

Profile® II and Ultipleat® Profile® Filter Elements Retrofit Series

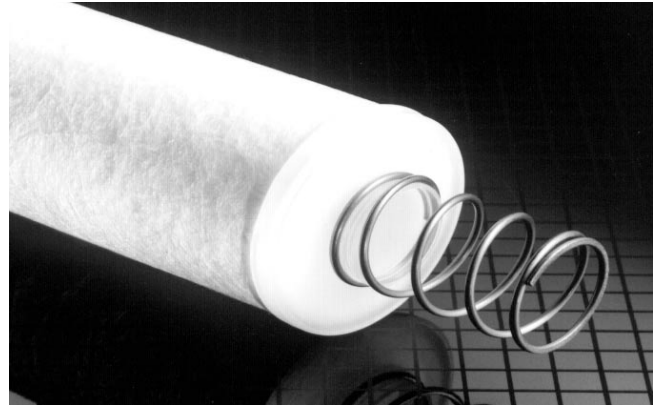
Description

Pall Profile® II depth filters and Pall Ultipleat® Profile® pleated filters are now available in a user-friendly SI configuration. The SI style element consists of a solid polypropylene endcap with a 302 series stainless steel spring on one end, and a polypropylene endcap holding a replaceable polyethylene gasket on the open end.

The integral closed endcap/spring assembly eliminates the requirement for the customer to individually place loose springs and cups on the top of each and every filter. This makes filter changeout quicker and easier in multiple around cartridge housings. The SI configuration also will enhance product quality since the cartridge is permanently sealed at one end, thereby minimizing the risk of fluid bypass with a double open ended filter.

Profile II depth style filters are all polypropylene. The 2½ inch diameter elements have an absolute rated downstream section, and a continuously profiled pore size upstream section, which significantly increases service life. The material of construction — chemically resistant polypropylene — permits application in a very wide range of corrosive and non-corrosive fluids. The fibers in Profile II filters may be considered continuous. No binder resin is used, as the fibers are bound by intertwining during the manufacturing process. As a result, Profile II filters show no media migration.

Pall Ultipleat Profile filters are 2½ inch diameter pleated polypropylene cartridges. Just like Profile II filters, the absolute rated filter medium within Ultipleat Profile elements is constructed using Pall's proprietary method of continuously varying fiber diameter to create a tapered pore filter medium.



Profile® II Retrofit Element –
A Solid Polypropylene Endcap With a Stainless Steel Spring Attachment,
Easily Retrofits Into Existing Cuno, Hytrex, Commercial or Filterite Housings.

As a result of this unique medium construction and a proprietary crescent-shaped pleat structure, the pressure drop of Ultipleat Profile filters is as low as half that of higher area pleated filters, and as low as one-fifteenth that of conventional depth filters. Consequently, Ultipleat Profile filters provide exceptional service life. The Ultipleat Profile medium is thicker than that found in many conventional pleated filters and is optimized for gel removal and sharp, distinct particle removal. This makes the elements ideal for viscous fluids and dispersions in addition to those many applications where long service life is desired.

Ultipleat Profile and Profile II filters have numerous applications in a broad range of industries that include chemical, petrochemical, photochemical, pharmaceutical, biological, electronic, magnetic tape, electroplating, food and beverage, cosmetic, veterinary, medical and fermentation industries. They are used as both prefilters and final filters.

Table 1. Ultipleat Profile Filters – Performance Characteristics

Cartridge Grade	Liquid Removal Rating	Clean Pressure Drop		Aqueous Service PSI/GPM Per 10" Element ⁽²⁾
	In Microns (µm) at 90% Efficiency	In Microns (µm) at 99.98% Efficiency		
020	<1.0*	3.2		0.13
045	1.2	4.5		0.085
060	2.5	6.0		0.035
100	4.3	10.0		0.030
200	10.6	20.0		0.025
300	16.6	30.0		0.020
400	19.0	40.0		0.015
500	25.0	50.0		< 0.010
700	35.0	— ⁽¹⁾		< 0.010
1000	60.0	— ⁽¹⁾		< 0.010

(1) Precision evaluation of the 99.98% removal efficiency for these coarse grades is not possible with the modified OSU test procedure utilized.

* Extrapolated Value

(2) Pressure drop in PSI per GPM for a single 10" cartridge. For multiple number of elements, divide by the number of cartridges. For fluids other than water, multiply the value calculated by the fluid's viscosity measured in centipoise.

Table 2. Profile II Cartridge Grades and Their Characteristics

Cartridge Grade	Liquid Removal Rating		Clean Pressure Drop	
	In Microns (µm) at 90% Efficiency	In Microns (µm) at 99.98% Efficiency	Aqueous Service PSI/GPM Per 10" Element	Gaseous Service CFM of Air Per PSI Per 10" Cartridge ⁽³⁾
020	< 1.0*	2	1.9	4.6
030	< 1.0*	3	1.5	6.4
050	2	5	0.8	11.0
070	3.5	7	0.5	17.0
100	6.5	10	0.3	29.0
120	7.0	12	0.2	36.0
150	8.0	15	0.15	44.0
200	10	20	0.10	75.0
300	14	30	0.08	119.0
400	20	40	0.05	207.0
700	32	— ⁽⁴⁾	< 0.05	415.0
900	50	— ⁽⁴⁾	< 0.05	640.0
1200	60	— ⁽⁴⁾	< 0.05	1000.0

(3) For longer modules, increase the flow rates listed in proportion. The flow rates listed do not take into account pressure losses due to flow in the internal diameter of the element, which becomes significant above about 40 to 60 cfm.

(4) Precision evaluation of the 99.98% removal efficiency for these coarse grades is not possible with the modified OSU test procedure utilized.














* Extrapolated Value

Operating Characteristics- Profile II Filters and Ultipleat Profile Cartridges

Recommended maximum pressure differential is 60 psi up to 86°F (30°C), 50 psi up to 122°F (50°C), 30 psi up to 158°F (70°C), and 15 psi up to 180°F (82°C).

Part Numbers/Ordering Information

Table 3. Standard Configuration of Profile II Cartridges and Ultipleat Profile Filters

Removal Rating Microns (µm)	Profile II Element Part Numbers	Ultipleat Profile Element Part Numbers	Code	Nominal Length, Inches
2	R  F020SI	R  FUY020J8SI	1	10
4.5	—	R  FUY045J8SI	2	20
6.0	—	R  FUY060J8SI	3	30
10	R  F100SI	R  FUY100J8SI	4	40
20	R  F200SI	R  FUY200J8SI		
30	—	R  FUY300J8SI		
40	—	R  FUY400J8SI		
50	—	R  FUY500J8SI		
70	—	R  FUY700J8SI		
100	—	R  FUY1000J8SI		

Specifications and availability: The information provided in this literature was reviewed for accuracy at the time of publication.

Product availability may be subject to change without notice.

For current information, consult your local Pall distributor or contact Pall Corporation directly.



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