SOLBERG®
Filtration • Separation• Silencing

# Exposed Inlet Filters

## FT Series ½” - 6”, DN80 - DN300

### Features

- Exposed element for optimal air flow & low restriction
- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Corrosive resistant gray powder coat carbon steel

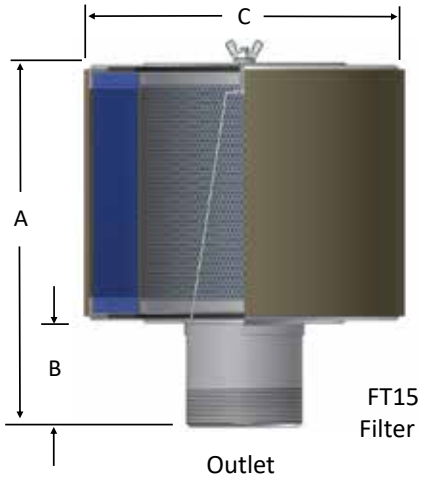
### Technical Specifications

- Temp (continuous): min -26°C (-15°F) max 104°C (220°F)
- Filter change out differential: 37-50 mbar over initial ΔP
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

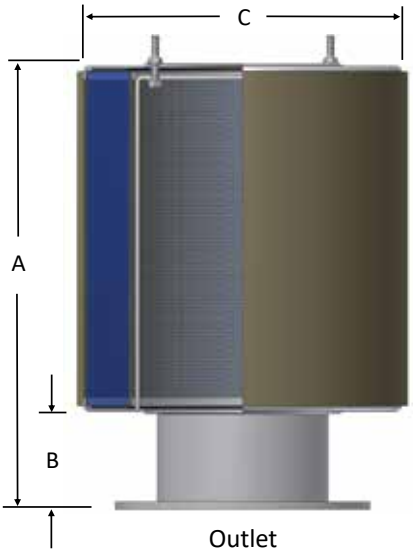
### Options

ATEX Available

- Tap holes available
- Pressure drop indicator
- Various media for different environments
- Stainless steel construction
- Various nonstandard finishes and connection styles




FT15 to FT275P
Filter Assemblies



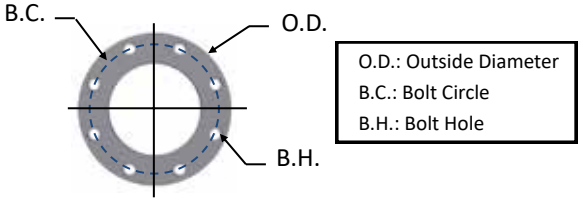

FT377P to FT685P
Filter Assemblies

| Outlet Size | Outlet Type | Assembly $m^3/hr$ Rating | Assembly Part Number Polyester | Assembly Part Number Paper | Dimensions - mm A | Dimensions - mm B | Dimensions - mm C | Suggested Service ht. mm | Approx. Weight (kg) | Replacement Element Part No. Polyester | Replacement Element Part No. Paper | Element $m^3/hr$ Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ½" | MPT | 17 | FT-15-050 | FT-14-050 | 85 | 23 | 117 | 59 | 0.54 | 15™ | 14™ | 60 |
| ¾" | MPT | 43 | FT-15-075 | FT-14-075 | 93 | 32 | 117 | 59 | 0.59 | 15™ | 14™ | 60 |
| 1" | MPT | 60 | FT-15-100 | FT-14-100 | 93 | 32 | 117 | 59 | 0.63 | 15™ | 14™ | 60 |
| 1" | MPT | 94 | FT-19P-100 | FT-18P-100 | 157 | 32 | 124 | 121 | 0.81 | 19P® | 18P™ | 170 |
| 1 ¼" | BSPT | 119 | FT-19P-126 | FT-18P-126 | 169 | 44 | 124 | 121 | 0.81 | 19P® | 18P™ | 170 |
| 1 ½" | BSPT | 145 | FT-19P-151 | FT-18P-151 | 169 | 44 | 124 | 121 | 0.90 | 19P® | 18P™ | 170 |
| 2" | BSPT | 230 | FT-31P-201 | FT-30P-201 | 184 | 57 | 165 | 121 | 1.35 | 31P™ | 30P™ | 332 |
| 2" | BSPT | 230 | FT-231P-201 | FT-230P-201 | 301 | 57 | 165 | 241 | 3 | 231P™ | 230P™ | 510 |
| 2 ½" | BSPT | 332 | FT-31P-251 | FT-30P-251 | 191 | 64 | 165 | 121 | 2 | 31P™ | 30P™ | 332 |
| 2 ½" | BSPT | 332 | FT-231P-251 | FT-230P-251 | 308 | 64 | 165 | 241 | 3 | 231P™ | 230P™ | 510 |
| 3" | BSPT | 510 | FT-231P-301 | FT-230P-301 | 320 | 76 | 165 | 241 | 4 | 231P™ | 230P™ | 510 |
| 3" | BSPT | 510 | FT-235P-301 | FT-234P-301 | 325 | 76 | 229 | 241 | 6 | 235P™ | 234P™ | 970 |
| 3" | BSPT | 510 | FT-275P-301 | FT-274P-301 | 330 | 76 | 318 | 244 | 10 | 275P™ | 274P™ | 1870 |
| 4" | BSPT | 885 | FT-235P-401 | FT-234P-401 | 348 | 102 | 229 | 241 | 8 | 235P™ | 234P™ | 970 |
| 4" | BSPT | 885 | FT-275P-401 | FT-274P-401 | 356 | 102 | 318 | 244 | 11 | 275P™ | 274P™ | 1870 |
| 5" | BSPT | 1360 | FT-275P-501 | FT-274P-501 | 356 | 102 | 318 | 244 | 11 | 275P™ | 274P™ | 1870 |
| 6" | BSPT | 1870 | FT-275P-601 | FT-274P-601 | 381 | 127 | 318 | 244 | 12 | 275P™ | 274P™ | 1870 |

Note: MPT threaded housings are interchangeable with BSPT up to 1".

| Flange Outlet | Assembly $m^3/hr$ Rating | Assembly Part Number Polyester | Assembly Part Number Paper | Dimensions - mm A | Dimensions - mm B | Dimensions - mm C | Suggested Service ht. mm | Approx. Weight (kg) | Replacement Element Part No. Polyester | Replacement Element Part No. Paper | Element $m^3/hr$ Rating |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DN80 | 510 | FT-235P-DN80 | FT-234P-DN80 | 330 | 76 | 203 | 241 | 6 | 235P™ | 234P™ | 970 |
| DN80 | 510 | FT-275P-DN80 | FT-274P-DN80 | 330 | 76 | 305 | 244 | 10 | 275P™ | 274P™ | 1870 |
| DN100 | 885 | FT-235P-DN100 | FT-234P-DN100 | 349 | 102 | 229 | 241 | 7 | 235P™ | 234P™ | 970 |
| DN100 | 885 | FT-275P-DN100 | FT-274P-DN100 | 356 | 102 | 318 | 244 | 11 | 275P™ | 274P™ | 1870 |
| DN125 | 1360 | FT-275P-DN125 | FT-274P-DN125 | 356 | 102 | 318 | 244 | 13 | 275P™ | 274P™ | 1870 |
| DN150 | 1870 | FT-275P-DN150 | FT-274P-DN150 | 381 | 127 | 318 | 244 | 14 | 275P™ | 274P™ | 1870 |
| DN200 | 3060 | FT-377P-DN200 | FT-376P-DN200 | 584 | 152 | 381 | 368 | 29 | 377P™ | 376P™ | 3105 |
| DN200 | 3060 | FT-385P-DN200 | FT-384P-DN200 | 584 | 152 | 518 | 368 | 32 | 385P™ | 384P™ | 5605 |
| DN250 | 5610 | FT-385P-DN250 | FT-384P-DN250 | 584 | 152 | 518 | 368 | 36 | 385P™ | 384P™ | 5610 |
| DN250 | 5610 | FT-685P-DN250 | FT-384P(2)-DN250 | 890 | 152 | 518 | 724 | 43 | 685P™ | 384P™(2) | 11220 |
| DN300 | 7990 | FT-485P-DN300 | FT-484P-DN300 | 712 | 152 | 518 | 546 | 41 | 485P™ | 484P™ | 8000 |
| DN300 | 7990 | FT-685P-DN300 | FT-384P(2)-DN300 | 890 | 152 | 518 | 724 | 45 | 685P™ | 384P™(2) | 11220 |

| PN10 Pattern Flange | Dimensions - mm O.D. | Dimensions - mm B.C. | Dimensions - mm B.H. | No. of Holes | Flange Thickness mm |
|---|---|---|---|---|---|
| DN80 | 200 | 160 | 18 | 8 | 20 |
| DN100 | 220 | 180 | 18 | 8 | 22 |
| DN125 | 250 | 210 | 18 | 8 | 22 |
| DN150 | 285 | 240 | 22 | 8 | 24 |
| DN200 | 340 | 295 | 22 | 8 | 24 |
| DN250 | 395 | 350 | 22 | 12 | 26 |
| DN300 | 445 | 400 | 22 | 12 | 26 |




See Filter Assembly Technical Data for sizing guidelines.

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# Technical Data

## Inlet Filter Assemblies

### *Applications & Equipment*

- Industrial & Severe Duty
- Blowers - Side Channel & Roots (P.D.)
- Breathers
- Fuel Cells
- Piston Compressors
- Screw Compressors
- Centrifugal Compressors
- Hydraulic Breathers – fine filtration
- Engines
- Fans
- Vacuum Pumps & Systems
- Construction\Contractor Industry
- Medical
- Pneumatic Conveying
- Waste Water Aeration
- Sparging
- Factory Air
- Vacuum Vent Breathers
- Cement Processing
- Power Plants
- Centralized Air Intakes

### *Identification*

Standard Solberg assemblies should have an identification label/nameplate that gives the following information:

- Assembly Model #
- Replacement Element #

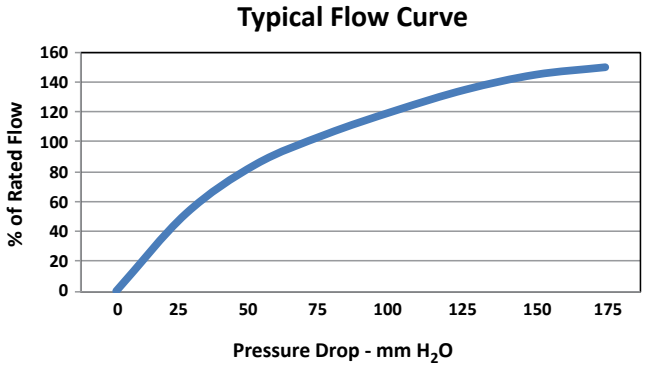
The part number designates the filter type, the element configuration and housing connection size. For example, the following part number identifies the filter as being an “F” design filter with a “385™” element, “P” prefilter and DN250 flange connection size.

***F-385P-DN250***

- Connection Size and Type
- Replacement Element Part Number
- Filter Type

### *Typical Flow Curve*

See chart for the typical flow curve for inlet filtration housing comparing the percentage of rated flow with typical pressure drop.



## *Choosing the Best Filter for Your Equipment*

A. When the connection & airflow is known:

1. Select the appropriate connection style. (i.e.: BSPT, Flange, BSPP, etc.)
    a. Verify assembly $m^3$/hr (flow) rating. Compare with your required airflow.
    (Note: Assembly flow ratings are based on 6,000 FPM or 30m/sec for a given connection size to achieve low pressure drop performance. When required flow exceeds assembly flow rating, the pressure drop through the outlet connection will increase. In such cases select by element $m^3$/hr (flow) rating.)
    b. Verify that the flow rating matches connection size; skip to "C. Selecting Elements".

B. When the connection size is unknown, flexible, or the required flow rating exceeds assembly flow rating:

1. Match required flow rating with the element flow rating.
2. Choose related connection size.

C. Selecting Elements: The filter performance is influenced by the actual application duty and the equipment it is installed on. Regular maintenance checks and proper servicing is required.

***Application Duty Descriptions:***

Industrial Duty: clean workshop or clean outdoor environment - small element sizing is sufficient.

Severe Duty: dirty workshop, wastewater – medium to large element is recommended.

Extreme Duty: cement, steel making, plastics or dusty material conveying – largest element sizing is recommended.

1. Select media required by your application. Options include:
    a. Standard media
        1. Polyester: all purpose; withstands pulses, moisture, and oily air
        2. Paper: mostly dry, smooth flow applications
    b. Special Media: for a variety of micron levels and media types, see the "Filter Media Specifications" in the Replacement Element Section or contact Solberg.
2. Select element size by matching the element with the anticipated duty and upsize accordingly.

## *Filter Assembly Maintenance*

Request the appropriate maintenance manual for more in-depth information from your Solberg representative or on our website: www.solbergmfg.com.

## *Element Maintenance*

Solberg elements should be replaced once the pressure drop reaches 37-50 mbar above the initial pressure drop of the installation. Cleaning the element is also an option.

Solberg recommends replacing dirty elements for optimal performance. 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.

If the pressure drop exceeds 50 mbar at start-up; it should 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.