Sewn End Filter Elements

Sewn End  Filter Elements have rugged metal baskets and hand sewn media that match a design proven for decades. These elements are constructed entirely from metal and textile media, without needing any potting material or synthetic end seals. They can endure services with otherwise difficult chemistry or high temperatures that molded end elements or some adhesives used in metal ended filters could not withstand.

We start with heavy duty 16 & 20 ga. center cores with 58% open area for lower ΔP. Competitors will often use expanded metal or off grade perf. Large elements get solid steel support rings and welded lift lugs to assist you in handling. We double weld for superior strength. Our standard deck wire is woven to width. Competitors will often use mild steel screen (rusts) with raw cut edges that can poke through the media. When a non-standard width is required, we do something no one else does, we fold it. We preclude the chance for sharp wires to damage the crucial filter media, or even more importantly, your hands! Our radius cut notch ring reliably secures the pleated deck wire assembly to the element core. Others use square cut notch ring that fails. Standard sewn end filters (those with cat#s ending with K5) use corrosion inhibited carbon steel cores, epoxy coated deck wire, and high flow 10µ (98%) polyester felt media. For corrosive services, we offer optional 304 or even 316 stainless steels. A wide selection of alternative filter media covers a full spectrum of chemical resistances, with particle retentions down to 1 µ, and service to 700°F.

Factory Recover Service:  We recover all brands and makes of sewn end filters. If the soiled filter is safe to handle, return it to us. We will replace the filter media and gaskets, at a fraction of the cost of a new filter. Owing to the extra care we put into the manufacture of our own sewn end filter elements, we can factory recover them forever*.

Does your P/N have a -BK- or an -HK- in it?

Sewn end filters may also have optional backwash screen (BK, BN) and/or fin spacers (HK, FK, FN, HN). In the interest of brevity, we did not list each filter with all possible options.

Backwash screen is useful if the fluid flow is ever reversed to clean and extend the service life. For top performance, we pleat backwash screen to full height & full fin depths.

Fin spacers are corrugated metal strips placed within the interior pocket of each pleat to promote flow in high ΔP, or liquid service.

We offer all options, including alternate filter media (does your P/N end in different numbers?), and 304SS metal parts (an N vs. a K). Please call if your P/N is close.
Sparks filter elements are offered in styles and sizes that directly replace OEM elements. We cross reference thousands of filters to assist you in sourcing your replacement needs, while saving you money.

Can you email a digital picture.jpg to: Sales@SparksFilters.com?
Can you measure the element’s ID, OD, OH? If so we can replace it.
If you only answer the items in red, we can get started.

Is your element a

Sewn End Style ?

... Or a

Molded End Style ?

... Or an

Accordion Style ?

What end type Is It? (Pick One):

Sewn End _____ Molded End _____ Accordion _____

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.

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.

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”

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, intermittently to 350°F, consult us for considerations at elevated temperatures.

OR Aliphatic Hydrocarbon Resistant PVC __________________________
…continuous service to 200°F, intermittently to 250°F

OR RTV Silicone __________________________
…continuous serve to 450°F, intermittently to 500°F

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

Other comments __________________________
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!

Filtration Efficiency

Particle Size Retention for Polyester Felt Filter Media*

<table>
<thead>
<tr>
<th>Particle Size, Microns</th>
<th>75</th>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
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<tbody>
<tr>
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<td>100</td>
<td>95</td>
<td>90</td>
<td>85</td>
<td>75</td>
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<td></td>
<td></td>
<td>100</td>
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Filter Element Permeability

Flow Rate, CFM/sq.ft. vs. ΔP*

<table>
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<th>0</th>
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<th>2</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
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<td>1.0</td>
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<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
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<td>0.2</td>
<td>0.6</td>
<td>1.2</td>
<td>1.8</td>
<td>2.4</td>
<td>2.9</td>
<td>3.5</td>
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</tbody>
</table>

*Instrumentation- HIAC 41001100 sensor; Efficiency counts/250 cu.ft.

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 and takes a beating. Protect your equipment, use textile media.

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Call Us For Many Additional Special Purpose Filter Media