

Extreme Duty Vacuum Filters

SpinMeister™ ST Series 2" - 6"

Overview

Centrifugal force from intake air causes particulate to separate from air stream, forcing it to the outer cover perimeter and out through the discharge port. The SpinMeister™ Precleaner eliminates large objects from entering air stream. The air stream then enters the particulate filter (optional) and is filtered by a 99+% efficient pleated element.

Features

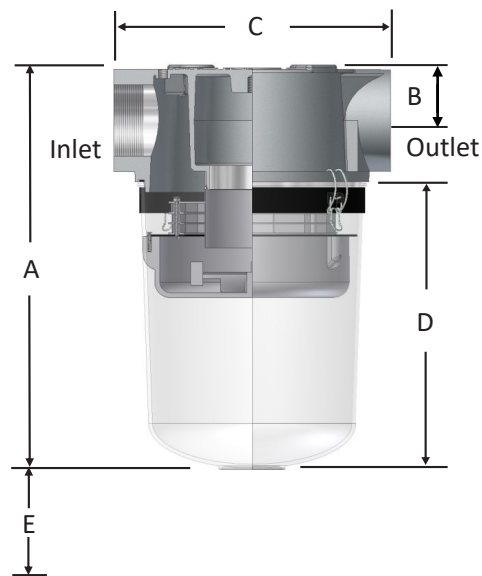
- Extreme duty filtration for high dust environments
- Excellent removal for short fibers
- Significantly increases life of filter element
- SpinMeister™ Precleaner 85+% efficiency standard to 15 microns
 - Durable molded fiber filled composite material
 - Pressure drop reduced compared to typical precleaners
- Bucket made from shatter resistant polycarbonate
- Large dirt holding capacity
- Clip release band for easy maintenance



Connection Size	Drill Points/ Gauge Taps	(4) Tap, Mount Sizes	Fasteners
1"	Drill	Drill	Clips
1 ¼"	Drill	Drill	Clips
1 ½"	Drill	Drill	Clips
2"	Drill	M12x1.75	Clips
2 ½"	Drill	M12x1.75	Clips
3"	Drill	½"-13	Clips
4"	Drill	½"-13	Clips
6"	¼"	M12x1.75	Swing Bolts

Rev: ST SM-US1905K

SpinMeister™ ST Series 2" - 6"



Inlet/Outlet Size	Type	SCFM Range w/ SpinMeister	Rating w/ Element	Assembly Part Number	Dimensions - inches				Suggested Service Ht. E	Optional Secondary Filters	
					A	B	C	D		Polyester	Paper
2"	NPSC	40-110	175	ST-SML235-200C	16 1/4	2	9	12 7/16	4	ST-851/1-200C	ST-850/1-200C
2 1/2"	FPT	40-110	210	ST-SML235-250C	16 1/4	2	9	12 7/16	4	ST-851/1-250C	ST-850/1-250C
3"	FPT	100-200	300	ST-SML345-300C	19	2 1/16	13 1/2	14	8	ST-235P-300C	ST-234P-300C
3"	FPT	200-450	300	ST-SML445-300C	19	2 1/16	13 1/2	14	8	ST-235P-300C	ST-234P-300C
4"	FPT	100-200	520	ST-SML345-400C	19	2 1/16	13 1/2	14	8	ST-235P-400C	ST-234P-400C
4"	FPT	200-450	520	ST-SML445-400C	19	2 1/16	13 1/2	14	8	ST-235P-400C	ST-234P-400C
6"	FPT	450-900	1100	CTD-SM6-600C ⁺⁺	25 3/8	3 7/8	19	17	8	CT-275P-600C ⁺	CT-274P-600C ⁺

Larger systems available.

*Denotes housings with carbon steel buckets. **Denotes housings with carbon steel extended buckets & swing bolt fasteners.

Technical Specifications

- Vacuum Rating: coarse vacuum service*
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

Options

- SpinMeisters™ available in polished aluminum
- Various media
- Spool piece extender (select models)
- Pressure drop gauge
- Carbon steel bucket versions

*See Vacuum Filter Technical Data section for sizing guidelines and service data.



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All model offerings and design parameters are subject to change without prior notice. Contact your representative or Solberg for the most current information.

Technical Data

Inlet Vacuum Filters

Applications & Equipment

- Industrial & Severe Duty
- Vacuum Pumps & Systems: Roots, Rotary Vane, Screw, Piston
- Vacuum Packaging Equipment
- Vacuum Furnace
- Blowers: Side Channel & P.D.
- Vacuum Lifters
- Intake Suction Filters
- Food Industry
- Woodworking/Routers
- Ash Handling
- Printing Industry
- Medical/Hospital
- Remote Installations for Piston & Screw Compressors
- Paper Processing
- Waste Water Aeration
- Cement Processing
- Bag House Systems
- Vacuum Vent Breathers
- Chemical Processing
- Factory Automation Equipment
- Leak Detection Systems

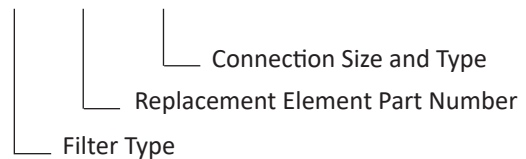
Identification

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 “CSL” design filter with a “235” element, “P” prefilter and 4” flange connection size.

CSL-235P-400F



Vacuum Service Rating Chart

Threaded vacuum filter connections must be free of defect and properly sealed to achieve deeper vacuum levels. Vacuum service levels are given for reference only and serve as a guideline for product selection. Product certification and alternative designs are available for applications requiring deeper vacuum levels and specific leak rates. Please contact factory for details.

Vacuum Level	Pressure (mbar)	Pressure (Torr)	Pressure (Pa)
Atmospheric Pressure	1013	760	1.013x10 ⁺⁵
Coarse Vacuum	1013 to 33	760 to 25	1x10 ⁺⁵ to 3x10 ⁺³
Medium Vacuum	33 to 1.3x10 ⁻³	25 to 1x10 ⁻³	3x10 ⁺³ to 1x10 ⁻¹
High Vacuum	1.3x10 ⁻³ to 1.3x10 ⁻⁹	1x10 ⁻³ to 1x10 ⁻⁹	1x10 ⁻¹ to 1x10 ⁻⁷

Rev: IVTD-US1904K

Inlet Vacuum Filters

Choosing the Best Filter for Your Equipment

A. When the connection & airflow is known:

1. select the 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. 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 15-20” H₂O 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 15” H₂O.

If the pressure drop exceeds 20” H₂O 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.



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