FLTR Purple Engineering

Rubber Molded End Filters

- **Rugged Rubber End Seals**
  - No Bypass. No Cracking w/Age.
- **Textile Media -** Not Paper
  - Handles Moisture, Vibration, Abuse.
- **Genuinely Cleanable**
  - Practical & Economical
- **Exceptional Performance**
  - Lower ΔP, Longer Life

More than 50 years ago, molded end filter elements challenged the worst of punishments in industrial and military services. Today, with synthetic rubber ends, they are arguably the finest air/gas filters ever made.

We manufacture a broad range of sizes …Overall heights to 40", outside diameters to 36", and inside diameters from 1" to 30". *(If you need larger, please call for specific information.)* They can handle air/gas flows to 20,000 CFM. Some provide particle retentions down to 99.9% at 0.1 µ (micron).

These molded end filters are cylindrically shaped.



They are designed to cover an intake opening, being held in place by a reuseable plate fitting over a center rod assembly. They have solid rubber ends, heavy duty perforated mild steel, 304SS or 316SS center cores, and radially pleated filter media jacketed with woven wire screen. This screen jacket holds fins open, greatly improving flow and life. Their textile media are well known for superior performance and cleanability vs. fragile paper media. This rugged construction has been long proven to yield higher flows, longer life, and lower ΔP!



New urethane rubber molding systems yield superior filter end seals at production run economy. Don't settle for PVC ends that can soften at intermittent elevated temps., or crumble if undercured.

***Rubber Molded End Style** - Cylindrical, double open ends (DOE) of polyurethane rubber, perforated or expanded metal center core, pleated textile, or wire screen filter media. ODs 3" -36", OVHTs 2" - 40", Pleat depths from 0.5" - 4.25". These are arguably the finest built, self sealing, low micron, low ΔP, high flow, field cleanable, and fool proof filter elements available today.*



Rubber Molded Ends.

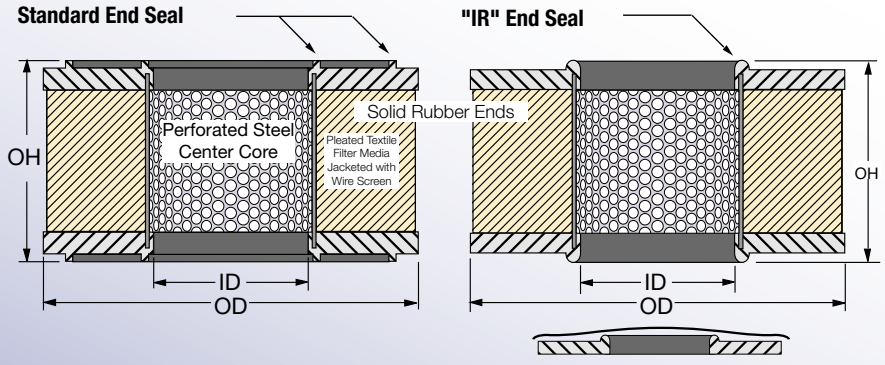
The filter media, support screens, and element cores are bonded together by synthetic rubber ends. Rubber is much more rugged and durable-than lesser polyvinyl elastomers used by others. Rubber will not crumble in service as undercured PVC can. PVC is as much as 50% plastisizer. When this plastisizer evaporates, PVC ends can crack and fail. Our standard synthetic rubber ends are black. We offer colored rubber as well, such as white for food service applications.

We carve production molds from solid stock (no stampings) for exacting end seals. These seals stop dirt cold, and resist most oils and solvents, moisture, or vibrational punishment. They can withstand contiuous service to 250° F, and intermitten service at 350°F*. Optional Silicone rubber ends can serve to nearly 500°F.

**Performance considerations vary with elevated service temperature and environments. Metal end options with high temp potting materials can serve to over 2000°F.*

An Element's Core Is Its Heart.

A filter with a weak center core is a house built of straw. We routinely use 16 and 20 gauge perforated steel with 58% open area for low ΔP and high column strength to support the innermost end seal. We weld metal core seams and use premium corrosion inhibitors that will not flake off as paint can. These elements are designed to stand up to abuse.



This standard end seal employs one or typically two narrow raised circular sealing surfaces. The center most seal usually stands directly above the center core, ensuring column strength is passed along to the seal when installed in service.

This end seal employs a single raised sealing surface directly above the center core at the very inside diameter of the filter. When the lid of a filter housing has a domed cross section, the IR seal is occasionally necessary to avoid a fit conflict at the shoulder.

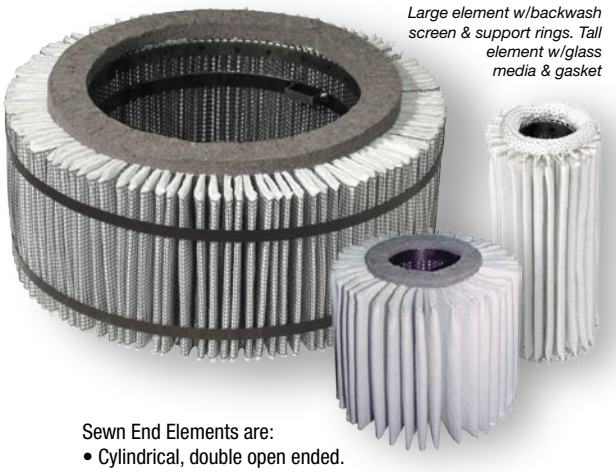
For more information:

WEB: FLTR.com.au **PHONE**: (+61) 1300 62 4020 **EMAIL**: info@FLTR.com.au **SKYPE**: Purple.Engineering

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Is your element a

Sewn End Style ?

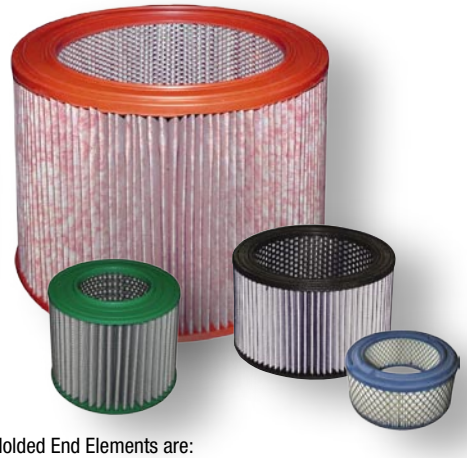


Large element w/backwash screen & support rings. Tall element w/glass media & gasket

Sewn End Elements are:
- Cylindrical, double open ended.
- Typically four overall heights: 12", 17", 21", or 25".
- Carbon steel (magnetic) or 304SS core. (not magnetic)
- Felt or rope style gasket, die cut or formed.

... Or a

Molded End Style ?



Molded End Elements are:
- Cylindrical, double or single open ended.
- Any overall heights.
- Carbon steel (magnetic) or 304SS core (not magnetic)
- Ends are:
  1.) Rubber (excellent) or PVC (cheap seats use this)
  2.) Silicone (typically red) service to 500°F.

... Or an

Accordion Style ?

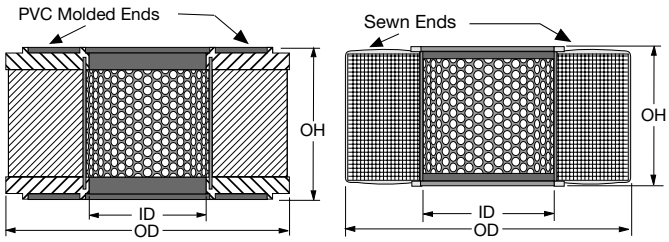


Accordion Style Elements are:
- cylindrical, double open ended.
- Polyester felt filter media.
- No center core.

We need only the OH, Fin Depth, and No. of pleats to quote you. There is no "ID"

What end type Is It? (Pick One):

Sewn End _____ Molded End _____ Accordion _____



(Measure ID, OD & OH to closest 1/8 inch)

Inside Diam.	Outside Diam.	Overall Height	# of Pleats ±2
of core, or inner support rings.	...if it's out of round, measure circumference & divide by 3.14	...set a yardstick across top & measure from underside of the stick to the table or floor.	...count a 90° section & multiply by 4.

Are you replacing an existing filter element? _____(Y/N)

Is there a brand name on a tag ? _____

Can you find any part numbers ? _____

Is your element open at both ends? _____(Y/N)

Choose metal parts i.e. center core, rings, wire screens

Coated mild steel [ ] . . . . 304 SS [ ] . . . or 316 SS [ ]

...carbon steel is magnetic, 304SS and 316SS are not magnetic.

Filter media (See choices on pg 30) _____

.....#5 (10µ polyester felt) is the most common choice, #7 or #910 close 2nds.

You can mail us a scrap of the existing media if you like.

Do you want a pleated backwash screen ? _____ (Y/N)

... option for Sewn Ends, molded ends include this (unless they are cheap paper)

Do you need internal metal fin spacers ? _____ (Y/N)

... option for Sewn Ends used in liquid service. Quality fin spacers are corrugated.

Operating Temperature? _____ ° F

What fluid are you filtering?_____

...i.e. room air, natural gas, compressor exhaust with oil mist ??

If Molded End Style:

Std. Rubber _____(Pick one Y/N)

...continuous service to 250°F, intermittenly to 350°F, consult us for considerations at elevated temperatures.

OR Aliphatic Hydrocarbon Resistant PVC _____

...continuous service to 200°F, intermittenly to 250°F

OR RTV Silicone _____

...continuous serve to 450°F, intermittenly to 500°F

Other (Metal perhaps, but is that important?) _____

Other comments _____

_____

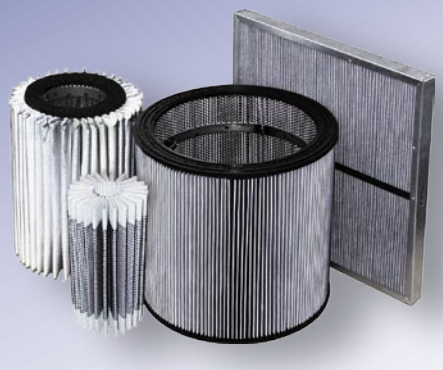
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For more information:

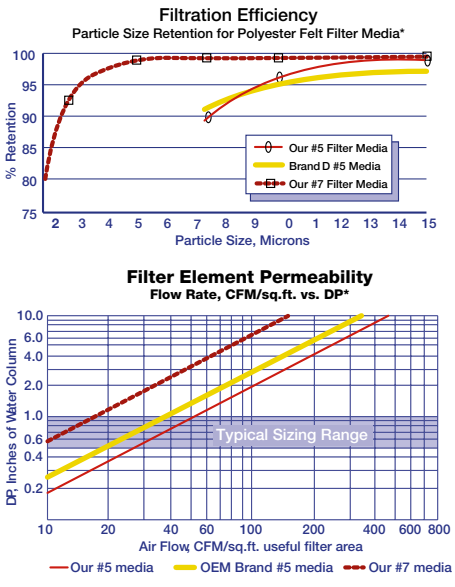
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From left to right above, SEWN END, ACCORDION, RUBBER MOLDED END, and PANEL filter elements. Each style can be supplied with different filter media, and other variations. Our filter elements surpass the most stringent requirements for long life, low ΔP, positive seals, and maximum air flow in compact and cleanable units. Our molded end filter elements do not require a bothersome expanded metal outer wrap to prevent the handling damage common to lesser paper filter media. Instead, we pleat textile filter media between layers of epoxy coated wire screen to yield a rugged jacketed media with 1/4th the resistance to flow of paper media. Jacketed fins resist collapse, have exceptionally high flow, long life (a year is common), and are unharmed by moisture, vibration, pulse flow, and most other service hazards. This also simplifies cleaning with air guns or spray cleaning units. Element cores are 58% open perforated steel. These cores retain column strength where lesser expanded metal, or woven wire cores fail. Our molded urethane rubber ends out perform lesser molded PVC ends offered by many competitors.

Filter media: (see table) #5 polyester felt is arguably the most rugged, washable, 10µ media ever offered. Our #7 polyester medium stops 4µ particles. Elements with 2µ #51 fiberglass are rugged, but not washable. Our 0.1µ HEPA grade #904 medium can stop bacteria. Our #916 medium has 50% activated carbon and can strip away undesirable vapors. Our #910 medium outshines other low cost alternatives at stopping the airborne lint and dirt prevalent in ambient air sources today. Newest of all, our #907 medium with reverse flow radial fin design effectively coalesces smoke and mists without high ΔP loss!



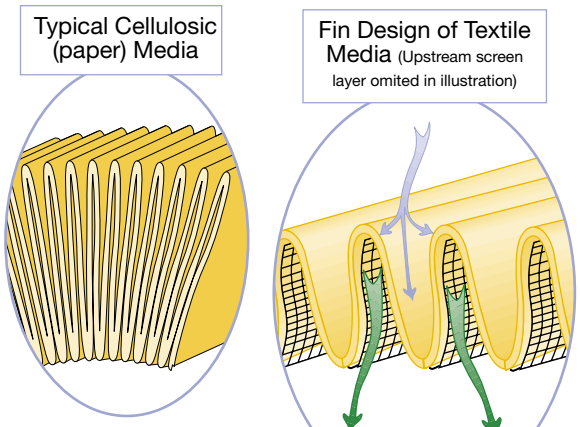
** Instrumentation- HIAC 4100/1100 sensor; Efficiency counts/250 cu.ft.*

Optional Filter Media

Media Suffix #	Filter Media Description:	Reten.* µ Liq	Reten.* µ Gas	Temp. °F	Style* used in:
1	Woven Cotton	30	≤ 30	200	S , M
2	Rayon Felt	> 10	10	200	S , M
3	Woven Cotton	5	2	200	S , M
5	Polyester Felt	20	10	300	S , M
7	Polyester Felt	5	4	300	S , M
8	Woven Fiberglass	15	10	700	S , M
12	Cotton Terrycloth	20	≤ 20	200	S , M
26	304 SS, 100 mesh	150	150	1000	M
30	304 SS, 200 mesh	75	75	1000	M
42	Woven Cotton	1	Not Rated	200	S , M
47	304 SS, 325 mesh	40	40	1000	M
51	Fiberglass Felt, Yellow	> 1	1	450	M
59	Woven Nylon	5	≤ 5	250	S , M
60	Woven Nylon	45	≤ 45	250	S , M
61	304SS, 200 x 1400 mesh	15	15	1000	M
62	304SS, 325 x 2300 mesh	10	10	1000	M
63	Fiberglass Locked/Felt	> 1.5	1.5	500	S , M
64	Polyester Felt	5	4	300	S , M
65	Woven Nylon	90	≤ 90	250	S , M
66	Woven Polyester	2	Not Rated	300	S , M
69	Dynel, woven	2	Not Rated	200	S , M
72	Polyester Felt	2	2	300	S , M
85	Woven Teflon®	10	≤ 10	450	S , M
86	Teflon Felt	10	5	450	S , M
90	Polyester Felt	Not Rated	40	300	M
99	Polyester Felt - Now a misnomer. Depending upon OEM brand, is either #5 or #7 media. Order #7 media if 4µ is needed.				
100	Woven Polypropylene	15	10	175	S , M
101	Woven Polypropylene	10	5	175	S , M
102	Woven Polypropylene	5	3	175	S , M
103	Woven Polypropylene	1	1	175	S , M
105	Fiberglass Felt, Pink	> 2	2	450	M
108	Fiberglass Felt, Pink	> 0.3	0.3	450	M
111	304SS, 50 mesh	280	280	1000	M
135	Woven Fiberglass	6	3	700	S , M
139	Nomex Felt	10	5	450	S , M
142	Polypropylene Felt	10	5	175	S , M
169	Polyester Felt	20	10	300	S , M
200	Galv. C.S. mesh	750	750	500	M
212	Rayon/Nylon Felt	50	50	200	S , M
214	Rayon/Nylon Felt	100	100	200	S , M
418	Woven Polyester	75	75	300	S , M
703	Woven Virgin Teflon®	10	10	450	S , M
704	Woven Polyester	10	8	300	S , M
900	Paper / Microglass	0.5	0.3 abs	180	M
904	Microglass	0.5	0.1	400	M
906	Microglass combination	> 1	1	200	M
907	Microglass combination	> 0.3	≤ 0.3	200	M
910	Polyester/Cotton Felt	> 40	40	300	M
916	Activ. Carbon/Glass	Not Rated	Not Rated	200	M
920	Treated Microglass	Not Rated	1.5	400	M
921	Poly/Glass	Not Rated	0.1	200	M
923	Polypropylene	Not Rated	25	175	M
924	Poly/Glass	Not Rated	< 0.3	200	M
926	Poly/Glass	Not Rated	< 0.3	200	M
927	Poly/Glass	Not Rated	< 0.3	200	M
928	304SS mesh, 50 x 200	Not Rated	60	700	M
931	PTFE Finished Microglass	Not Rated	4	500	S, M
932	Polyester Felt	40	25	300	S, M

Call Us For Many Additional Special Purpose Filter Medium

* S = Sewn End, M = Molded End



Breathing Room…

Do you really care if dirt gets past your filter? Is it worth trying to save a buck on paper rather than rugged textile media? Oddly enough, paper elements cost much more in the long run. Paper pleats crack where you can't see. The light bulb trick won't reveal the failure(s) either. Moisture can ruin paper. And, be very careful of vibration or handling damage. Elements with high performance textile media benefit from 1/3rd the resistance to flow of paper media. They allow open pleat spacing, higher dirt holding capacity, are practical to clean, have lower ΔP, and longer life. Rugged polyester felt media won't crack, tolerates being soaking wet, and takes a beating. Protect your equipment, use textile media.

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