

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 37-50 mbar above the initial pressure drop of the installation.

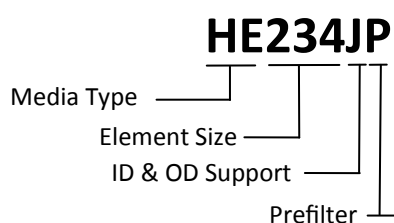
The decision to clean the element rather than replace it is left to the discretion of the operator. Any damage which results from by-pass or additional pressure drop created by element cleaning is the sole responsibility of the operator.

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 37 mbar.

Once the element has been cleaned, if the pressure drop exceeds 50 mbar 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 HE234JP, identifies the filter element as having a HEPA media "HE", with dimensions of a 234 element, "J" designates stainless steel ID & OD, and "P" means it has a prefilter wrap. See partial list below for other filter media designations.



Filter Media Nomenclature *(contact Solberg for other media types.)*

Odd Nbr.: 5 µm Polyester, i.e. **385**
Even Nbr.: 2 µm Paper, i.e. **384**
Z Media: 1 µm Polyester, i.e. **15Z**
N Media: 4 µm Polyester, i.e. **231N**
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**
MXD Media: SS Nomex, i.e. **377MXD**
Y Media: Polypropylene, i.e. **849Y**
TF Media: PTFE, i.e. **TF345**
RY Media: PPS, i.e. **RY485**
S2 Media: SS Mesh, i.e. **274S2**
S Media: Wire Mesh, i.e. **274S**

PSG Media: Coalescing, i.e. **PSG244**
AC Media: Activated Carbon, i.e. **AC18**
GM Media: Electrostatic AC, i.e. **GM35**
AA Media: Actvtd Alumina, i.e. **AA850**
ACG Media: AC Granulate, i.e. **ACG30**
U Media: 25 µm Polyester, i.e. **685U**
W Media: 100 µm Polyester, i.e. **15W**

Technical Data

Standard Polyester / Paper Elements

Polyester Element Features

- Identified 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
- Washable with lukewarm water and mild detergent
- 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°C (-26°F), max: 104°C (220°F)

Advantages

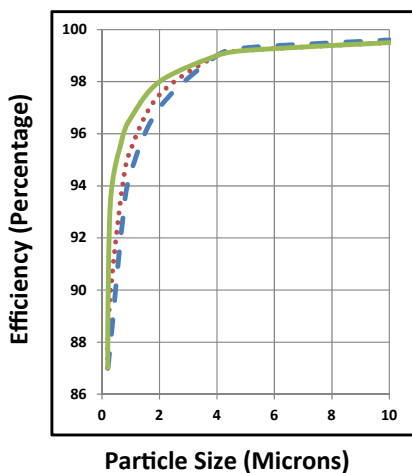
- Less maintenance
- More durable
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor
- Optimal sealing surface & design

Particle Size vs. Filter Efficiency Polyester Media at Indicated Face Velocity:

275 m³/hr/m² media —————

550 m³/hr/m² media (red dots)

825 m³/hr/m² media - - - - - (blue dashes)



Polyester Media
Efficiency Chart

Paper Element Features

- Identified by "even number" nomenclature: i.e. 18, 234P
- Heavy duty industrial strength paper surrounded by heavy gauge galvanized expanded metal
- Lightly blow out media to clean
- Dust loading capacity is increased 40-50% with prefilter "P" designation at end of element part number i.e.: 235P

Technical Specifications

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

Advantages

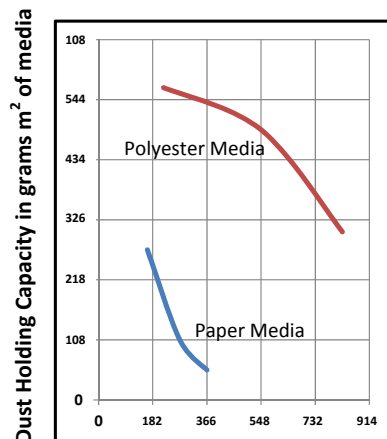
- Optimal sealing surface & design
- Higher efficiency than many alternative media
- Cost Effective

Particle Size vs. Filter Efficiency Paper Media at Indicated Face Velocity:

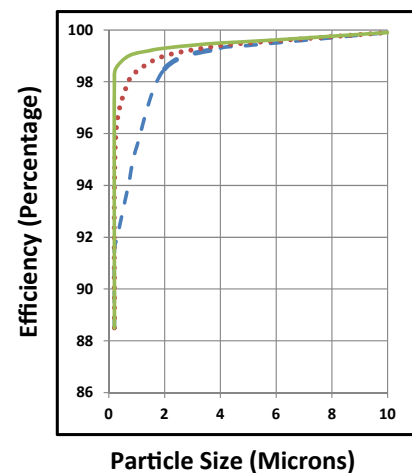
185 m³/hr/m² media —————

275 m³/hr/m² media (red dots)

365 m³/hr/m² media - - - - - (blue dashes)



Face Velocity vs.
Dust Holding Capacity



Paper Media
Efficiency Chart

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

Filter Media Specifications

Standard Media

5 µm Polyester

- 5 Micron, 99+% efficiency
- ID: "odd nbr.": i.e. **19**, **235P**
- Media classification: EU8, F8
- Pleated industrial needle felt polyester media
- Plastisol potting
- Temperature min: -15°C (-26°F), max: 104°C (220°F)
- Reinforced epoxy coated steel wire on ID and OD

2 µm Paper

- 2 Micron, 99+% efficiency
- ID: "even nbr.": i.e. **18**, **234P**
- Media classification: EU9, F9
- Heavy duty industrial strength paper
- Plastisol potting
- Heavy gauge galvanized expanded metal
- Temperature min: -15°C (-26°F), max: 104°C (220°F)

High Efficiency

1 µm Polyester - Z Media

- 1 Micron, 99+% efficiency
- ID: "odd nbr." & "Z" suffix: i.e. **19Z**, **235ZP**
- Media classification: EU9, F9
- Epoxy coated steel wire on both sides of media
- Temp min: -15°C (-26°F), max: 104°C (220°F)
- Washable - lukewarm water & mild detergent

4 µm Polyester - N Media

- 4 Micron, 99+% efficiency
- ID: "odd nbr." & "N" suffix: i.e. **15N**, **377NP**
- Media classification: EU9, F9
- Temp min: -15°C (-26°F), max: 104°C (220°F)

H13 - HE Media

- 0.3 Micron, 99.97% efficiency
- ID: "HE" prefix & "even nbr.": i.e. **HE230**, **HE334P**
- Heavy duty industrial strength glass surrounded by heavy gauge galvanized expanded metal
- Maximum oversizing required to minimize pressure drop
- Plastisol potting standard
- Temp min: -15°C (-26°F), max: 104°C (220°F)
- Options: silicone potting, Viton gaskets
 - Temp max: 190°C (375°F)

H14 - UL Media

- 0.1 Micron, 99.97% efficiency
- ID: "UL" prefix & "even nbr.": i.e. **UL234**
- Plastisol potting
- Temp min: -15°C (-26°F), max: 104°C (220°F)
- Options: silicone potting, Viton gaskets
 - Temp max: 190°C (375°F)

Dutch Twill Weave - DT Media

- 1 Micron, 99.5% efficiency
- ID: "DT" prefix & "odd nbr.": i.e. **DT245**
- Media classification: EU9, F9
- Stainless steel woven wire cloth
- Viton gaskets & epoxy potting



Chemical/Food/Pharmaceutical

Stainless Steel Wire Mesh- S2Media

- Stainless steel pleated wire mesh
- ID: "even nbr." & "S2" suffix: i.e. **14S2**
- Stainless steel expanded metal
- Chemical resistant and high temperature resistant
- Available with silicone endcaps

Polypropylene (PP) - Y Media

- 5 Micron, 99+% efficiency
- ID: "odd nbr." & "Y" suffix: i.e. **31N**, **345YP**
- Media classification: EU8, F8
- Epoxy coated steel wire on ID and OD

PTFE - TF Media

- 0.3 Micron, 99.5% efficiency
- ID: "TF" prefix & "odd nbr.": i.e. **TF275**
- Media classification: E12, EU12
- Chemical & moisture resistant
- Minimal pressure drop
- Temp min: -15°C (-26°F), max: 149°C (300°F)

PPS - RY Media

- Broad chemical resistant media
- ID: "RY" prefix & "odd nbr.": i.e. **RY485**
- Media classification: EU8, F8
- High temperature resistant
- Epoxy potting
- Temp min: -15°C (-26°F), max: 135°C (275°F)
- Option: Viton gaskets
 - Temp max: 190°C (375°F)

Filter Media Specifications



Coarse Efficiency

25 µm Polyester - U Media

- 25 Micron, 99+% efficiency
- ID: "odd nbr." & "U" suffix: i.e. **19U**, **685UP**
- Media classification: EU7, F7
- Temp min: -15°C (-26°F), max: 104°C (220°F)

100 µm Polyester - W Media

- 100 Micron, 99+% efficiency
- ID: "odd nbr." & "W" suffix: i.e. **15W**, **385WP**
- Media classification: M6, EU6, F6
- Temp min: -15°C (-26°F), max: 104°C (220°F)

Wire Mesh - S Media

- Epoxy coated pleated wire mesh
- ID: "even nbr." & "S" suffix: i.e. **274S**, **344SP**
- Expanded metal
- Temp min: -15°C (-26°F), max: 104°C (220°F)

Stainless Steel - S2Media

- Stainless steel pleated wire mesh
- ID: "even nbr." & "S" suffix: i.e. **234S2**
- Chemical resistant and high temperature resistant
- Stainless steel expanded metal
- Temp min: -15°C (-26°F), max: 104°C (220°F)
- Options: silicone or epoxy potting, Viton

gaskets

Note: Media classifications are best estimates based on published Eurovent standards and EN 1822-1:2009

Contact Factory for Inquires

High Temperature

Nomex - MX Media

- 5 Micron, 99+% efficiency
- ID: "odd nbr." & "MX" suffix: i.e. **377MX**
- Media classification: EU8, F8
- Silicone potting
- Temperature min: -15°C (-26°F), max: 196°C (385°F)
- Reinforced epoxy coated steel wire on ID and OD

Nomex with Stainless Steel Support- MXD Media

- 5 Micron, 99+% efficiency
- ID: "odd nbr." & "MX" suffix: i.e. **377MXD**
- Media classification: EU8, F8
- Silicone potting
- Reinforced stainless steel wire mesh on ID and OD
- Temperature min: -15°C (-26°F), max: 196°C (385°F)

Chemical Adsorption

Activated Carbon - AC Media

- 10 Micron, 99+% efficiency
- ID: "AC" prefix & "even nbr.": i.e. **AC18**
- Removes gas or vapor odors, contaminants, & particulate
- Pleated activated carbon impregnated polyester
- Reinforced with epoxy coated steel wire on both sides of cloth

Activated Carbon Granulate- ACG Media

- ID: "ACG" prefix & "even nbr.": i.e. **ACG230**
- Removes gaseous or vapor odors
- Granulates are enclosed within a polyester wrap and expanded metal on the I.D. and O.D.

Activated Alumina- AA Media

- ID: "AA" prefix & "even nbr.": i.e. **AA850**
- Desiccant used in the adsorption of water & oil vapour & the prevention of backstreaming in pumps
- Adsorbs up to 40% of media's weight

Electrostatic Activated Carbon- GM Media

- 3 Micron, 70% efficiency
- ID: "GM" prefix & "odd nbr.": i.e. **GM35**
- Superior odor removal
- Chemically inert
- Electrostatic fibers attract & hold particles

Coalescing Media

PSG Media, FG Media, GL Media

- 0.3 Micron, 99.97% efficiency
- ID: "PSG" prefix & "even nbr.": i.e. **PSG344**
- ID: "FG" prefix: i.e. **FG9**
- ID: "GL" prefix: i.e. **GL915**
- Heavy duty industrial glass media, reinforced with epoxy coated steel wire & expanded metal
- Continuous operating temp: 20°C (68°F) - 80°C (180°F)
- Environmentally friendly sealing material
- High D.O.P. efficiency - low oil carryover
- Multiple media configurations, contact factory