GE
Water & Process Technologies

Fact Sheet

Selex* Depth Cartridge Filters



Figure 1 : Selex Depth Cartridge Filters

Description and Use

The Selex (SX) cartridge filter (Figure 1) is a high precision graded density cartridge constructed of 100% pure polypropylene. Selex provides a very high particle retention efficiency that equates the performance of absolute rated filters. The patented Selex manufacturing process controls the density and fiber size, which are key to the filter's performance and long life. Selex cartridge filters have sharp efficiency cutoff, fast rinse up for exceptional purity, and continuous, weld free lengths up to 40 inches (101.6 cm).

Typical Applications

- Magnetic Media (CMP) - solvents, slurry/dispersion, Pre-Filter and Final Filter at Coater
- Photographic - Incoming Water, Liquid Chemicals, Developer, Fixer, Stopper Solutions
- Petrochemicals - Waterflood, Completion, Enhanced Oil Recovery, Amines
- Chemical Process Industry - Reagent Grade Chemicals, Process Water
- Pure Water - Pre-RO, Post- DI Resin Trap
- Food and Beverage – Clarification, Process Water, Polishing Filter
- Metal Finishing - Electrodeposition Paint, Precision Electroplating
- Potable Water- Polishing Filter, Giardia Removal
- Pharmaceuticals - Clarify Production Broths, Prefiltration
- Oil and gas - well protection

General Properties

Selex filters are available the following absolute pore size micron ratings: 1, 3, 5, 10, 20 and 30 microns. Tables 1, 2, 3 and 4 show further details on materials of construction, dimensions, flow performance and performance specifications.

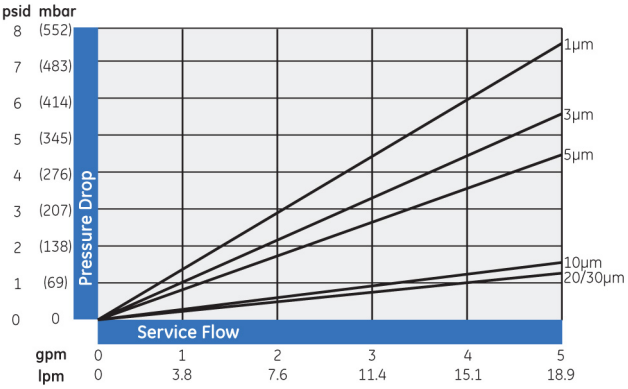
Table 1: Materials of Construction

Filtration Media	Polypropylene
Endcaps and Adapters	Polypropylene

Table 2: Dimensions

Nominal Outside Diameter	2.50" (6.4 cm)
Nominal Inside Diameter	1" (2.5 mm)
Maximum Operating Temperature	140° F (60° C)

Table 3: Flow Performance in Clean Water[1]



[1] Data based on 10" length filter

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Table 4: Performance Specifications

		For General Applications					For Critical Applications	
		Removal Rating (µm) at Various Efficiencies					Removal Rating (µm) Where ß = 5000	
Selex Grade	Micron Rating	90%	95%	98%	99%	99.50%		
E	1	0.5	0.7	0.9	1.0	1.3	E	1.8
G	3	1.1	1.5	1.8	2.0	2.4	G	3.0
D	5	1.5	1.8	2.9	4.3	5.0	D	6.5
A	20	3.2	5.2	7.3	8.4	9.7	A	11.0
C	20	15.1	17.5	18.9	19.3	20.0		
F	30	16.6	18.9	20.8	24.2	32.1		

Note: Removal efficiencies are reported for a given particle size, i.e. an efficiency of 99% at 3 microns means that the filter removes 99% of the particles that are 3 microns in size.

Note: The Beta Ratio (ß) is calculated as a measure of efficiency for all particles equal to or larger than the given micron size. A Beta Ratio (ß) of 5000 represents the removal of 99.98% of all particles equal to or larger than the given micron size.

Additional Information

Selex depth cartridge filters are made from thermally-bonded fibers of polypropylene. GE Water & Process Technologies certifies that it uses no resin binders, lubricants, antistatic or release agents or other additives in the manufacture of these cartridges, and that the resin used for manufacturing the filter media meets the food contact requirements of the U.S. FDA 21CFR regulations.

When required, specify only FDA compliant sealing materials and end adapters.

GE filter cartridges are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your GE distributor for more information.

Ordering Information

Table 5 contains ordering information. To configure a standard Selex filter with no adapters on either end, select one item from each of the first three columns. Your model number may look like this: SXD-29 1/4.

To order Selex filters with end adapters, add one-item from the last 2 columns to your filter selection (use all 6 columns). Your model number may look like this: SXD-29 1/4 YYP (see example below) or SXD-29 1/4 XK.

ISO 9001 registered

Table 5: Ordering Information

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
SXE SXG SXD SXA SXC SXF	01 = 1 µm 03 = 3 µm 05 = 5 µm 10 = 10 µm 20 = 20 µm 30 = 30 µm	9 3/4 in (24.8 cm) 9 7/8 in (25.1 cm) 10 in (25.4 cm) 19 1/2 in (49.5 cm) 20 in (50.8 cm) 29 1/4 in (74.3 cm) 30 in (76 cm) 40 in (101.6 cm)	Y = 1 inch (25.4 cm) Open End Gasket L = Extended Care E = 222 O-Ring F = 226 O-Ring X = Standard Plain End	Y = 1 inch (25.4 cm) Open End Gasket K = Self Seal Spring H = Fin S = Solid End	Gasket P = Santoprene[2] O-Rings S = Silicone E = EPDM B =Buna V = Viton[3]

When using filter types SXE, SXG, or SXD with a knife-edge seal, an elastomeric gasket is recommended to retain highest efficiencies possible.

[2]Santoprene is a registered trademark of Advanced Elastomer Systems, L.P.

[3]Viton is a registered trademark of DuPont Dow Elastomers L.L.C.