

# Stamped Steel Filter Silencers

## FS Series 1/4" - 1"

### Features

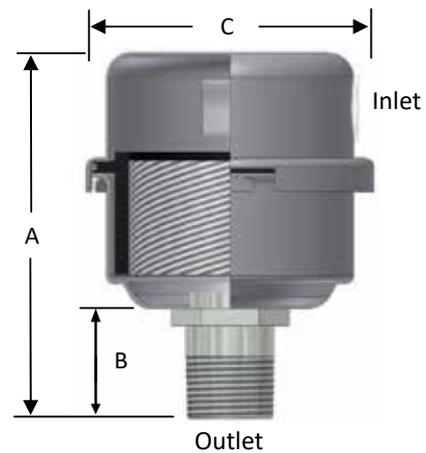
- High grade filter element with integrated gasket seal
- Fully drawn weatherhood
- Tubular silencing design: tube maximizes attenuation and air flow while minimizing pressure drop
- Corrosive resistant black powder coat carbon steel
- Ability to mount vertically and horizontally

### Technical Specifications

- Temp (continuous): min -26°C (-15°F) max 104°C (220°F)
- Filter change out differential: 37-50 mbar over initial ΔP
- Polyester: 99%+ removal efficiency standard to 10 micron
- Paper: 99%+ removal efficiency standard to 2 micron
- Pressure drop graphs available upon request

### Options

- Various media for different environments
- Straight through configuration
- Various nonstandard finishes and connection styles



MPT Outlet	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	No. of Silencing Tubes	Approx. Weight (kg)	Replacement Element Part No.		Element m <sup>3</sup> /hr Rating
		Polyester	Paper	A	B	C				Polyester	Paper	
1/4"	7	FS-05-025	FS-04-025	70	17	64	25	1	0.11	05™	04™	14
3/8"	14	FS-05-038	FS-04-038	70	17	64	25	1	0.11	05™	04™	14
3/8"	14	FS-07-038	FS-06-038	90	18	83	35	1	0.23	07™	06™	20
1/2"	14	FS-05-050	FS-04-050	76	22	64	25	1	0.11	05™	04™	14
1/2"	20	FS-07-050	FS-06-050	95	22	83	35	1	0.23	07™	06™	20
1/2"	20	FS-11-050	FS-10-050	106	22	108	35	1	0.45	11™	10™	60
3/4"	20	FS-07-075	FS-06-075	105	32	83	35	1	0.23	07™	06™	20
3/4"	43	FS-11-075	FS-10-075	114	32	107	35	1	0.45	11™	10™	60
1"	60	FS-11-100	FS-10-100	114	32	107	35	1	0.45	11™	10™	60

Note: MPT threaded housings are interchangeable with BSPT up to 1".  
See Filter Silencer Technical Data for sizing guidelines.

# Molded Polymer Filter Silencers

## PS Series 1/8" - 1"

### Benefits

- Longer element life with maximized surface area
- Cost-efficient solution
- Low restriction improves equipment performance

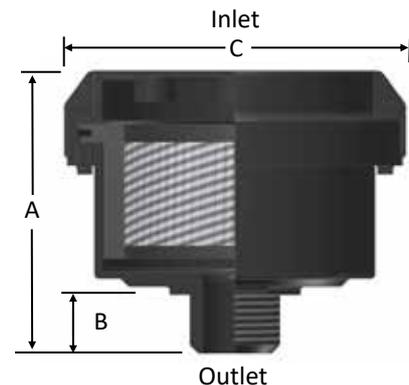
### Features

- Easy snap-on design for quick servicing
- Durable glass reinforced nylon housing
- Compact, low profile configuration
- Noise reducing silencing design
- High grade filter element with integrated gasket seal



### 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 10 micron
- Paper: 99%+ removal efficiency standard to 2 micron



MPT Outlet	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	Approx. Weight (kg)	Replacement Element Part No.		Element m <sup>3</sup> /hr Rating
		Polyester	Paper	A	B	C			Polyester	Paper	
1/8"	5	PS-03-013	PS-02-013	44	11	44	25	0.02	03™	02™	5
1/4"	5	PS-03-025	PS-02-025	44	11	44	25	0.02	03™	02™	5
1/4"	7	PS-05-025	PS-04-025	54	12	67	25	0.04	05™	04™	14
3/8"	10	PS-05-038	PS-04-038	55	10	67	25	0.04	05™	04™	14
1/2"	10	PS-05-050	PS-04-050	57	13	67	25	0.04	05™	04™	14
1/2"	17	PS-07-050	PS-06-050	79	18	83	35	0.09	07™	06™	20
1/2"	20	PS-11-050	PS-10-050	83	18	106	35	0.14	11™	10™	60
3/4"	20	PS-07-075	PS-06-075	89	25	83	35	0.14	07™	06™	20
3/4"	34	PS-11-075	PS-10-075	89	25	105	35	0.16	11™	10™	60
1"	60	PS-11-100	PS-10-100	89	25	106	35	0.18	11™	10™	60

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

See Filter Silencer Technical Data for sizing guidelines.

# Stamped Steel Filter Silencers

FS Series 1/2" - 6", DN80 - DN150

## Features

- Fully drawn weatherhood
- Tubular silencing design - tubes are positioned to maximize attenuation and air flow while minimizing pressure drop
- Corrosive resistant gray powder coat carbon steel

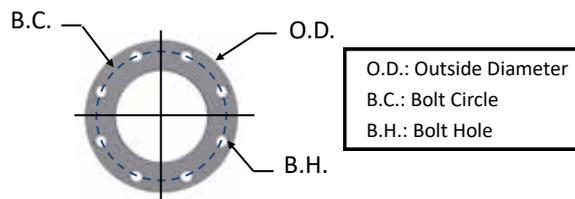
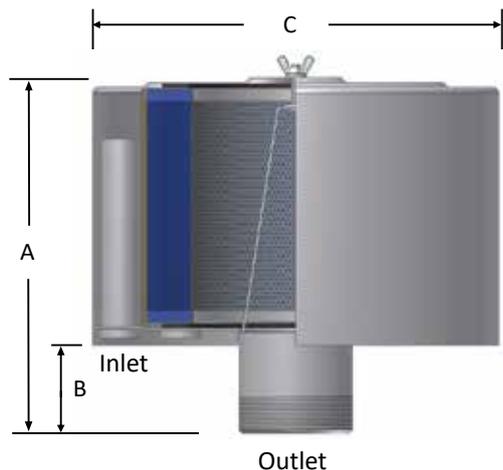
## Technical Specifications

- Temp (continuous): min -26°C (-15°C) 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
- Side Access Silencer Filters (LQB Series) for space restricted enclosures (select models)





PN10 Pattern Flange	Dimensions - mm			No. of Holes	Flange Thickness mm
	O.D.	B.C.	B.H.		
DN80	200	160	18	8	20
DN100	220	180	18	8	22
DN125	250	210	18	8	22
DN150	285	240	22	8	24

Outlet Size	Type	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	No. of Silencing Tubes	Approx. Weight (kg)	Replacement Element Part No.		Element m <sup>3</sup> /hr Rating
			Polyester	Paper	A	B	C				Polyester	Paper	
1/2"	MPT	17	FS-15-050	FS-14-050	87	24	155	59	1	0.8	15™	14™	60
3/4"	MPT	43	FS-15-075	FS-14-075	96	32	155	59	2	0.9	15™	14™	60
1"	MPT	60	FS-15-100	FS-14-100	96	31	155	59	3	0.9	15™	14™	60
1"	MPT	60	FS-15-100B	FS-14-100B	113	33	155	59	3	0.9	15™	14™	60
1"	MPT	94	FS-19P-100	FS-18P-100	162	33	156	121	3	1.4	19P®	18P™	170
1 1/4"	BSPT	119	FS-19P-126	FS-18P-126	171	41	156	121	5	1.5	19P®	18P™	170
1 1/2"	BSPT	145	FS-19P-151	FS-18P-151	171	41	156	121	5	1.6	19P®	18P™	170
1 1/2"	BSPT	145	FS-19P-151B	FS-18P-151B	171	41	156	121	5	1.6	19P®	18P™	170
2"	BSPT	230	FS-31P-201	FS-30P-201	190	57	262	121	5	3.5	31P™	30P™	332
2"	BSPT	230	FS-231P-201	FS-230P-201	304	60	260	241	5	6.3	231P™	230P™	510
2 1/2"	BSPT	332	FS-31P-251	FS-30P-251	196	67	262	121	5	3.7	31P™	30P™	332
2 1/2"	BSPT	332	FS-231P-251	FS-230P-251	314	67	260	241	9	6.5	231P™	230P™	510
3"	BSPT	510	FS-231P-301	FS-230P-301	323	80	260	241	9	6.8	231P™	230P™	510
3"	BSPT	510	FS(12)-235P-301	FS(12)-234P-301	326	69	311	244	3	13	235P™	234P™	970
3"	BSPT	510	FS-275P-301	FS-274P-301	330	80	406	244	9	15	275P™	274P™	1870
4"	BSPT	885	FS(12)-235P-401	FS(12)-234P-401	352	95	311	244	6	14	235P™	234P™	970
4"	BSPT	885	FS-275P-401	FS-274P-401	353	102	406	244	9	15	275P™	274P™	1870
5"	BSPT	1360	FS-245P-501	FS-244P-501	356	105	305	244	14	15	245P™	244P™	1500
5"	BSPT	1360	FS-275P-501	FS-274P-501	356	105	406	244	14	16	275P™	274P™	1870
6"	BSPT	1870	FS-275P-601	FS-274P-601	394	130	406	244	18	17	275P™	274P™	1870

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

Flange Outlet	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	No. of Silencing Tubes	Approx. Weight (kg)	Replacement Element Part No.		Element m <sup>3</sup> /hr Rating
		Polyester	Paper	A	B	C				Polyester	Paper	
DN80	510	FS(12)-235P-DN80	FS(12)-234P-DN80	326	69	311	244	3	13	235P™	234P™	970
DN80	510	FS-275P-DN80	FS-274P-DN80	330	76	406	244	9	15	275P™	274P™	1870
DN100	885	FS(12)-235P-DN100	FS(12)-234P-DN100	352	95	311	244	6	14	235P™	234P™	970
DN100	885	FS-275P-DN100	FS-274P-DN100	354	102	406	244	9	18	275P™	274P™	1870
DN125	1360	FS-245P-DN125	FS-244P-DN125	356	105	406	244	14	17	245P™	244P™	1500
DN125	1360	FS-275P-DN125	FS-274P-DN125	356	105	406	244	14	18	275P™	274P™	1870
DN150	1870	FS-275P-DN150	FS-274P-DN150	381	130	406	244	18	19	275P™	274P™	1870

See Filter Silencer Technical Data for sizing guidelines.



# Big Boy Filter Silencers

## FS Series DN200 - DN400

### Features

- Tubular silencing design - tubes are positioned to maximize attenuation and air flow while minimizing pressure drop
- Corrosive resistant gray powder coat carbon steel
- Low pressure drop center bracket & outlet pipe design

### Technical Specifications

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

### Options

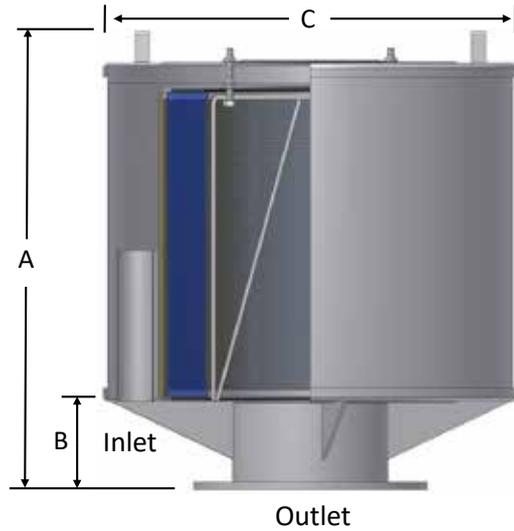


- Tap holes available
- Pressure drop indicator
- Various media for different environments
- Stainless steel construction
- Various nonstandard finishes and connection styles
- Side Access Silencer Filters (LQB Series) for space restricted enclosures (select models)

### Sumo Class Features

- Single barrel filter design allows for large airflows in space restricted work areas
- DN350 to DN400 flange connections available
- Designed for airflows up to 13592 m<sup>3</sup>/hr

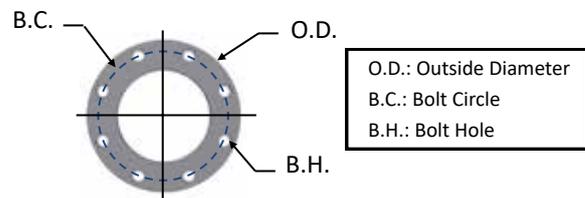




Flange Outlet	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	No. of Silencing Tubes	Approx. Weight (kg)	Replacement Element Part No.		Element m <sup>3</sup> /hr Rating
		Polyester	Paper	A	B	C				Polyester	Paper	
DN200	3060	FS-377P-DN200	FS-376P-DN200	599	133	556	368	12	54	377P™	376P™	3105
DN200	3060	FS-385P-DN200	FS-384P-DN200	610	154	719	368	12	56	385P™	384P™	5610
DN250	5610	FS-385P-DN250	FS-384P-DN250	598	152	719	368	16	59	385P™	384P™	5610
DN250	5610	FS-485P-DN250	FS-484P-DN250	802	157	719	546	16	64	485P™	484P™	8000
DN300	7990	FS-485P-DN300	FS-484P-DN300	799	154	719	546	24	70	485P™	484P™	8000
DN300	7990	FS-685P-DN300	FS-384P(2)-DN300	977	154	719	724	24	79	685P™	384P™ (2)	11220

Flange Outlet	Assembly m <sup>3</sup> /hr Rating	Assembly Part Number		Dimensions - mm			Suggested Service ht. mm	Replacement Element Part No.	
		Polyester	Paper	A	B	C		Polyester	Paper
DN350	9345	FS-391-DN350	FS-390-DN350	1038	152	1092	368	391	390
DN400	13592	FS-491-DN400	FS-490-DN400	809	152	1092	546	491	490

PN10 Pattern Flange	Dimensions - mm			No. of Holes	Flange Thickness mm
	O.D.	B.C.	B.H.		
DN200	340	295	22	8	24
DN250	395	350	22	12	26
DN300	445	400	22	12	26
DN350	505	460	22	16	28
DN400	565	515	26	16	32



See Filter Silencer Technical Data for sizing guidelines.



# Technical Data

## Inlet Filter Silencers, Silencers

### 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

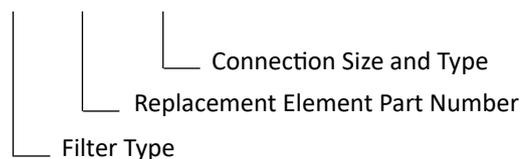
### Identification

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

- Assembly Model #
- Replacement Element #

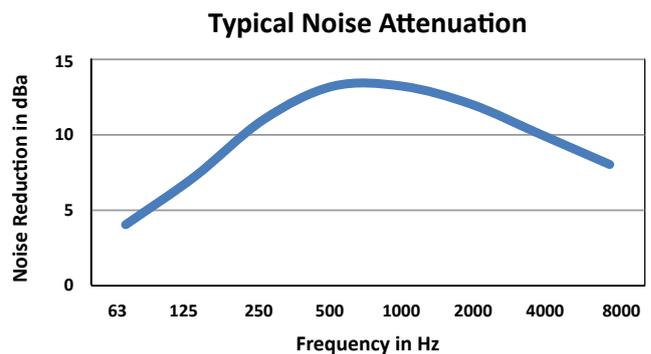
The part number designates the filter type, the element configuration and housing connection size. For example, the following part number identifies the filter as being an “FS” design filter with a “275” element, “P” prefilter and 3” BSPT connection size.

#### **FS-275P-301**



### Typical Noise Attenuation

See chart for typical noise attenuation for filter silencers. It may vary due to the wide range of applications, installations, and machines.



## 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<sup>3</sup>/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<sup>3</sup>/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](http://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.

