SOLBERG®
Filtration • Separation• Silencing

Technical Data

Filter Elements

Filter Element Efficiency

When choosing a filter media type, an accurate and useful filter efficiency rating must have two components: efficiency and micron filtration rating. The micron rating of a media means very little if the efficiency percentage is unknown. For example, a 1 micron media rated at 60% efficiency may offer less filtration than a 5 micron media rated at 99% efficiency. Always make sure you have both when you compare different media types for your application.

Element Maintenance

Solberg elements should be cleaned or replaced once the pressure drop reaches 15-20" H_2O above the initial pressure drop of the installation. The decision to clean the element rather than replace it is left to the discretion of the operator. Any damage which results from by-pass or additional pressure drop created by element cleaning is the sole responsibility of the operator.

Note: The overall performance of a filter element is altered once cleaned. The initial pressure drop after subsequent cleanings will be greater than the original, clean pressure drop of the element. After each cleaning, the pressure drop will continue to increase. Under all circumstances, the initial pressure drop of the element needs to be maintained at less than 15" H_2O.

Once the element has been cleaned, if the pressure drop exceeds 20" H_2O at start-up; it must be replaced with a new element. With many types of equipment, the maximum pressure drop allowed will be dictated by the ability of the equipment to perform to its rated capacity. Under all circumstances, the operator should avoid exceeding the manufacturer's recommended maximum pressure drop for their specific equipment.

Identification

The element part number designates media type and depending on the element: support material, gasket type, potting adhesive and if it comes with an element prefilter wrap. For example, the following part number HE234QP, identifies the filter element as having a HEPA media "HE", with dimensions of a 234 element, "Q" designates stainless steel ID & OD & endcaps, and "P" means it has a prefilter wrap. See partial list below for other filter media designations.

HE234QP

- P — Prefilter
- Q — I.D. & O.D. Support
- 234 — Element Size
- HE — Media Type

Filter Media Nomenclature (contact Solberg for other media types and stainless steel.)

Polyester Std.: 5 µm, i.e. 385
Paper Std.: 2 µm, i.e. 384
Z Media: 1 µm Polyester, i.e. 15Z
HE Media: HEPA, i.e. HE10
UL Media: ULPA, i.e. UL234
DT Media: Dutch Twill, i.e. DT375
MX Media: Nomex, i.e. 377MX
TF Media: PTFE, i.e. TF345
TG Media: Hi-Temp PTFE, i.e. TG235
PSG Media: Coalescing, i.e. PSG244
AC Media: Activated Carbon, i.e. AC18
GM Media: Electrostatic AC, i.e. GM35
AA Media: Activated Alumina, i.e. AA850
ACG Media: AC Granulate, i.e. ACG30
RY Media: PPS, i.e. RY485
Y Media: Polypropylene, i.e. 849Y
ZE Media: Zeolite, i.e. ZE848
S Media: Wire Mesh, i.e. 274S
N Media: 4 µm Polyester, i.e. 231N
U Media: 25 µm Polyester, i.e. 685U
W Media: 100 µm Polyester, i.e. 15W

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Filter Elements

Polyester Element Features

- Identified typically by “odd number” nomenclature: i.e. 19, 235P
- Pleated industrial needle felt polyester media
- Reinforced with epoxy coated steel wire on both sides of the media
- Dust loading capacity is increased 40-50% with prefilter
- “P” designation at end of element part number i.e.: 235P

Technical Specifications

- 5 micron, 99+% efficiency
- Media classification: EU8, F8
- Temperature min: -15°F (-26°C), max: 220°F (104°C)

Advantages

- Less maintenance: washable
- More durable
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor

Paper Element Features

- Identified typically by “even number” nomenclature: i.e. 18, 234P
- Heavy duty industrial strength paper surrounded by heavy gauge galvanized expanded metal
- Dust loading capacity is increased 40-50% with prefilter
- “P” designation at end of element part number i.e.: 234P

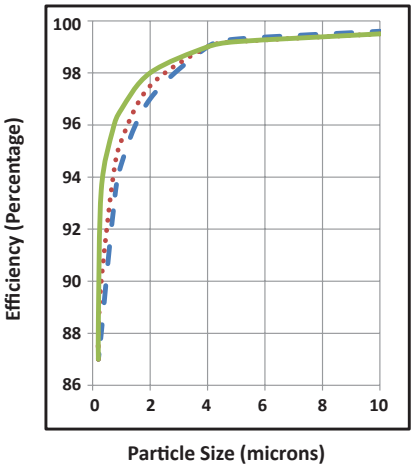
Technical Specifications

- 2 micron, 99+% efficiency
- Media classification: EU9, F9
- Temperature min: -15°F (-26°C), max: 220°F (104°C)

Advantages

- Optimal surface area available
- Higher efficiency than many alternative media
- Cost effective

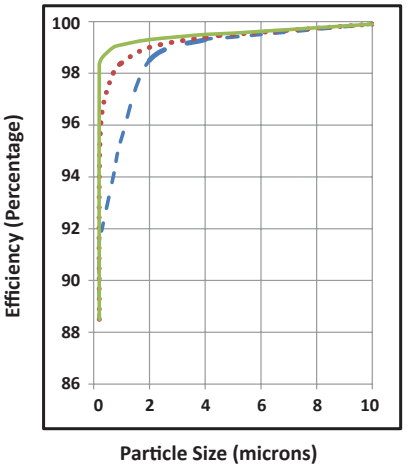
Polyester Media Efficiency



Indicated Face Velocity:

- 15 CFM/ft² media
- 30 CFM/ft² media
- 45 CFM/ft² media

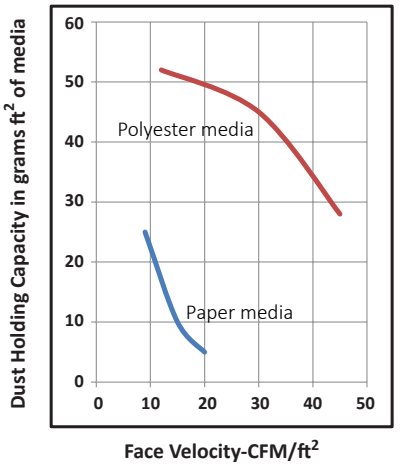
Paper Media Efficiency



Indicated Face Velocity:

- 10 CFM/ft² media
- 15 CFM/ft² media
- 20 CFM/ft² media

Face Velocity vs. Dust Holding Capacity



Note: Efficiency charts are based on SAE Fine Dust Test.