

# *Inlet Filter Assemblies*

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### Applications & Equipment

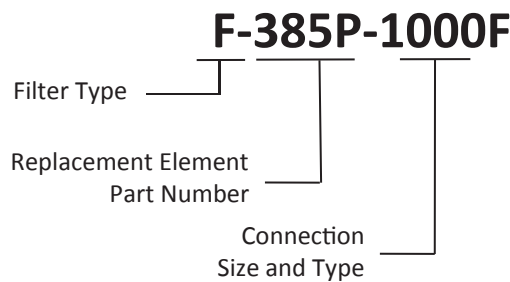
- Industrial & Severe Duty
- Blowers - Side Channel & P.D.
- Breathers
- Fuel Cells
- Piston Compressors
- Screw Compressors
- Centrifugal Compressors
- Hydraulic Breathers – fine filtration
- Engines
- Fans
- Vacuum Pumps & Systems
- Construction\Contractor Industry
- Medical
- Pneumatic Conveying
- 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:

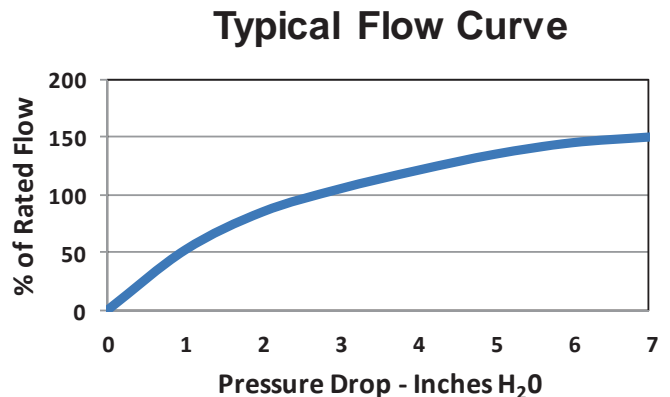
**Assembly Model #**  
**Replacement Element #**

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 a “F” design filter with a “385” element, “P” prefilter and 10” flange connection size.



### Typical Flow Curve

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



## Choosing the Best Filter for your Equipment

- A. Connection & Airflow Known: When the connection & airflow is known:
1. Select appropriate connection style. (i.e.: MPT, Flange, NPSC, etc.)
  2. Check assembly SCFM (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 SCFM (flow) rating.)
  3. When required flow rating matches connection size; skip to “C. Selecting Elements”.
- B. Unknown Connection: 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; it 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 through [www.solbergmfg.com](http://www.solbergmfg.com).

## Element Maintenance

Solberg elements should be replaced once the pressure drop reaches 15-20” H<sub>2</sub>O above the initial pressure drop of the installation. Cleaning an 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 15” H<sub>2</sub>O.

If the pressure drop exceeds 20” H<sub>2</sub>O 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.

# Compact Inlet Filters F Series 1/2"-6"MPT, 4"-6"FLG



Filter Assemblies

## Features

- Fully drawn weatherhood
- Low entry velocity air gap between base and cover
- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Corrosion resistant carbon steel construction
- Powder coat finish

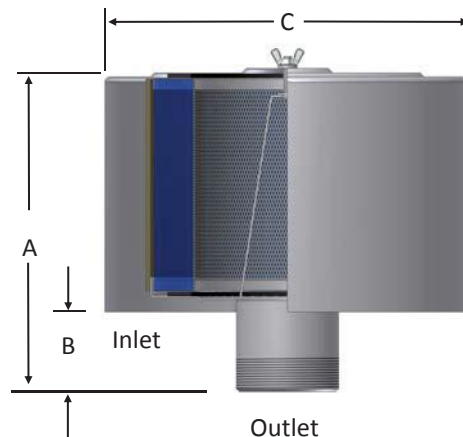
## Technical Specifications

- Temp (continuous): min -15°F(-26°C) max 220°F(104°C)
- Filter change out differential: 15-20" H<sub>2</sub>O over initial  $\Delta P$
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency std to 5 micron
- Paper: 99%+ removal efficiency std to 2 micron

## Options



- Tap holes available
- Pressure drop indicator (See page 3-12)
- Various media for different environments
- Stainless steel construction
- Various nonstandard finishes and connection styles



### MPT Outlet Assemblies

MPT Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C		Polyester	Paper	
1/2"	10	F-15-050	F-14-050	3 3/8	7/8	6	2	15	14	35
3/4"	25	F-15-075	F-14-075	3 3/4	1 1/4	6	2	15	14	35
1"	35	F-15-100	F-14-100	3 3/4	1 1/4	6	2	15	14	35
1"	55	F-19P-100	F-18P-100	6 1/2	1 1/4	6 1/8	3	19P	18P	100
1 1/4"	70	F-19P-125	F-18P-125	7	1 3/4	6 1/8	3	19P	18P	100
1 1/2"	85	F-19P-150	F-18P-150	7	1 3/4	6 1/8	3	19P	18P	100
2"	135	F-31P-200	F-30P-200	7 5/16	2 1/4	7 7/8	5	31P	30P	195
2"	135	F-231P-200	F-230P-200	12	2 1/4	10 1/4	12	231P	230P	300
2 1/2"	195	F-31P-250	F-30P-250	8	3	7 7/8	6	31P	30P	195
2 1/2"	195	F-231P-250	F-230P-250	12 1/2	2 1/2	10 1/4	13	231P	230P	300
3"	300	F-231P-300	F-230P-300	12 3/4	3	10 1/4	14	231P	230P	300
3"	300	F-235P-300	F-234P-300	12 3/4	3	10 1/4	15	235P	234P	570
3"	300	F-275P-300	F-274P-300	13 5/16	3	18	24	275P	274P	1100
4"	520	F-235P-400	F-234P-400	13 11/16	4	10 1/4	15	235P	234P	570
4"	520	F-275P-400	F-274P-400	14 1/8	4	16	26	275P	274P	1100
5"	800	F-245P-500	F-244P-500	13 13/16	4	16	23	245P	244P	880
5"	800	F-275P-500	F-274P-500	14	4	16	27	275P	274P	1100
6"	1100	F-275P-600	F-274P-600	15 1/8	5	16	29	275P	274P	1100

See Filter Assembly Technical Data section for sizing guidelines.

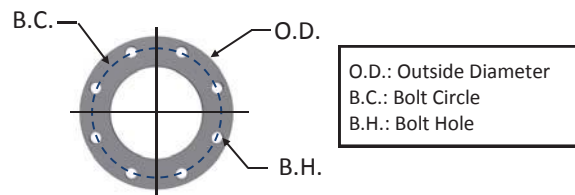
Filter Assemblies

### Flange Outlet Assemblies

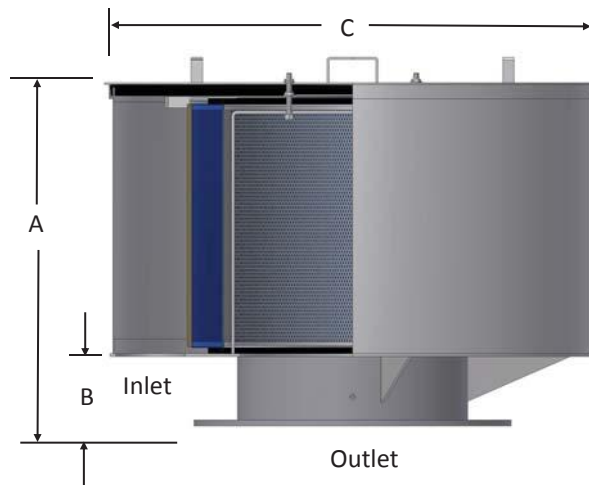
Flange Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C		Polyester	Paper	
4"	520	F-235P-400F	F-234P-400F	13 11/16	4	10 1/4	20	235P	234P	570
4"	520	F-275P-400F	F-274P-400F	14 1/8	4	16	31	275P	274P	1100
5"	800	F-245P-500F	F-244P-500F	13 13/16	4	16	27	245P	244P	880
5"	800	F-275P-500F	F-274P-500F	13 7/8	4	16	32	275P	274P	1100
6"	1100	F-275P-600F	F-274P-600F	15 1/8	5	16	34	275P	274P	1100

See Filter Assembly Technical Data section for sizing guidelines.

125/150# Pattern Flg	Dimensions - inches			No. of Holes	Flange Thickness
	O.D.	B.C.	B.H.		
4"	9	7 1/2	0.75	8	0.5
5"	10	8 1/2	0.88	8	0.5
6"	11	9 1/2	0.88	8	0.5



# Big Boy Inlet Filters F Series 6" - 14" FLG



## Features

- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Low entry velocity air gap between base and cover
- Corrosion resistant carbon steel construction
- Powder coat finish

## Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H<sub>2</sub>O over initial Δ P
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

## Options

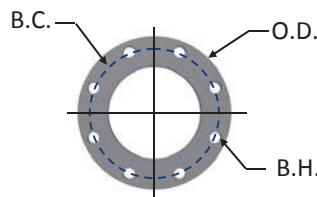


- Tap holes available
- Pressure drop indicator (See page 3-12)
- Various media for different environments
- Stainless steel construction
- Various nonstandard finishes and connection styles

Flange Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C		Polyester	Paper	
6"	1100	F-377P-600F	F-376P-600F	22	5	21 7/8	90	377P	376P	1825
8"	1800	F-377P-800F	F-376P-800F	22 7/8	6	21 7/8	100	377P	376P	1825
8"	1800	F-385P-800F	F-384P-800F	23	6	28 5/16	125	385P	384P	3295
10"	3300	F-385P-1000F	F-384P-1000F	22 7/8	6	28 5/16	130	385P	384P	3295
10"	3300	F-485P-1000F	F-484P-1000F	29 13/16	6	28 5/16	143	485P	484P	4705
12"	4700	F-485P-1200F	F-484P-1200F	30	6	28 5/16	155	485P	484P	4705
12"	4700	F-685P-1200F	F-384P(2)-1200F	38 1/2	6	28 5/16	175	685P	384P(2)	6600
14"	6000	F-485P(2)-1400F	F-485P(2)-1400F	53 1/2	6	28 5/16	245	485P (2)	484P (2)	9410

See Filter Assembly Technical Data section for sizing guidelines.

125/150# Pattern Flg	Dimensions - inches			No. of Holes	Flange Thickness
	O.D.	B.C.	B.H.		
6"	11	9 1/2	0.88	8	0.5
8"	13 1/2	11 3/4	0.88	8	0.5
10"	16	14 1/4	1	12	0.5
12"	19	17	1	12	0.5
14"	21	18 3/4	1 1/8	12	0.5



O.D.: Outside Dimension  
B.C.: Bolt Circle  
B.H.: Bolt Hole

Note: Model offerings and design parameters may change without notice. See [www.solbergmfg.com](http://www.solbergmfg.com) for most current offering.

### Sumo Class Filter Assemblies

#### Features

- Single barrel filter design allows for large airflows in space restricted work areas
- 16" to 24" Flange connections available
- Low entry velocity air gap between base and cover
- Low pressure drop housing construction
- Please contact Solberg for model offering and availability.

#### Technical Specifications

- Designed for airflows up to 8000 SCFM
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15"-20" H2O over initial ΔP
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron



#### Options

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

### Multibarrel Filter Assemblies

#### Features

- Designed for large airflow applications
- Cartridge style elements provide:
  - Increased reliability-better positive seal than panel filters
  - Added efficiency with maximum surface area
- 14" to 30" Flange connections available
- Low entry velocity air gap between base and cover
- Multiple configurations allows for a variety of environments
- Corrosive resistant carbon steel construction
- Powder coat finish
- Please contact Solberg for model offering and availability.

#### Technical Specifications

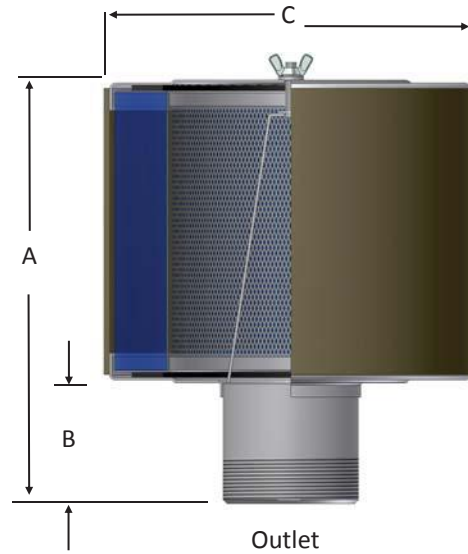
- Designed for airflows up to 25000 SCFM
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15" - 20" H2O over initial ΔP
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron



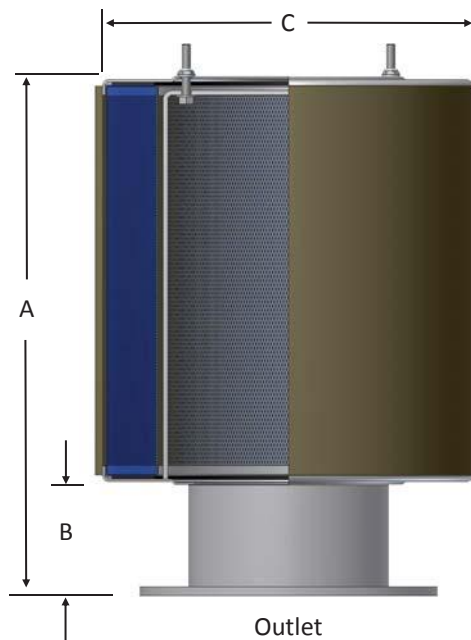
#### Options

- Multiple manifold configurations
- Pressure drop indicator
- Stainless steel construction
- Epoxy coated finish

# Exposed Inlet Filters FT Series 1/4"-6" MPT, 4"-14" FLG



Configuration  
FT15 to FT275P Housings



Typical Configuration  
FT377P to FT685P Housings

## Features

- Exposed element for optimal air flow & low restriction
- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Corrosion resistant carbon steel construction
- Powder coat finish

## Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H<sub>2</sub>O over initial Δ P
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

## Options



- Tap holes available
- Pressure drop indicator (See page 3-12)
- Various media for different environments
- Stainless steel construction
- Various nonstandard finishes and connection styles



### MPT Outlet Assemblies

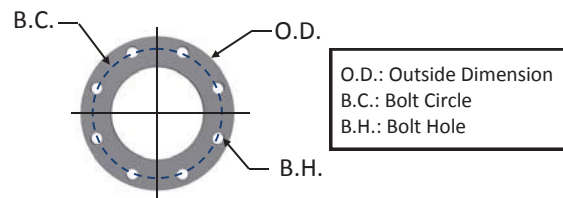
MPT Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C		Polyester	Paper	
1/2"	10	FT-15-050	FT-14-050	3 5/16	1	4 5/8	1	15	14	35
3/4"	25	FT-15-075	FT-14-075	3 5/8	1 1/4	4 5/8	1	15	14	35
1"	35	FT-15-100	FT-14-100	3 11/16	1 1/4	4 5/8	1	15	14	35
1"	55	FT-19P-100	FT-18P-100	6 3/16	1 1/4	4 7/8	2	19P	18P	100
1-1/4"	70	FT-19P-125	FT-18P-125	6 11/16	1 3/4	4 7/8	2	19P	18P	100
1-1/2"	85	FT-19P-150	FT-18P-150	6 11/16	1 3/4	4 7/8	2	19P	18P	100
2"	135	FT-31P-200	FT-30P-200	7 1/4	2 1/4	6 1/2	3	31P	30P	195
2"	135	FT-231P-200	FT-230P-200	11 7/8	2 1/4	6 1/2	7	231P	230P	300
2-1/2"	195	FT-31P-250	FT-30P-250	7 1/2	2 1/2	6 1/2	4	31P	30P	195
2-1/2"	195	FT-231P-250	FT-230P-250	12 1/8	2 1/2	6 1/2	7	231P	230P	300
3"	300	FT-231P-300	FT-230P-300	12 5/8	3	6 1/2	8	230P	230P	300
3"	300	FT-235P-300	FT-234P-300	12 13/16	3	9	13	235P	234P	570
3"	300	FT-275P-300	FT-274P-300	13	3	12 1/2	22	275P	274P	1100
4"	520	FT-235P-400	FT-234P-400	13 11/16	4	9	17	235P	234P	570
4"	520	FT-275P-400	FT-274P-400	14	4	12 1/2	24	275P	274P	1100
5"	800	FT-275P-500	FT-274P-500	14	4	12 1/2	25	275P	274P	1100
6"	1100	FT-275P-600	FT-274P-600	15	5	12 1/2	27	275P	274P	1100

### Flange Outlet Assemblies

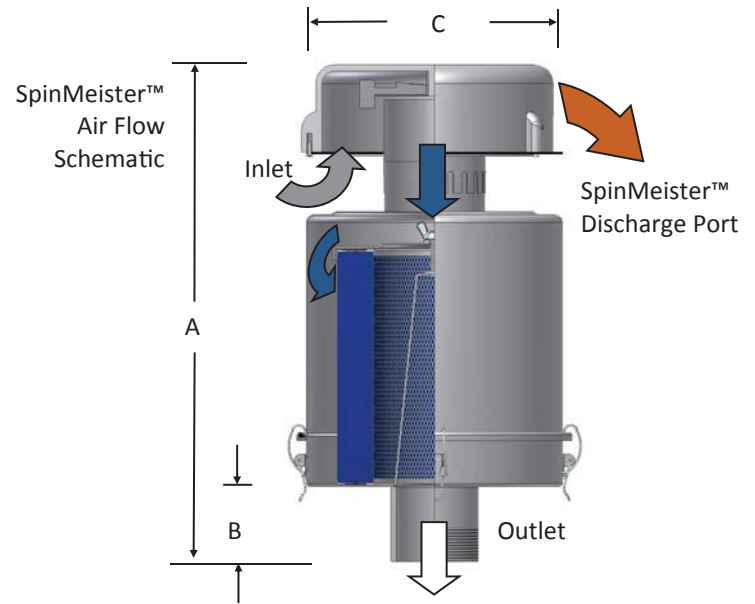
Flange Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C		Polyester	Paper	
4"	520	FT-235P-400F	FT-234P-400F	13 3/4	4	9	15	235P	234P	570
4"	520	FT-275P-400F	FT-274P-400F	14	4	13	24	275P	274P	1100
5"	800	FT-275P-500F	FT-274P-500F	14	4	13	28	275P	274P	1100
6"	1100	FT-275P-600F	FT-274P-600F	15	5	13	31	275P	274P	1100
8"	1800	FT-377P-800F	FT-376P-800F	21	6	15	53	377P	376P	1825
8"	1800	FT-385P-800F	FT-384P-800F	21	6	20 3/8	70	385P	384P	3300
10"	3300	FT-385P-1000F	FT-384P-1000F	21	6	20 3/8	80	385P	384P	3300
10"	3300	FT-685P-1000F	FT-384P(2)-1000F	35	6	20 3/8	95	685P	384P(2)	6600
12"	4700	FT-485P-1200F	FT-484P-1200F	28	6	20 3/8	90	485P	484P	4705
12"	4700	FT-685P-1200F	FT-384P(2)-1200F	35	6	20 3/8	100	685P	384P(2)	6600
14"	6000	FT-485P(2)-1400F	FT-484P(2)-1400F	49 5/16	6	20 3/8	160	485P (2)	484P (2)	9410

See Filter Assembly Technical Data section for sizing guidelines.

125/150# Pattern Flg	Dimensions - inches			No. of Holes	Flange Thickness
	O.D.	B.C.	B.H.		
4"	9	7 1/2	0.75	8	0.5
5"	10	8 1/2	0.88	8	0.5
6"	11	9 1/2	0.88	8	0.5
8"	13 1/2	11 3/4	0.88	8	0.5
10"	16	14 1/4	1	12	0.5
12"	19	17	1	12	0.5



# Extreme Duty Filtration SpinMeister™ SM Series



Filter Assemblies

## Operating Principle

Intake air is drawn through the angled louver plates which directs the air to turn the rotor. The centrifugal force separates the contaminants from the airstream, throwing them to the outer perimeter of the cover, expelling them through the discharge port. Cleaner air is drawn to the lower chamber and is filtered by a 99% efficient pleated element.

## Features

- SpinMeister™ made of molded fiber filled composite material
- All small compact filters with seamless housings
- Corrosion resistant carbon steel housing construction
- Powder coat finish (Filter element housing)

## Options

- Tap holes available
- SpinMeisters™ available in polished aluminum
- Selected housings available in stainless steel
- Modify to meet specific application

## Benefits

- Extreme duty filtration for high dust environments
- Significantly increases life of filter element
- Cost effective

## Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F(104°C)
- Filter change out differential: 15-20" H<sub>2</sub>O over initial ΔP
- Polyester: 99%+ removal efficiency to 5 micron
- Paper: 99%+ removal efficiency to 2 micron
- SpinMeister™ Precleaner: 85% efficiency to 15 micron

Note: Model offerings and design parameters may change without notice. See [www.solbergmfg.com](http://www.solbergmfg.com) for most current offering.



Configuration A



Configuration B



Configuration C



Configuration D

### Configuration A

Outlet Size	Outlet Type	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
			Polyester	Paper	A	B	C		Polyester	Paper	
1/2"	MPT	30	SM1.5-11-050	SM1.5-10-050	6 11/16	7/8	4 1/8	1.5	11	10	35
3/4"	MPT	30	SM1.5-11-075	SM1.5-10-075	7 1/4	1 1/4	4 1/8	1.5	11	10	35
1/2"	MPT	35	SM2-11-050	SM2-10-050	7 3/8	7/8	4 1/8	2	11	10	35
3/4"	MPT	35	SM2-11-075	SM2-10-075	8 1/2	1 1/4	5	2	11	10	35
1"	MPT	35	SM2-11-100	SM2-10-100	8 1/2	1 1/4	5	2	11	10	35

### Configuration B

Outlet Size	Outlet Type	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
			Polyester	Paper	A	B	C		Polyester	Paper	
1	MPT	75	SM2-19P-100	SM2-18P-100	11 13/16	1	6 7/8	1.5	19P	18P	100
1-1/2"	MPT	85	SM2-19P-150	SM2-18P-150	11 13/16	2	7 1/2	3.7	19P	18P	100
2"	MPT	100	SM2-19P-200	SM2-18P-200	12 5/16	2 1/2	7 1/2	4	19P	18P	100
2-1/2"	MPT	100	SM2-19P-250	SM2-18P-250	12 13/16	3	7 1/2	4	19P	18P	100

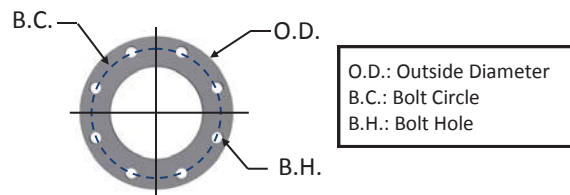
### Configuration C

Outlet Size	Outlet Type	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
			Polyester	Paper	A	B	C		Polyester	Paper	
3"	MPT	250	SM3-235P-300	SM3-234P-300	20 7/16	3	11	31	235P	234P	570
3"	MPT	300	SM4-235P-300	SM4-234P-300	19 1/2	3	11	32	235P	234P	570
4"	MPT	250	SM3-235P-400	SM3-234P-400	21 7/16	4	11	32	235P	234P	570
4"	MPT	400	SM4-235P-400	SM4-234P-400	20 1/2	4	11	33	235P	234P	570
4"	FLG	250	SM3-235P-400F	SM3-234P-400F	19 11/16	3	11	35	235P	234P	570
4"	FLG	400	SM4-235P-400F	SM4-234P-400F	20 1/2	4	11	36	235P	234P	570

### Configuration D

Outlet Size	Outlet Type	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches			Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
			Polyester	Paper	A	B	C		Polyester	Paper	
6"	FLG	1100	SM62-377P-600F	SM62-376P-600F	40	5	25 1/4	100	377P	376P	1825
8"	FLG	1800	SM62-377P-800F	SM62-376P-800F	41 1/8	6	25 1/4	103	377P	376P	1825
10"	FLG	2700	SM63-385P-1000F	SM63-384P-1000F	40 13/16	6	28 7/8	138	385P	384P	3295
12"	FLG	2700	SM63-485P-1200F	SM63-484P-1200F	40 13/16	6	28 7/8	163	485P	484P	4705

125/150# Pattern Flg	Dimensions - inches			No. of Holes	Flange Thickness
	O.D.	B.C.	B.H.		
4"	9	7 1/2	0.75	8	0.5
5"	10	8 1/2	0.88	8	0.5
6"	11	9 1/2	0.88	8	0.5
8"	13 1/2	11 3/4	0.88	8	0.5
10"	16	14 1/4	1	12	0.5
12"	19	17	1	12	0.5



# Pop Up Style Pressure Drop Gauge Inlet Filter Assemblies



## Benefits

- Monitors Filter Continuously
- Easy Filter Maintenance
- Filter Element Life Maximized
- Downtime Reduced
- Graduated Restriction Readings

## Features & Specifications

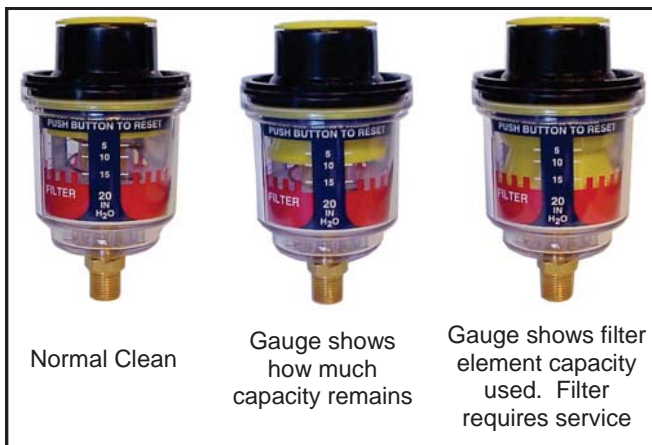
Our Pop Up style pressure drop gauge shows the amount of filter element restriction and how much life the element has left. This is a convenient and inexpensive solution to receiving the maximum usage from every element.

The yellow indicator in the filter monitor gauge drops as the dirt accumulates on the filter element. The element is ready for change out or servicing when the yellow indicator reaches the red zone. This allows you to determine the condition of the filter element even after the equipment has been shut down.

The element should be serviced or replaced at the maximum noted pressure drop or at the manufacturer's recommended level.

For use on inlet filter silencer and inlet filters. Contact Solberg to add 1/8" tap hole to the appropriate location. See mounting photo for placement.

## Gauge Status:



Note: The monitor gauge has a 1/8" connection. It is mounted either on the weatherhood or on the outlet pipe depending on the filter assembly.



Filter Gauge shows both inches & mm ratings

MPT Outlet	Pressure Drop Rating - "H2O	Part Number
1/8"	20	VG-020-013