Dirt Holding Capacity



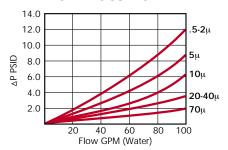




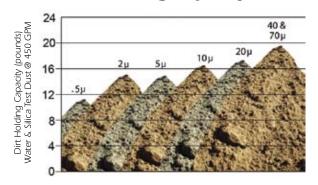
Platinum 700

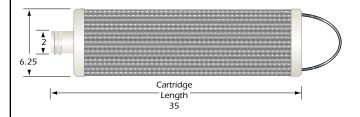
- 100 sq. ft. of surface area maximum
- 20 lbs. (approx.) of dirt carrying capacity
- Rated 0.5 micron to 70 micron @ ß5000 or 99.98% efficiency
- Flow rates to 100 gpm.
- 6.25-inch diameter and 35-inch length
- Fits into Rosedale Model 8135, Polypropylene, and Multi-cartridge housings

Flow Rate Vs. ΔP



Dirt Holding Capacity

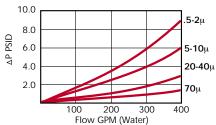




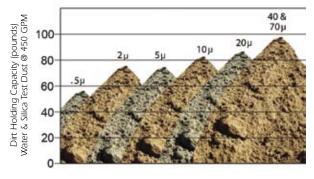
See Platinum Filter Housings on page 67

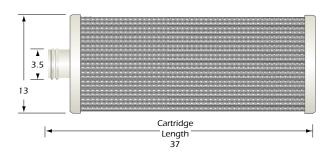
- 400 sq. ft. of surface area maximum
- 100 lbs. (approx.) of dirt carrying capacity
- Rated 0.5 micron to 70 micron @ \$5000 or 99.98% efficiency
- Flow rates to 800 gpm
- 13-inch diameter and 40-inch length
- Rosedale housings can hold multiple cartridge elements

Flow Rate Vs. ΔP



Dirt Holding Capacity

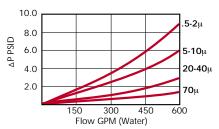




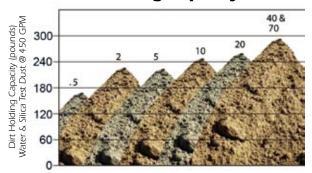
Platinum 2040

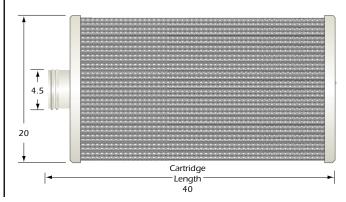
- 1150 sq. ft. of surface area maximum
- 250 lbs. (approx.) of dirt carrying capacity
- Rated 0.5 micron to 70 micron @ \$5000 or 99.98% efficiency
- Flow rates to 800 gpm
- 20-inch diameter and 40-inch length
- Rosedale housings can hold 1 element

Flow Rate Vs. ΔP

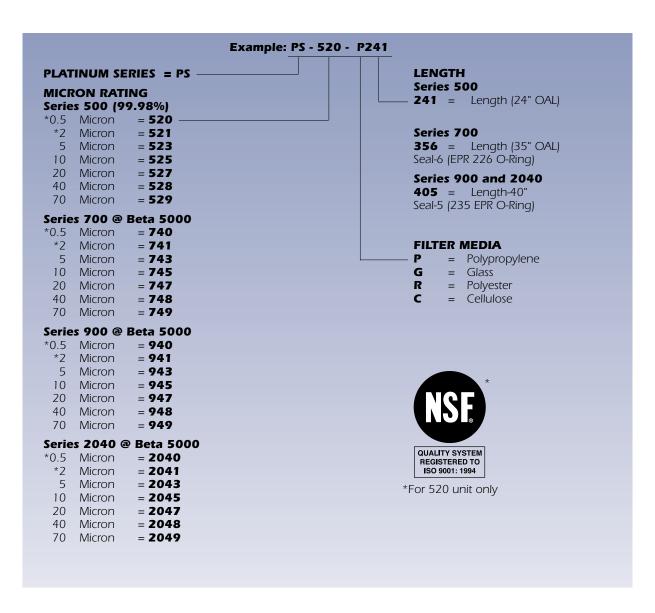


Dirt Holding Capacity





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



*0.5 and 2.0 micron ratings are not available in polyester or cellulose.

Use with Model 8 or Multi-Baq Housings

Stainless Steel Filter Cartridges

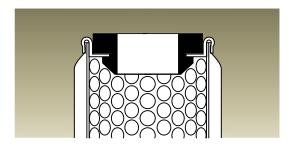
Overcome the temperature and compatibility limitations of fabric or synthetic fiber cartridges by replacing them with these stainless steel wire cloth elements. They're good up to 500°F instead of the usual 250°F, and they are unaffected by most caustic fluids.

Made entirely of 304 or 316 stainless steel, they are cleanable and reusable, and can withstand differential pressures up to 60 psi. (500 psid units are also available.) You can choose particle retention ratings as fine as 5 microns. (For nomograph see page 176).

Element surfaces can be plain cylindrical, or pleated to increase surface area. Pleated units rated 100 microns or finer have an underlying support layer of coarser mesh to prevent pleat collapse. Fabrication is by welding and crimping; no silver

brazing or epoxy bonding is used.

A "bubble pointing" test can be done to certify that no openings larger than the specified pore size exist in product joints or seams. Ask for more information

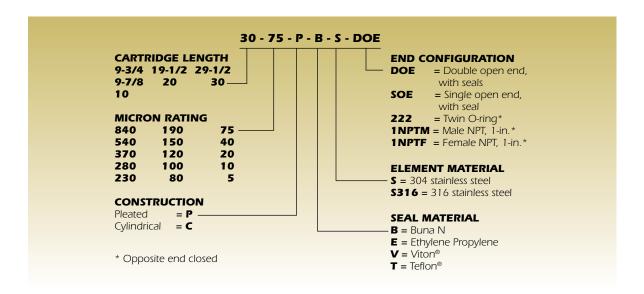


Rosedale seals are specially shaped to hold in place mechanically, like a grommet. There's little chance they will be dislodged and lost in handling. They are made in different thicknesses to provide seven different standard overall element lengths.

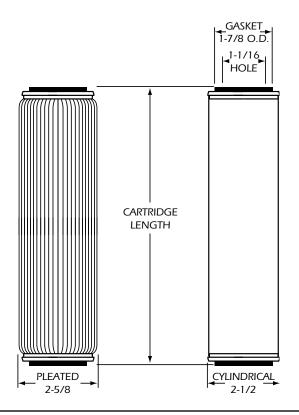


How To Order

Build an ordering code as shown in this example



Dimensions (IN)





Pleat Protectors

Pleat protectors prevent accidental denting of pleat forms that reduce filter area. Made of stainless steel with 1/4-in. dia. perforations, they are held in place by bending tabs at the top and bottom. When ordering give nominal length (10, 20, or 30 inches) and material (304 or 316 stainless steel).

Rosedale's Absolute Pleated Cartridges

High efficiency cartridges— Long service life

Rosedale filter cartridges provide efficient solids removal in liquid systems where series filtration is not required. Absolute Ratings range from 0.5 to 70 microns.

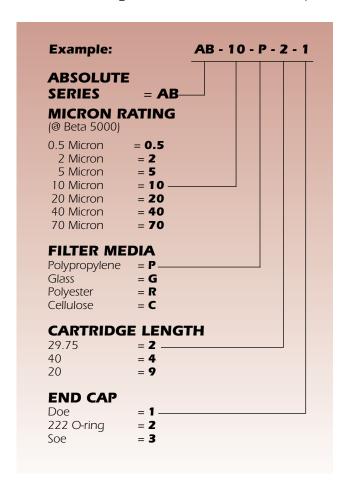
Each cartridge has pleated, fixed pore media to maximize surface area, prevent particle unloading, and fiber migration. Media selections include cellulose, fiberglass, polyester, and polypropylene.

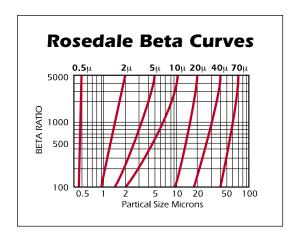
The wide variety of media, filter sizes, and end cap configurations provide customers with the preferred cartridge for their specific application.

Superior construction materials and quality control techniques ensure that our filter cartridges will provide quality filtration, even in harsh operating conditions.



Build an ordering code as shown in the example





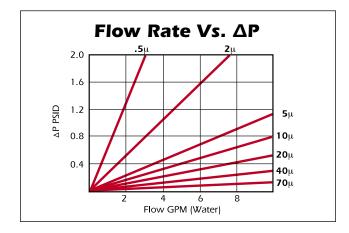
The Beta Ratio (ß) at a given particle size can be correlated to the filter efficiency at that particle size according to the following formula:

 Filter Efficiency (%) = [(b-1)/b] x 100%

 Beta Ratio (ß)
 100
 1000
 5000

 Filter Efficiency (%)
 99.00
 99.90
 99.98

Each filter element will have a different Beta Ratio for every specified particle size. The determination of a variety of Beta values for the same filter provides a filter efficiency profile commonly referred to as a Beta Curve



Flow rate is per single 10-inch element. For other liquid's, multiply the ΔP by the fluid's viscosity in centipoise. For longer cartridges, divide the ΔP by the number of 10-inch equivalents.

Wound Cartridge Elements

All-purpose elements have high dirt-holding capacity

Rosedale continuous-wound cartridge elements come in a wide range of materials, lengths, and micron retention ratings. A highly innovative single-core design is used, eliminating the "joints" common in other manufacturers' elements at 10" intervals. Materials of these elements include cotton, nylon, glass, and polypropylene. Their lengths range form 9-3/4 inches to 40 inches, fitting most cartridge housings in the field. Micron retention ratings are from 200 down to 0.5 microns. These elements offer true depth filtration, higher efficiency, lower pressure drop, and greater solids holding capacity than standard elements and competitive prices.

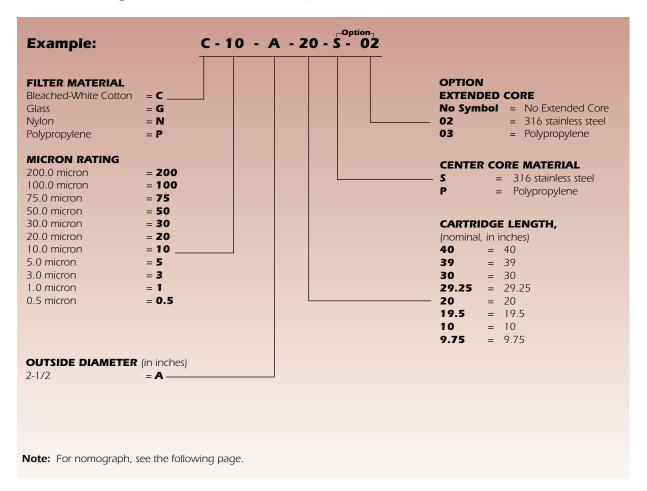
A full range of center core materials are offered to meet specific filtration requirements. Extended core materials are also available upon request.

The center core covering, for reducing fiber migration, is compatible with and equivalent in ratings to the micron rating of the filter element. The inside diameter of all cartridges is 1 inch and the outside diameter is 2-1/2 inches.



How To Order

Build an ordering code as shown in this example



Pressure Drop vs. Flow Rate

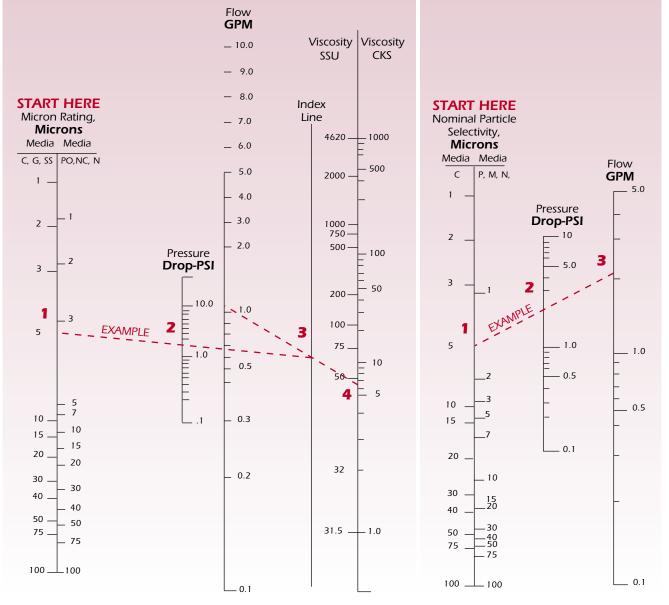
Non-Aqueous Liquid V Instructions:

- 1. Draw a line from the desired micron rating 1 through specified pressure drop 2, and extend to index line 3.
- 2. From viscosity **4**, draw a line through the previous intersection on the index line, continuing to intersect flow line. This is flow for one 10" element.

Water at 68°

Instructions:

This is a direct reading. Connect the particle size 1, with either pressure drop 2, or flow 3, to find the third quantity.



Media	PO	С	NC	N	G	SS
Symbols	Polypropylene	Bleached cotton	Natural cotton	Nylon	Fiber gins	Stainless steel

X-TEND Filter Bags Offer Additional Surface Area for Increased Filtration Efficiency

Sonically Welded Seams and Integral Plastic Collar Further Increase Efficiency

Rosedale offers the new X-TEND filter bag as a balance between increased efficiency and capacity versus cost. It offers about twice the surface area of a standard bag. The integral hard plastic collar makes installation and disposal easier, as there is no metal to worry about. These bags do require the use of a special cone basket. It supports the inner layer, ensuring the full surface area is utilized, maintaining optimum filtration.

As an added feature, all seams and the collar are sonically welded, greatly enhancing filtration quality, reducing or eliminating leaks and bypass that may have occurred with sewn seams. The X-TEND bag is about twice the length of a standard bag, and you simply tuck the bottom of the bag back up into the main cylinder of the element. When the bottom of the bag reaches the neck of the collar, the bag should now be the size of a standard bag, and fit most housings.





Filtration Level

These bags have been tested by an independent laboratory to determine the filtration efficiency of the media used in each of the filter bags. The efficiencies for polyester and polypropylene are identical.

Efficiency	Micron Rating										
95%	1	3	8	19	35	48	55	65	70	90	110

Design Details

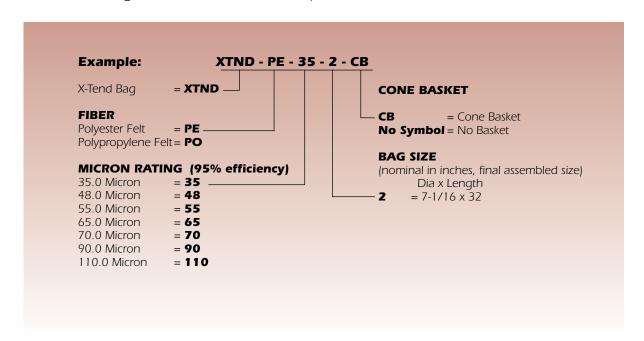
These bags have a plastic collar sonically welded into their opening. This collar has integral handles as a standard feature. They make removal faster and easier.

The standard felt finish is glazed. The micro fiber bags are sonically welded, then turned inside out, increasing the protection against leakage through the seam.

These bags are available in standard bag sizes.



Build an ordering code as shown in the example



Rosedale High Efficiency Filter Bags

Our HI-E series of bag filters meets the most stringent needs for fine process, hydraulic fluid, and lubricant filtration. All are made of unique microfiber materials, designed to increase the efficiency and dirt-holding capacities of these bags.

Microfiber Material Construction

Polyester or polypropylene microfibers and standard fibers are variably calendered to produce a single layer of microfiber material. Our unique construction can provide filtration to a 1 micron rating. Polyester microfiber material should be used where oil adsorption is not desirable or where higher temperatures are required.

Filtration Level

These bags have been tested by an independent laboratory to determine the filtration efficiency and dirt holding capabilities for each. They have been manufactured so that the efficiencies for both polyester and polypropylene are identical. See Filtration Efficiency Chart below

HI-E Series Filter Bags Using Microfiber Construction



PEMF/POMF BAGS:
High Efficiency
Filtration using a single layer of microfiber material. Excellent for general polishing applications with low dirt load.



GRADED DENSITY BAGS: High Efficiency Filtration with multiple layers of microfiber material and pre-filtration layers. Has 4 times the dirt holding capacity of the PEMF/POMF series bags.



BAG-SIZE PLEATED CARTRIDGES:
High Efficiency Filtration with 12 times the dirt holding capacity and microfiber material supported by flowenhancing mesh.
The extra surface area greatly increases the dirt holding capacity.

Filtration Efficiency

Model Number	PEMF 1	PEMF 3	PEMF 8	PEMF 19			
	POMF 1	POMF 3	POMF 8	POMF 19			
	523	525	527	529			
	PL PEMF 1	PL PEMF 3	PL PEMF 8	PL PEMF 19			
	PL POMF 1	PL POMF 3	PL POMF 8	PL POMF 19			
EFFICIENCY	MICRON RATING						
95%	1.0	3.0	8.0	19.0			
99%		5.0	19.0	25.0			

This test was conducted using AC Fine Test dirt interfaced into water at 10 GPM, Single-Pass.

PEMF/POMF Series

The microfiber bag is encased in spun-bonded material inside and out to prevent bag material migration into the fluid stream. Heavyduty handles for ease in removal are a standard feature. The fully shaped bottoms enhance the pressure capacities of



these bags. THE PEMF/POMF SERIES HAS 4.4 SQ. FT. OF SURFACE AREA.

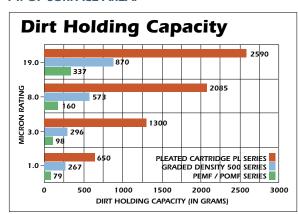
Bag-Sized Pleated Cartridges

With the PL Series pleated cartridges, we've combined the best features of bags and cartridges into one. It has the advantages of a bag; low in cost, easy to



handle, and contaminant is trapped inside, but with the greater surface area and dirt-loading capabilities of pleated cartridges. The seams in these filter elements are ultrasonically welded, eliminating the problems associated with sewn seams. The microfiber material

is sandwiched between two flow-enhancing polypropylene mesh screens, then pleated. The cartridge bottom and top sealing ring are made of solid molded polypropylene and are welded to the ends of the pleated cylinder without the use of adhesive. The sealing ring is a pliable gasket, increasing the efficiency and integrity of the seal. THE PL SERIES HAS 25 SO. FT. OF SURFACE AREA.



500 Series, Graded Density Bags

The 500 Series FAT BAGS® have approximately four times the dirt-holding capacity of our PEMF/POMF series bags at equivalent filtrtion levels. You can now



use bags, where performance levels previously required cartridges. These Graded Density Bags are made of multiple layers of microfibers and standard fibers variably calendered, providing filtration to

1 micron. Heavy-duty handles for ease in removal are a standard feature. The fully shaped bottoms enhance the pressure capacities of the bag. THE 500 SERIES HAS 9 LAYERS OF MICROFIBER MATERIAL, EACH WITH 4.4 SQ. FT. OF SURFACE AREA.

Chemical Compatibilities

EXCELLENT	GOOD	FAIR	POOR
	Ba Nylon	g Materia Polyester	al (Fiber) Polypropylene
Organic Solvents			
Animal /Vegetable and Petro Oils			
Microorganisms			
Alkalies			
Organic Acids			
Oxidizing Agents			
Mineral Acids			

Temperature Limitations, 325°F for Nylon and Polyester, 225°F for Polypropylene. Note: For more complete information on chemical compatibilities, refer to pages 238 through 250.

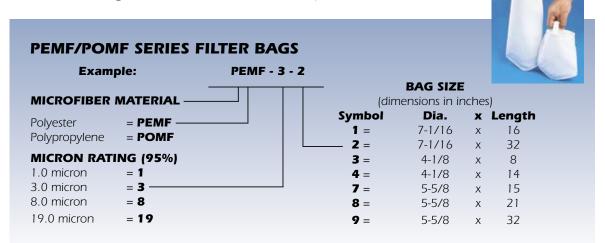
Pressure Drop

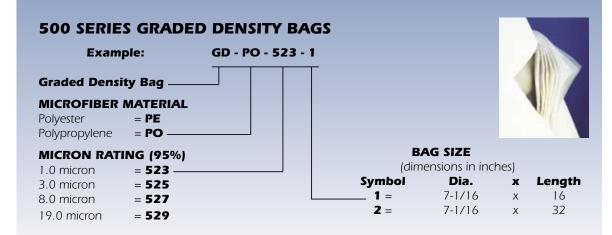
Total pressure drop is the sum of the filter housing pressure drop plus the pressure drop through the bag, and is a function of viscosity as well as flow rate.

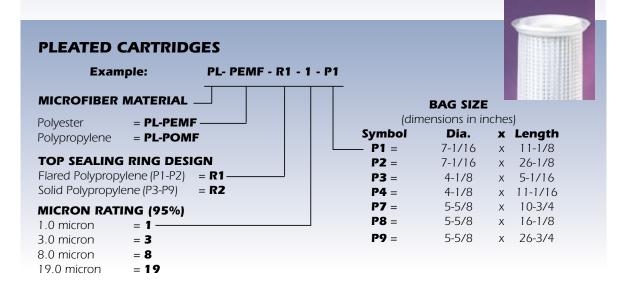
Using water as the test media, the pressure drop for these high-efficiency bags is less than 0.5 psi.

Little or no pressure drop across the filter element at rated flow yields maximum dirt holding capacity (element life). Increases in the pressure drop are then due solely to the particulate accumulation.

Build an ordering code as shown in these examples







Rosedale Water Service Membrane Cartridges

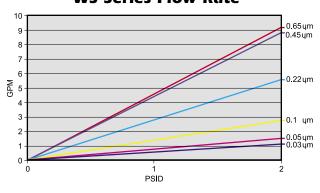
Cost effective units for DI Water applications

WS Series Membrane Cartridges are designed to meet the special needs of the electronics and high purity chemical industries. These cartridges are resistant to most acids and bases and capable of handling strong sanitization agents. The high flow rates achieved by our cartridges make them an ideal source for central DI water systems. They also handle elevated process temperatures in compatible fluids.

Flow Rate

The following table represents typical water flow at one psid (69 mbar) across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements or higher pressure drops is acceptable. However, as flow increases, the pressure drop attributed to the housing itself will become evident.

WS Series Flow Rate

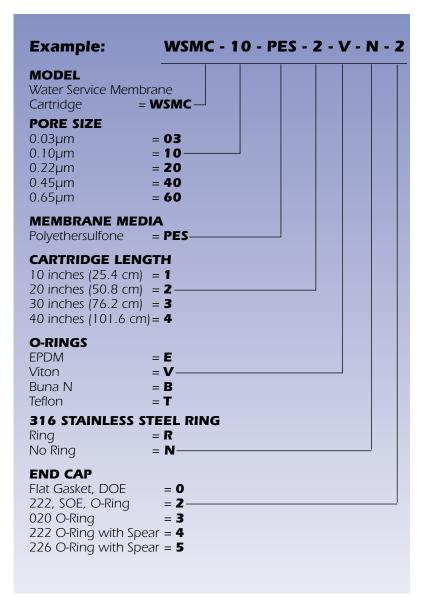




Shown with Spear Guide

How To Order

Build an ordering code as shown in the example



Dimensions

OD:

Length: 10 to 40 inches

(25.4 to 101.6 cm) nominal 2.75 inches (7.0 cm) nominal

Maximum Differential Pressure

Forward: 50 psi (3.4 bar) at 20° C **Reverse:** 40 psi (2.7 bar) at 20° C

Construction Materials

Filtration Media: Polyethersulfone Media Support: Polypropylene End Caps: Polypropylene Center Core: Polypropylene Outer Support Cage: Polypropylene C-Ring Material: EPDM, Viton, Buna N, Teflon, Ethylene Propylene

Sanitization/Sterilization

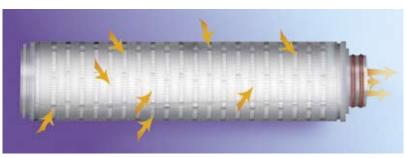
Chemical Sanitization:

Industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Test Specifications

(per ten inch length, water wetted membrane)

PORE SIZE	AIR DIFFUSION RATE							
	<cc min<="" th=""><th>@ </th><th>isc</th><th>mbar</th></cc>	@	isc	mbar				
0.03µm	30	(60	4137				
0.05µm	30		56	3860				
0.10µm	30	4	48	3307				
0.22µm	30		35	2412				
0.45µm	30		20	1378				
0.65µm	30		15	1044				



Rosedale Pharmaceutical Service Membrane Cartridges

Cost effective units for Pharmaceutical Industry applications

PS Series Membrane Cartridges are designed to be used as sterilizing grade cartridges for the pharmaceutical industry. The PS Series Membrane is optimized for retention, so additional layers are not necessary. Ideal for use in Sterile Fill applications and SVPs and bio products. Polyethersulfone is particularly suited for filtration of products whose constituents, such

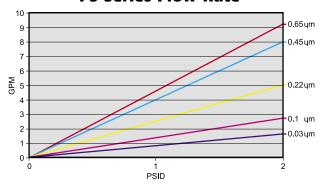
as preservatives, can adsorb to the media. Also works well with valuable protein solutions such as vaccines and other biological substances.

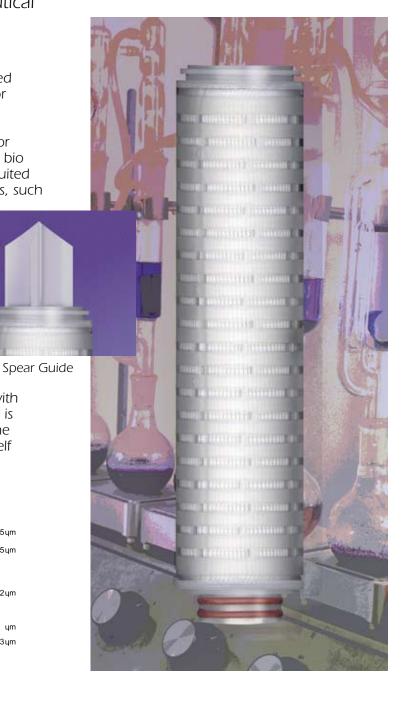
Flow Rate

The following table represents typical water flow at one psid (69 mbar) across a single 10 inch cartridge element.

The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements or higher pressure drops is acceptable. However, as flow increases, the pressure drop attributed to the housing itself will become evident.

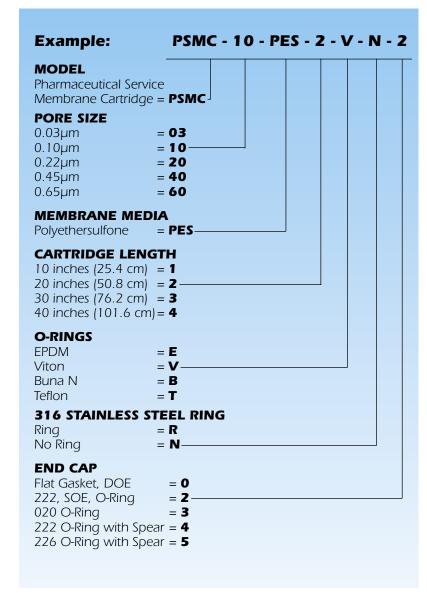
FS Series Flow Rate

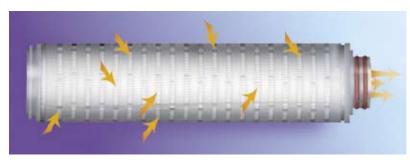




How To Order

Build an ordering code as shown in the example





Dimensions

Length: 10 to 40 inches

(25.4 to 101.6 cm) nominal 2.75 inches (7.0 cm) nominal

Maximum Differential Pressure

Forward: 50 psi (3.4 bar) at 20° C **Reverse:** 40 psi (2.7 bar) at 20° C

Construction Materials

Filtration Media: Polyethersulfone Media Support: Polypropylene End Caps: Polypropylene Center Core: Polypropylene Outer Support Cage: Polypropylene O-Ring Material: EPDM, Viton, Buna N, Teflon, Ethylene Propylene

Sanitization/Sterilization

Filtered Hot Water: 90°

Autoclave:

127° C, 30 minute multiple cycles

In-Line Steam:

135° C, 30 minute multiple cycles

Chemical Sanitization:

Industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Test Specifications

(per ten inch length, water wetted membrane)

PORE SIZE	AIR DIFFUSION RATE						
	≤cc/min @	psi	mbar				
0.03µm	15	60	4137				
0.10µm	15	48	3307				
0.22µm	15	35	2412				
0.45µm	15	20	1378				
0.65µm	15	15	1044				

Rosedale General Service Membrane Filter Cartridges

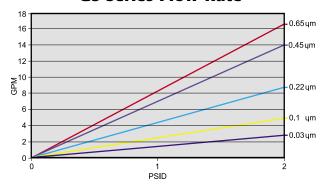
Cost effective units for industrial applications

GS Series Membrane Cartridges are designed for general industrial service where the need for cost effective filtration is a must. These cartridges utilize a pleated membrane design, incorporating the maximum amount of media that can be used in a cartridge. These units, manufactured for general industrial use, are manufactured to the same high standards as our special application cartridges. Pore sizes start at 0.03 µm with a polyethersulfone membrane.

Flow Rate

The following table represents typical water flow at one psid (69 mbar) across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements or higher pressure drops is acceptable. However, as flow increases, the pressure drop attributed to the housing itself will become evident.

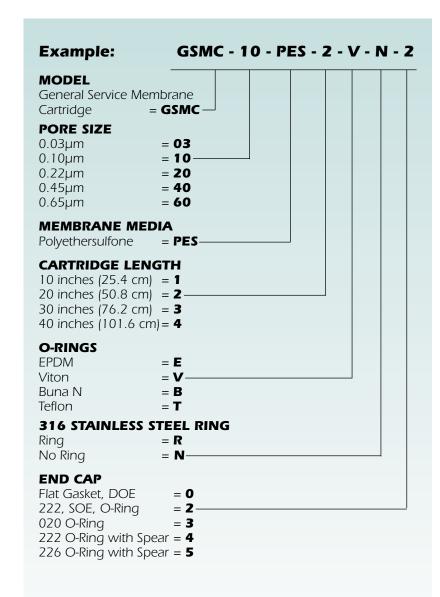
GS Series Flow Rate





How To Order

Build an ordering code as shown in the example



Dimensions

Length: 10 to 40 inches

(25.4 to 101.6 cm) nominal **OD:** 2.75 inches (7.0 cm) nominal

Maximum Differential Pressure

Forward: 50 psi (3.4 bar) at 20° C **Reverse:** 40 psi (2.7 bar) at 20° C

Construction Materials

Filtration Media: Polyethersulfone Media Support: Polypropylene End Caps: Polypropylene Polypropylene Outer Support Cage: O-Ring Material: Polypropylene EPDM, Viton, Buna N, Teflon, Ethylene Propylene

Sanitization/Sterilization

Filtered Hot Water: 90°

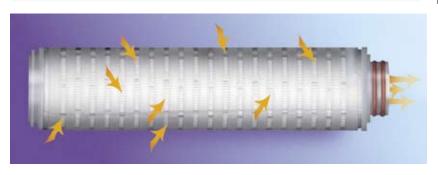
Chemical Sanitization:

Industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Test Specifications

(per ten inch length, water wetted membrane)

PORE SIZE	AIR DIFFU	JSIO	N RATE
	≤cc/min @	psi	mbar
0.03µm	55	60	4137
0.10µm	55	48	3307
0.22µm	55	35	2412
0.45µm	55	20	1378
0.65µm	55	15	1044



Rosedale Food, Wine and Beverage Service Membrane Cartridges

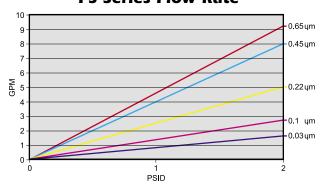
Cost effective units for food applications

FS Series Membrane Cartridges are designed to comply with all FDA rules and regulations for the food industry. The properties of Polyethersulfone make it an excellent choice for use with fermented beverages. Cartridges are designed to provide maximum throughput, while easily sanitized or cleaned.

Flow Rate

The following table represents typical water flow at one psid (69 mbar) across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements or higher pressure drops is acceptable. However, as flow increases, the pressure drop attributed to the housing itself will become evident.

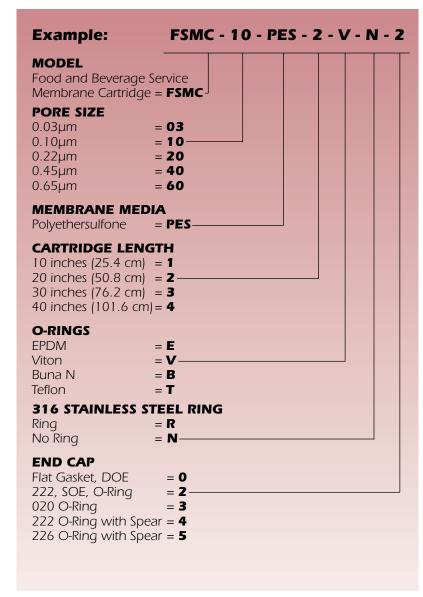
FS Series Flow Rate

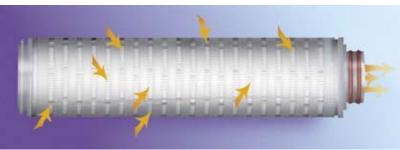




R How To Order

Build an ordering code as shown in the example





Dimensions

Length: 10 to 40 inches

(25.4 to 101.6 cm) nominal

OD: 2.75 inches (7.0 cm) nominal

Maximum Differential Pressure

Forward: 50 psi (3.4 bar) at 20° C **Reverse:** 40 psi (2.7 bar) at 20° C

Construction Materials

Filtration Media: Polyethersulfone Media Support: Polypropylene End Caps: Polypropylene Center Core: Polypropylene Outer Support Cage: Polypropylene O-Ring Material: EPDM, Viton, Buna N, Teflon, Ethylene Propylene

Sanitization/Sterilization

Filtered Hot Water: 90°

Autoclave:

127° C, 30 minute multiple cycles

In-Line Steam:

135° C, 30 minute multiple cycles

Chemical Sanitization:

Industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Test Specifications

(per ten inch length, water wetted membrane)

PORE SIZE	AIR DIFFUSION RATE							
	≤cc/min @	psi	mbar					
0.03µm	30	60	4137					
0.10µm	30	48	3307					
0.22µm	30	35	2412					
0.45µm	30	20	1378					
0.65µm	30	15	1044					

Rosedale Electronics Service Membrane Cartridges

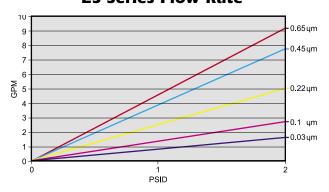
Cost effective units for Electronics Industry applications

ES Series Membrane Cartridges are designed to meet the special needs of the electronics and high purity chemical industries. The high flow rates achieved by our cartridges make them an ideal source for central DI water systems. They also handle elevated process temperatures in compatible fluids.

Flow Rate

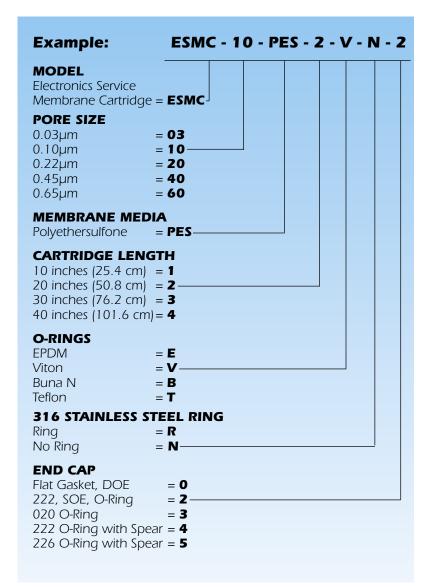
The following table represents typical water flow at one psid (69 mbar) across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements or higher pressure drops is acceptable. However, as flow increases, the pressure drop attributed to the housing itself will become evident.

ES Series Flow Rate





Build an ordering code as shown in the example



Dimensions

Length: 10 to 40 inches

(25.4 to 101.6 cm) nominal 2.75 inches (7.0 cm) nominal

Maximum Differential Pressure

Forward: 50 psi (3.4 bar) at 20° C **Reverse:** 40 psi (2.7 bar) at 20° C

Construction Materials

Filtration Media: Polyethersulfone Media Support: Polypropylene End Caps: Polypropylene Polypropylene Outer Support Cage: Polypropylene Polypropylene EPDM, Viton, Buna N, Teflon, Ethylene Propylene

Sanitization/Sterilization

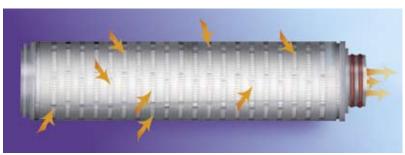
Chemical Sanitization:

Industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Test Specifications

(per ten inch length, water wetted membrane)

PORE SIZE	AIR DIFFUSION RATE			
	cc/min	a	psi	mbar
0.03µm	30		60	4137
0.10µm	30		48	3307
0.22µm	30		35	2412
0.45µm	30		20	1378
0.65µm	30		15	1044



Turn Bag Housings Into Cartridge Filters!

Basket holds cartridges inside a bag housing!

Rosedale's bag filter converter can be quickly converted to a cartridge filter. Simply put, there are applications that call for a bag filter and others that call for a cartridge filter. Until now, it wasn't very easy to change between the two.

If it becomes necessary to change from bags to cartridges – install the Rosedale Converter Basket.

- Remove the original basket
- Install the new converter basket
- Load the cartridges
- Unique design prevents clean side contamination by removing basket from housing before removing cartridges from converter

You now have a cartridge filter able to utilize any standard cartridge.

Baskets fit standard models 4-12, 8-15, and 8-30 housings. Construction materials are either 304 stainless or 316 stainless steel.



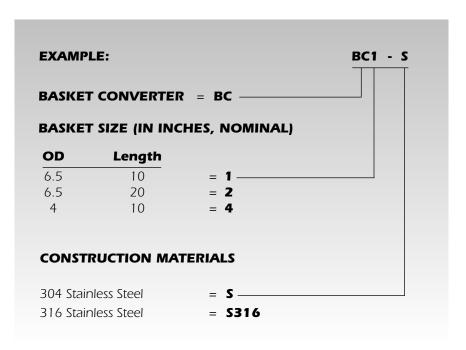




Flow is introduced from above and circulates around cartridges. Fluid flows through cartridge walls, leaving contaminant on media, and "clean" fluid exits through bottom outlet.

How To Order

Build an ordering code as shown in the example below







See pages 160-166 for more information on Wound Cartridges and Stainless Steel filter cartridges.

Dimensions

Housing Size & Cartridge Capacity	Model Code	OD*	Length*
Model 4 1 cartridge	BC4	4	10
Model 8 3 cartridges	BC1	6.5	10
	BC2	6.5	20

^{*}Nominal in inches

Rosedale Replacement Baskets

Rosedale manufactures replacement bag filter baskets and basket strainers for a wide range of filter housings made by:

> American Felt & Filter Cuno Commercial Filters Eaton Filter Specialists (FSI) Filtration Systems GAF Ronningen-Petter Strainrite Oakland Plenty

We offer replacements for all current models, and any that have been discontinued by the original manufacturer.

These replacement baskets are made to specifications that equal, or exceed the original manufacturers specifications.

Basket Construction

STAINLESS STEEL: Standard material is 304 stainless steel. 316 stainless steel is available as an option.

Basket Media Selection

PERFORATED STRAINER AND BAG FILTER BASKETS: For cleanable basket strainers, choose from the following perforation diameters: 1/4, 3/16, 9/64, or 1/16 inch. For filter bag baskets: standard 9/64-inch diameter perforations with 51 percent open area are supplied.





Perforated

With wire mesh lining

PERFORATED WITH WIRE MESH LINING STRAINER AND FILTER BAG BASKETS: Stainless steel wire is used in mesh sizes 30, 60,100,150, or 200. When used as a bag filter basket, the following advantages are realized:

- Fiber migration is minimized.
- In the unlikely event of bag rupture, the wire mesh contains the contaminant.
- Bag material cannot become "lodged" in the perforations due to extreme pressure differential.
- Flow characteristics are enhanced when using monofilament bags.



Model CFReplaces Commercial Filter baskets SB11, SB12



Model CUReplaces Cuno baskets
7PC1, 7PC2

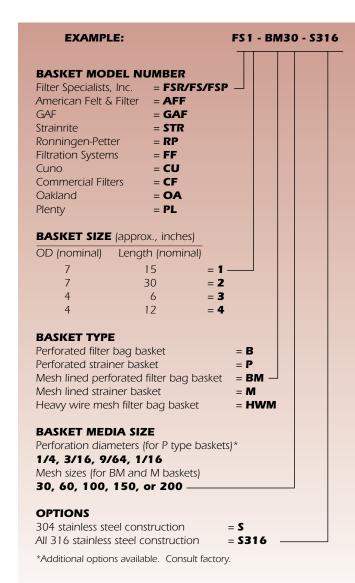


Model RPReplaces Ronnigen-Petter baskets 224, 324, 424, 152



Model AFF/GAF Replaces American Felt & Filter/ GAF baskets 112, 122, AMS R, AMC R, NCX, RBX 1L, RBX 2L

Build an ordering code as shown in the example.





Model STR Replaces Strainrite baskets UF1-90, UF1-180



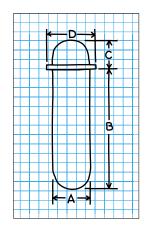
Model FF Replaces Filtration Systems baskets 112, 122

Rosedale can manufacture any basket to your specifications.

Send us a drawing, or just a simple sketch as shown, and we'll submit a quote for your review.

A = Basket diameter = Basket height = Bail height

= Outside diameter of rim



Basket Designs

Standard filter bag baskets have rounded perforated bottoms.

Mesh lined bag baskets have round solid bottoms.

Strainer baskets have flat non-perforated bottoms.







Model FSR or FS Replaces all Filter Specialists baskets



Custom Manufacturing Solutions

We can build anything from simple modifications on standard housings, to customer specified skid-mounted filtration systems. These can incorporate filters, strainers, separators, controllers, sensors, and automated operations.

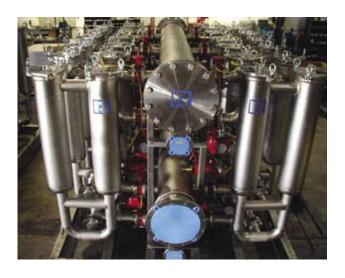
Rosedale has a long history of innovative filtration designs. They are as simple as our Model 4 Housing or as complex as our multistation Automatic Backwashing Filtration Systems. Using our expertise, we work with our clients to manufacture systems that meet their needs. Some of our standard models started out as solutions to a client's need, such as the duplex and multiplex filters or convertible housings.



In this section, you'll see several examples of filters and filtration systems that show what we can do for you.

These systems incorporate any number of filtration solutions including:

- Basket strainers
- Bag filters
- Cartridge filters
- Solids/liquids separators
- Single layer bags
- Multilayer bags
- Bag sized cartridges
- Wound cartridges
- Membrane cartridges
- Stainless steel cartridges
- "Smart" controls
- Differential pressure sensors





- Pumps and motors
- Controllers
- Skid or cart mounting
- Pit mounting
- Gangways for access

Application specific components:

- Oxygen concentrators,
- Heated jacketing
- Internal coatings

We also take your specific flow requirements into account, ensuring that the system we design will not restrict your process. For more information, contact Rosedale to get started today.





Special Configuration Skid Packages



Filter For Natural Gas Use

Filter CNG between supply and compressor for improved product quality and longer compressor life. Removes impurities and particulate matter for longer compressor life.





Special Options And Accessories

For improved filtration! Rosedale offers answers to your specific needs with a wide range of options and accessories. If your specific needs are not represented here, please call us. We will discuss how we can solve your problems.



Rosedale Accessories



Heated Jacketing For Resins, etc.

All Rosedale filter housings can be fitted with heated jacketing for improved filtration of resins, adhesive coatings, and viscous materials. The entire vessel can be enclosed by the jacketing, including the inlet and outlet nozzles. The unit is rated to 600°F, requiring metallic seals (included). The housing is electropolished to prevent product buildup, maintaining clean inside walls.

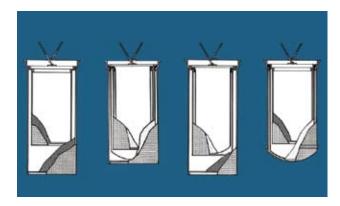


Bag Hold Down Assemblies Hold down assemblies can be supplied with any Rosedale filter housing.



Internal Coatings

Special coatings can be internally applied to any of Rosedale's housings, meeting your special requirements. These coatings include epoxy, with other coatings available. Call Rosedale for more information or product compatibility.



Inner Baskets and Bags

Model 8 and any of the multi-basket or multi-bag units can be fitted with smaller, inner basket strainers or bag filters, through which the in-coming fluid flows first, giving two-stage cleaning action. Inner baskets and bags are offered in the same construction materials and ratings as those of the primary outer elements.



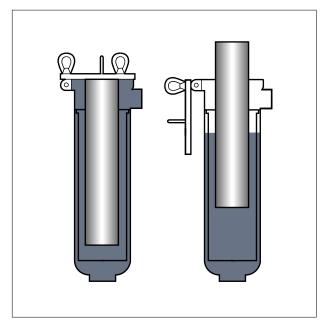
Differential Pressure Indicators

All Rosedale filter housings can be fitted with pressure indicators that tell the operator when the element needs servicing. This improves the process quality, reduces system downtime and maximizes efficiency of plant operations. A variety of options are available including standard liquid-filled gauges, differential pressure gauges, differential pressure switches, or a combination switch and gauge. Recommended change-out of most elements is 15 psid.



Bag Restrainer

This restrainer expands the bag fully during filtration, insuring that it doesn't fold over on to itself, reducing the amount of material used in filtration. It can also be used in conjunction with the liquid displacer, easing its installation.



Liquid Displacers

Rosedale filter housing models 4, 6, and 8, as well as our convertible filter housings, can be supplied with a liquid displacer attached to the cover. When in use, the displacer (a sealed 304 stainless steel cylinder) fits inside the basket strainer or bag filter, displacing liquid that would otherwise fill the inner space. When the cover and attached displacer are removed, the level of the liquid within the basket strainer of bag filter drops resulting in less product loss, and fast easy changes.

CONVERSION FACTORS

Suspended Solid Conversions

PPM	%	lbs./1000 gal.
10,000	1.0000	80.0
8,000	.8000	70.0
6,000	.6000	50.0
4,000	.4000	35.0
2,000	.2000	15.0
1,000	.1000	9.0
800	.0800	6.5
600	.0600	5.5
400	.0400	3.5
200	.0200	1.75
100	.0100	.85
80	.0080	.65
60	.0060	.50
40	.0040	.35
20	.0020	.175
10	.0010	.08
8	.0008	.065
6	.0006	.055
4	.0004	.035
2	.0002	.0175
1	.0001	.0003

MESH	MICRON	INCHES
4	5205	0.2030
8	2487	0.0970
10	1923	0.0750
14	1307	0.0510
18	1000	0.0394
20	840	0.0331
25	710	0.0280
30	590	0.0232
35	500	0.0197
40	520	0.0165
45	350	0.0138
50	297	0.0117
60	250	0.0098
70	210	0.0083
80	177	0.0070
100	149	0.0059
120	125	0.0049
140	105	0.0041
170	88	0.0035
200	74	0.0029
230	62	0.0024
270	53	0.0021
325	44	0.0017
400	37	0.0015
550	25	0.0009
800	15	0.0006
1250	10	0.0004
-	5	0.0002

Viscosity Equivalents

SSU

CPS

(Centi- poise)
1 5 20
40 65 85
105 130 150
175 195 210
425 625 860
1050 1300 1500
1700 1960 1250

MULTIPLY	BY	TO OBTAIN
Atmospheres	14.7	psi
Barrels of Oil	42.0	gallons (U.S.)
Centimeters	.03281	feet
Centimeters	.3937	inches
Centipoise	.01	poises
Centistoke	.01	stokes
Cubic centimeters	.06102	cubic inches
Cubic centimeters	.00102	gallons (lig.)
Cubic feet	7.4805	gallons (liq.)
Cubic feet	.1728	cubic inches
Cubic feet/min.	7.4805	
Cubic inches	.004329	g.p.m.
Cubic inches	16.387	gallons cubic cm.
Cubic inches	.0005787	cubic cm.
Cubic meters	264.17	gallons (liq.)
Cubic metes	35.31	cubic feet
Feet	30.48006	centimeters
Feet	.3048006	meters
Feet of water	.4335	psi
Feet of water	.8826	inches of Hg.
Feet/min	.01136	miles per hour
Feet/second	.681818	miles per hour
Gallons	3,785.43	cubic cm.
Gallons	231	cubic inches
Gallons	.83268	gallons (imp.)
Gallons	.13368	cubic feet
Gallons/min.	.13368	cu. ft./min
Inches	.0254	meters
Inches of Hg.	1.133	feet of water
Inches of Hg.	.491	psi
Kilograms	2.2046	pounds (avdp.)
Kilogram/sq. cm.	14.2233	psi
Kilograms/sq. mm	1,422.33	psi
Liters	.264178	gallons
Meters	3.2808	feet
Poise	100.0	centipoise
Pounds water	.11985	gallons
PSI	2.036	inches of Hg.
PSI	2.31	feet of water
Square inches	6.4516	sq. cm.

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ASME Coded Vessels and Radiography

- **1. Full Vacuum:** All filter vessels are designed with Full Vacuum as a design condition. If the customer requires this, it can be documented. It is typically not stated on the ASME nameplate that the vessel is designed for Full Vacuum.
- **2. Jacketed housings:** All standard filter vessels are designed with consideration of a jacket rated at 1/2 vessel pressure (ex. 150 psi vessel, 75 psi jacket) without modifying the body shell. This condition is valid for a body shell jacket only; any other type of jacket or pressure ratings may not meet the code requirements (ex. full jacket, head & body), please consult Engineering.
- **3. Canadian Registry:** We hold several "CRN" (Canadian Registration Number) registration numbers for our vessels in Ontario and British Columbia.

- Please consult Engineering for this list. To obtain a "CRN", each province has its own requirements and timetable, consult Engineering.
- **4. Closure Assemblies:** Our standard closure assembly for all of our products conform to ASME specification (rod end and clevis pins meet SA-193-B7, eyenuts meet SA-194-2H). Some of our customers request different materials. The only other available material is a 304 stainless steel closure, which is available in all sizes.
- **5. Welded Attachments:** Welded attachments to 316 S.S. vessels (legs, lugs, davit arm bracket, lifting rod, nameplate bracket, etc.) are typically 304 series stainless steel unless specified by customer.

Rosedale Filter Vessel Data

MODEL	PRESSURE RATING PSI	WALL THK. inches	VOLUME ENTIRE HOUSING	**	NO. BELOW LUG ASSY	NO. OF LUGS	LUG SIZE
4-6 4-12	200, 300, 500 200, 300, 500	.110, .120 .110, .120	0.65 1.02	-	1	3	1/2-13 1/2-13
6-12 6-18 6-30	150, 300 150, 300 150, 300 100, 125	.109 .109 .109	2.16 2.83 4.20	- - -	1 1 1	3 3 3 N/A	5/8-11 5/8-11 5/8-11 N/A
8-15 8-30	100, 125, 150, 300 100, 125, 150, 300 300	.109 .109	5.61 9.23	-	1	3 3 6	5/8-11 5/8-11 5/8-11
16-30	150	.188	28.03	-	2	5	7/8-9
18-30	150	.188	36.83	-	3	5	7/8-9

Above this line vessels are "UM" stamp. Below this line vessels are "U" stamp unless specified otherwise or by special requirements.

"UM" Vessels not to exceed the following

1. 5 CU. FT. (FT 3) IN VOLUME AND <u>250 PSI DESIGN PRESSURE</u> OR

2. 1.5 CU. FT. (FT³) IN VOLUME AND 600 PSI DESIGN PRESSURE

22-30	150	.188	57.56	-	4	8	7/8-9
24-30	150	.188	70.00	-	6	8	7/8-9
30-30	150	.250	115.00	-	8	12	7/8-9
32-30	150	.250	133.00	-	9	12	7/8-9
36-30	150	.313	174.00	-	12	14	1-8
42-30	150	.313	249.00	-	17	20	1-8
48-30	150	.375	340.00	-	*24	24	1-8
60-30	150	.500		-	*35	24	1-1/4-7

^{*} SPECIAL

CONVERSION FORMULAS:

CAPACITY IN CUBIC FEET (ft^3) = 1728 in³ CAPACITY IN GALLONS = 231 in³ CAPACITY IN CUBIC FEET (ft^3) = GAL. x .1337

CAPACITY IN GALLON = $ft^3 \times 7.48$ 1 GALLON = 8.34 lb. x SPECIFIC GRAVITY 1 ft^3 = 62.4 lb. x SPECIFIC GRAVITY

^{**} DOES NOT INCLUDE FLUID CAPACITY OF IN-OUT NOZZLES (ELBOWS, FLANGES, ETC).

Rosedale Products Basket Data

BASKET STYLE	STRAINER BASKET AREA ft ²	FILTER BAG BASKET AREA ft ²	STRAINER BASKET VOLUME GAL.	FILTER BAG BASKET VOLUME GAL.	RBS BASKET STYLE	BS / RBS BASKET VOLUME GAL.
4-6 4-12	.5 1.0	.5 1.0	.30 .60	.30 .60	Model 4 Model 6	0.20 0.60
6-12 6-18 6-30	1.4 2.0 3.3	1.4 2.0 3.3	.97 1.50 2.54	.97 1.50 2.54	Model 8 Model 10 Model 12 Model 14	1.25 3.00 4.50 8.50
8-15 8-30	1.7 4.4	2.0 4.2	1.87 4.71	2.31 4.63	Model 16 Model 18 Model 22	13.00 15.00
MULTI	4.4	4.2	4.56	4.49	Model 24 Model 30	32.00 70.00
LCO	5.6	5.6	6.0	6.0	Model 36 Model 42 Model 48	110.0 220.0

CONVERSION FORMULAS:

CAPACITY IN CUBIC FEET (ft^3) = in. 3/1728 CAPACITY IN CUBIC FEET (ft^3) = GAL. x .1337 CAPACITY IN GALLONS = in³/231 CAPACITY IN GALLONS = ft^3 x 7.48 1 GALLON = 8.34 lb. x SPECIFIC GRAVITY 1 ft^3 = 62.4 lb. x SPECIFIC GRAVITY

Recommended Maximum ΔP for Standard Rosedale Baskets

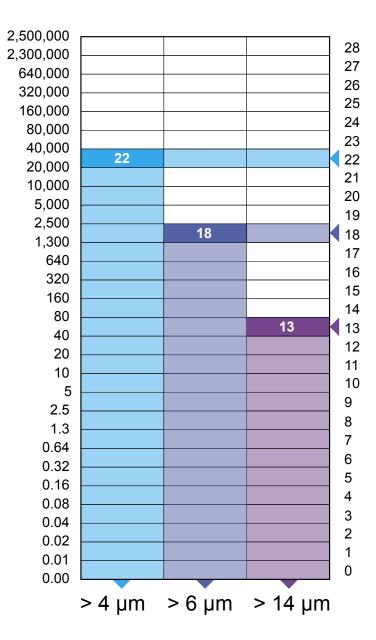
The recommended maximum operating ΔP for standard Rosedale Baskets is 15-20 psid. The baskets should not fail catastrophically until they reach a ΔP of 60-70 psid. We must consider the fact that there is a rapid rise in ΔP once the differential pressure reaches 30 psid. The time required for the ΔP to increase from 30 psid to 60-70 psid is very short (the actual time depends on many factors, dirt load, viscosity, etc.), this is why it is recommended that the filter basket be serviced at a differential of 15-20 psid.

If cyclical loadings or pulses must be considered, a reduction in the recommended maximum ΔP should be taken (reduction dependent on severity of pulse, viscosity, etc.). These pressure spikes will adversely affect the integrity of the filter basket.

The above information is for filter baskets only. If a filter bag is utilized, it is critical that the ΔP never exceeds 15 psid. A filter bag can not withstand a high differentialpressure.

Multiply no. of											
to obtain	Atmos- pheres	Bars	Dynes/ cm²	In. of Hg (0°C)	In. of H ² O(4°C)	kg/m²	(psi)	Lb/in² Lb/ft²	(torr)	mm of Hg Microns	Pascals
Atmospheres		9.86923	9.86923	3.34207	2.458	9.678	.068046	4.7254	1.316	1.316	9.869
		X10 ⁻¹	X ¹⁰⁻⁷	X10 ⁻²	X10 ⁻³	X10 ⁻⁵		X10 ⁻⁴	X10 ⁻³	X106	X10 ⁶
Bars	1.01325		10 ⁻⁶ X10 ⁻²	3.3864 X10 ⁻³	2.491 X10 ⁻⁵	9.8067	6.8948 X10 ⁻²	4.788 X10 ⁻⁴	1.333 X10 ³	1.333 X10 ⁶	105
Dyns/ cm²	1.01325 X106	106		3.386 X10 ⁴	2.491 X10 ³	98.067	6.8948	478.8 X10 ⁴	1.333	1.333 X10 ³	10
In. of (0°C)	29.9213	29.53	2.953 X10 ⁻⁵		7.355 X10 ⁻²	2.896 X10 ⁻³	2.036	.014139	3.937 X10 ²	3.937 X10 ⁵	2.953 X10 ⁴
In. of H ₂ 0(4°C)	406.8	401.48	4.0148 X10 ⁻⁴	13.60		3.937 X10 ⁻²	27.68	.1922	.5354	5.354 X10 ⁴	4.014 X10 ³
kg / m²	1.033227 X10 ⁴	1.0197 X10 ⁴	1.0197 X10 ⁻²	345.3	25.40		7.0306 X10 ²	4.882	13.59	13.59 X10 ³	1.019 X10 ¹
Lb /in.2 (psi)	14.695595	14.4504	1.4504 X10 ⁻⁵	.4912	3.6126 X10 ⁻²	1.423 X10 ⁻³		6.9444 X10 ⁻³	1.934 X10 ⁻²	1.934 X10 ⁵	1.450 X10 ⁴
Lb/f ^{t2}	2116.22	2088.5	2.0885 X10 ⁻³	70.726	5.202	.2048	144.0		2.7844	2.7844 X10 ³	2.089 X10 ²
mm of Hg (torr)	760	750.06	7.5006 X10 ⁻⁴	25.400	1.868	7.3558 X10 ⁻²	51.715	0.35913		10 ³	7.502 X10 ³
Microns	760 X10 ³	750.06 X10 ³	.75006	2.54 X10 ⁴	1.868 X10 ³	73.558	51.715 X10 ³	359.1	1X10 ³		7 502
Pascals	1.01325 X10 ⁵	1X10⁵	10-1	3.386 X10 ³	2.491 X10 ²	9.8067	6.8948 X10 ³	4.788 X10 ¹	1.333 X10 ²	1.333 X10 ¹	

ISO 4406 Code



Each number refers to ISO Range Code, which is determined by number of particles for that size (4/6/14) and larger present in 1 ml of fluid.

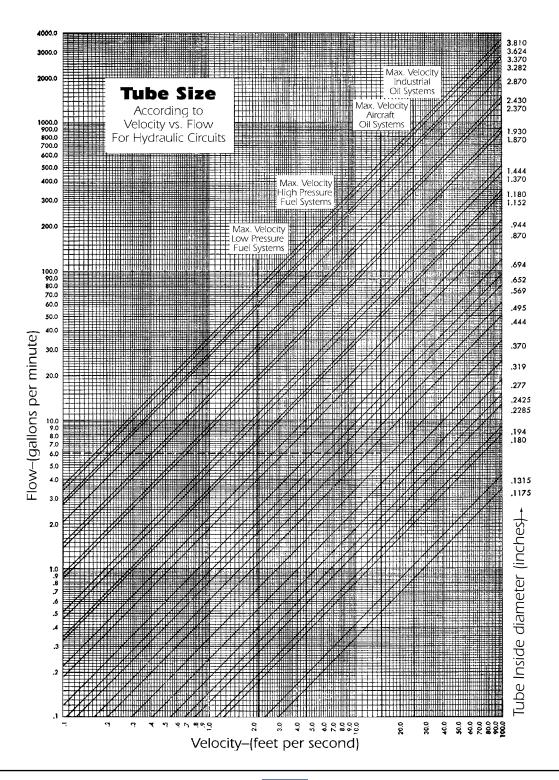
EXAMPLE:

- Larger Than 4 μ m = 22,340
- Larger Than 6 μ m = 1,950
- Larger Than 14 μ m = 43

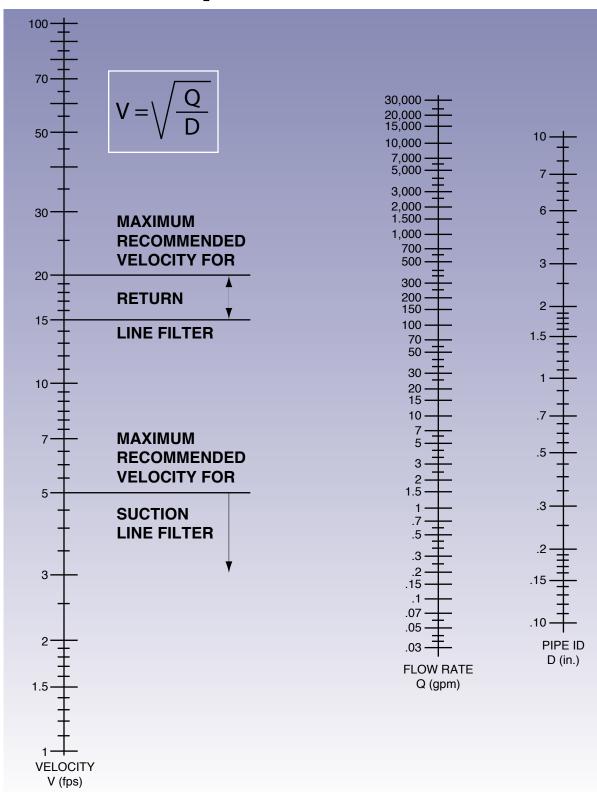
ISO Code = 22 / 18 / 13

MINUTES CONVERTED	DECIMAL	WATER PRESSURE (PSI) TO FEET OF HEAD	WATER FEET
TO DECIMALS	EQUIVALENTS OF		OF HEAD
OF A DEGREE	FRACTIONS		TO PSI
MINUTE 1	INCHES DECIMAL 1/64	POUNDS PER SCUARE INCH HEAD 1 2.31 2 4.62 3 6.93 4 9.24 5 11.54 6 13.85 7 16.16 8 18.47 9 20.78 10 23.09 15 34.63 20 46.18 25 57.72 30 69.27 40 92.36 50 115.45 60 138.54 70 161.63 80 184.72 90 207.81 100 230.90 110 253.98 120 277.07 130 300.16 140 323.25 150 346.34 160 369.43 170 392.52 180 415.61 200 461.78 250 577.24 300 692.69 350 808.13 400 922.58 500 1154.48 600 1385.39 700 1616.30 800 1847.20 900 2078.10 1000 2309.00 Note: One pound of pressure per sq. inch of water for any pressure pounds per sq. inch by 2.309	FEET POUNDS PER SOUARE INCH 1

∇elocity vs. Flow Table



▼ Flow Rate in Pipe

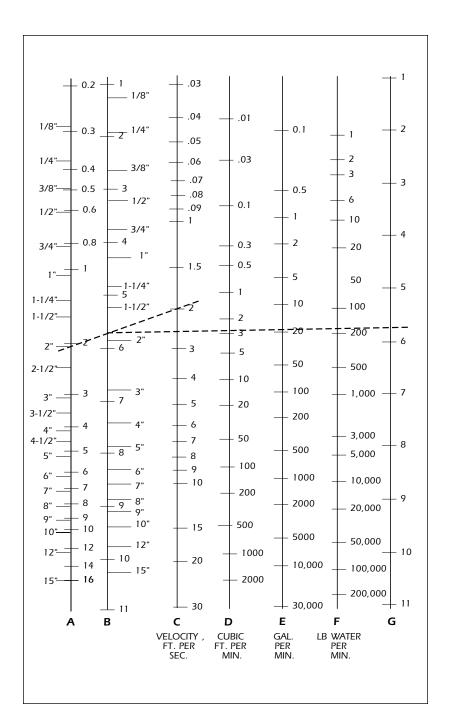


□ Flow Conversion Chart

This Nomograph/Chart provides flow rate data in cubic feet per minute (column D), gallons per minute (column E).
Or pounds of water per minute (column F) for inside pipe diameters from 0.2 to 16 inches for velocities from 0.03 to 30 feet per second (column C). Similarly, velocities may be determined from flow rates.

An example is shown for 2 inch standard pipe (2.07" ID) at 2 feet per second. A line is drawn connecting these two values in columns A and C. At it's intersection with column B a line is drawn horizontally using columns H1 and H2 for guidance. Flow rates are now seen in columns D, E, and F.

A second example uses 4 inch extra heavy pipe at 10 feet per second. A horizontal line is drawn to the left from column B to column A and this intersection is connected to the 10 feet per second location on column C. At the intersection of this slanting line with column B a horizontal line is drawn to show the flow rates resulting.



Converting Air Flow to Liquid Flow Equivalents

You must first establish the gas flow rate in units of standard cubic feet per minute (SCFM). (A "standard cubic foot" of gas is measured at 14.7 psia (pounds per square inch, absolute) at 60° E.

SCFM = CFM x
$$\left(\frac{14.7 + PSIG}{14.7}\right)$$
 x $\left(\frac{530}{460 + F}\right)$

SCFM = Gas flow in standard cubic feet per min.

CFM = Actual gas flow in cubic feet per min.

PSIG = Actual gas pressure, pounds per square inch, gauge.

F = Actual gas temperature, F° .

Next we find the gallons-per-minute equivalent to your particular gas flow, temperature, and pressure:

GPM =
$$\frac{SCFM}{4.1} \times \sqrt{\frac{14.7 + PSIG}{14.7}} \times \sqrt{\frac{460 + F}{530}} \times \sqrt{SG}$$

SG = Specific Gravity of the gas, relative to air. (See chart below.)

GAS	SG	GAS	SG
Air	1.00	Hellum	.14
Ammonia	.59	Nitric Oxide	1.03
Argon	1.38	Nitrogen	.97
Carbon Dioxide	1.52	Nitrous Oxide	.59
Chlorine	2.45	Sulphur Dioxide	2.21

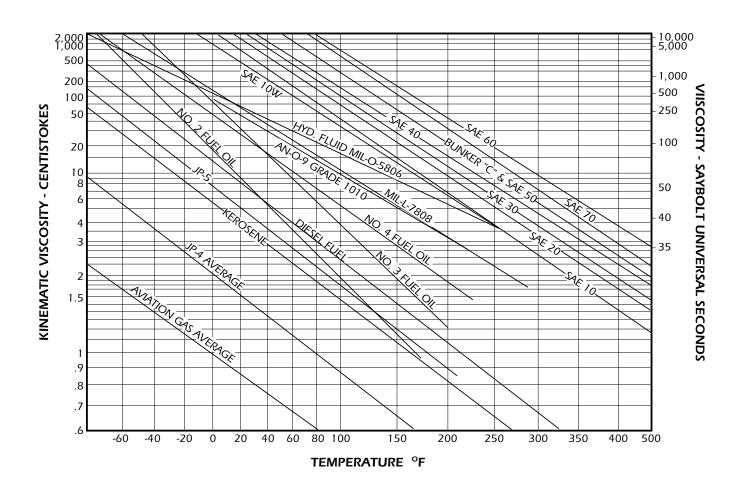
Note: Steam and explosive gases are not recommended.

For Vacuum Applications:

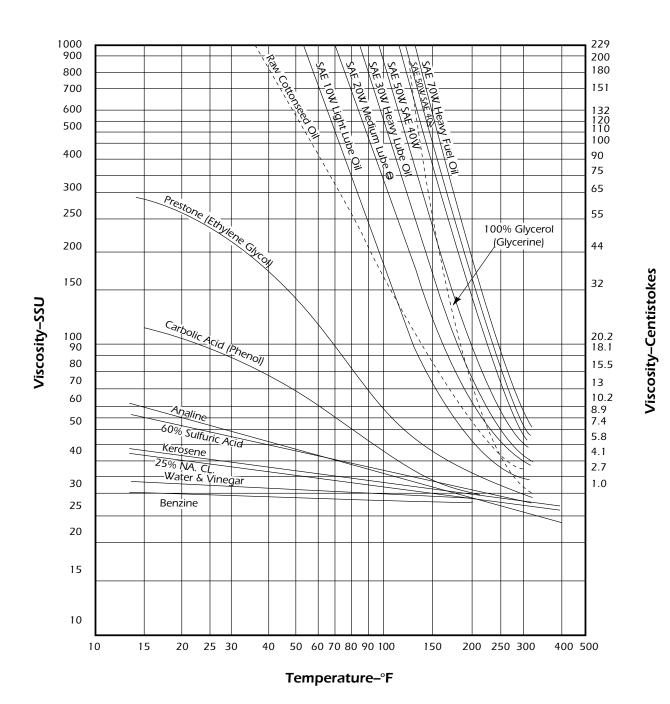
Use the following formula for converting vacuum applications to GPM.

GPM =
$$\frac{\text{SCFM}}{4.1} \times \sqrt{\frac{14.7 + \text{PSIG}}{14.7}} \times \sqrt{\frac{460 + \text{F}}{530}} \times \sqrt{\text{SG}}$$

▼ Viscosity vs. Temperature

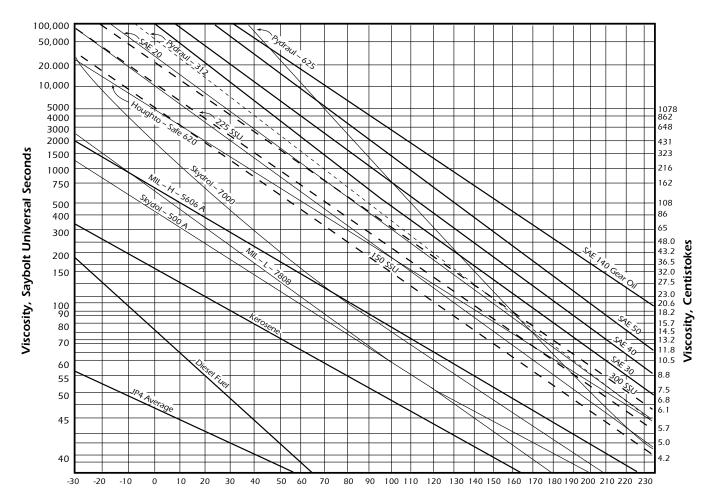


▼ Viscosity vs. Temperature



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A.S.T.M. Standard Viscosity-Temperatures For Liquid Petroleum Products (D341-43)



Temperature, Degrees Fahrenheit

☐ Enclosure Types for Non-Hazardous Locations

Туре	NEMA National Electrical Manufacturers Association (Nema Standard 250) and Electrical and Electronic Manufacturers Association of Canada (EEMAC)	Underwriters Laboratories Inc. (UL 50 and UL 508)	Canadian Standards Association (Standard C22.2 No. 94)
1	Enclosures are intended for indoor use primarily to provide a degree of protection against contact with the enclosed equipment or locations where unusual service conditions do not exist.	Indoor use primarily to provide protection against contact with the enclosed equipment and against a limited amount of falling dirt.	General purpose enclosure. Protects against accidental contact with live parts.
2	Enclosures are intended for indoor use primarily to provide a degree of protection against limited amounts of falling water and dirt.	Indoor use to provide a degree of protection against limited amounts of falling water and dirt.	Indoor use to provide a degree of protection against dripping and light splashing of noncorrosive liquids and falling dirt.
3	Enclosures are intended for outdoor use primarily to provide a degree of protection against windblown dust, rain, and sleet; undamaged by the formation of ice on the enclosure.	Outdoor use to provide a degree of protection against windblown dust and windblown rain; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use provides a degree of protection against rain, snow, and windblown dust; undamaged by the external formation of ice on the enclosure.
3R	Enclosures are intended for outdoor use primarily to provide a degree of protection against falling rain and sleet; undamaged by the formation of ice on the enclosure.	Outdoor use to provide a degree of protection against falling rain; undamaged by the formation of ice on the enclosure.	Indoor or outdoor use provides a degree of protection against rain and snow; undamaged by the external formation of ice on the enclosure.
4	Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, and hose directed water; undamaged by the formation of ice on the enclosure.	Either indoor or outdoor use to provide a degree of protection against falling rain, splashing water, and hose-directed water, undamaged by the formation of ice on the enclosure.	Indoor or outdoor use, provides a degree of protection against rain, snow, wind-blown dust, splashing and hose-directed water; undamaged by the external formation of ice on the enclosure.
4X	Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, and hose-directed water; undamaged by the formation of ice on the enclosure.	Either indoor or outdoor use to provide a degree of protection against falling rain, splashing water, and hose-directed water; undamaged by the formation of ice on the enclosure: resists corrosion.	Indoor or outdoor use provides a degree of protection against rain, snow, wind-blown dust, splashing and hose-directed water; undamaged by the external formation of ice on the enclosure: resist corrosion.
6	Enclosures are intended for use indoors or outdoors where occasional submersion is encountered.	Indoor or outdoor use to provide a degree of protection against entry of water during temporary submersion of a limited depth undamaged by the formation of ice on the enclosure.	Indoor or outdoor use provides a degree of protection against the entry of water during temporary submersion at a limited depth, undamaged by the external formation of ice on the enclosure, resists corrosion.
12	Enclosures are intended for use primarily to provide a degree of protection against dust, falling dirt and dripping noncorrosive liquids.	Indoor use to provide a degree of protection against dust, dirt, flying fibers, dripping water and external condensation of noncorrosive liquids.	Indoor use a degree of protection against circulating dust, lint, fibers and flyings. dripping and light splashing of noncorrosive liquids, not provided with knockouts.
13	Enclosures are intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil and noncorrosive coolant.	Indoor use to provide a degree of protection against lint, dust seepage, external condensation and spraying of water, oil and noncorrosive liquids.	Indoor use provides a degree of protection against circulation dust, lint, fibers and flyings, seepage and spraying of noncorrosive liquids, including oils and coolants.
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Comparison of Specific Non-Hazardous Applications

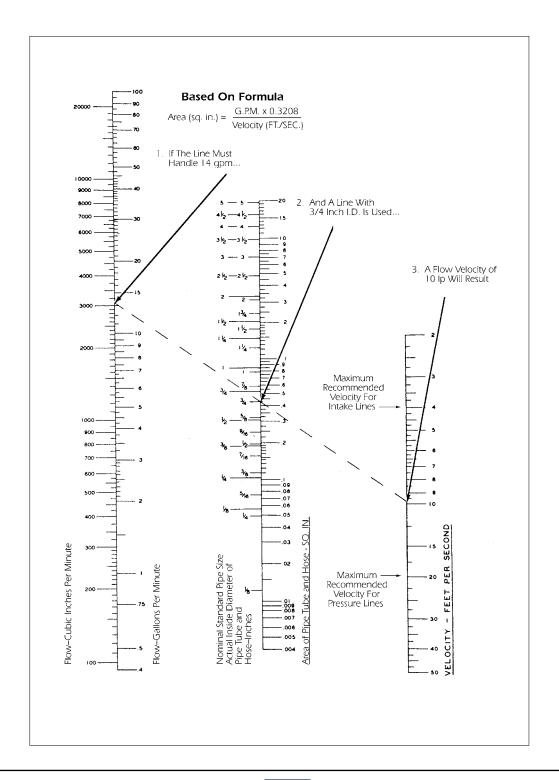
Indoor Locations

Provides a Degree of Protection Against the Following Environmental Conditions	1*	2*	4	4X	٠, ٠		nclosu 6P	ıre 11	12	12K	13
Incidental contact with enclosed equipment											
Falling dirt											
Falling liquids and light splashing		-	•	•	•		•	•	•	•	•
Dust, lint, fibers, and flyings †			•	•	•	•	•		•	•	•
Hosedown and splashing water			•	•		•	•				
Oil and coolant seepage								•	•	•	
Oil or coolant spraying and splashing										•	
Corrosive agents				•			•	•			
Occasional temporary submersion						•	•				
Occasional prolonged submersion							•				

[•] These enclosures may be ventilated. However, Type I may not provide protection against small particles of falling dirt when ventilation is provided in the enclosure top. Consult Hoffman Engineering for more information.

[†] These fibers and flyings are non-hazardous materials and are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or combustible flyings see the National Electrical Code, Section 500-6(a).

Conductor I.D. Selection Chart

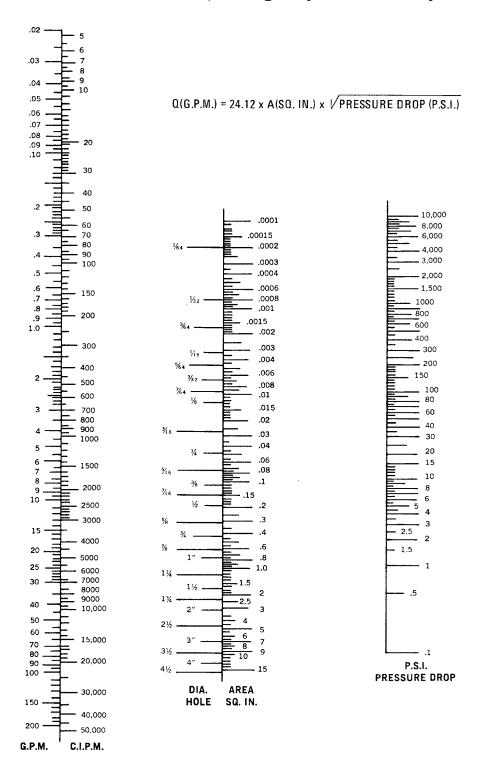


Pressure Loss (psi/Foot Length) In Pipes At Average Velocity (ft/sec)

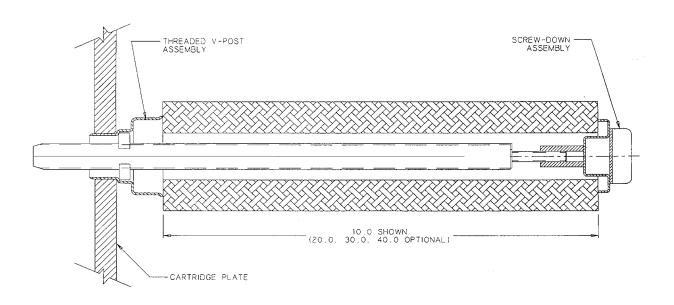
Material							Pressure Loss (psi/foot length) in Pipes at Average Flow Velocity (ft/sec)												Equivalent Pipe Lengths (ft.) for Circuit Components						
Size	Pipe	O.D.	I.D.	Wall	I.D. Area	5		5 7		1	0	1	5	20		25		30		Tee		Elbow		v	
(Inches)	Hose	Inches	Inches		Sq. In.	Loss	GPM	Loss	GPM	Loss	GPM	Loss	GPM	Loss	GPM	Loss	GPM	Loss	GPM	凸		曲	Ð	Ь	
	PIPE-SCH 40	.405	.269	.068	.057	1.25	.89	1.79	1.24	2.60	1.75	3.16	2.67	5.47	3.56	6.20	4.45	7.07	5.34						
1/8	PIPE-SCH 80	.405	.215	.095	.036	1.89	.56	3.05	.78	4.26	1.12	5.20	1.68	8.38	2.24	11.1	2.80	12.7	3.36						
	HOSE	-	.125	-	.012	5.96	.186	8.37	.260	11.9	.372	18.0	.558	24.0	.744	30.0	.930	35.7	1.11						П
	PIPE-SCH 40	.540	.364	.088	.104	.67	1.62	1.05	2.27	1.64	3.24	1.92	4.96	2.97	6.48	3.23	8.10	3.73	9.72						
1/4	PIPE-SCH 80	.540	.302	.119	0.72	1.11	1.12	1.49	1.57	2.11	2.24	2.84	3.36	4.15	4.48	5.08	5.60	6.30	6.72						
	HOSE	-	.250	-	.049	1.57	.758	2.17	1.08	3.00	1.49	4.49	2.23	6.04	2.98	7.49	3.72	8.95	4.44						
	PIPE-SCH 40	.675	.493	.091	.191	.39	2.98	.57	4.18	.86	5.96	1.05	8.94	1.69	11.92	4.27	14.9	5.78	16.9	2.7	.8	2.7	1.2	2.7	.6
3/8	PIPE-SCH 80	.675	.423	.126	.140	.54	2.18	.74	3.06	1.10	4.36	1.34	6.54	1.97	8.72	5.19	10.9	7.20	13.1						
	HOSE	-	.375	-	.110	.685	1.71	.97	2.43	1.34	3.35	2.02	5.03	2.68	6.71	3.33	8.36	3.99	10.0						
	PIPE-SCH 40	.840	.622	.109	.304	.24	4.74	.36	6.65	.49	9.48	.68	14.22	2.09	18.98	3.38	23.7	4.28	28.4	3.5	1.05	3.5	1.5	3.5	.75
1/2	PIPE-SCH 80	.840	.147	.234	.30	3.65	.45	5.12	.71	7.30	.78	10.9	10.9	2.47	14.6	3.61	18.2	5.00	21.9	2.9	.9	2.9	1.4	2.9	.68
1/2	PIPE-SCH XX	.840	.252	.294	.050	1.54	.78	2.19	1.09	3.08	1.56	3.65	2.34	6.13	3.12	7.48	3.90	9.55	4.68						
	HOSE	ı	.500	-	.196	.387	3.03	.547	4.30	.755	5.94	1.13	8.90	2.4	11.9	3.15	15.3	4.5	17.7						
	PIPE-SCH 40	1.050	.824	.113	.533	.14	8.32	.22	11.7	.27	16.6	.78	25.0	1.47	33.3	2.19	416	3.00	49.9	4.5	1.4	4.5	2.1	4.5	1.0
2.4	PIPE-SCH 80	1.050	.742	.154	.432	.16	6.74	.26	9.45	.37	13.5	.87	20.2	1.71	27.0	2.48	33.7	3.52	40.4	4.0	1.2	4.0	1.6	4.0	.8
3/4	PIPE-SCH XX	1.050	.434	.308	.148	.53	2.31	.67	3.24	1.05	4.62	1.31	6.93	1.94	9.24	5.06	11.6	7.02	13.9						
	HOSE	-	.750	-	.442	.171	6.82	.248	9.92	.336	13.4	.502	20.1	1.33	26.8	2.02	33.4	2.90	41.3						
	PIPE-SCH 40	1.315	1.049	.133	.863	.10	13.5	.13	18.9	.34	26.9	.57	40.4	1.42	53.8	1.64	67.3	2.24	80.7	5.7	1.7	5.7	2.6	5.7	1.2
1	PIPE-SCH 80	1.315	.957	.179	.719	.11	11.2	.15	15.7	.24	22.4	.62	33.6	1.23	44.8	1.84	56.1	2.93	67.3	5.2	1.6	5.2	2.5	5.2	1.1
'	PIPE-SCH XX	1.315	.599	.358	.863	.26	4.39	.37	6.16	.53	8.78	.67	13.2	2.25	17.6	3.29	22.0	4.20	26.3	3.0	1.0	3.0	1.5	3.0	.75
	HOSE	-	1.00	-	.785	.097	12.2	.136	17.1	.194	24.4	.610	36.6	.987	48.8	1.51	61.2	2.02	73.4						
	PIPE-SCH 40	1.660	1.380	.140	1.496	.05	23.4	.08	31.7	.25	46.7	.39	70.1	.78	93.4	1.18	117	1.47	140	7.5	2.4	7.5	3.7	7.5	1.6
1-1/4	PIEP-SCH 80	1.660	1.278	.191	1.280	.07	20.0	.09	28.1	.26	39.9	.44	58.9	.85	79.8	1.27	99.8	1.80	120	7.0	2.1	7.0	3.5	7.0	1.5
1-1/4	PIPE-SCH XX	1.660	.896	.382	.630	.13	9.83	.16	13.8	.24	19.7	.71	29.5	1.35	39.3	2.01	49.2	2.76	59.0	4.9	1.5	4.9	2.3	4.9	1.1
	HOSE	ı	1.25	-	1.23	.062	19.1	.087	26.8	.125	38.2	.436	57.3	.738	76.4	1.08	95.5	1.52	115						
	PIPE-SCH 40	1.900	1.610	.145	2.046	.04	31.8	.06	44.5	.19	63.5	.33	95.3	.64	127	.96	159	1.26	191	9.0	2.8	9.0	4.3	9.0	2.0
1-1/2	PIPE-SCH 80	1.900	1.500	.200	1.767	.04	27.6	.06	38.6	.21	55.1	.42	82.7	.71	110	1.06	138	1.36	166	8.2	2.6	8.2	4.2	8.2	1.8
	PIPE-SCH XX	1.900	1.100	.400	.950	.09	14.8	.09	20.8	.32	29.6	.51	44.4	1.05	59.2	1.51	74.1	2.14	88.9	6.5	2.0	6.5	3.0	6.5	1.4
	HOSE	-	1.50	-	1.77	.044	27.7	.061	38.6	.180	55.1	.353	82.7	.59	110	.86	138	1.21	166						
	PIPE-SCH 40	2.375	2.067	.154	3.355	.03	52.3	.08	73.4	.14	105	.24	159	.48	209	.69	262	.85	324	11.0	3.5	11.0	5.5	11.0	2.5
2	PIPE-SCH 80	2.375	1.939	.218	2.953	.03	46.0	.09	64.6	.15	92.0	.26	138	.52	184	.73	230	.98	275	10.8	3.4	10.8	5.0	10.8	2.4
	PIPE-SCH XX	2.375	1.503	.436	1.773	.04	27.7	.12	38.8	.21	55.3	.36	82.9	.72	111	1.34	138	1.36	166	8.2	2.6	8.2	4.0	8.2	1.8
	HOSE	-	2.00	-	3.14	.024	48.9	.034	68.6	.123	97.8	.256	147	.41	196	.60	245	.80	293						
	PIPE-SCH 40	2.875	2.469	.203	4.788	.03	74.8	.07	105	.11	149	.20	224	.37	299	.53	374	.72	449	14.0	4.2	14.0	6.5	14.0	3.0
2-1/2	PIPE-SCH 80	2.875	2.323	.276	4.238	.03	66.1	.07	92.6	.12	132	.21	198	.39	264	.57	331	.87	397	13.0	4.0	13.0	6.1	13.0	2.9
2-1/2	PIPE-SCH XX	2.875	1.771	.552	2.464	.03	38.5	.10	53.4	.17	76.9	.30	115	.59	154	.79	193	1.15	231	10.3	3.1	10.3	4.8	10.3	2.2
	HOSE	-	2.50	-	4.91	.016	76.5	.045	107	.09	153	.18	229	.30	306	.43	382	.617	459						

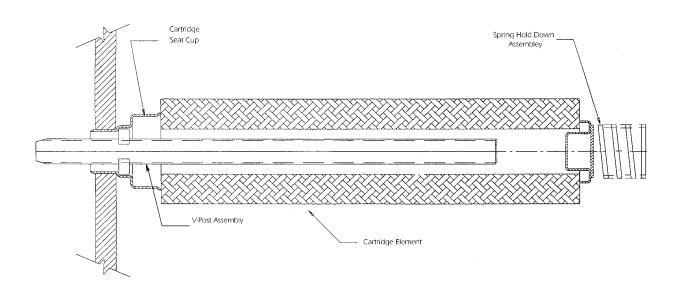
☐ Orifice Pressure Drop

Approximate data. Based on specific gravity = 0.9, viscosity = 100 SSU.



Rosedale Cartridge Sealing Options For Standard Vessels





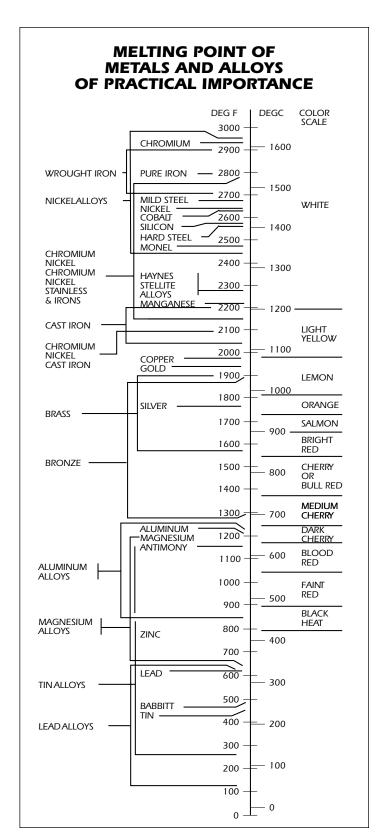
The accompanying chart not only lists the melting points of various alloys and metals but also serves as a convenient means for conversion between Centigrade and Fahrenheit temperature scales. In addition, on the far right of the scale are shown the color designations that are commonly used in judging the temperatures of hot metal by color.

Melting Points

This chart should prove useful to all welding operators for it contains basic information on working with metals at elevated temperatures. Reference to the chart, for instance, shows why aluminum and aluminum alloys, because of their low melting points, give little or no indication by change in color when they approach welding heat. On the other hand, the high melting point of wrought iron explains why considerably more heat is required to weld this metal than is required for cast iron, for instance.

Temperature Color Scale

Another use for the chart is in estimating the temperature by color. For instance, instructions may require that the part be preheated to 1,100 deg. F. before welding. If you are without a thermocouple or other means for accurately measuring high temperatures, reference to the chart shows the part, at 1,100 deg. F. would have a bloodred color. With a little experience, you can estimate this fairly closely by eye. In this connection, it should be mentioned that the color scale is for observations made in a fairly dark place and without



welding goggles. As the light increases, the color groups on the scale will apply to higher temperatures.

Conversion Data

Finally, the chart is a ready means for converting Fahrenheit to Centigrade, and vice versa. Suppose you are familiar with the Fahrenheit scale, yet instructions call for the quenching of a welded part from 900 deg. C. Reference to the chart shows this to be approximately 1,650 deg. F.

(Stuff You Probably Know)

- 1. PASCAL'S LAW: Pressure exerted on a confined fluid is transmitted undiminished in all directions and acts with equal force on all equal areas and at right angles to them.
- 2. Hydraulics is a means of power transmission.
- 3. Work is force acting through a distance. WORK = FORCE X DISTANCE.

Example: Work (in. lbs.) = Force (lbs.) x Distance (in.)

- 4. Power is the rate of doing work.

 Power = Work = Force x Distance
 Time Time
- 5. The force (pounds) exerted by a piston can be determined by multiplying the piston area (square inches) by the pressure applied. (PSI)

Force = Pressure x Area

(To find the area, square the diameter and multiply by .7854) $A = D^2 \times .7854$ or Area = Diameter² x .7854

6. To determine the volume (cubic inches) required to move a piston a given distance, multiply the piston cross sectional area (sq. Inches) by the stroke required (inches).

 $Volume = Area \times L$

- 7. Hydraulic oil serves as a lubricant and is practically non-compressible. It will compress approximately .4 of 1% at 1000 PSI and 1.1% at 3000PSI, at 120°F.
- 8. The weight of hydraulic oil may vary with a change in viscosity, however, 55 to 58 lbs. per cubic foot covers the viscosity range from 150 SSU to 900 SSU at 100°F.
- 9. Pressure at the bottom of a one foot column of oil will be approximately 0.4 PSI. To find the approximate pressure in psi at the bottom of any column of oil, multiply the height in feet by 0.4.
- 10. Atmospheric pressure equals 14.7 PSIA at sea level. ΔP means pressure difference.
- 11. Gage readings do not include atmospheric pressure unless marked PSIA.
- 12. There must be a pressure drop (pressure difference) across an orifice or restriction to cause flow through it. Conversely, if there is no flow there will be no pressure drop.

 F = P x A
- 13. A fluid is pushed, not drawn, into a pump. If pumping from an open reservoir, atmospheric pressure pushes the fluid into the pump. Some pumps are used specifically to create pressure, any resulting flow is incidental.
- 14. A pump does not pump pressure; its purpose is to create flow. Pumps used to transmit power are usually positive displacement type.
- 15. Pressure is caused by resistance to flow. A pressure gage indicates the pressure in some unit as psi.

Force Equals Pressure Times Area

PRESSURES CREATE LARGE FORCES AND RESISTANCE OF OR inducating that the commended pressure of th 43 and pinous free transmit states and states are states and states and states are states and states and states are states are states and states are states and states are state Jerformance and value.

Most differential pressure indicators use a piston connected through a small hole in the side of the filter. This hole could clog, or the piston could easily be blocked or restricted. Rosedale's piston is much larger in diameter and surface area, requiring a greater blockage to restrict it, and since it is inside the housing, there is no outside hole to clog. It produces a cleaner, more accurate and reliable unit, providing excellent

Rosedale

Rosedale Model 4 **Basket Diameter**

15 sq. in. @ 15 L.

		Model 4
Piston Diameter	.38	4.38
(F=P X A) Force Exerted @ 15 psi	1.65 lbs. of force	225.00 lbs. of force

Standard

Properties of American National Standard Schedule 40 Welded and Seamless Wrought Steel Pipe

Dia	Diameter, Inches		cness s) ional			ht per Pounds		ity per Length	Length o		Properties of Sections		
Nominal	Actual Inside	Actual Outside	Wall Thickness (Inches)	Cross-Sectional Area of Metal	Of Pipe	Of Water in Pipe	In Cubic Inches	In Gallons	One Cubic Foot	One Gallon	Moment Of Inertia	Radius of Gyration	Section Modulus
1/8 1/4 3/8 1/2 3/4 1 1-1/4 1-1/2 2-1/2 3 3-1/2 4 5 6 8 10 12	0.269 0.364 0.493 0.622 0.824 1.049 1.380 1.610 2.067 2.469 3.068 3.548 4.026 5.047 6.065 7.981 10.020 11.938 15.000	0.405 0.540 0.675 0.840 1.050 1.315 1.660 1.900 2.375 2.875 3.500 4.000 4.500 5.563 6.625 8.625 10.750 12.750	0.068 0.088 0.091 0.109 0.113 0.133 0.140 0.145 0.203 0.216 0.226 0.236 0.258 0.280 0.322 0.365 0.406 0.500	0.072 0.125 0.167 0.250 0.333 0.494 0.669 0.799 1.075 1.704 2.228 2.680 3.174 4.300 5.581 8.399 11.91 15.74 24.35	0.24 0.42 0.57 0.85 1.13 1.68 2.27 2.72 3.65 5.79 7.58 9.11 10.79 14.62 18.97 28.55 40.48 53.52 82.77	0.025 0.045 0.083 0.123 0.231 0.374 0.648 0.882 1.454 2.074 3.202 4.283 5.515 8.666 12.52 21.67 34.16 48.49 76.55	0.682 1.249 2.291 3.646 6.399 10.37 17.95 24.43 40.27 57.45 88.71 118.6 152.8 240.1 346.7 600.3 946.3 1343.	0.003 0.005 0.010 0.016 0.028 0.045 0.078 0.106 0.174 0.249 0.384 0.514 0.661 1.50 2.60 4.10 5.81	2532. 1384. 754.4 473.9 270.0 166.6 96.28 70.73 42.91 30.08 19.48 14.56 11.31 7.198 4.984 2.878 1.826 0.8149	338.7 185.0 100.8 63.35 36.10 22.27 12.87 9.456 5.737 4.021 2.604 1.947 1.512 0.9622 0.6663 0.3848 0.2441 0.1720	0.00106 0.00331 0.00729 0.01709 0.03704 0.08734 0.1947 0.3099 0.6658 1.530 3.017 4.788 7.233 15.16 28.14 72.49 160.7 300.2 732.0	0.122 0.163 0.209 0.261 0.334 0.421 0.539 0.623 0.787 0.947 1.163 1.337 1.510 1.878 2.245 2.938 3.674 4.364	0.00525 0.01227 0.02160 0.04070 0.07055 0.1328 0.2346 0.3262 0.5607 1.064 1.724 2.394 3.215 5.451 8.496 16.81 29.91 47.09 91.50
18 20	16.876 18.812	18.000 20.000	0.562 0.594	30.79 36.21	104.7 123.1	96.90 120.4	2684. 3335.	11.62 14.44	0.6438 0.5181	0.0861 0.0693	1172. 1706.	6.168 6.864	130.2 170.6
24 32	22.624 30.624	24.000 32.000	0.688 0.688	50.39 67.68	171.3 230.1	174.1 319.1	4824. 8839.	20.88	0.3582 0.1955	0.0479 0.0261	3426. 8299.	8.246 11.07	285.5 518.7

Note: Torsional Section Modulus Equals Twice Section Modulus.

Properties of American National Standard Schedule 80 Welded and Seamless Wrought Steel Pipe

Dia	Diameter, Inches		rness s)	ional	Weight per Foot, Pounds			ity per Length	Length o		Prop	ctions	
Nominal	Actual Inside	Actual Outside	Wall Thickness (Inches)	Cross-Sectional Area of Metal	Of Pipe	Of Water in Pipe	In Cubic Inches	In Gallons	One Cubic Foot	One Gallon	Moment Of Inertia	Radius of Gyration	Section Modulus
1/8 1/4 3/8 1/2 3/4 1 1-1/4 1-1/2 2 2-1/2 3 3-1/2 4 5 6 8	0.215 0.302 0.423 0.546 0.742 0.957 1.278 1.500 1.939 2.323 2.900 3.364 3.826 4.813 5.761 7.625 9.562	0.405 0.540 0.675 0.840 1.050 1.315 1.660 1.900 2.375 2.875 3.500 4.000 4.500 5.563 6.625 8.625	0.095 0.119 0.126 0.147 0.154 0.179 0.200 0.218 0.276 0.301 0.318 0.337 0.375 0.432 0.594	0.093 0.157 0.217 0.320 0.433 0.639 0.881 1.068 1.477 2.254 3.016 3.678 4.407 6.112 8.405 12.76	0.315 0.537 0.739 1.088 1.474 2.172 2.997 3.631 5.022 7.661 10.25 12.50 14.98 20.78 28.57 43.39 64.42	0.016 0.031 0.061 0.101 0.187 0.312 0.556 0.766 1.279 1.836 2.861 3.850 4.980 7.882 11.29 19.78	0.436 0.860 1.686 2.810 5.189 8.632 15.39 21.21 35.43 50.86 79.26 106.7 138.0 218.3 312.8 548.0 861.7	0.0019 0.0037 0.0073 0.0122 0.0225 0.0374 0.0667 0.0918 0.1534 0.2202 0.3431 0.4617 0.5972 0.9451 1.354 2.372	3966. 2010. 1025. 615.0 333.0 200.2 112.3 81.49 48.77 33.98 21.80 16.20 12.53 7.915 5.524 3.153 2.005	530.2 268.7 137.0 82.22 44.52 26.76 15.01 10.89 6.519 4.542 2.914 2.166 1.674 1.058 0.732 0.426	0.00122 0.00377 0.00862 0.02008 0.04479 0.1056 0.2418 0.3912 0.8680 1.924 3.895 6.280 9.611 20.67 40.49 105.7 245.2	0.115 0.155 0.199 0.250 0.321 0.407 0.524 0.605 0.766 0.924 1.136 1.307 1.477 1.839 2.195 2.878	0.00600 0.01395 0.02554 0.04780 0.08531 0.1606 0.2913 0.4118 0.7309 1.339 2.225 3.140 4.272 7.432 12.22 24.56
12 14	11.374	12.750 14.000	0.688 0.750	26.07	88.63	44.02	1219. 1473.	5.278	1.417 1.173	0.189 0.157	475.7 687.4	4.271 4.692	74.62
16	12.500 14.312	16.000	0.750	31.22 40.19	106.1 136.6	53.16 69.69	1931.	6.375 8.357	0.895	0.137	1158.	5.366	98.19 144.7
18	16.124	18.000	0.938	50.28	170.9	88.46	2450.	10.61	0.705	0.094	1835.	6.041	203.9
20 22	17.938 19.750	20.000 22.000	1.031 1.125	61.44 73.78	208.9 250.8	109.5 132.7	3033. 3676.	13.13 15.91	0.570 0.470	0.076 0.063	2772. 4031.	6.716 7.391	277.2 366.4
	17.730	22.000	1.123	73.70	230.0	132.7			O.T/O				

Note: Torsional Section Modulus Equals Twice Section Modulus.

Hardness-Tensile Strength Conversion Chart For Steels

Hardness Number												
Vickers ^a	Brinell ^b		Roc	kwell		Shore	Tensile Strength,					
	Steel WC Ball Ball	Ac	B ^d	Ce	D ^f							
680 640 600 550 500	638 601 564 505 517 465 471	80.8 79.8 78.6 77.0 75.3		59.2 57.3 55.2 52.3 49.1	70.1 68.7 67.0 64.8 62.2	80 77 74 66	329 309 289 264 240					
480 460 440 420 400	448 452 433 433 415 415 397 397 379 379	74.5 73.6 72.8 71.8 70.8		47.7 46.1 44.5 42.7 40.8	61.3 60.0 58.8 57.5 56.0	64 62 59 57 55	230 220 210 200 190					
390 380 370 360 350 340 330	369 369 360 360 350 350 341 341 331 331 322 322 313 313	70.3 69.8 69.2 68.7 68.1 67.6	(110.0) (109.0) (108.0)	39.8 38.8 37.7 36.6 35.5 34.4 33.3	55.2 54.4 53.6 52.8 51.9 51.1 50.2	52 50 47	185 180 175 170 166 161					
320 310 300 295 290 285 280	303 303 294 294 284 284 280 280 275 275 270 270 265 265	66.4 65.8 65.2 64.8 64.5 64.2 63.8	(107.0) (105.5) (104.5) (103.5)	32.2 31.0 29.8 29.2 28.5 27.8 27.1	49.4 48.4 47.5 47.1 46.5 46.0 45.3	45151 42 41 40	146 141 139 136 134 131					
275 270 265 260 255 250	261 261 256 256 252 252 247 247 243 243 238 238	63.5 63.1 62.7 62.4 62.0 61.6	(120.0) (101.0) 99.5	26.4 25.6 24.8 24.0 23.1 22.2	44.9 44.3 43.7 43.1 42.2 41.7	38 37 	129 126 124 121 119 116					
245 240 230 220 210	233 233 228 228 219 219 209 200 200	61.2 60.7 95.0	98.1 96.7 (15.7) 93.4	21.3 20.3 (18.0) (13.4)	41.1 40.3 32	34 33 101 30	114 111 106 97					
200 190 180 170 160	190 190 181 181 171 171 162 162 152 152		91.5 89.5 (6.0) 85.0 81.7	(11.0) (8.5) (3.0) (0.0)	 26 	29 28 84 25 24	92 88 79 75					
150 140 130 120	143 143 133 133 124 124 114 114 105 105		78.7 75.0 71.2 66.7 62.3			22 21 20 	71 66 62 57					
100 95 90 85	95 95 90 90 86 86 81 81		56.2 52.0 48.0 41.0									

a. Diamond pyramid indenter; 5-120 kg load. b. 10mm diameter ball, hardened steel or tungsten carbide; 3,000 kg load. c. Brale (diamond cone) indenter; 60 kg load. d. 1/16-inch diameter steel ball; 100 kg load. e. Brale (diamond cone) indenter; 150 kg load. f. Brale (diamond cone) indenter; 100 kg load. g. Sclerosope; Diamond-tipped hammer.

Note: Vickers, Brinell, and Rockwell tests indicate hardness by indentation measurements; Shore test indicates hardness by height of rebond. Values in parentheses are approximate. Reference: ASM Metals Handbook, 8th Edition, Vol 11, Nondestructive Inspection and Quality Control.

Radiography

Radiography is one of the methods of NDE (Non Destructive Examination) tools utilized in the fabrication of pressure vessels (i.e., Rosedale Filter Vessels). Radiography is a tool used to verify that the welds of the pressure vessel are within allowable quality limits.

The "ASME Code Section VIII, Division 1 Pressure Vessels" gives guidelines for the use of radiography. Radiography is required in Code fabrication for vessels used to contain lethal substances (Lethal Service), when weld joints exceed thickness limits and in unfired steam boilers. For all of Rosedale's standard filter vessels, radiography is not a Code requirement.

When designing a pressure vessel, joint efficiencies are established based on the degree of radiographic examination (Full, Spot or None). Higher joint efficiencies are assigned to higher degrees of examination. Determining the joint efficiency is one design parameter that is critical to optimizing the design of a pressure vessel. This optimization allows for the most economical and efficient usage of components to fabricate the pressure vessel. Therefore, Rosedale can provide a competitively priced filter vessel based on your requirements.

The ASME Code defines several levels of examination. These defined below:

RT-1 Full Radiography

When the complete vessel satisfies the full radiography requirements of UW-11(a) and when the spot radiography provisions of UW-11(a)(5) have not been applied.

RT-2 Full Radiography

When the complete vessel satisfies the full radiography requirements of UW-11(a)(5) and when the spot radiography provisions of UW-11(a)(5)(b) have been applied.

RT-3 Spot Radiography

When the complete vessel satisfies the spot radiography requirements of UW-11(b).

RT-4 Radiography by Designer

When only part of the vessel has satisfied the radiographic requirements of UW-11(a) or when none of the markings RT-1, RT-2, or RT-3 are applicable.

The implications of each of the above levels of radiography can vary depending on the design of your filter vessel. The interpretation of what is required should be determined by Rosedale's engineering staff.

These definitions can also be misleading because of changes in definitions over the years by ASME, misinterpretation of "Full" vs. "Spot" radiography requirements, and customer defined radiography requirements.

Often customers, engineering firms, or end users will specify radiography or other NDE requirements beyond what is specified by the ASME Code. Rosedale can ensure compliance with the requirements of the ASME Code or customers specifications.

Glossary



ABRASION: Migration of foreign material which enters the fluid stream from system components that wear from close tolerances, vibration, or shock.

ABRASIVE: Any solid material, such as grit, with erosive properties.

ABRASIVES: Hard structurally strong solid.

ABSOLUTE: An arbitrary term used to describe or define a degree of filtration. The filtration industry uses various methods of determining absolute ratings which are not necessarily interchangeable. Generally absolute references 100% removal of solids (glass beads) above a specified micron rating on a single pass basis. See nominal.

ABSOLUTE: The sum of gage pressure and atmospheric pressure.

ABSORB: To take up by cohesive, chemical or molecular action.

ABSORBENT: A filter medium that holds contaminants by mechanical means. When one substance soaks completely through another, sometimes undergoing a chemical change.

ACIDITY: The quality, state, or degree of being acid. In lubricating oils, acidity denotes the presence of acid-type constituents whose concentration is usually defined in terms of a neutralization number. The constituents vary in nature and may or may not markedly influence the behavior of the fluid.

ADDITIVE: A material, usually chemical, added to a product to impart new or unusual characteristics or to improve existing characteristics.

ADSORB: To take up by adhesion of molecules of gases or dissolved substances to the surface of solid bodies, resulting in high concentration of the gas or solution at place of contact. Gas or solution is condensed on the surface of the adsorbent, while in adsorption, the material absorbed penetrates throughout the mass of absorbent.

ADSORBATE: The material which is adsorbed; i.e., the gas, vapor, or liquid which adheres or is chemically attracted to the surface of the solid.

ADSORBENT: A material which adsorbs: i.e., the solid which attracts and holds on its surface the gas, vapor, or liquid. Also materials added to liquors to decolorize or purify by adsorbing the color or impurity. Fuller's earth, activated carbon, activate alumina, etc. are all adsorbents.

ADSORBENT: A filter medium primarily intended to hold soluble and insoluble contaminants on its surface by molecular adhesion - no chemical change.

ADSORPTION: The natural phenomenon of a gas, vapor, or liquid being attracted to and held on the surface of a solid. To some extent adsorption takes place on any solid surface, but certain materials have sufficient adsorbent capacity because of the finely divided material to make them useful in such industrial applications as the purification and separation of gases and liquids.

AGGLOMERATE: A group of two or more particles combined, joined, or clustered, by any means.

AGGREGATE: A relatively stable assembly of dry particles formed under the influence of physical forces.

AMBIENT: Surrounding. For example, ambient operating temperatures of a vessel is temperature essentially the same as that surrounding the vessel.

ASME: American Society of Mechanical Engineers.

ASPHALTINE: Product of partial oxidation of oil.

ATMOSPHERIC PRESSURE: The force exerted on a unit area by the weight of the atmosphere.

ATOM: Smallest particle of an element which retains properties of the element. Example: Carbon atom (C).

AUTOCLAVE: Sterilizing apparatus which uses steam at high pressure.



BACK PRESSURE: In filter use, resistance offered by filter, usually measured in PSI.

BACKWASH: To clean a filter element by reversing the direction of flow through it.

BASKET STRAINER: Vessel for the removal of coarse bulk solids from liquid, air, or gas; element is a basket covered with a screen of a given mesh.

BED (CAKE): Mass of impurities which form on a filter element.

BLEEDER: A system in which part of **BETA RATIO:** An accurate indication of how the filter performs throughout the life of the filter. The Beta Ratio is an average filtration rating.

the fluid from the main flow is diverted.

BLOTTER TEST: A visible means of checking oil clarity; one drop on a blotter will concentrate dirt or foreign matter in the center of the ring.

BLOWBACK: To reverse flow air, steam, or fluid through the media to effect solids removal. Sometimes referred to as backwash.

BRIDGING: A condition of filter element loading in which contaminant spans the space between adjacent sections of a filter element thus blocking a portion of the useful filtration area.

BUNA N: Gasket material. A synthetic rubber frequently used for vessel closures, flanges, and filter elements.

BURST: An outward structural failure of the filter element caused by excessive differential pressure.

BY-PASS: Condition resulting from the product flowing through a vessel other than through the media. Also a filtering system which filters only part of the stream on a continuous basis.

BY-PASS INSTALLATION: A system where part of the main flow is diverted to pass through a filter.

BY-PASS VALVE: Valve to pass the flow around the media or the vessel, usually activated at a given differential pressure setting.

C

CAKE: Solids deposited on the filter medium during filtration in sufficient thickness to be removed in sheets of sizable pieces. In many cases, cake may provide its own filter media by adding to the surface of media. Also referred to as discharged solids or residue.

CANISTER: Container or mounting mechanism for elements.

CAPACITY: Volume of product which a vessel will accommodate. This is expressed in gallons or similar units. Also amount which will filter at a given efficiency and flow rate, expressed in gallons per minute or similar units.

CARTRIDGE: Removable medium used in a vessel to perform the function of coalescing, filtering, or separating. Also referred to as element, media, repack, etc. Made in a specified physical shape to be mounted by use of hardware designed for that purpose.

CARTRIDGE: The porous device, usually fitting in a filter housing, which performs the actual process of filtration.

CENTER PIPE: Component of a vessel which is used as a mount for cartridges. Made with perforated effect to accommodate flow. A center rod is used for the same purpose but is not perforated and does not accommodate flow.

CENTER-ROD: Components of a vessel used for mounting cartridges in the vessel. Usually made of a round bar material. A center pipe can also be used for the same purpose, but is made with perforated effect and directs flow through the cartridge.

CENTER SEAL: Part which forms seal between two elements when one element is on the top of another element. Can also be called an adaptor.

CENTER TUBE: Component of an element or cartridge which supports the media at the center or smallest diameter.

CENTIPOISE: One one-hundredth of a poise. A poise is the unit of viscosity expressed as one dyne per second per square centimeter.

CENTISTOKE: One one-hundredth of a stoke. A stoke is equal to the viscosity in poises times the density of the fluid in grams per cubic centimeter.

CHANNEL: To cut grooves or lines in or through the solids deposited on the media, or through the media itself. Also may be described as a break-through in the media which would result in a by-pass.

CLEANER BLADES: Stationary blades located between stacked discs of a metallic self cleaning filter cartridge to comb out dirt particles as the cartridge is rotated.

CLOUD POINT: Temperature of a petroleum oil at which paraffin, wax or other solid substances begin to crystallize out or separate from solution when the oil is chilled under definite prescribed conditions.

COAGULANT: That which produces agglomeration of suspended solids.

COALESCER: A mechanical device which unites discrete droplets of one phase prior to being separated from a second phase. Can be accomplished only when both phases are immiscible. Requires a tight media which is preferentially wettable and, by its nature of being tight, the media is also a good filtering material. Good coalescing permits gravity separation of the discontinuous phase. Coalescing may be accomplished by only a coalescer cartridge when the specific gravities of the two phases are widely separated. As the gravities difference become less, the two stage principle is generally required where finely coalesced discontinuous droplets are repelled by the second stage separator cartridge.

COALESCING: The action of uniting of small droplets of one liquid preparatory to its being separated from another liquid.

COLLAPSE PRESSURE: The pressure impressed across a filter element (cartridge), sufficient to cause collapse of the element.

COMBINATION: A filter medium composed of two or more types, grade or arrangements of filter media to provide proportion which are not available in a single filter medium.

CONTAMINANT: Anything in the fluid that should not be there.

CONTAMINATE: The foreign matter in a fluid which is accumulated from various sources such as system dirt, residue from wear of moving parts, atmospheric solids which settle in an open system. Contaminates tend to discolor a liquid, cause additional wear on moving parts, cause system upsets in process stream, or reduce the efficiency of a fluid. Water as well as solid may be considered a contaminate when the presence of water causes adverse results. The presence of contaminates, whether liquid or solid, is the basis on which the use of filters or separator/filters are sought.

CORE: Material used for the center of an element, generally of the wound design. May also be called a center tube when used in the coalescer, separator, or other type filter element.

CORROSION: The conversion of metals into oxides, hydrated oxides, carbonates, or other compounds due to the action of air or water, or both. Salts and sulphur are also important sources of corrosion. Removal of solids and water reduces the effect or speed of corrosion in many cases; and in other cases, corrosion inhibitors are used to reduce the effect of corrosion.

CP: A section of less dense material in the media which allow a cold liquid to flow through the element controlling pressure drop below bypass opening.

DEGRADATION: Wearing down, or reduction in the efficiency, of a media.

DEGREE OF FILTRATION: Fineness of a filter medium-size of the smallest particles filtered out.

DELTA "P": A Symbol (P) designating pressure drop. The difference in pressure between two points, generally measured at the inlet and outlet of a filter, separator/filter, etc. Normally measured in pounds per square inch (psi), inches of mercury (In. Hq.), or inches of water (In. H20).

DENSITY: The weight per unit volume of a substance (specific weight).

DEPTH: A filter medium which primarily retains contaminants within the tortuous passages within the thickness of the element wall.

DEPTH TYPE FILTRATION: Filtration accomplished by flowing a fluid through a mass filter media providing a tortuous path with many entrapments to stop the contaminates. Flow may be cross flow such as from the outside to inside and then down the center of an element, or from end to end. Certain types of solids, or combinations of solids, do not lend to surface filtration and depth type filtration is found to be more suitable.

DETERGENT OILS: Lubricating oils possessing special sludge dispersing properties commonly used in internal combustion engines. These properties are incorporated in the oil by the use of special additives.

DIELECTRIC: A substance which will not conduct electricity.

DIFFERENTIAL PRESSURE: The difference in pressure between two given points of a filter, separator/filter, etc.

DILATANT: A flow condition where certain liquids will show an increase in viscosity as the rate of shear or flow volume is increased.

DIRT HOLDING PRESSURE: The volume of contaminate an element can hold before reaching the maximum allowable pressure drop. Volume will vary depending on the size and design of the element and the density of the solid particles. Usually reported by weight such as grams or pounds per element. Also called solids retention or solids holding capacity.

DISCHARGE: Flow rate through a filter.

DISPOSABLE: Describes element which is to be discarded after use and replaced with an identical element. Same as replaceable. Opposite of reusable.

DUAL DENSITY: A depth element that is constructed of two different medias not blended into a homogeneous mixture but remaining as two different distinctive medias.

DROP: The quantity of fluid which falls into one spherical mass; a liquid globule. May also be described as several to many droplets.

DROPLET: A minute drop which mates to form larger drops capable of falling by gravity.

EDGE FILTER: Filter using shearing edges to separate solids from a liquid by shearing the oil film surrounding the particles (solid particles).

EDGE TYPE: Applies to liquid filters constructed of metal or paper discs, or specially constructed wire wound cylinders; contaminants are entrapped at the edges of the medium. Generally used to remove small quantities of very fine particles. Some have knife or blade cleaners to remove the accumulated solids.

EFFECTIVE AREA: The area of a medium that is exposed to flow and usable for its intended purpose: coalescing, filtering, or separating. Opposite of blind spots or dead area.

EFFECTIVE OPEN AREA: Area of the filtering medium through which the fluid may flow.

EFFICIENCY: Degree to which element will perform in removing solids and/or liquids. Output divided by input.

ELEMENT: Medium used in vessel to perform the function of coalescing, filtering, or separating. Also referred to as a cartridge, repack, etc. The porous device which performs the actual process of filtration.

ELEMENT BY-PASS VALVE: A valve within a filter to limit the differential pressure which can be impressed across the filter element.

EMULSIFICATION: A dispersion of one substance in the form of minute drops within another substance.

EMULSION: A dispersion of fine liquid particles in a liquid stream which do not necessarily dissolve in each other but are held in suspension. Many emulsions may be broken by coalescing if the liquids are immiscible. Emulsion stabilizers modify the surface tension of the droplets which makes coalescing difficult, if not impossible.

ENTRAINED WATER: Discrete water droplets carried by a continuous liquid or gas phase when water is immiscible with the liquid. May be separated from the continuous phase by coalescing and gravity separation. Usually picked up in a system by condensation or a water washing used in process.

ENTRAINMENT: Mist, fog, or droplets of a liquid which is usually considered to be a contaminate when used in the filtration industry.

EXTENDED AREA: Principal of shaping the element to give it more effective area than a simple cylinder of the same size.

FELTED ELEMENT: Constructed by random layer of fibers, usually strengthened by a resin binder

FIBER: Flexible material with two relatively small dimensions and one long dimension.

FILTER: A term generally applied to a device used to remove solid contaminate from a liquid or gas, or separate one liquid from another liquid or gas. A filter, as referred to in the industry today, is a device which removes contaminates. If a device is used to remove solids and liquids contaminates, it is referred to in general terms as a separator, separator/filter, or entrainment separator. A filter may be one of a number of such types as replaceable cartridge, cyclone, edge, leaf, baffle, plate and frame, pre-coat, and centrifuge. The term filter is sometimes erroneously used to describe the media used inside the vessel or filter case, but the correct use should be filter element, cartridge, etc.

FILTER/COALESCER: Single stage vessel for coalescing and separating one immiscible fluid from another and the removal of solids. Generally recommended for use where continuous phase has light gravity. Available with various efficiencies.

FILTER EFFICIENCY: Expressed as a percent of contaminant introduced to the system, it is the ability of a filter to remove specified contaminants at a given contaminant concentration under specified test condition.

FILTER ELEMENT LIFE: Span of operation from clean unit to a predetermined pressure drop build up - usually measured in lapsed time.

FILTER LIFE: Span of operation from start to complete plugging usually measured in hours of operation.

FILTER MEDIUM: The porous material mounted on a plate or frame which separates the solids from the liquids in filtering. Also referred to as filter cloth, filter plate, or septum. The material that performs the actual process of filtration.

FILTRATE: Filtered fluid which flows out of a filter

FILTRATION RATING, ABSOLUTE:

The diameter of the largest hard spherical particle that will pass through a filter under specified test conditions. This is an indication of the largest opening in the filter medium.

KARL FISCHER: Analytical method of determining amount of water present in a sample by titration.

FLOW CHARACTERISTICS: The nature of fluid movement as being turbulent, laminar, constant or variable rate to various degrees.

FILTRATION RATING, MEAN: A measurement of the average size of the pores of the filter medium.

FILTRATION RATING, NOMINAL MICRON:

An arbitrary micron value indicated by the manufacturer. Often defined: 95% of all particles this size, and larger, retained by the filter medium.

FLOW RATE: The rate at which a product is passed through a vessel or system; generally expressed as gallons per minute, barrels per hour, barrels per day, actual or standard cubic feet per minute, hour, day, etc.

FLUID: A liquid or gas which can be filtered by passing through a filter.

FREE WATER: Water entrained in a lubricating oil or fuel forming two distinct phases with the fluid and having a tendency to separate as a result of the differences in densities.

FULL FLOW: Product flow through the vessel at the rate for which the vessel is designed to operate. Also refers to all products passing through a medium. The opposite of a by-pass filter which is designed to filter only a portion of the stream on a continuous basis.

FULL FLOW FILTRATION: System which provides for filtering all the fluid which is pumped to or from wear surfaces or work stations each pass.

GAGE PRESSURE: All pressure greater than atmospheric pressure - as read on a pressure gage.

GAS SCRUBBER: A vessel designed to remove liquid and solid contaminates by impingement on a series of baffles or demister pads. Accomplished by drastic reduction of velocity as the gas enters the scrubber. Recent advances made in entrainment separation would expand the general use of the term to include mechanical cartridge type separators.

GEL: A semi-solid susceptible to pressure deformation. Has habit of sticking to surfaces.

GRADUAL DENSITY: A media of different densities. One media of a dense type packed around the center tube with a media of less density around the outside. Both medias are tapered at opposite directions. This allows high flow through the less dense media and tighter filtration through the dense media. Similar to the CP element in performance.

GRAM LIFE: Grams weight of contaminant introduced to a filter element at controlled rate to a determined differential pressure.

GRAVIMETRIC EFFICIENCY: Measure of efficiency in terms of weight.

HOLDING CAPACITY: In general usage refers to the amount of solids, particulate or foreign material one or more elements is capable of retaining up to the terminal or maximum differential pressure. Also can refer to volumetric holding capacity of either a solid or a liquid.

HOUSING: Container for a filter element (s).

HYDRAULIC FILTER, DUAL: A hydraulic filter having two filter elements in parallel.

HYDRAULIC FILTER, DUPLEX: An assembly of two hydraulic filters with valving for selection of either or both filters.

HYDRAULIC FILTER, FULL FLOW:

A hydraulic filter, which under specified conditions filters all influent flow.

HYDRAULIC FILTER, TWO STAGE:

A hydraulic filter having two filter elements in series.

HYDRAULICS: The study of fluids at rest or in motion.

HYDROPHILIC: Water accepting or water wetting. Having an affinity for water. Capable of uniting with or dissolving in water. Effective coalescing requires a media to have hydrophilic characteristics which cause free or entrained water to commingle into droplets which, when mated with other droplets, form into drops which separate by gravity. Opposite of hydrophobic.

HYDROPHOBIC: Non-water wetting. Having an antagonism for water. Not capable of uniting or mixing with water. Hydrophobic features are induced in the process of cellulose manufacture. Opposite of hydrophilic.

HYDROSTATIC TEST: A test conducted with either air, water, or other fluids at a given value over design pressure, to prove the structural integrity of a pressure vessel.

IMMISCIBLE: Incapable of being mixed; insoluble; opposite of miscible.

IMPREGNATION: Process of treating a coarse filter medium with resins.

IMPURITY: See "contaminant" - any undesirable material in the fluid.

INDICATOR, BY-PASS: An indicator which signals alternate flow.

INDICATOR DIFFERENTIAL PRESSURE:

An indicator which signals the difference in pressure at two points.

INITIAL PRESSURE DROP: Loss in differential pressure between two points upon the start of flow through a vessel using new elements.

IN-LINE: Describes inlet and outlet connections which are positioned at the same height on opposite sides of a vessel so that an imaginary straight line can be drawn connecting one to the other. Also describes a small filtration unit that fits into a line and forms a similar image to the line, as in the case of a hose.

INSOLUBLE: Incapable of being dissolved in a fluid; opposite of soluble.

INTERFACE: Surface over which continuous phase and discontinuous phase are in contact.

IMPINGEMENT: The direct high velocity impact of the fluid flow upon or against an internal portion of the filter.

KEROSENE: A petroleum liquid used as a fuel for commercial jet powered aircraft, or for heating purposes.

KNIFE EDGE PLEATS: The sharply defined creases at the outer edge of a pleated element.

LACQUER: A natural or synthetic resin which is dissolved in a suitable solvent such as hydrocarbon oil rich in aromatics. When applied, the oil solvent evaporates, leaving behind a lacquer film.

LINE SIZE: The size of line used to carry the product in a system, such as a six-inch line.

LUBRICATION: Substituting fluid friction for solid friction by inserting oil between two moving parts.

MAGNETIC SEPARATOR: A separator that uses

a magnetic field to attract and hold ferro magnetic particles.

MATRIX: The structural support yarn or twine in wound elements is usually wound in a diamond.

MAXIMUM DIFFERENTIAL PRESSURE:

The highest pressure differential which an element is required to withstand without structural failure or collapse.

MAXIMUM OPERATING PRESSURE: The maximum pressure allowed in a system.

MEDIA: Plural of medium. Material of which elements are made.

MEDIA (MEDIUM): A porous or slotted mass in

a filter element to separate solids from a fluid by difference in size of openings and contaminant.

MEDIA MIGRATION: Carry-over of fibers from filter, separator elements, or other filter material into the effluent. Less definitive than fiber migration and is quantitative.

MEDIUM: The principle component of an element. A material of controlled pore size or mass through which a product is passed to remove foreign particles held in suspension or to repel droplets of coalesced water; or material without controlled pore size such as glass fiber mats which contribute to filtration, coalescence, or separation of two immiscible liquids.

MEMBRANE: In filtration the term membrane is used to describe the media through which the liquid stream is to be passed or exchanged. Membranes are normally associated with ion exchanged media such as dialysis, osmosis, diffusion, etc., although filter paper itself could be classed as a membrane.

MERCAPTANS: Unsaturated sulphurs.

MICRON: A short unit of length in the metric system. One millionth of a meter, 10-4 centimeter, 10-3 millimeter, or 0.000039 of one inch. Used as a criterion to evaluate the performance or efficiency of a filter media or to describe the condition of either the influent or effluent. Usually stated in terms of being either absolute or nominal. Nominal micron rating is generally taken to mean that 98% of all articles over a given micron value have been removed by a specific media or medium. Absolute micron rating is generally taken to mean that all particles over a given micron value have been removed. The naked eye can see a particle 40 microns or larger.

MIGRATION: Contaminant or media released to pass downstream from filter element.

MMSCFD: Million Standard Cubic Feet per Day.

MMSCFH: Million Standard Cubic Feet per Hour.

MMSCFM: Million Standard Cubic Feet per Minute.

MODULAR: A filter element which has no separate housing of its own, but whose housing is incorporated into the equipment which it services. It may also incorporate a suitable enclosure for the filter cavity.

NEWTONIAN: A liquid which does not change in viscosity with a change in rate of shear, agitation or flow rate.

NPT: National Pipe Thread Standard.

NTP: Normal conditions of temperature and pressure. Whenever this term is used, it refers to a gas measured at pressure one (1) atmosphere absolute (760 mm. of Hg.) and a temperature of 0°C. However, some sources use a different reference temperature to define NTP.



OPEN AREA RATIO: The ratio of pore area of a filter medium expressed as a percent of total area.

OPERATING PRESSURE: The normal pressure at which a system operates.

OPERATING PRESSURE, CRITICAL: Pressure above the normal or design limits which may cause damage or rupture.

OPERATING PRESSURE, MAXIMUM: The maximum pressure allowed in the system.

OUTER SHELL: Outer covering of element, usually perforated or screen.

OUTER WRAP: Outside covering of an element.

OUTSIDE IN: Flow of product from outside to inside of an element.



PAPER: Medium used in many elements. A very general term applied to resin impregnated cellulose. Many types of paper or cellulose are used as filter media made to specifications.

PARTIAL FLOW: See "by-pass installation" a system that diverts part of the main flow and passes it through a filter.

PARTICLE COUNT: A practice of counting particles of solid matter in groups based on relative size. Frequently used in engineering, a filter to a specific task or to evaluate the performance of a filter under specific operating conditions. When used as data to engineer a filter, proper consideration can be given to the type of media to be used, expectant life of the media, and the true cost of operation.

PARTICLE SIZE DISTRIBUTION:

A tabulation resulting from a particle count of solids grouped by specified micron sizes to determine the condition of either the influent or effluent stream. Usually expressed in percentage of total solids to the specific group. Example: 31% in the 6 to 10 micron group. See particle count.

PERCENT FREE AREA: Quantitatively, proportion of an element's surface area.

PLAIN: A filter element whose medium is not pleated or otherwise extended, and has the geometric shape of a cylinder, cone disc, plate, etc. **PLEATED:** A filter element whose medium consists of a series of uniform folds and has the geometric shape of a cylinder, cone, disc, plate, etc.

PLASTISOL: A suspension of thermosetting plastic which can be molded into any desired shape. Used as a combination end cap and gasket on element.

PLUGGED: Condition of a filter when it has collected its full capacity of contaminants and will not pass any more fluid.

POROSITY: The ratio of void volume to total cake volume. Also describes filter media which may have larger pores than other media.

POUR POINT: The lowest temperature at which a liquid will pour or flow without disturbance under specified conditions.

PRE-COAT: A filter medium in loose powder form, such as Fuller's or Diatomaceous earth, introduced into the upstream fluid to condition a filter element.

PREFILTER: Filter for removing gross contaminate before the product stream enters a separator/filter.

PRESSURE: The force exerted per unit area by a fluid.

PRESSURE ABSOLUTE: Gage pressure plus 14.7 psi.

PRESSURE ATMOSPHERIC: The force exerted by the atmosphere at sea level, which is equivalent to 14.7 psi.

PRESSURE DIFFERENTIAL: The difference in pressure between two points.

PRESSURE DROP: The difference in pressure between two points, generally at the inlet and outlet of a filter or a separator/filter. Measured in pounds per square inch gage, or inches of mercury.

PRESSURE RATING. OPERATING: The normal pressure at which a filter housing is capable of operating at specified operating conditions.

PRESSURE RELIEF: Valve which permits enough liquid or gas to escape from the vessel to prevent extreme pressure build up within the vessel.

PSI: Pounds per Square Inch.

PSIA: Pounds per Square Inch Absolute. **PSID:** Pounds per Square Inch Differential. **PSIG:** Pounds per Square Inch Gage.

RATE OF FLOW: The rate at which a product is passed through a vessel or system; generally expressed as gallons per minute, barrels per hour, barrels per day, actual or standard cubic feet per minute, hour, day, etc. Same as flow rate

RATED FLOW: Normal operating flow rate at which a product is passed through a vessel; flow rate which a vessel and media are designed to accommodate.

REPLACEABLE: Describes element which is to be removed after use and replaced with an identical element.

REPLACEMENT ELEMENT: An element or a cartridge used to replace a disposable which has been loaded to its capacity with (cartridge) contaminants.

REUSABLE: Describes element which may be cleaned and used again. Opposite of disposable or replaceable.

S SAE: Society of Automotive Engineers.

SAE NUMBER: A classification of lubricating oils for crankcase and transmissions in terms of viscosity as standardized by the Society of Automotive Engineers.

SAYBOLD SECONDS UNIVERSAL (SSU):

Units of viscosity as measured by observing the time in seconds required for 60 ml. of a fluid to drain through a tubular orifice 0.483 inches long by 0.0695 inches in diameter at stated conditions of temperature, and pressure.

SCFD: Standard Cubic Feet per Day.SCFH: Standard Cubic Feed per Hour.SCFM: Standard Cubic Feet per Minute.

SELF CLEANING: A filter element designed to be cleaned without removing it from the filter assembly, or interrupting flow.

SEPARATION: The action of separating solids or liquids from fluids. May be accomplished by impingement, filtration, or by coalescing. The term "separation" is used in some circles when referring to the separation of liquids. Also used to describe the action in the second stage of two-stage separation.

SEPARATOR: A device whose primary function is to isolate contaminants by physical properties other than size.

SEPARATOR/FILTER: Vessel which removes solids and entrained liquids from another liquid or gas. Uses some combination of a baffle and/or coalescer, filter, or separator element. May be single stage, two stage, or single or two stage with prefilter section for gross solids removal. Common application is the removal of water from gas or another immiscible liquid. General reference to term applies the equipment is capable of both separation and filtration to specific degrees of efficiencies.

SERVICE LIFE: The length of time an element operates before reaching the maximum allowable pressure drop.

SHELL: Outer wall of a vessel. Also referred to as body.

SHUNT INSTALLATION: A system with a filter paralleled by a metering device both in the main supply line.

SINTERED: Media, usually metallic, processed to cause diffusion bonds at all contacting points, retaining openings the passage of filtrate.

SKID MOUNTED: Describes one or more vessels with pump and motor, all mounted on a portable platform.

SLOT AREA: Sum of the area of all the fluid path openings in a metal - edge filter element.

SLUDGE: Dirt, carbon, water and chemical compounds as found in oils.

SOLID SUSPENSION: A mixture of solids suspended in a fluid.

SOLIDS: A mass, or matter, contained in a stream which is considered undesirable and should be removed.

SOLUTION: A single phase combination of liquid and non-liquid substances, or two or more liquids.

SPACING: The distance between adjacent surfaces of stacked discs, edge wound ribbons, or single layer filaments. This dimension determines the smallest dimension of solid particles to be retained.

SPECIFIC GRAVITY: Ratio of substance's weight to that of some standard substance. (Water for liquids and solids, air or hydrogen for gases)

SURFACE: A filter medium which primarily retains contaminant on the influent face.

SURFACE AREA: Total area of an element that is exposed to approaching flow. See "percent free area".

SURFACTANTS: Coined expression for surface active agents which are sometimes called emulsifiers or wetting agents. First appeared in hydrocarbons with the advent of the catalytic cracking process in refining. Caused by the forming of sodium sulfonate and sodium naphthanate molecules. Affects liquid/liquid separation by reducing interfacial tension and forming into a slime which binds off the fibers used in coalescing media.

SURGE: The peak system pressure rise measured as a function of restricting or blocking fluid flow.

SUSPENSION: Solids or liquids held in other liquids.

SUSPENDED SOLIDS: Non-settled particles in fluid

SWING BOLT: A type of vessel closure which reduces service time. Opposite of thru-bolt flange where studs and nuts are used, such as with ASA type flanges.

THIXOTROPIC: A liquid which shows a marked reduction in viscosity as the rate of shear, agitation, or flow rate is increased.

TORTUOSITY: The ratio of the average effective flow path length to minimum theoretical flow path length (thickness) of a filter medium.

TURBID METRIC EFFICIENCY: (Filter inlet turbidity - Outlet turbidity/by Inlet turbidity.

TURBIDITY: Stirred up sediment or contaminant in a fluid.

TURN-OVER: Number of times the contents of the system pass through a filter per unit time.

ULTRAFILTER: Membrane type to remove very fine suspended submicronic particles as well as some dissolved solids.

UNLOADING: Release downstream of trapped contaminate, due to change in flow rate, mechanical shock and vibration, or as excessive pressure builds up, or media failure.

VACUUM: Reference to pressure below atmospheric.

VISCOSITY: Degree of fluidity; property of fluid's molecular structure by virtue of which they resist flow. The resistance of flow exhibited by a liquid resulting from the combined effects of cohesion and adhesion. The units of measurement are the poise and the stoke. A liquid has a viscosity of one poise if a force of one dyne per square centimeter causes two parallel liquid surfaces one square centimeter in area and one centimeter apart to move past one another at a rate of one centimeter per second. There are a great many crude and empirical methods for measuring viscosity which generally involve measurement for the time of flow or movement of a ball, ring, or other object in a specially shaped or sized apparatus. The internal molecular friction of a liquid, or that property which resists any force tending to produce flow.

WOUND: A filter medium comprised of two or more layers of helical wraps of a continuous strand or filament in a predetermined pattern.

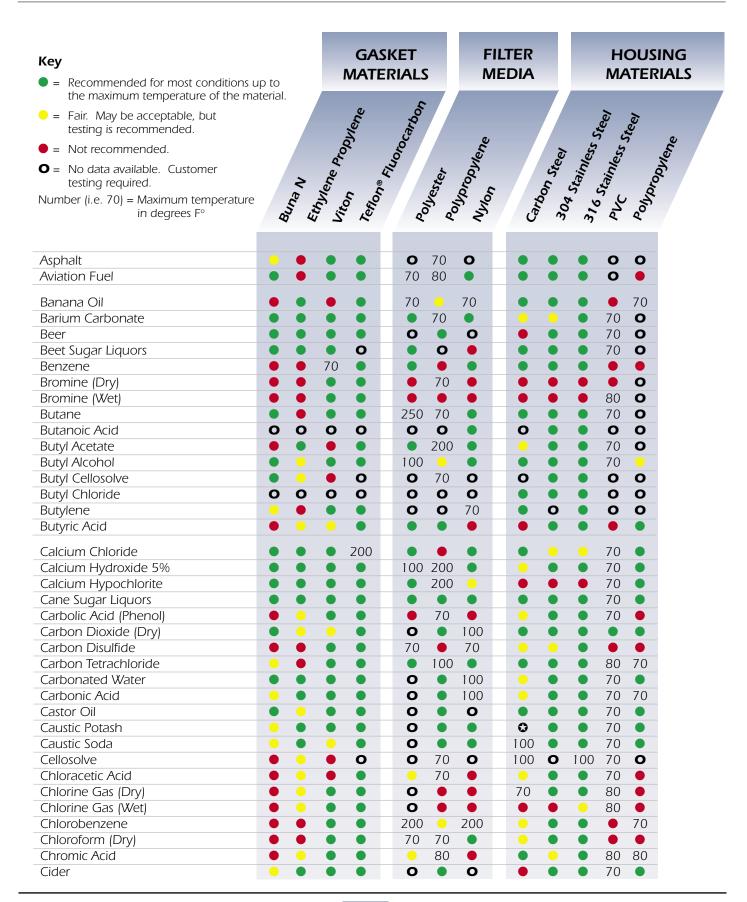
WOVEN: A filter medium made from strands of fiber, thread, or wire interlaced into a cloth on a loom.

MAXIMUM RECOMMENDED OPERATING TEMPERATURES

GASKET	BUNA N ETHYLENE PROPYLENE	250°F 350°F
MATERIALS	VITON TEFLON	450°F 500°F
FILTER MEDIA	POLYESTER POLYPROPYLENE NYLON	300°F 180°F 325°F
	CARBON STEEL	400°F
HOUSING MATERIALS	304 STAINLESS STEEL 316 STAINLESS STEEL	400°F 400°F
	PVC POLYPROPYLENE	150°F 150°F

NOTES: Maximum temperature at standard vessel design pressure. For higher temperatures consult Rosedale Products, Inc.

Key■ = Recommended for most conditions up to	GAS MATE	RIALS	FILTER MEDIA	HOUSING MATERIALS			
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= Fair. May be acceptable, but testing is recommended.	"ene	arbor.		teel, ifeel			
= Not recommended.	હુ	Q	Z >	. 5 5 2			
- Not recommended.	$\mathcal{L}_{\mathcal{L}}$	§ .					
• No data available. Customer testing required.	(energy)		20,00	Stair, Stair, Popy			
Number (i.e. 70) = Maximum temperature in degrees F°	Cthylene Propylene Viton Teflon® E.	Polyester	The state of the s	316 Stainless Steel PVC POLPOPVIENE			
Acetaldehyde • •		•		• • 120			
Acetamide			0	0 0 0			
Acetic Acid 5%	• •	200	200	• 70			
Acetic Acid 50%	• •	200	70	70			
Acetic Acid 80%	•	200	70	• 70			
Acetic Acid 100%		200 150	70				
Acetic Anhydride	• •	0	0	• • •			
Acetone	• •	★ 80	• • •	• • 70			
Acetophenone	• •	• •	200	• 0 •			
Acetyl Chloride	• •	•	• • •	• 0 •			
Acetylene	• •	0	• • •	• 70 O			
Acrylic Acid O O	•	70 150	• • •	• 0 •			
Acrylonitrile	70	70 70	70	o 70			
Adipic Acid O O	0 0	0	• • •	• 70 O			
Air-Compressed • •	• •	• •	• • •	• 70 •			
Aluminum Acetate	• •	O 70	0	• 70 O			
Aluminum Ammonium Sulfate O O	0 0	0	0 0 0	0 0			
Aluminum Chloride 5%	• •	70 200	70	• 70 •			
Aluminum Fluoride 5%	• •	O 70	0 • •	 			
Aluminum Hydroxide • • •	• •	• 70	• • •	• 70 70			
Aluminum Nitrate	• •	O 70	0	• 70 70			
Aluminum Sulfate	• •	70 180	70	• 70 •			
Amino Acids O O	• •	0 0	0 0	• 0 0			
Ammonia Gas (Dry) 70	• 0	150 20	0	• 70 •			
Ammonium Bicarbonate	• •	O 70	0	• 0 0			
Ammonium Bromide 10%	• •	0 0	0 0 0	• 0 0			
Ammonium Carbonate 10%	•	<u> </u>	• •	• 70 •			
Ammonium Chloride 10%	• •	70 180	• •	• 70 •			
Ammonium Fluoride 10%	0	O 70	0 0	• 70 70			
Ammonium Hydroxide 30%	•		100	• 70 •			
Ammonium Nitrate 5%	• •	70	• •	• 70 •			
Ammonium Phosphate	• •	O 140	0	• 70 •			
Ammonium Sulfate 5%	• •	70 170	0	• 70 70			
Ammonium Thiocyanate	0	70 O	70	• 70 O			
Amyl Acetate	• •	• 70	70 O	0 0			
Amyl Alcohol	•	70 70	70	● 70 ●			
Aniline	160	70 180	70				
Aqua Regia • •	•	- 75	• • •	• 70 •			
Arsenic Acid		0	• • •	• 70 •			



Key ■ = Recommended for most conditions u		GAS MATE	KET RIALS			ILTER IEDIA			MA		ING PIALS		
the maximum temperature of the ma													
= Fair. May be acceptable, but testing is recommended.				'ene	#r601					, 4	<i>)</i>	<i>)</i>	
= Not recommended.				<u>Š</u>	0		۾			ب) (າ <u>ີ</u>	e e
No data available. Customer testing required.			ياط عار		100	, di	opyie,		Stee	ainles	ainles.	Ļ	Tolka.
Number (i.e. 70) = Maximum temperature in degrees F°	Q			Tenon 'Oylene	Fluorocarbon	200	Nylon Nylon		20%	316 Stainless G.		Polypros	
Citric Acid									•		70		
Cod Liver Oil					0		0				70		
Coffee Extract		0			O		0						
Cola Syrup	0	0	0		70	70	70	0			0	70	
Copper Sulfate		•			70		•				70		
Corn Oil					0	100					70	70	
Cottonseed Oil					•	100					70	70	
Creosol	0							0	0	0	0	0	
Creosote				•	0		0				70		
Cresylic Acid				•	•			0	0	•	70	•	
Cyclohexane					200		0	•		•	•		
Cyclohexanol	0	0	0	0	0	150	0	0	0	0	0	0	
Cyclohexamine	•		•	•	200	•	•	70	0	70	•	•	
DDT Solution	0	0	•	•	0		0	0			0	•	
Dextrose					o		0				70	70	
Diacetone Alcohol	•				0	70	0		•		•	•	
Dibutyl Phthalate					0	70	0		•	•	0		
Dichloroethane					0		0	0		•	0	0	
Dichloroethylene	0	0	0	•	0	70	70		0	0	0		
Diesel Fuel	•	•			0	120		•	•	•	80	120	
Diethanolamine	•				•		•	•	0	0	0		
Diethylene Glycol	•	•	•	•	•			•	•	•	0	•	
Dimethyl Formamide		0	0	200	200	200	200	0	70	70	0	•	
Diphenyl Oxide					0	70	0	•	•	•	0	70	
Dowtherm	•	•	•	•	0	70	0	•	•	•	0	70	
Epichlorohydrin	•		•	•	•	120	•	•	0	•	0	120	
Ethanol											0		
Ethanolamine					0	70	0		•		0	70	
Ether		•			95			•		•	•		
Ethyl Acetate				•	•	120						120	
Ethyl Cellulose					0	70	0			•	0	70	
Ethyl Chloride (Dry)		•		•	0	•	0	200		•		•	
Ethylene Diamine				•	0	70	70	70		70	0	70	
Ethylene Glycol				•		•	70			•	70	•	
Ethylene Oxide	•	•		•	0	•	0		•	•	•	•	
Fatty Acids			•							•	70	•	
Ferric Chloride 1%	•		•	•	200	•	•		•		70		

Key		GAS MATE			ILTER EDIA	HOUSIN MATERIA	
 Recommended for most conditions up the maximum temperature of the mate 	erial .						
 = Fair. May be acceptable, but testing is recommended. 		Viton Popylene Viton Popylene Verlon® E	Polyester			316 stainless steel 316 stainless steel 20 40 40	
= Not recommended.		Š	.0	ي		55	စ ွ
		Q ² 0	Q	, v			7
O = No data available. Customer testing required.			ž ,ė	, हैं	25		
Number (i.e. 70) = Maximum temperature	V	\$ 2 \$	250	É E	S S	55	
in degrees F°	$Bu_{na}N$		Sol Sol	Polypropylene Nylon			
Ferric Chloride	• •	• •	200 C		• •	• 70 70	
Ferric Nitrate	• •	• •	70 C		0 0	• 70 •	
Ferric Sulfate 5%	•	• •	70			• 70 •	
Ferrous Chloride	• 0	0	70		• 0	70 •	
Fish Oils	• 0	0	O 7		•	• 70 •	
Fluosilicic Acid	•	• •	O 7	0 0	• 0	• 70 •	
Formaldehyde 10%	80					• 70 •	
Formalin 40%	•		0	0		• 70 70	
Formic Acid (Dilute)	•				•	○ 70 ●	
Formic Acid (Conc.)	•	• 0	70		•	0 0	
Freon 12		• •	0	100	•	• • •	
Freon 22	•		0	100	•	• • •	
Fruit Juices	• 0	• •	O 7	0 0	•	• 70 70	
Fuel Oils	• •	• •	• 7	0	• •	• 70 70	
Furfural	• •	• •	O 7	0 0	• •	• • •	
Gas-Natural	• •	• •	• 7	0	• •	• 70 70	
Gasoline-Sour	• •	• •	0	70	•	80	
Gasoline-Motor	• •	• •	0		• •	80	
Gasoline-Aviation	• •	• •	0		• •	80	
Gelatin	• •	• •			•	• 70 70	
Glucose	• •	• •	0	0	• •	• 70 70	
Glycerine-Glycerol	• •	• •			• •	• 70 70	
Glycol	• •	• •			• •	• 70 •	
Glycol Monoether	• •	• •	O 7	0 0	0	• 70 70	
Grease	•	• •	0	0	• •	• 70 •	
Green Sulfate Liquor	•	• •	O 7	0	•	0 0	
Gum Arabic	0	0	0 0	0	0	0 0 0	
Helium	• •	• •	•	•	• •	o 70	
Hexane	• •	• •	• 7	0	• •	80 70	
Honey	• •	• •	0 0		0	• 0 0	
Hydraulic Oil-Petroleum Base	•	• •	• 7	0	• •	• 70 70	
Hydraulic Oil-Phosphate Ester	•	•	• 7	0	• •	O 70	
Hydrazine	•	• •	0 0		0 0	• 0 0	
Hydrobromic Acid 10%	•	• •	70 15	50	• •	• 70 •	
Hydrobromic Acid 50%	•	• •	O 15	50	• •	• 70 •	
Hydrochloric Acid 5%	160 •		•				

Key			ASKET FILTER FERIALS MEDIA			HOUSING MATERIALS
 Recommended for most conditions up the maximum temperature of the mate 						
= Fair. May be acceptable, but testing is recommended.		Mene	Carbo	a,		Steey Steey
= Not recommended.		ر کی ا	8	Š	\$	
No data available. Customer testing required.	> .		, sie	, O ,	n Ste	Stain, st
Number (i.e. 70) = Maximum temperature in degrees F°	Buna N Eth	Viton Viton Teflon® F _{ILL}	2011	Nylon Nylon	of the second second	316 Stainless Steel PVC PVC POLYDRODYIENE
Hydrochloric Acid 30%	70 70	70	•		• •	• • 70
Hydrocyanic Acid 5%	•	• •	O 70	0	• •	• 70 70
Hydrocyanic Acid	•	• •	O 70	0	• •	• 70 70
Hydrofluoric Acid 10%	80 70	0	• •		• •	80
Hydrofluoric Acid 50%	0 0	• •	o 70		• •	O 70
Hydrogen Gas	• •	• •	0	0	• •	• 70 •
Hydrogen Peroxide 5%	•	• •	9 150		•	• 70 140
Hydrogen Peroxide 30%	•	• •	- 70	0	•	• 70 70
	70	•	O 70	0	•	80 70
Hydrogen Sulfide (Wet)	•	•	0	0	•	70
Hydroquinone	• •	•	70 70	0	0	• 70 70
Insulating Oil	• •	• •	0 0	0	• •	• 0 0
lodine		• •	•		• •	• 70
Isopropyl Acete	•	•	0 0	0	0 0	• 0 0
Isopropyl Alcohol	•	• •	70	0	• •	• 70 •
Kerosene	• •	• •	• 70		• •	• 70 70
Ketchup	• 0	• •	o 70	0	0	o 70
Lactic Acid	70 70		70	70	0	• 70 •
Lard Oil	• •	• •	80			70 80
Latex (Natural)	• 0	• •	O 70			• • 70
Lead Acetate						0 70 70
Lime-Sulfur	• •	• •	O 70	0	0	• • 70
Linoleic Acid	•	•	0	•	•	• 70 •
Linseed Oil	• •	• •	• •		•	• 70 100
Lithium Bromide	0 0	0	O 70	0	• 0	• • 70
Lithium Carbonate	• 0	0	O 70		0 0	O O 70
Lithium Chloride	• •	0 0	• •		• •	• • 70
Lithium Hydroxide	• •	0 0	0		• •	• 0 •
Lube Oil	• •	• •	o 70		• •	• 70 70
Lye	•	•	• •	•	130	• 70 •
Magnesium Chloride	• •	• •	70 180	70	•	● 70 ●
Magnesium Hydroxide	•	• •	0	0		● 70 ●
Magnesium Sulfate	• •	• •	O 180		• •	• 70 70
Mayonnaise	• 0	• •	O 70		• •	o 70
Melamine Resins	• 0	• •	o 70		0	o 70
Mercuric Chloride 10%	• •	• •	70 70	0	• •	70 70
Mercurous Nitrate	•	0	O 70	0	• •	• 70 70

Key	GAS MATE		FILTER MEDIA	HOUSING MATERIALS	
 Recommended for most conditions up to the maximum temperature of the material. 					
 = Fair. May be acceptable, but testing is recommended. 	Ethylene Propylene Viton Verlon® E.	Polyester	3 .	304 Stainless Steel 316 Stainless Steel DVC MPS Steel PVC Alphopylene	
= Not recommended.	بی کی	S. C.	$\mathcal{L}_{i}^{\partial}$		
O = No data available. Customer	> 4 o 4 s	Polyester	Mod	304 Stainless Ste 316 Stainless Ste PVC POLPPOPMENE	r
testing required.	` \$		§ 5 §		
 No data available. Customer testing required. Number (i.e. 70) = Maximum temperature in degrees F° 		مي مي			
Mercury	• • •	70 70	70	• 70 70	
Methane		o 70	0	• 70 70	
Methylene Chloride		100	100 100 1	50 212 • •	
Methyl Alcohol		• •	•	• 70 •	
Methyl Acetate	• •	• 70	•	• • • 70	
Methyl Cellosolve	• •	o 70	0	● 70	
Methyl Ethyl Ketone		70	•	70	
Milk		•	•		
Mineral Oil		o 70	0	• 70 70	
Molasses		200 70	200	• 70 70	
Monoethanolamine	• •	o 70	0	• • • 70	
Mustard	0 • •	o 70	0	O 70	
Naptha	• •	200 70	200	• 70 70	
Napthalene		70 70	70	• • • •	
Nickel Chloride • (70 200		70 100	
Nickel Sulfate		0	•	• 70 •	
Nitric Acid 10%	70	<u> </u>		• 70 100	
Nitric Acid 20%	70	<u> </u>		212 70 70	
Nitric Acid 50%	70	 	• 2	212 212 70 70	
Nitric Acid Fuming • •		•	• • 1	25 125 • •	
Nitrobenzene 10%		200	200		
Nitrobenzene		200	200		
Nitrogen		• •	• •	• • • •	
Nitrous Oxide	0 0	0 0	0	70 70	
Oil, Crude	• • •	• 70	• •	• 70 70	
Oleic Acid 5%		O 180		70 70	
Oleic Acid • •		150 120			
Oleum		0	•	• • •	
Olive Oil	• •	o 70	0	• 70 70	
Oxalic Acid 5%	• • •	<u> </u>	70 0	• 70 •	
Palm Oil	0 • •	o 70	0	• • • 70	
Pentane		o 70	•	80 70	
Perchloroethylene (Dry)		200	200	● 70 ●	
Petroleum Ether	• • •	• 70	•	• 70 70	
Petroleum Oil-Refined		• 70	•	• 70 70	
Petroleum Oil-Sour		• 70	•	• 70 70	
Phenol		9 190	•	● 70 ●	

Key ■ = Recommended for most conditions up to		SKET ERIALS	FILTER MEDIA	4	HOUS MATER	
the maximum temperature of the material.						
 = Fair. May be acceptable, but testing is recommended. 	lene	arbor.			tee,	
= Not recommended.	र्वे	, o	ď		25	20
No data available Customer	> 20 00 00 00 00 00 00 00 00 00 00 00 00	FILO, 1	oome,	7. Stee.	ainles einles	
Number (i.e. 70) = Maximum temperature in degrees F°	Ethylene Propylene Teno.	Polyester	Nylon	304 S	316 Stainless Steel PVC PVC PVC PVC PVC PVDPO	
Phenol-Formaldehyde Resin	• o •	0 0	0		0 0	
Phosphoric Acid 1%	• • •	210 210) •	212	70	
Phosphoric Acid 10%		210 210		212	70	
Phosphoric Acid 50% 70	• • •	- 180		212	70	
Phosphoric Acid 80% 70	• • •	- 180			70	
Picric Acid (H ₂ O Sol'n.)	• • •	O 120	0		1 20	
Pine Oil •	• • •	70 70			O 70	
Plating Solutions						
–Arsenic	• • •	O 150	0	0	O 150	
–Brass Cyanide	• 0 •	0	0		O 70 •	
–Bronze Cyanide	• • •	O 70	0	0	o 70 70	
–Cadmium Cyanide	• • •	0	0		70	
-Cadmium Fluoborate	• • •	O 70	0 0		0 70 70	
–Copper Cyanide	• • •	0	0		70	
–Gold Cyanide	• • •	0	0 0	•	• • •	
–Iron Chloride	• • •	0	• 0	•		
–Iron Sulfate	• • •	O 140	140	0	1 40	
–Lead Alkali	• • •	0	•	0	70	
–Lead Fluoborate	• • •	0 0	100 C		70	
–Nickel Bright Chloride	• • •	o 70	0 0		0 70 70	
–Nickel Dull Chloride O	• • •	0 0	0 0		70	
–Nickel Dull Fluoborate	• • •	0	170 C	0	• • •	
–Silver	• • •	o 80	0		70 80	
–Tin Acid	• • •	o 70	70 C	0	o 80 70	
–Tin Fluoborate	• • •	O 100) 100 C		80 100	
–Zinc Cyanide	• • •	O 100	0		70 100	
–Zinc Fluoborate O	• • •	0 0	130 C	0	70	
Potassium Acetate 10%	• • •	o 70	0		O 70	
Potassium Bisulfate 10%	0 0	• 70	• C	•	O 70	
Potassium Carbonate 10%	• • •	- 180) •		• • •	
Potassium Chloride 5%	• • •	70 180) O		70	
Potassium Chromate 10%	• • •	o 70	0 0		7 0 70	
Potassium Cyanide 5%	• • •	0	•		70	
Potassium Ferrocyanide 10%	• • •	o 70	0		0 70 70	
Potassium Permanganate 5%	• • •	<u> </u>			0 70 70	
Potassium Sulfate 5%	• • •	120 180	120		70	
Propane	• • •	250 100	200		80 100	
Propionic Acid O	• 0 •	• 70			O 70	
Propylene Glycol	• • •	• 70	•		O 70	

Key		SKET ERIALS			LTER EDIA		HOUSING MATERIA		
 Recommended for most conditions up to the maximum temperature of the material. 				IVIE					
= Fair. May be acceptable, but testing is recommended.	Linnene Propulene Tenopula	Polye						tee/	70 70
= Not recommended.	है	Q		70			, u	,	5
9 = No data available. Customer	é _r	3		Z		Į,	‰	ø/	ý
testing required.	Ž, e		ġ,	<u>8</u> '		5	ţ	ă.	ځ
testing required. Number (i.e. 70) = Maximum temperature in degrees F°				Nylon Non	Ź	3	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	5	Polypro
in degrees i	7 2 %	Q	Q	≥,	G.	س	رن	٠ و	Q
Propylene Oxide	• •	0	70	0	0	0	0		70
Pyridine	• 0	•					•	0	
Sea Water • •	•	210	•	240	•	•		•	•
Shellac	0	0	70	0				0	70
Silver Nitrate • • •	• •	-						70	
Soda Ash • •	• •	70	70					70	70
Sodium Acetate • • •	• •							70	
Sodium Bicarbonate	• •	0		0				70	
Sodium Bisulfate	• •	70	150					70	70
Sodium Bisulfite • •	• •	•	180	<u> </u>		0	100		70
Sodium Borate • •	• •	0	70	0				70	70
Sodium Carbonate • •	• •	0				•		70	70
Sodium Chlorate • • •	• •	0	180	0	0			70	120
Sodium Chloride 10%	• •							70	
Sodium Cyanide • •	• •							70	
Sodium Fluoride 5%	• •	0	70	0				70	
Sodium Hydroxide 5%	•	70				•		70	70
Sodium Hydroxide 20%	•							70	•
Sodium Hydroxide 40%	•							70	70
Sodium Hypochlorite 5%	• •	0	120					70	70
Sodium Metaphosphate	• •	0	70	0	•			70	70
Sodium Nitrate 5%	0	70	180	70				70	70
Sodium Perborate 1%	• •	160	180	0	•			70	•
Sodium Peroxide • •	• •	•	70	0				70	70
Sodium Phosphate • •	• •		180			•		120	•
Sodium Polysulfide O O	0	0	0	0	0			0	0
Sodium Silicate • •	• •		180	0		•		70	•
Sodium Sulfate • •	• •		180	70	-			70	•
Sodium Sulfide • •	• •		180		•				
Sodium Thiosulfate O O	0	70	70	70				70	70
Soybean Oil • •	• •		180	0	•			70	•
Stannic Chloride 5%	• •		100		•	•		70	100
Stannous Chloride 5%	• •	70	70	70				70	70
Starch	• •	0	•	0				70	70
Steam • • •	0			240	•				•
Steacates	• •	0						70	
Stearic Acid • •	0	0	•					70	
Stoddard Solvent	• •	70	70	70					70

Key					KET RIALS			LTER EDIA	П		IOUS ATER	ING RIALS
 Recommended for most conditions u the maximum temperature of the ma 												_
= Fair. May be acceptable, but testing is recommended.			Vitor	eve eve	Poly					316 Stainless Steel) J	
Not recommended.			ć	3	F		<u>e</u>			25	5	e e
			60	•	Q		e Le		e)		2	S. C.
O = No data available. Customer testing required.			<i>်</i> မှ	4	7	ė	है	7/4	3		ć	है
Number (i.e. 70) = Maximum temperature		V	Š, į	Ž ,		ร์	£ 5	Š	5 5	3	, Š	
in degrees F°	8	44 Ett		Teff	وم	, ⁵ 0	Nylon Nylon	J.	80	3/8	\$ 60'	
Sucrose Solutions	•	•	•	•	0		0	•	•	70	70	
Sulfate Liquors					0	70		0		70		
Sulfur Dioxide (Dry)					0			0	•	70		
Sulfur Trioxide (Dry)					0	•	•	•		70		
Sulfuric Acid 5%					150	•	•	•	0	7 0		
Sulfuric Acid 50%			•		70	180	•			70	70	
Sulfuric Acid 96%						70		•	0		70	
Sulfuric Acid Fuming					•			•	0			
Sulfurous Acid			•		0	•	•	•		70	•	
Tannic Acid 10%		•	•		70		70			70		
Tartaric Acid					0	150	0		_	7 0	70	
Tetrachlorethylene (Dry)					0		212					
Tetrachloroethane				0	70	70	70	75		7 0	70	
Tetrahydrofuran					0	70	100				70	
Toluene					70	120			•		120	
Transformer Oil	•				0	120	0		•	7 0	120	
Trichloroethylene (Dry)					70		70		•			
Triethanolamine					70	70	0	-			70	
Trisodium Phosphate			0		70	120	70	0	•	70	120	
Tung Oil	•				0	70	0	•		• 0	70	
Turpentine		•	•		70	70			•	80	70	
Urea-Formaldehyde Resin	0	0	0	•	0	0	0	•	0	0 0	0	
Vanilla Extract	0	0	0		0		0	0		• 0	70	
Varnish					0					• 0		
Vegetables Oils					0	100				• 0	100	
Vinegar					0	150				7 0		
Water-Fresh					210		240			7 0		
Water-Salt					210		240			70		
Waxes	0	0			0	70	0	•		• 0		
Whiskey		•	•		0	70	•	•		• 70	70	
Wine		•	•		0	70		•	•	70	70	
Xylene	•	•	•	•	•	•	•	•	•	•	•	
Zinc Bromide	•	0	0		0	•		0	0	• 0	•	
Zinc Cyanide		0	0	0	0	•	•			• 0	•	
Zinc Sulfate		•	•		•	•	•	•	•	7 0	•	

Conversion Information

Conversion Information U.S. Mesh to Micron Particle Size

COMPARATIVE PARTICLE SIZE

U. S. MESH	INCHES	MICRONS	U.S. MESH	INCHES	MICRONS
3	.265	6730	40	.0165	420
3-1/2	.223	5660	45	.0138	354
4	.187	4760	50	.0117	297
5	.157	4000	60	.0098	250
6	.132	3360	70	.0083	210
7	.111	2830	80	.0070	177
8	.0937	2380	100	.0059	149
10	.0787	2000	120	.0049	125
12	.0661	1680	140	.0041	105
14	.0555	1410	170	.0035	88
16	.0469	1190	200	.0029	74
18	.0394	1000	230	.0024	63
20	.0331	841	270	.0021	53
25	.0280	707	325	.0017	44
30	.0232	595	400	.0015	37
35	.0197	500			

SCREEN MICRON AND MESH RATINGS

MICRON or MESH RATING	ROSEDALE MESH USED	min. Bubble Point in inches (H ₂ O)
2 MICRON	325X2300DT*	12.0
5 MICRON	200X1400DT	9.5
10 MICRON	165X1400DT	6.0
20 MICRON	165X800DT	4.8
40 MICRON	80X700DT	3.5
200 MESH	200P**	-
150 MESH	150P	-
100 MESH	100P	-
80 MESH	80P	-
60 MESH	60P	-
40 MESH	40P	-

^{*} DT = Dutch Twilled Weave **P = Plain Weave

VISCOSITY CONVERSION CHART

CPS

TEMPERATURE = 77°F

Viscosity Measurement Method	10	20	50	100	200	500	1000	2000	5000	10,000	20,000	50,000
ASTM, 07 ASTM, 10 ASTM, 15 ASTM, 20 ASTM, 25				72	143 42	357 104 24 8	715 208 48 16 7	1430 417 95 33 14	3750 1041 238 82 36	7150 2080 476 164 72	14,300 4170 953 328 143	35,700 10,410 2,380 820 357
Brookfield Demmier #1 Demmier #10	10	20	50	100 32 3	200 63 6	500 156 15	1000 312 31	2000	5000	10,000	20,000	50,000
Engler (degrees) Engler (sec.)				14 690	27 1300	68 3460	137 7000	274 4,000	685	1370 70,500	2,740	6,850
Ford #3 Ford #4	200	2.0		42 30	84 55	208 135	416 270	834 540	2081 1350	4160 2700	8,340 5,400	20,810 13,500
Fisher #1 Fisher #2 Gardner-Holdt	200	30 15	24	50								
(units) Gardner-Holdt	A-3	A-2	Α	D	Н	S	W	Y-Z	Z3	Z5	Z6-Z7	Z7-Z8
(sec.) Gardner-Verticle						5	10	20	50	100	200	500
(sec.) Krebs-Stormer						5	10	20	50	100	200	500
(units) Parlin 7	85	105	140	77	154	67 385	85 770	105 1540	140 3850	7700	15,400	38,500
Parlin 10 Parlin 15 Parlin 20				21	42 10	104 25 8	208 47 17	416 93 33	1040 232 83	2080 465 167	4,160 930 333	10,400 2,320 833
Parlin 25 Parlin 30			2.4	4.0	0.4	220	477	15	36 19	72 38	143 77	357 192
Saybolt Furol Saybolt Universal		96	24 238	48 476	96 954	238 2380	476 4760	954 9540	2380	4760 47,600	9,540 95,400	23,800
(SUS) Zahn G1		38	60	100	267	667	1332	2670	6670	13,320	26,700	66,700
Zahn G2 Zahn G3 Zahn G4		16	24	42	82 27 19	161 58 38	323 113 71	645 204 160	1610 510 400	3,230 1,020 800	6,450 2,040 1,600	16,100 5,100 4,000
Zahn G5					13	27	50	97	212	424	848	2,120

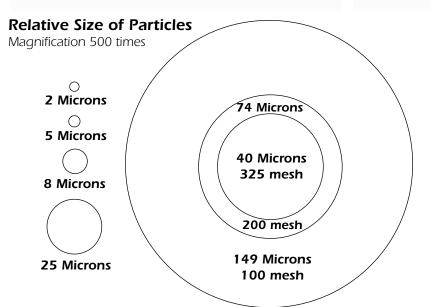
COMPARATIVE FINENESS DATA

HEGMAN(S) SCALE	PRODUCTION CLUB SCALE	DEPTH OF MILS	WELLS MICRON	CLOSEST U.S. MESH SIZE
0	0.00	4.0	100.00	140
1	1.25	3.50	87.50	170
2	2.50	3.00	75.00	200
3	3.75	2.50	62.50	230
4	5.00	2.00	50.00	325
5	6.25	1.50	37.50	_
6	7.50	1.00	25.00	400
7	8.75	0.50	12.50	_
7-1/2		0.25	6.25	_
8	10.00	0.00	0.00	-

APPROXIMATE VISCOSITY OF COMMON LIQUIDS

7 II I KOMINI II E	VISCOSIII	or common
LIQUID	VISCOSITY	@ TEMPERATURE
	CPS	°F.
Asphalt, Virgin	7,250	250
Asphalt Emulsion	2,100	300
Type 1	4,000	100
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,025	100
Asphalt Emulsion,	1,7220	
Types II, V & VI	575	77
.,, , , , , , , , , , , , , , , , , , ,	220	100
Black Liquor	3,100	122
Bicien Eigaei	1,525	130
Bone Oil	220	130
Borie Oil	65	212
Carbolic Acid	65	65
Castor Oil	1,350	100
Ceistor On	525	130
Caustic Soda Solution	323	150
20% NaOH	40	65
30%NaOH	58	65
40%NaOH	110	65
Cocoanut Oil	144	100
Cocoai lut Oli	78	130
Cod Oil	150	100
Cod Oii	95	130
Cottonseed Oil	176	100
Cottorisced Oil	100	130
Glucose	67,500	100
Gideose	7,500	150
Glycerine (100%)	2,950	68.6
diyeerine (10070)	813	100
Glycol:	015	100
Propylene	240	70
Triethylene	190	70
Diethylene	150	70
Ethylene	90	70
Insulating Oil	115	70
	65	100
Kerosene	35	68
	32.6	100
Lard	287	100
	160	130
Linseed Oil, Raw	143	100
, , , , , , , , , , , , , , , , , , , ,	93	130
Molasses, C	135,000	100
(Blackstrap of final)	40,000	130
, , , , , , , , , , , , , , , , , , , ,	,	

1101110	\ /ISCOSITY	© TEMPERATURE
LIQUID	VISCOSITY CPS	@ TEMPERATURE °F
Neasfoot Oil	230	100
Oils-	130	130
Fuel Oil No.1	37	70
Fuel Oil No. 2	33	100
Fuel Oil No. 5	500	100
Fuel Oil No. 6	175 1,725	130 122
r der Oir No. 0	480	160
SAENo. 10	200	100
	105	130
SAE No. 20	320 150	100 130
SAE No. 30	490	100
3, 12 1 (6). 3 6	220	130
SAE No. 50	1,275	100
SAF No. 70	95 2,700	210 100
3AE NO. 70	140	210
SAE No. 90 Trans-	110	210
mission Lube	1,150	100
SAE No. 140 Trans-	400	130
mission lube	1,625	130
55.61.1.45.6	160	210
Olive Oil	200	100
December Oil	115	130
Peanut Oil	250 145	100 130
Petrolatum	100	130
	77	160
Printers' Ink	6,250	100
Rosin (Wood)	2,100 25,500	130 190
Kosii i (wood)	10,300	200
Sulfuric Acid (100%)	75.7	68
Turbine Lube Oil	420	100
Turpentine	33 32.6	60 100
Varnish–Spar	1,425	68
	650	100



Micron Comparisons

Substance	Microns
Table salt Human hair	100
(average dia.) White blood cell Talcum powder	50-70 25 10
Cocoa Red blood cell	8-10 8
Bacteria (cocci)	2

Note: Lower limit of visibility (naked eye)–40 Microns

High-Pressure Filtration

The Rosedale High-Pressure filter housing is the ideal way to meet your needs for oil and gas systems. Because the housing units are a standard design, they are economical and readily available.

The bolted closure system assures a positive seal during operation, and changout is fast and easy with the davit arm assembly.

The versatile Rosedale system allows you to use filter bags for coarse filtering, or high surface area pleated cartridges for heavy solids loading applications. Inside-out flow design contains solids inside the bag or cartridge, and prevents downstream contamination. The horizontal configuration can use 40" or 60" long cartridges.

Features

- ANSI class 600 design
- Housings available in carbon steel, 304, and 316 stainless steel
- Horizontal or vertical mounting
- ASME code stamp

Applications

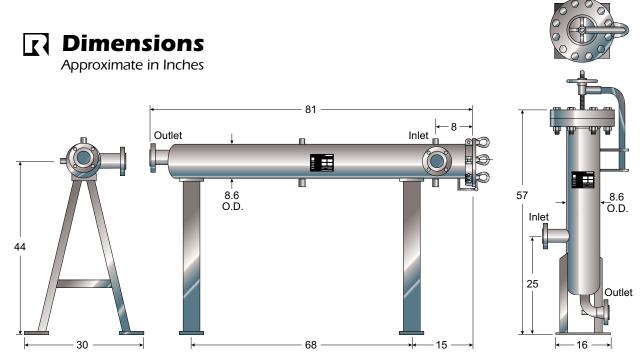
- Bulk Oil Handling
- Process Liquids

Industries

- Chemical
- Plastics
- Rubber
- Petrochemical.
- Pharmaceutical
- Pulp and Paper
- Fiber
- Food Industries



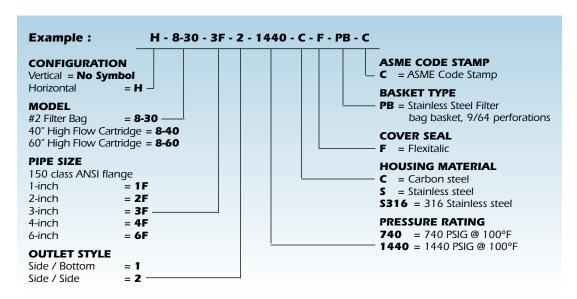




Dimensions are reference only and should not be used for hard plumbing. Consult factory for certified drawings.

How To Order Housings

Build an ordering code as shown in the example.





Rosedale Filtration Products

3730 W. Liberty Road, Ann Arbor, MI 48103 Tel 800-821-5373 or 734-665-8201 Fax 734-665-2214 filters@rosedaleproducts.com www.rosedaleproducts.com

DISTRIBUTOR TERRITORIES AVAILABLE WORLDWIDE



Introduction

In many applications, baskets are a good alternative to replace filter bags or other media. Basket design varies greatly depending on the application.

CONTENTS	PAGE
Media Characteristics	2
Rosedale Cleanable Baskets	3
SORBENT CONTAINMENT BASKETS	4
BAG TO CARTRIDGE FILTERS	5
FABRICATED BASKET STRAINERS	6
RETROFIT CURRENT SITES	7
INNER BASKETS AND BAGS	8
Rosedale Replacement Baskets	9
LIQUID DISPLACERS	10
BAG RESTRAINER	10
HEATED JACKETING FOR RESINS, ETC.	10
HIGH FLOW ELEMENTS	11
POROPLATE® FILTER ELEMENTS	11



Media Characteristics

This information is intended to be used as a general guideline. Since some characteristics are very similar from one media to the next, you should choose the media whose advantages best fit your particular filtration requirements. Consult Rosedale for assistance in selecting the proper media for your application.



Wedge Wire (WW) or slotted, is the most durable of all backwashable media. They are strictly limited to .001" slot or 25 micron as the lowest retention rating. Wedge wire is particularly suited for critical low maintenance applications. As a result of their construction, they are used in many instances where manual cleaning is necessary but might damage other types of media.

MICRON	OPENING	% OF
RATING	(INCH)	OPEN AREA
25	.001	2.1
50	.002	4.2
75	.003	6.1
150	.006	11.5
250 350	.010	18.0 23.0



Poroplate® filter media is made from layers of stainless steel wire cloth diffusion-bonded together to form a rigid porous metal laminate structure. Poroplate filter media is corrosion resistant, cleanable, and can withstand high temperature applications up to 800°F. Micron ratings from 2 to 150 are available.

MICRON	NOMINAL	ABSOLUTE					
RATING	RATING	RATING					
10	2µ	10µ					
25	10µ	20µ					
50	20µ	40µ					
75	40µ	70µ					
100	100µ	100µ					
150	150µ	150µ					

Rosedale Cleanable Baskets

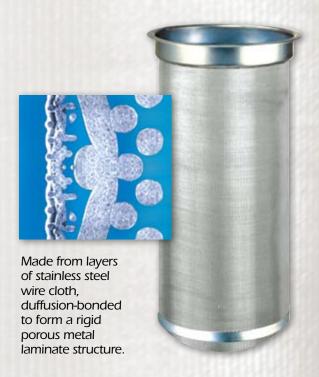
Replaces bag filters with multiple layers of stainless steel wire-woven cloth, diffusion bonded together for increassd strength, corrosion resistance, and long life.

One piece construction for ease in handling, no need for a perforated basket for support, no need for a bag for filtration, basket becomes the filter media.

Sized to replace #1 or #2 bag filters and perforated strainer baskets.

FEATURES

- All 316 stainless steel construction
- 6 micron ratings
- 10-150 micron absolute
- TIG welded construction for long life
- Easily cleaned
- Additional end ring configurations to fit other liquid bag housings
- Custom applications available



Cone Baskets

Cone baskets are valuable when a large filtering area is needed in a small space. They are available as a basket within a basket, or a bag within a basket.

Cone baskets are widely used for filtration of solid particles in pharmaceutical, chemical, and food industries.

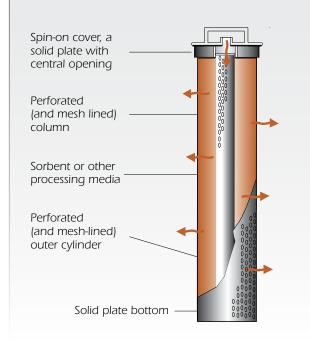


Sorbent Containment Baskets

A combination carbon adsorption and downstream filtering unit can be ordered. Available in the larger single-basket and all multi-basket vessels, it positions the carbon-holding basket inside a larger filter bag-holding basket. A variety of filter bag media is offered.

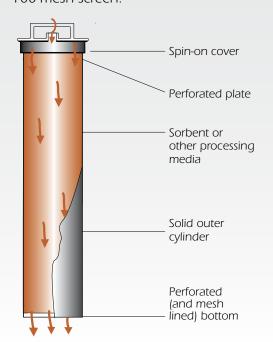
RS Style For Recirculating Systems

Flow enters from the top, into a perforated cylinder around, which is packed activated carbon. Flow moves radially through the carbon and exits through the side wall, which is perforated and lined with 100-mesh screen.



SP Style For Single-Pass (batch) Processing

Flow enters from the top through a perforated cover and into the activated carbon bed. Flow moves down through the carbon and exits through the bottom plate, which is perforated and lined with 100-mesh screen.



Activated carbon is a "black magic" material that removes molecules of organic pollutants from various liquids by physical adsorption. (It does not act by chemical bonding.) It is a surface attraction, and the fine porous carbon particles have an incredibly large surface area. (Used carbon can be reactivated by oxidizing the adsorbed contaminant.)

Uses of carbon adsorption include:

- 1. Purification of sugar syrups, liqueurs, glycerine, pharmaceuticals, etc.
- 2. Treatment of water to remove chlorine and odor, and improve color and taste.
- 3. Purification of process effluents, per EPA requirements.
- 4. Drying, degumming, and decolorization of fuel and lubricants, organic solvents, vegetable oil, and animal fats.

Bag to Cartridge Filters

Turn Bag Housings Into Cartridge Filters!

Basket holds cartridges inside a bag housing!

Simply put, there are applications that call for a bag filter and others that call for a cartridge filter. Until now, it wasn't very easy to change between the two.

If it becomes necessary to change from bags to cartridges – install the Rosedale Converter Basket.

- Remove the original basket
- Install the new converter basket
- Load the cartridges
- Unique design prevents clean side contamination by removing basket from housing before removing cartridges from converter
- The cartridges are secured by a center post and threaded cap design

You now have a cartridge filter able to utilize any standard cartridge.

Baskets fit standard models 4-12, 8-15, and 8-30 housings. Construction materials are either 304 stainless or 316 stainless steel.

Flow is introduced from above and circulates around cartridges. Fluid flows through cartridge walls, leaving contaminant on media, and "clean" fluid exits through bottom outlet.





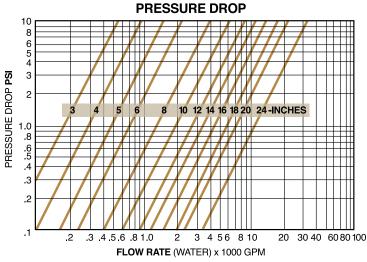
Fabricated Basket Strainers

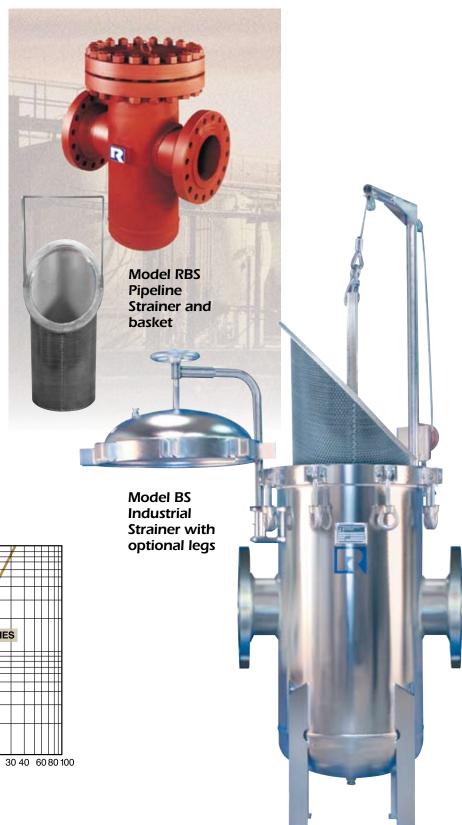
Standard or Custom Design

Rosedale Fabricated Strainers are available in standard designs as shown, or can be custom designed and manufactured to fit your specific requirements. The standard strainer is designed and built in accordance with ASME Code Section VIII, Division 1. Available code designs include ANSI B 31.4, ANSI B 31.3, and ANSI B 31.8. Standard housing material is carbon steel, 304 stainless steel, or 316 stainless steel.

Rosedale Fabricated Strainers can be supplied in ANSI flange ratings. We have the design capabilities and manufacturing facilities to handle your straining requirements to 50 microns. Rosedale Fabricated Strainers are available in pipe sizes from 2" to 24".

For assistance designing a strainer to fit your application, please contact us.





Retrofit Current Sites

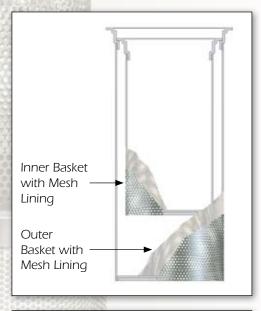
Existing installations can easily convert to a single housing by installing the Rosedale adaptor basket.

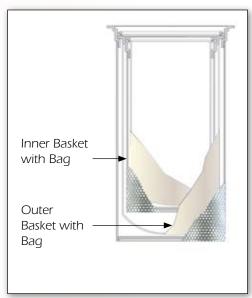
This is accomplished by replacing the perforated filter basket with the adaptor. The solid side basket accepts the new cartridge and directs the flow through the unit.

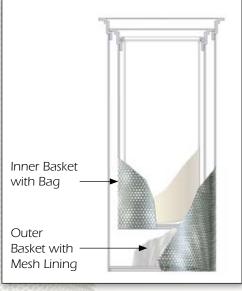


Inner Baskets and Bags

Model 8 and any of the multi-basket or multi-bag units can be fitted with smaller, inner basket strainers or bag filters, through which the in-coming fluid flows first, giving two-stage cleaning action. Inner baskets and bags are offered in the same construction materials and ratings as those of the primary outer elements.









Rosedale Replacement Baskets

Rosedale manufactures replacement bag filter baskets and basket strainers for a wide range of filter housings made by:

American Felt & Filter
Cuno
Commercial Filters/Parker
Eaton
Filter Specialists (FSI)
Filtration Systems
GAF
Ronningen-Petter
Strainrite
Oakland
Plenty

We offer replacements for all current models, and any that have been discontinued by the original manufacturer.

These replacement baskets are made to specifications that equal, or exceed the original manufacturers specifications.

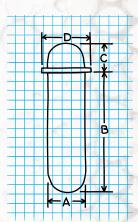
Rosedale can manufacture any basket to your specifications.

Send us a drawing, or just a simple sketch as shown, and we'll submit a quote for your review.

A = Basket diameter B = Basket height

C = Bail height

D = Outside diameter of rim

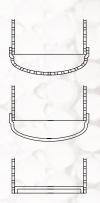


Basket Designs

Standard filter bag baskets have rounded perforated bottoms.

Mesh lined bag baskets have round solid bottoms.

Strainer baskets have flat non-perforated bottoms.





Model CF Replaces Commercial Filter baskets SB11, SB12



Model CUReplaces Cuno baskets
7PC1, 7PC2



Model RPReplaces Ronnigen-Petter
baskets 224, 324, 424, 152



Model AFF/GAF Replaces American Felt & Filter/ GAF baskets 112, 122, AMS R, AMC R, NCX, RBX 1L, RBX 2L



Model STRReplaces Strainrite baskets
UF1-90, UF1-180



Model FFReplaces Filtration Systems
baskets 112, 122



Model FSR or FS Replaces all Filter Specialists baskets



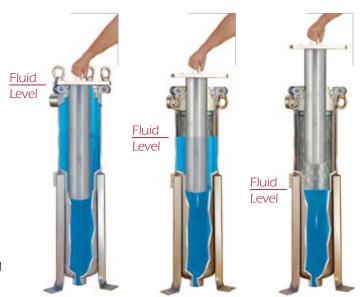
Model FS

Model FSR

Liquid Displacers

Rosedale filter housing models 4, 6, and 8, as well as our convertible filter housings, can be supplied with a liquid displacer attached to the cover. The displacer (a sealed 304 stainless steel cylinder) fits inside the basket strainer or bag filter, displacing liquid that would otherwise fill the inner space. When the cover and attached displacer are removed, the level of the liquid within the basket strainer of bag filter drops resulting in less product loss, and fast easy changes.

As the displacer is removed, the level of the liquid within the basket strainer of bag filter drops



Bag Restrainer

This restrainer expands the bag fully during filtration, insuring that it doesn't fold over on to itself, reducing the amount of material used in filtration. It can also be used in conjunction with the liquid displacer, easing its installation.



Heated Jacketing for Resins, etc.

All Rosedale filter housings can be fitted with heated jacketing for improved filtration of resins, adhesive coatings, and viscous materials. The entire vessel can be enclosed by the jacketing, including the inlet and outlet nozzles. The unit is rated to 600°F, requiring metallic seals (included). The housing is electropolished to prevent product buildup, maintaining clean inside walls.



High Flow Elements

Designed specifically for use with our High Flow Housing Systems

The housings are available in a variety of sizes to accommodate from 1 to 25 filter elements in 40-, 60-, and 80-inch lengths.

- Flow rates 0f 25 gpm up to 300 gpm per element
- Removal Ratings (microns) 0.5, 1, 5, 10, 20, 40, 70 @ Beta 500 (99.8% efficiency)
- Maximum Operating Temperature 160 °F (71 °C)
- Maximum Differential Pressure
 50 psid @ 68°F (3.4 bar @ 20°C)
- Recommended Change-out Differential Pressure 35 psid @ 68°F (2.4 bar @ 20°C)



Poroplate® Filter Elements

The Poroplate line of Sintered Stainless Steel filter elements provide longer life and superior filtration results. They utilize multiple layers of woven wire mesh, sintered into a robust high-strength media. This media is then formed into a filter element, and welded to provide strength and stability. The resulting element traps contaminant on the outside or upstream surface. The inner or downstream layers (flow is from outside in) have an open pore construction to facilitate high flow rates and excellent backflushing. During the Backwash Cycle, virtually all contaminant is removed from the element, and is then ready for reuse.

They are available in micron retention ratings from 3 to 150. The elements use industry standard sizes of 2-3/8 inch diameter in 10-, 20-, 30- and 40-inch lengths. Stainless 316L is standard, but other steels may be custom ordered, consult factory.



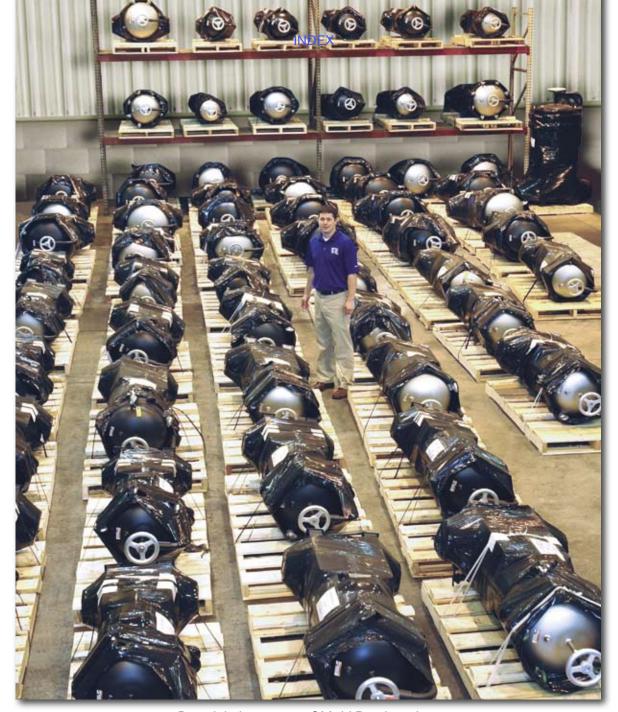




DISCLAIMER OF WARRANTY:

To the best of our knowledge, the data contained in this publication is correct; however, we do not assume any liability for the accuracy or completeness of the information. Users should perform their own tests to determine final suitability. Final determination of the suitability of any information or product for the use contemplated by any user, the manner of that use, and whether there is any infringement of patents is the sole responsibility of the user.

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Rosedale inventory of Multi-Bag housings



Rosedale Filtration Products, Inc.

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□ Beta Rating

Use this chart to determine the filter performance you require.

The Product Groups are listed on the left, Micron Sizes are in red, with corresponding Efficiency (blue), and Beta Rating along the top (green).

	EFFICIENCY % BETA RATING	PAGE NO.	30 1.5	50 2	66	80 5	90 10	95 20			98. 75 80	99 100	99.8 500			99.98 5000	99.99 10000	ELEMENT AREA FT ²	FLOW RATE GPM*	DIRT HOLDING CAP. (lbs)
PLATINUM 500	PS-520 PS-521 PS-523 PS-525 PS-527 PS-528 PS-529	163										0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		85	30	8 8 8 10 10 12
PLATINUM 700	PS-740 PS-741 PS-743 PS-745 PS-747 PS-748 PS-749	163										0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		120	50	12 15 15 17 18 20 20
PLATINUM 900	PS-940 PS-941 PS-943 PS-945 PS-947 PS-948 PS-949	165										0.25 0.9 1.6 2 9 18 40		<0.5 1.4 2 6.5 17 30 60		0.5 2 5 10 20 40 70		600	200	55 75 75 85 90 100
PLEATED HI-E	PL-PEMF/POMF-1 PL-PEMF/POMF-3 PL-PEMF/POMF-8 PL-PEMF/POMF-19	176					1	1 3 8 19				2 5 19 25					10	25	35	1.5 3 5 6
PLEATED STANDARD	PL-PE/PO-35 (1 nom.) PL-PE/PO-48 (5 nom.) PL-PE/PO-55 (10 nom.) PL-PE/PO-70 (25 nom.) PL-PE/PO-90 (50 nom.)	160						35 48 55 70 90										25	50 150	7.5 8 9 10 11
НІ-Е	PEMF/POMF-1 PEMF/POMF-3 PEMF/POMF-8 PEMF/POMF-19	176					1	1 3 8 19				2 5 19 25					10	4.4 SINGLE LAYER	20 50	0.2 0.25 0.35 0.75
STANDARD	PE/PO-1 PE/PO-5 PE/PO-10 PE/PO-25 PE/PO-50	149	10 40		20	30	30	35 48 55 70 90	40									4.4 SINGLE LAYER	50 110	0.6 0.7 0.8 0.9
GRADED DENSITY	GD-523 GD-525 GD-527 GD-529	152						1 3 8 19				2 5 19 25		20	30		40	4.4 SINGLE LAYER	20 50	0.6 0.65 1.25 2
ВЕТА	BB-1 BB-10 BB-12	149		1 10 12			3	4 16 37		8 20 47	10							4.4 SINGLE LAYER	20 50	0.15 0.35 0.6
GIARDIA	PS-520-PPP-241 GLR-825 PS-740-PPP-356	129													3			4.4 TWENTY SIX LAYER	10	0.5