



General Catalog

US Connections



Filtration • Separation • Silencing

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www.solbergmfg.com

Filtration Experts

Selecting and sizing application-appropriate filtration and separation is an art, as much as it is a science. With more than 50 years of experience in designing, developing, and manufacturing application-specific solutions, the name Solberg represents filtration expertise when it comes to protecting vacuum pumps, blowers, compressors and other types of equipment.

The concept of filtration and separation is quite simple: remove any contaminant from an air or gas flow before the contaminant can enter a piece of equipment. However, contaminant removal becomes extremely complex when multiple process variables exist. Working with filtration experts in the early stages of design and specification will save money and prevent countless hours of frustration for engineers and operators. Not only will the proper filtration and separation solution help users save on maintenance costs and energy consumption, it can help improve worker safety and morale with consistent process up-time and higher quality outputs. Enlist Solberg early.

Serious About Sustainability

Since our beginnings, we have been mindful of our Corporate Social Responsibility (CSR). From manufacturing processes to vendor and customer relationships, we continually examine our methods to ensure the well-being of our people and reduce our environmental impact.

We integrate comprehensive and transparent social and environmental performance standards throughout all areas of our business to guarantee that CSR remains rooted in our business culture.

We are active in elevating our environmental commitment, from installing rooftop solar arrays on our buildings, to adhering to LEED guidelines in our work environments. We always strive to further our environmental efforts and bring positive, responsible change across our 7 P's: People, Planet, Product, Property, Power, Prosperity, and Philanthropy.



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Solberg Locations

Global Partner

Our desire to partner with customers has led us to expand our global operations. With facilities in North America, South America, Europe, Asia, and Australia, and sales to over 50 countries, customers have access to our products and services from practically anywhere in the world. Our culturally respectful business practices, diverse application experience, and intercontinental project collaboration help us ensure that the right solutions are delivered around the world.



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Who We Are

Around the world, we engineer, manufacture, and deliver solutions for the equipment that powers our lives. From compressors to turbines, vacuum pumps to reciprocating engines, Solberg's filtration, silencing and separation products can be found on the most challenging applications.

For more than 50 years, we have embraced the ideal of industrial growth while advocating environmental responsibility. We are committed to providing products and systems that protect mission critical machinery, while safeguarding the surrounding environment. We believe that these worldwide commitments help better our communities, encourage the achievements of our employees, and help our customers succeed.



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Standard Products

Inlet Filtration / Silencing

Solberg solutions are critical to improving the lifecycle and performance of machinery. We engineer and manufacture filtration, separation, and silencing solutions. Our products protect a wide range of equipment including compressors, blowers, vacuum pumps, engines, fuel cells, and turbines.

Our compact configurations reduce the overall footprint without sacrificing performance, and all of our inlet filtration and separation products are engineered to offer high levels of protection from particulate and other contaminants in harsh operating environments.

Replacement Filter Elements

Optimized effective surface area

Comprehensive media options and specialty media

Micron ratings from coarse to sub-micron filtration

Various sizes and configurable designs for a precise fit



Vacuum Process Filtration & Separation

Particulate Removal

Liquid Separation

Vapor Condensing

Inlet Filters / Filter Silencers

Reduce noise of compressors and blowers

Deaden noise, absorb & silence sound

Maximize surface area

Remove dirt and debris

Use as breathers for hydraulic tanks



Vacuum Pump Discharge & Air/Oil Separation

Our air/oil separation products for vacuum pumps, compressors, gear boxes, and lubrication consoles capture oil mist emissions and protect surrounding environments. The collected oil can be recycled back to the equipment to reduce oil consumption and associated maintenance costs. Our products are well-suited for breather applications and are used on a full range of pump technologies including rotary vane, rotary screw, liquid ring, rotary piston, and scroll.



Custom Solutions & Pressure Rated Vessels

Custom & Configured Solutions

For most applications, there are two choices when it comes to installing an industrial filtration system: standard or custom. Both types of systems can be equally effective when utilized correctly. However, there are instances where a custom filtration solution will provide the highest protection levels for your equipment.

For more challenging projects where operating conditions are exceptionally harsh, or size and space constraints exist, our team of filtration and separation experts will develop custom designs to meet the most demanding application requirements. Our field experience, commitment to innovation, and customer focus ensures world-class solutions to meet the evolving demands of today's marketplace. From ASME and PED code vessels for pressure and vacuum service, to reverse pulse systems with programmable electrical control box options, Solberg has the expertise to provide the right solutions for your applications.

Unique Applications

- Medical/Hospital/ Pharmaceutical
- Food/Beverage Industry
- Pneumatic Conveying
- Power Generation
- Natural/Methane Gas, Water or Oil Separators
- High Pressure Filter Vessels (+15 PSIG)
- Metallurgy and Steel Degassing

Available Certifications/Standards

- PED 2014/68/EU
- ASME, VIII, IX, U-STAMP, B31.1, B31.3
- CRN registration
- AWS D1.1, D1.2, D1.3
- Non-Destructive Examination: RT, UT, PT
- Positive Material Identification

Add-Ons & Accessories

- PI/PT and PDI/PDT
- Custom electrical controls
- PLC and HMI interfaces
- Automation with I/O
- Existing control integration



ATEX Certified Filters



Your Partner for Explosion Protection

Safety in Filtration

Explosions may occur within applications such as pharmaceutical, chemicals, metal, food, plastics, coal and wood working industries. Solberg was one of the first filtration companies qualified to service these industries in compliance with the ATEX directive 2014/34/EU (ATEX 114). This is a European Union code that seeks to minimize the possibility of explosions related to equipment used in potentially explosive gaseous or dusty environments.

Solberg is registered by the TUV Rheinland Group under Ref-N 968/Ex-Ab 557/04. Solberg's registration allows the design, manufacture and marking of inlet filter silencers, inlet filters, inlet vacuum filters, integrated liquid separators/vacuum filters and air/oil separation filters for non-mining applications. ATEX certified products undergo a strict testing regime and documentation is available upon request.

Most products are suitable for deployment in Group II Category 2 Gas Zones 1,2 and Group II Category 2 Dust Zones 21, 22, and will be marked in accordance with the directive and the norm 80079-36 as follows:

For gas: II 2 G Ex h IIB T1...T6 Gb

For dust: II 2 D Ex h IIIB T450°C...T85°C Db

(IIC and IIIC marking available on request after review of the application.)



ATEX Marking & Nameplate



Filter Types (Available on select models and sizes)

- Replacement Filter Elements for ATEX assemblies
- Filter Silencers
- Filter Assemblies
- Inlet Vacuum Filters
- Air/Oil Separators

Look for the "ATEX Available" logo in the catalog or contact Solberg at www.solbergmfg.com



Oil Mist Eliminators

SME, BAE, & CV Series

Overview

We design and manufacture high efficiency oil mist removal systems to capture oil mist and particulate emissions from turbo machinery and engines. Our high performance replaceable coalescing elements offer long life.

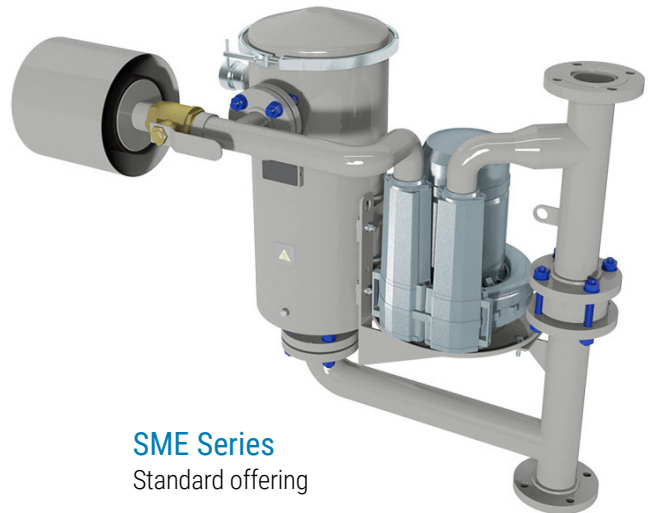
Our systems optimize equipment performance, offer a safe and clean work environment, and reduce costly repairs & maintenance.

Features

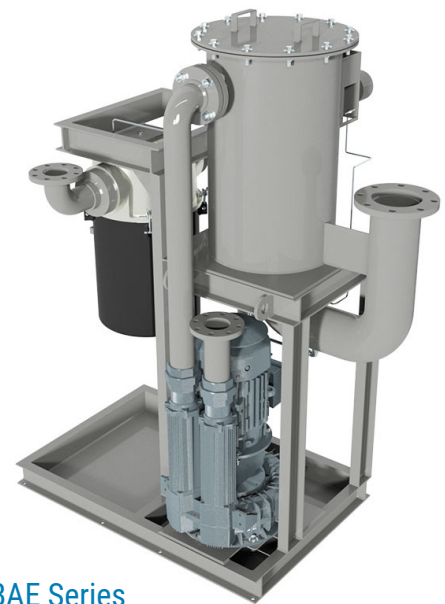
- Eliminates visible emissions (99.97% efficient at 0.3 micron)
- High performance coalescing elements offer long life
- Flow ranges from 3 - 1500 CFM (1 - 2500 m³/hr)
- Vacuum level control valve for precise vacuum regulation
- Integrated vacuum relief valve for motor protection
- Motors for both standard EU and North American voltages
- Rugged carbon steel construction
- Industrial grade powder coat finish
- Pressure differential taps
- Drain port for oil recovery

Options

- Redundant equipment to ensure continuous operation
- Full automation: PLC and DCS compatible
- Stainless steel construction for harsh environments
- Custom coating and colors
- ASME Section VIII or PED pressure certifications
- Explosive environment options: ATEX, Class I Div. 1, etc.
- Motor listings: UL, CE, IEC, CSA, IEEE, KOSHA, etc.
- Motor accessories: heaters, starters, switches, VFD, etc.
- Skid mounted units for ease of transport & installation
- Service and maintenance platforms
- EAC certification



SME Series
Standard offering



BAE Series
Engineered to order

Crankcase Ventilation

ACV & ACVB Series

Overview

Solberg designs and manufactures high efficiency, open and closed Advanced Crankcase Ventilation Systems to capture hazardous oil mist and particulate emissions (blow-by). This blow-by is vented from the crankcase of reciprocating engines.

Our systems ensure environmental compliance, protect the engine's turbocharger, intercoolers and inlet air filters, while keeping the engine room free of oil mist. Our series come standard with industry-leading automated vacuum control technology to regulate crankcase pressure and prevent seal leakage.

Features

- Eliminates visible emissions (99%+ efficient at 0.3 micron)
- High performance coalescing elements offer long life
- Flow ranges from 2 - 40 CFM (3 - 68 m³/hr) for single units
- Integrated vacuum control valve for precise vacuum regulation
- Diaphragm vacuum regulation valve design - no springs, no manual vacuum adjustment required
- Standard vacuum setting of 1" W.C. (-2.5 mbar)
- Universal mounting bracket
- Drain port for oil recovery

Options

- Installation kits
- Atmospheric bypass
- Insulation jackets
- Custom solutions
- Configurable vacuum settings



ACV Series
Standard offering



ACVB Series
Blower assisted configuration

Air Filtration Selection Guidelines

Achieving peak performance from a compressor, blower, vacuum pump, engine, or any other pneumatic rotating machinery requires consistent and clean air flow with minimal restriction. Filtration and separation technologies exist to provide this basic need. Choosing the appropriate filtration technology can help optimize the operating conditions within a given piece of equipment, even when the external conditions may be quite severe. A critical step in creating the optimum working conditions is correctly sizing the filter. Correctly sized filtration will deliver higher performance levels over a longer time period, resulting in reduced maintenance costs over the lifetime of the equipment.

The primary consideration in properly sizing a filter or separator is air velocity through both 1) an orifice or connection size, and 2) the filtration media based on flow rate and surface area.

Generally, the slower the air velocity through a media, the higher the filtration efficiency and the lower the pressure drop across the filter. A properly sized filter is essential for optimizing air system performance and needs to be an early-stage consideration when designing any system.

#1: Always begin the selection process by choosing the appropriate media and filter element size based on the following requirements: filtration level, flow, pressure drop, temperature, chemical compatibility, etc.

Note: Indicating an efficiency level with a specific micron requirement is essential to choosing the right media. Stating the need for a “1-micron filter” is insufficient, as the efficiency rating has not been specified. For most general duty industrial applications, a 5 micron filter with 99% filtration efficiency is adequate. Follow the suggested Air-to-Media ratios for the external environment conditions and filtration efficiency needs.

#2: Contaminant level and type can significantly impact filter life and equipment maintenance. As the filter stops the contaminants from entering the equipment, the filter element begins to load up with contaminant and the pressure differential steadily increases until a terminal pressure differential is reached. At this point, the filter element must be replaced. Solberg’s published flow rates for elements take filter life into consideration and will provide a reasonable maintenance interval for most general duty industrial applications. For harsh operating conditions, it is recommended that a larger filter element be selected to offer longer filter life and extend maintenance intervals.

#3: Once the appropriate media and element size is selected, identify the appropriate housing for the element. The inlet connection greatly influences the overall pressure drop of the inlet filter system. To minimize the restriction contributed by the filter housing, match the connection size to that of the equipment being protected or the pipe size in the application plumbing. It is acceptable to use larger connections, while connections smaller than the pipe size are to be avoided.

See www.solbergmfg.com or our literature for suggested flows.

Vacuum Pump Discharge Filter Selection, Installation, and Operational Guidelines

Coalescing air/oil separation technology is highly effective at capturing oil mist from the exhaust of an oil sealed/lubricated vacuum pump and keeping surrounding work environments clean and safe. Each pump technology produces its own specific oil discharge characteristics and requires the appropriate housing and element configuration to optimize performance.

Critical factors that influence performance of a coalescing air/oil separator include quality of the oil, equipment type, oil type and viscosity, challenge rate, process gas characteristics, operating temperature, operating vacuum level, and maximum air flow rating of the pump. Because of these variables, it is always best to work with Solberg personnel when selecting and sizing a vacuum pump discharge filter. However, Solberg's standard product lines will perform well in most general duty applications. The following guidelines will help when selecting a standard product.

#1: Protect the pump with adequate inlet filtration. Contaminants such as particulates, water, and solvents can damage the pump internals and significantly reduce the effectiveness of the discharge filter.

#2: Identify the type of vacuum pump oil being used. Solberg's standard coalescing technology works well with most commercially available vacuum pump oils across a broad range of viscosities. Generally, maximum coalescing effectiveness is achieved with temperatures at the inlet of the filter: at or below ~160°F (70°C) for mineral oils, at or below ~180°F (82°C) for synthetics. For best results, consult with the factory and provide information on operating temperature and viscosity/grade of oil prior to making any filter selection.

#3: Determine the filter size based on the flow rating of the pump at atmospheric conditions, not the connection size. An undersized coalescing filter will cause increased back pressure and negatively affect pump performance.

#4: To capture oil, the coalescing element must receive the oil challenge in an aerosol form. If the oil is in a vapor state, it will pass through the coalescing media. Generally, the coalescing technology will perform more effectively at lower operating temperatures. In many cases, adding distance between the pump and the filter will help to lower the air stream temperature and improve coalescing effectiveness.

#5: Install in external environments where temperatures will not fall below freezing or exceed 100°F (37°C). Creating distance between the pump and the exhaust filter is desirable, however, avoid installing long pipe runs and horizontal sections where condensed oil can accumulate. When possible, install a drip-leg to gather any excess oil within the piping.

#6: Drain the filter and drip-leg to ensure your vacuum system performs at optimal levels. If the system is not drained regularly, issues such as high back pressure and unsafe working conditions can occur.

Once as much information as possible has been obtained, send the data to Solberg for review, review our datasheets, or visit our website, www.solbergmfg.com.



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Extreme Duty Vacuum Filters: SpinMeister® ST / CT Series	2-14
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Medical Vacuum Bacterial Filters: HV Series	2-18

Liquid / Mist Removal:

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Compact Liquid Separator & Filter: LRS Series	2-22
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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
- Sterilization
- 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
- Semiconductor / Solar

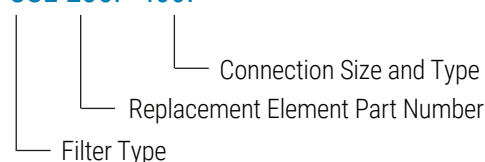
Identification

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	1.013×10^5
Rough Vacuum	1013 to 33	760 to 25	1×10^5 to 3×10^3
Medium Vacuum	33 to 1.3×10^{-3}	25 to 1×10^{-3}	3×10^3 to 1×10^{-1}
High Vacuum	1.3×10^{-3} to 1.3×10^{-9}	1×10^{-3} to 1×10^{-9}	1×10^{-1} to 1×10^{-7}

Choosing the Best Filter for Your Equipment

- When the connection & airflow is known:
 1. Select the appropriate connection style. (i.e.: MNPT, Flange, NPSC etc.)
 - Verify 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.)
 - Verify that the flow rating matches connection size; skip to "Selecting Elements".
- 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.
- 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:

- Standard media

1. Polyester: all purpose; withstands pulses, moisture, and oily air

2. Paper: mostly dry, smooth flow applications

- 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.



Inline Right Angle Vacuum Filters

CSL Series 3/8" - 4"

Vacuum Process
Filtration & Separation

Overview

Solberg's CSL Series is designed to protect equipment from contaminants carried over from a variety of industrial processes. Ideal for rough-medium vacuum service, the CSL can be utilized in systems where standard duty flanges and threaded connections are acceptable. Multiple filter element media options offer superior protection and longevity for the vacuum system.

Benefits

- Large holding capacity and easy field cleaning, especially when mounted horizontally or inverted
- Low pressure design

Features

- Seamless drawn housings
- O-ring seal
- Corrosive resistant powder coat carbon steel
- Stainless steel torsion clips for durability

Options

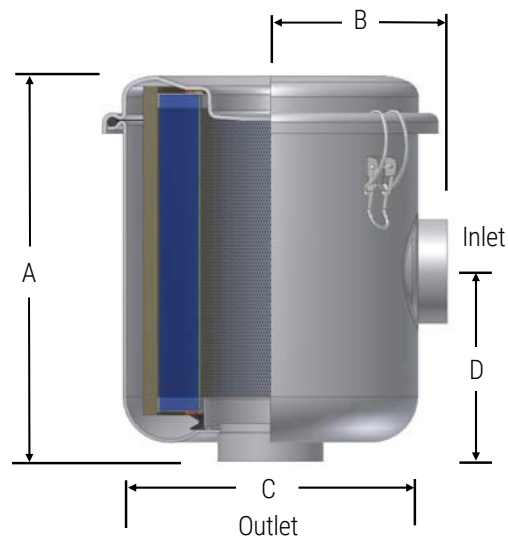


- Vacuum gauge
- Higher holding capacity configurations available (select models)
- Material/Finishes: epoxy coating, stainless steel (select models)
- Support brackets
- Alternative top-to-canister fastening system for low pressure or pulsating systems

Technical Specifications

- Vacuum Rating: medium vacuum service (33 to 1.3×10^{-3})
- 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





Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Ht. (inches)	Approx. Weight (lbs)	Element SCFM Rating
Size	Type		Polyester	Paper	A	B	C	D			
3/8"	BSPP	18	CSL-825-039KCB	CSL-824-039KCB	3.53	2.14	3.74	1.80	3	0.88	25
1/2"	NPSC	20	CSL-825-050KCB	CSL-824-050KCB	3.76	2.29	3.74	1.95	3	0.88	25
1/2"	NPSC	20	CSL-843-050KC	CSL-842-050KC	4.34	3.08	5.75	2.46	3	3	55
3/4"	NPSC	25	CSL-825-075KCB	CSL-824-075KCB	3.76	2.29	3.74	1.95	3	0.88	25
3/4"	NPSC	25	CSL-843-075KC	CSL-842-075KC	4.29	3.08	5.75	2.46	3	3	55
1"	NPSC	35	CSL-843-100KC	CSL-842-100KC	4.47	3.27	5.75	2.65	3	3	55
1"	NPSC	40	CSL-849-100KC	CSL-848-100KC	6.91	4.13	7.35	4.25	5	5	115
1 1/4"	NPSC	55	CSL-843-125KC	CSL-842-125KC	4.47	3.27	5.75	2.65	3	3	55
1 1/4"	NPSC	60	CSL-849-125KC	CSL-848-125KC	6.91	4.13	7.35	4.25	5	5	115
1 1/2"	NPSC	80	CSL-849-150KC	CSL-848-150KC	6.91	4.13	7.35	4.25	5	5	115
2"	NPSC	175	CSL-851-200KC	CSL-850-200KC	10.10	4.46	8.74	4.97	9	15	290
2 1/2"	FNPT	210	CSL-851-250KC	CSL-850-250KC	10.63	5.10	8.74	5.50	9	15	290
3"	FNPT	300	CSL-239-300KCB	CSL-238-300KCB	14.03	7.19	13.25	7.13	9	33	570
3"	MNPT	300	CSL-2541-300B	CSL-2540-300B	15.41	8.50	13.25	8.50	12	30	800
4"	MNPT	520	CSL-2541-400B	CSL-2540-400B	16.38	9.53	13.25	9.50	12	32	800

Inline Right Angle Vacuum Filters

CSL Series 3" - 12"

Vacuum Process
Filtration & Separation

Overview

Solberg's CSL Series is designed to protect equipment from contaminants carried over from a variety of industrial processes. Ideal for rough-medium vacuum service, the CSL can be utilized in systems where standard duty flanges and threaded connections are acceptable. Multiple filter element media options offer superior protection and longevity for the vacuum system.

Benefits

- Reduce piping costs with multiple mounting configurations (mount horizontal or inverted)
- Minimize equipment pressure-drop change with low pressure-drop filter design

Features

- Heavy duty T-bolts for easy maintenance
- Corrosive resistant black powder coat carbon steel
- O-ring stays in place with unique U-channel groove
- Inlet & outlet 1/4" gauge taps

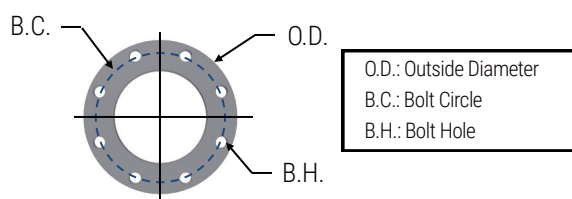
Technical Specifications

- Vacuum Rating: medium vacuum service (33 to 1.3×10^{-3})
- 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

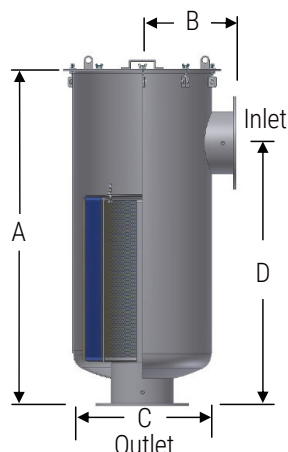


- Straight-through configurations
- Specialty filter media
- Stainless steel
- Various nonstandard finishes and connection styles
- ISO flange
- PN6, PN16 flange patterns
- Flange faces and internal surfaces free of paint
- Mounting housing bands
- Brackets for optional support legs
- Nameplate bracket



All flanges are oriented "split center".

125/150# Pattern Flange	Dimensions (inches)			No. of Holes	Flange Thickness (inches)
	O.D.	B.C.	B.H.		
4"	9.00	7.50	0.75	8	0.5
5"	10.00	8.50	0.88	8	0.5
6"	11.00	9.50	0.88	8	0.5
8"	13.50	11.75	0.88	8	0.5
10"	16.00	14.25	1.00	12	0.5
12"	19.00	17.00	1.00	12	0.5



Flanged Assemblies

Inlet / Outlet	SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Ht. (inches)	Approx. Weight (lbs)	Element SCFM Rating
		Polyester	Paper	A	B	C	D			
4"	520	CSL-235P-400F	CSL-234P-400F	25.37	9.00	12.00	18.50	10	62	570
4"	520	CSL-335P-400F	CSL-334P-400F	25.50	9.00	12.00	18.50	15	64	800
5"	800	CSL-245P-500F	CSL-244P-500F	26.50	11.00	16.00	19.50	10	88	880
5"	800	CSL-345P-500F	CSL-344P-500F	26.50	11.00	16.00	19.50	15	90	1100
6"	1100	CSL-275P-600F	CSL-274P-600F	27.50	12.00	16.00	20.50	10	110	1100
6"	1100	CSL-375P-600F	CSL-374P-600F	27.50	12.00	16.00	20.50	15	113	1500
8"	1800	CSL-377P-800F	CSL-376P-800F	37.25	14.00	20.00	25.50	15	185	1825
10"	2900	CSL-685P-1000F	CSL-384P(2)-1000F	56.00	16.00	24.00	45.00	33	380	6600
12"	4950	CSL-485P(2)-1200F	CSL-484P(2)-1200F	67.63	16.00	24.00	57.00	33	465	9410

MNPT Assemblies

Inlet / Outlet	SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Ht. (inches)	Approx. Weight (lbs)	Element SCFM Rating
		Polyester	Paper	A	B	C	D			
3"	300	CSL-235P-300	CSL-234P-300	25.50	9.00	12.00	18.50	10	47	570
3"	300	CSL-335P-300	CSL-334P-300	25.50	9.00	12.00	18.50	15	50	800
4"	520	CSL-235P-400	CSL-234P-400	25.50	9.00	12.00	18.50	10	52	570
4"	520	CSL-335P-400	CSL-334P-400	25.50	9.00	12.00	18.50	15	55	800
5"	800	CSL-245P-500	CSL-244P-500	26.50	11.00	16.00	19.50	10	82	880
5"	800	CSL-345P-500	CSL-344P-500	26.50	11.00	16.00	19.50	15	88	1100
6"	1100	CSL-275P-600	CSL-274P-600	27.50	12.00	16.00	20.50	10	95	1100
6"	1100	CSL-375P-600	CSL-374P-600	27.50	12.00	16.00	20.50	15	97	1500

Medium to High Vacuum Filtration

WL Series ISO Flanges NW16-NW40, K63-K100

Overview

Solberg's WL Series Vacuum Filters are designed for a variety of industrial and semicon processes where rapid thermal and/or pressure cycles create harsh operating conditions. Ideal for medium-high vacuum applications that utilize vacuum furnaces or deposition tools, the WL series comes standard with a variety of vacuum rated flange options and replaceable filter elements that offer superior protection and longevity for the vacuum system.

Housings in this series are 100% helium leak tested to ensure vacuum integrity and verify leak rates down to 1×10^{-5} mbar L/s.

Features

- Stainless steel ISO flange connections
- Seamless drawn housings
- Corrosive resistant powder coat carbon steel
- Powder coat finish (black models)
- O-ring housing seal
- Stainless steel torsion clips

Technical Specifications

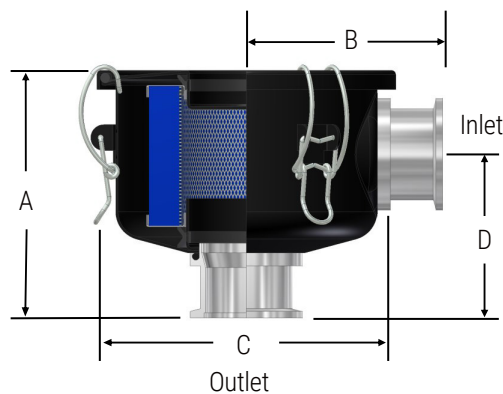
- Vacuum leak rate: 1×10^{-5} mbar L/sec
(verified by helium leak test)
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O over initial ΔP
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

Options



- Filter media options available to meet strict process requirements: PTFE, PTFE Glass, SS mesh, and more
- Activated alumina, activated carbon, and zeolite available for foreline trapping and other applications
- Stainless steel (select models)
- Contact factory for larger sizes





SS ISO Flange w/Black Filter Assembly Finish

ISO Flg Inlet / Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
		Polyester	Paper	A	B	C	D		
NW16	23	WL-825-NW16B	WL-824-NW16B	4.07	2.61	3.74	2.27	3	0.88
NW25	25	WL-825-NW25B	WL-824-NW25B	4.07	2.61	3.74	2.27	3	0.88
NW25	35	WL-843-NW25B	WL-842-NW25B	4.60	3.39	5.75	2.78	3	3
NW40	55	WL-843-NW40B	WL-842-NW40B	4.97	3.77	5.75	3.15	3	3
NW40	115	WL-849-NW40B	WL-848-NW40B	7.41	4.63	7.35	4.75	5	5
NW50	175	WL-851-NW50B	WL-850-NW50B	11.13	5.59	8.74	6	9	15
K63	210	WL-851-K63B	WL-850-K63B	11.67	6.09	8.74	6.50	9	15
K100	520	WL-239-K100B	WL-238-K100B	15.56	8.71	13.25	8.68	11	33

SS ISO Flange w/Electroless Nickel Filter Assembly Finish

ISO Flg Inlet / Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
		Polyester	Paper	A	B	C	D		
NW16	23	WL-825-NW16EN	WL-824-NW16EN	4.07	2.61	3.74	2.27	3	0.88
NW25	25	WL-825-NW25EN	WL-824-NW25EN	4.07	2.61	3.74	2.27	3	0.88
NW25	35	WL-843-NW25EN	WL-842-NW25EN	4.60	3.39	5.75	2.78	3	3
NW40	55	WL-843-NW40EN	WL-842-NW40EN	4.97	3.77	5.75	3.15	3	3
NW40	115	WL-849-NW40EN	WL-848-NW40EN	7.41	4.63	7.35	4.75	5	5
NW50	175	WL-851-NW50B	WL-850-NW50B	11.13	5.59	8.74	6	9	15
K63	210	WL-851-K63EN	WL-850-K63EN	11.67	6.09	8.74	6.50	9	15
K100	520	WL-239-K100EN	WL-238-K100EN	15.56	8.71	13.25	8.68	11	33

Medium to High Vacuum Filtration

WL Series ISO Flanges K100 - K320

Vacuum Process
Filtration & Separation

Overview

Solberg's WL Series Vacuum Filters are designed for a variety of industrial and semicon processes where rapid thermal and/or pressure cycles create harsh operating conditions. Ideal for medium-high vacuum applications that utilize vacuum furnaces or deposition tools, the WL series comes standard with a variety of vacuum rated flange options and replaceable filter elements that offer superior protection and longevity for the vacuum system.

Housings in this series are 100% helium leak tested to ensure vacuum integrity and verify leak rates down to 1×10^{-5} mbar L/s.

Features

- ISO-K stainless steel flanges standard
- K200 housings and larger have domed lid with hinge to minimize deflection
- NW10 differential ports for accurate vacuum ΔP readings
- Corrosive resistant black powder coat carbon steel
- Painted o-ring groove, free of scratches
- Lifting lugs and leg brackets standard

Technical Specifications

- Rated vacuum leak rate of 1×10^{-5} mbar L/sec or better (verified by helium leak test)
- 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

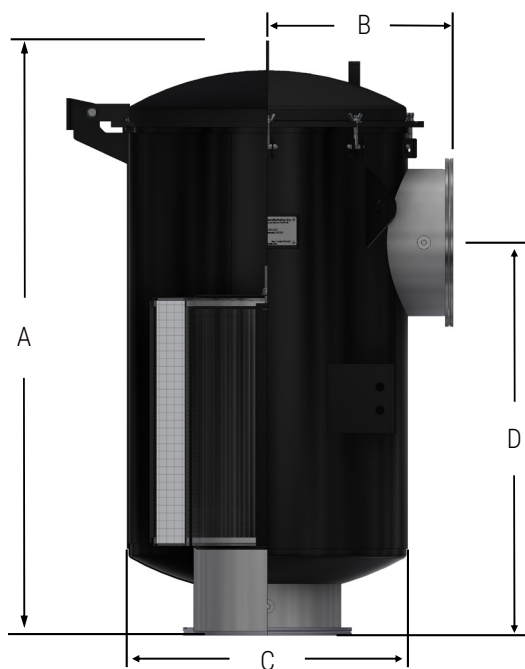


ATEX
Available

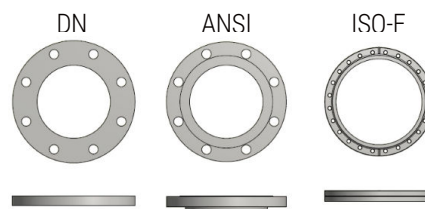
- Filter media options available to meet strict process requirements: PTFE, PTFE Glass, SS mesh, and more
- Activated alumina, activated carbon, and zeolite available for foreline trapping and other applications
- Stainless steel (select models)



K320 configuration



Other Flange Types Available:



ISO Flg Inlet / Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Height (inches)
		Polyester	Paper	A	B	C	D	
K100	520	WL-235P-K100	WL-234P-K100	25.39	9.00	12.00	18.50	10
K100	520	WL-335P-K100	WL-334P-K100	25.39	9.00	12.00	18.50	15
K160	1100	WL-275P-K160	WL-274P-K160	27.50	12.00	16.00	20.50	10
K160	1100	WL-375P-K160	WL-374P-K160	27.50	12.00	16.00	20.50	15
K200	1800	WL-377P-K200	WL-376P-K200	37.22	14.00	20.00	25.50	30
K250	2900	WL-385P-K250	WL-384P-K250	43.88	17.00	24.00	35.00	30
K320	4670	WL-485P-K320	WL-484P-K320	44.00	16.00	24.00	34.00	30
K320	4953	WL-685P-K320	WL-384P(2)-K320	56.00	17.00	24.00	45.00	33

Rated flows are determined based upon atmospheric conditions, for exact sizing please contact factory.
Special configurations available upon request.

Inline Straight Through Vacuum Filters

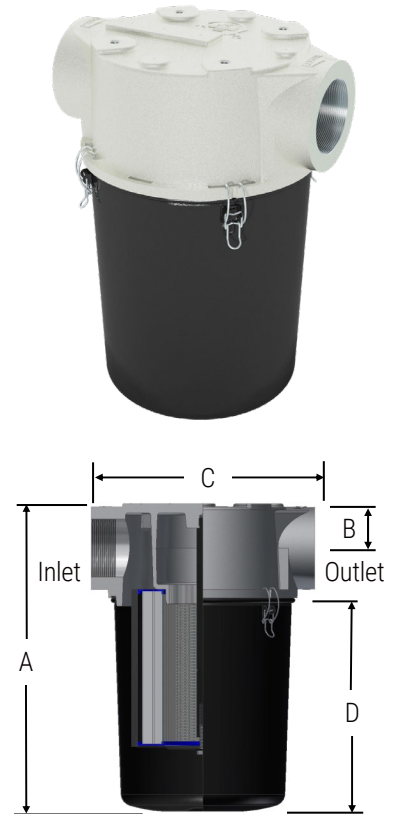
CT Series 3/4" - 6"

Features

- Compact design for space restrictions; min. service area
- Inlet above element for extended element life & maintenance intervals
- Corrosive resistant cast aluminum top with machined connections and integrated baffle design
- T-style design minimizes piping requirements
- Black powder coat carbon steel drop down bucket

Technical Specifications

- Vacuum Rating: medium vacuum service (33 to 1.3×10^{-3})
- 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



Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C	D		
3/4"	NPSC	25	CT-8451-075C	CT-8450-075C	8.45	1.00	5.00	5.96	5	3.5
1"	NPSC	40	CT-897-100C	CT-896-100C	13.24	1.52	7.00	10.16	9	12
1 1/4"	NPSC	60	CT-897-125C	CT-896-125C	13.24	1.52	7.00	10.16	9	12
1 1/2"	NPSC	80	CT-897-150C	CT-896-150C	13.24	1.52	7.00	10.16	9	11
2"	NPSC	175	CT-851-200C	CT-850-200C	12.77	1.98	9.00	8.97	9	16
2 1/2"	FNPT	210	CT-851-250C	CT-850-250C	12.77	1.98	9.36	8.97	9	15
3"	FNPT	300	CT-235P-300C	CT-234P-300C	18.60	2.70	13.50	12.92	10	30
4"	FNPT	520	CT-235P-400C	CT-234P-400C	18.60	2.70	13.50	12.92	10	26
6"	FNPT	1100	CT-275P-600C	CT-274P-600C	18.20	3.89	19.00	9.82	10	45

Note: CT 2" & 2 1/2" models: element seals on the base of the housing.

Inline See-Through Vacuum Filters

ST Series 3/4" - 6"

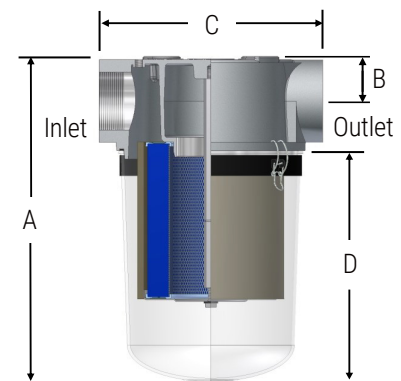
Solberg's ST Series is designed to offer exceptional performance across a broad range of vacuum applications. The transparent housing offers users the ability to inspect filter elements without disassembling the unit. Ideal for rough-medium vacuum service, this compact design offers a smaller service footprint, allowing for easy access and quick maintenance in tight spaces. Multiple filter element media options offer superior protection and longevity for the vacuum system.

Features

- Easy maintenance due to see-through bucket
- Compact design for space restrictions; min. service area
- Inlet above element for extended element life & maintenance intervals
- Corrosive resistant cast aluminum construction
- T-style design minimizes piping requirements
- Shatter-resistant polycarbonate drop down bucket

Technical Specifications

- Vacuum Rating: medium vacuum service
- 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



Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C	D		
3/4"	NPSC	25	ST-8451-075C	ST-8450-075C	8.38	1.00	5.00	6.13	5	3
1"	NPSC	40	ST-897-100C	ST-896-100C	13.45	1.52	7.00	10.38	9	11
1 1/4"	NPSC	60	ST-897-125C	ST-896-125C	13.45	1.52	7.00	10.38	9	11
1 1/2"	NPSC	80	ST-897-150C	ST-896-150C	13.45	1.52	7.00	10.38	9	10
2"	NPSC	175	ST-851/1-200C	ST-850/1-200C	16.22	1.98	9.00	12.42	9	15
2 1/2"	FNPT	210	ST-851/1-250C	ST-850/1-250C	16.22	1.98	9.36	12.42	9	14
3"	FNPT	300	ST-235P-300C	ST-234P-300C	19.73	2.70	13.50	14.04	10	29
4"	FNPT	520	ST-235P-400C	ST-234P-400C	19.73	2.70	13.50	14.04	10	25
6"	FNPT	1100	ST-275P-600C	ST-274P-600C	28.87	3.90	19.00	21.25	10	72
6"	FNPT	1500	ST-375P-600C	ST-374P-600C	28.87	3.90	19.00	21.25	15	75

Extreme Duty Vacuum Filters

SpinMeister® ST Series 2" - 6"

Vacuum Process
Filtration & Separation

Overview

Centrifugal force from intake air causes particulate to separate from the air stream, forcing it to the outer cover perimeter and out through the discharge port. The SpinMeister® Precleaner eliminates large particles from the 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 holding capacity
- Clip release band for easy maintenance

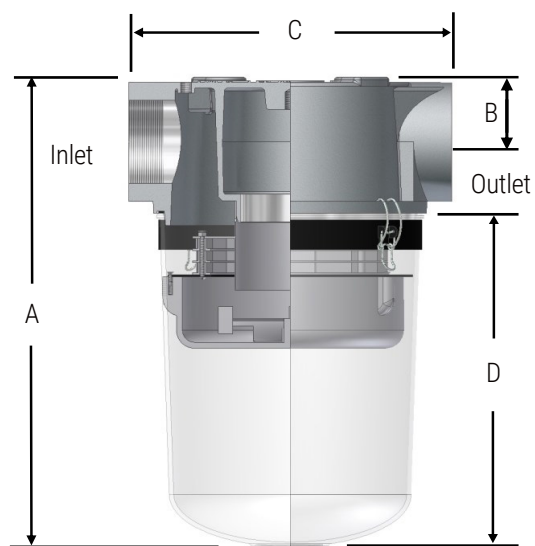
Technical Specifications

- Vacuum Rating: rough vacuum service

Options

- SpinMeister® available in polished aluminum
- Various media
- Extended capacity (select models)
- Pressure drop gauge
- Carbon steel bucket versions
- Taps for gauges and mounting brackets





Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)
Size	Type			A	B	C	D	
2"	NPSC	40-110	ST-SML235-200C	16.22	1.98	9.00	12.42	4
2 1/2"	FNPT	40-110	ST-SML235-250C	16.22	1.98	9.36	12.42	4
3"	FNPT	100-200	ST-SML345-300C	19.73	2.70	13.50	14.04	6
3"	FNPT	200-450	ST-SML445-300C	19.73	2.70	13.50	14.04	8
4"	FNPT	100-200	ST-SML345-400C	19.73	2.70	13.50	14.04	6
4"	FNPT	200-450	ST-SML445-400C	19.73	2.70	13.50	14.04	8
6"	FNPT	450-900	ST-SM6-600C	28.30	3.90	19.00	19.92	8

Reverse Pulse Vacuum Filters

RST Series 1" - 6"

Overview

The reverse pulse RST Series incorporates split second bursts of pressurized air to create a powerful shock wave that cleans the filter element and extends its service life. Quick pulses cause particulate sitting on the element's pleated surface area to release and collect in the drop out area of the filter housing. Pulses can be repeated as required and can occur during a running process because the split second air bursts have minimal effect on the process pressure. (Optional pulse kit is available.)

Benefits

- Superior level of filtration offers enhanced equipment protection (PTFE style elements)
- Extends the life of filter element, reducing overall cost
- See-through design allows for instant visual inspection

Features

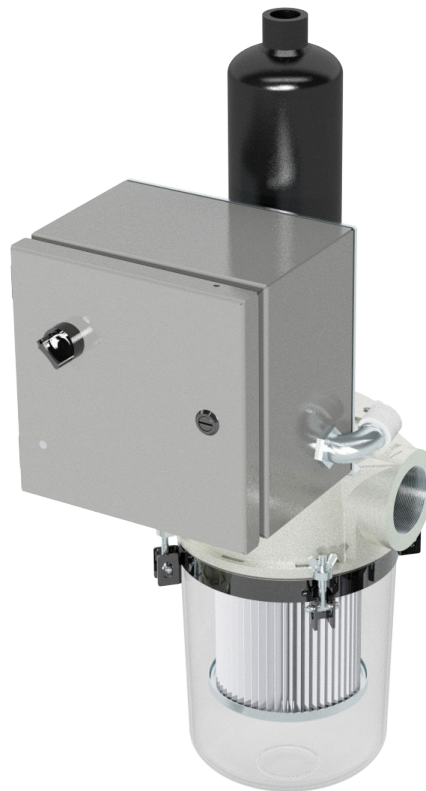
- See-through bucket made from shatter resistant polycarbonate material
- High tensile strength permits dimensional stability
- Integrated inlet baffle
- Tap on center of cast head for optional reverse pulse kit air pulse rod: 3/8" FNPT tap on 1" sizes, 3/4" FNPT tap on 2 - 4" sizes
- Sturdy hook clamps secure bucket to head

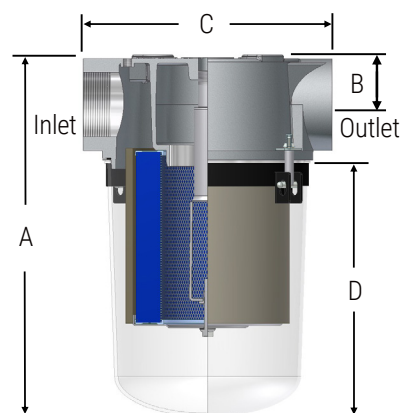
Technical Specifications

- Vacuum rating: medium vacuum service
- PTFE media: 99.5% efficiency to 0.3 micron
- Temperature ratings:
 - Complete assembly: max 220°F (104°C)
 - See-through bucket only: max 257°F (125°C)

Options

- Carbon steel bucket (RCT)
- Extended bucket (RSTD)
- Alternate media
- Taps for gauges and mounting brackets





Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
Size	Type			A	B	C	D		
2"	NPSC	66	RST-TF851/1-200C	16.22	1.98	9.00	12.42	9"	15
2 1/2"	FNPT	66	RST-TF851/1-250C	16.22	1.98	9.36	12.42	9"	14
3"	FNPT	154	RST-TF235-300C	20.73	2.70	13.50	14.04	10"	30
4"	FNPT	154	RST-TF235-400C	20.60	2.70	13.50	14.04	10"	25
6"	FNPT	280	RST-TF275-600C	30.50	3.90	19.00	19.92	10"	75

Reverse Pulse Kit Option

The reverse pulse kit assembly is designed to hold an appropriate volume of pressurized air close to the housing which improves the effectiveness of the pulse. The compact assembly includes an accumulator vessel and solenoid valve that can be easily mounted to the RST filter series.

Inlet / Outlet Size Range	Kit Part Number
2" - 2 1/2"	RST-200-EKIT-120
3" - 4"	RST-400-EKIT-120
6"	RST-600-EKIT-120

Kit Features

- Typical accumulator capacity 1.32 gallons
- Maximum working pressure of accumulator vessel: 90 PSI*
- Solenoid valve: 24V DC, brass material with NBR seal

Kit Benefits

- Easily mounts to RST series housings
- Compact space saving design
- Improved pulse effectiveness

* 90 PSI rating only applies to accumulator tank. Internal housing pressure not to exceed 7.25 PSI.

Medical Vacuum Bacterial Filters

HV Series 3/4" - 6"

Overview

Solberg's HV Series bacterial filters for medical vacuum service are designed to offer industry leading pressure drop performance and meet demanding filtration requirements in accordance with U.S. and global medical vacuum standards:

ISO 7396-1:2016 Medical gas pipeline systems – Part 1 Pipeline systems for compressed medical gases and vacuum

NFPA 99:2018 Health Care Facilities Code

Health Technical Memorandum (HTM) 02-01 Medical Gas Pipeline Systems

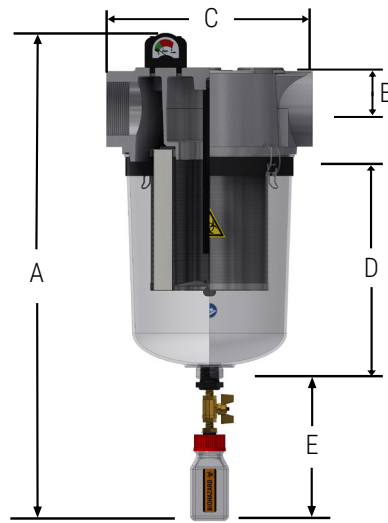
With its exclusive transparent design, pleated element construction, maximized element surface area, and minimal pressure drop, the HV Series offers an innovative, high quality, and long lasting solution that satisfies the strict requirements of the medical industry.

Third party verification ensures Solberg's elements meet ISO 45 H classification as defined in ISO 29463-1. The HV Series achieves a total retention rate greater than 99.999% at 0.1 microns offering a very high level of protection in medical/hospital, dental, and laboratory applications.

Benefits

- Minimizes microbial contamination of vacuum pump oil and surrounding environment
- Visual pressure differential indication allows for real time monitoring and maintenance checks of the filter
- Biohazard labels improve safety and awareness at facility
- Increased surface area and large collection area maximizes contaminant holding capacity
- Low pressure drop design for reduced energy consumption over time
- Corrosion resistant and heavy duty materials of construction offer high performance and extended service life
- Isolation valve allows for quick and easy change out of glass flask for sterilization or disposal
- Equipped with pressure differential gauge for visual indication to service filter
- Easily incorporated into the medical gas distribution system piping allowing for a CE marking according to the Medical Devices Directive 93/42/EC
- High efficiency elements tested and verified to meet EN1822-1 filter class H14 requirements
- Meets NFPA 99 requirements for vacuum filtration
- >99.995% efficient as specified in HTM 02-01 and tested in accordance with BS 3928:1969 (Sodium Chloride Flame Test)





Inlet / Outlet		Assembly Part Number	Dimensions (inches)					Suggested Service Ht. (inches)	Approx. Weight (lbs)	Rarified Air Flow Rating at 19" HgV	Air Flow at Atmosphere: Free Air Aspirated (FAA)
Size	Type	Paper	A	B	C	D	E				
3/4"	NPSC	HV-UL8450-075C	17.53	1.00	5.00	6.87	7.26	5	5	36 CFM	13 CFM
1"	NPSC	HV-UL896-100C	25.81	1.52	7.00	11.09	9.36	9	15	132 CFM	48 CFM
1 1/4"	NPSC	HV-UL896-125C	25.81	1.52	7.00	11.09	9.36	9	15	132 CFM	48 CFM
1 1/2"	NPSC	HV-UL896-150C	25.81	1.52	7.00	11.09	9.36	9	15	132 CFM	48 CFM
2"	NPSC	HV-UL850/1-200C	28.49	2.01	9.00	13.05	9.36	9	19	353 CFM	129 CFM
2 1/2"	FNPT	HV-UL850/1-250C	28.49	2.01	9.36	13.05	9.36	9	19	353 CFM	129 CFM
3"	FNPT	HV-UL234/2G-300C	32.11	2.70	13.50	14.78	9.36	10	30	595 CFM	217 CFM
4"	FNPT	HV-UL234/2G-400C	32.11	2.70	13.50	14.78	9.36	10	27	595 CFM	217 CFM
6"	FNPT	HV-UL374/2-600C	39.56	3.89	19.00	20.29	8.61	15	76	1755 CFM	673 CFM

Technical Specifications

- Operating pressure range: atmospheric to full vacuum
- Particulate removal > 99.999% efficiency at 0.1 microns
- Meets ISO 29463-1 requirements for ISO 45H class filtration
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Corrosive resistant aluminum cast head
- Shatter resistant polycarbonate collection area
- Glass drain flask for easy removal and sterilization

See-Through Liquid Separators

STS Series 1" - 6"

Overview

Inlet air with potentially harmful liquid and large particulate enters the housing and is separated by a baffle mechanism and directional air flow changes. The larger particles and liquid drop down and collect at the bottom of the separator. The float capsule within the separator screen rises with the liquid level until max capacity and limits the flow, thereby protecting the pump from damage.

Benefits

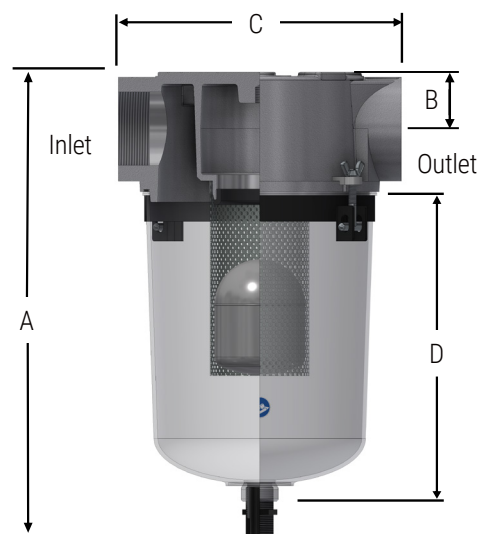
- Minimize the likelihood of damage to vacuum valves and pumps from liquid
- Protect installed equipment from liquid contamination by retrofitting STS separator
- Easy visual inspection with see-through housing
- Reduce piping costs with T-style configuration
- Compact design for space restricted work areas

Technical Specifications

- Compact design for space restrictions; min. service area
- Corrosive resistant cast aluminum top with machined connections and integrated baffle design
- Shatter-resistant polycarbonate drop down bucket
- Stainless steel float capsule for emergency shut-off
- Stainless steel perforated float tube (SS expanded metal on 1" to 1 1/2")
- Clamp style swing bolts on 3", 4", & 6" standard
- 1" drain
- Vacuum Rating: medium vacuum service (33 to 1.3×10^{-3} mbar)
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)*

*Temperature for materials only.





Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)	Holding Capacity (gallons)
Size	Type			A	B	C	D		
3/4"	NPSC	18	STS-075C	10.84	1.00	5.00	6.87	5	0.15
1"	NPSC	25	STS-100C	15.89	1.52	7.00	11.09	10	0.4
1 1/4"	NPSC	40	STS-125C	15.89	1.52	7.00	11.09	10	0.4
1 1/2"	NPSC	60	STS-150C	15.89	1.52	7.00	11.09	10	0.4
2"	NPSC	105	STS-200C	18.55	1.98	9.00	13.05	8	1
2 1/2"	FNPT	115	STS-250C	18.55	1.98	9.36	13.05	8	1
3"	FNPT	240	STS-300C	22.20	2.70	13.50	14.78	10	2
4"	FNPT	250	STS-400C	22.20	2.70	13.50	14.78	10	2
6"	FNPT	550	STS-600C	30.55	3.89	19.00	22.16	15	4

Compact Liquid Separator & Filter

LRS Series 3/4" - 6"

Overview

The inlet air, with liquids and particulate that are potentially harmful to the vacuum pump, enters the highly efficient vacuum filter and is separated by an integrated baffle. The larger particles and liquid drop down to the large capacity lower chamber. The lower chamber has significant liquid/slurry holding capacity. The final stage has a replaceable filter element for particulate that is 99+% efficient before it reaches the vacuum pump.

Benefits

- Simplified vacuum package: 2 functions in 1 (liquid separator & inlet air filter)
- Multistage filtration & separation
- Protects pump from harmful liquids that break down lubricating/sealing oil
- Lower cost than individual separator and filter
- Significant liquid/slurry holding capacity
- Prevents emulsification of oil in oil lubricated systems
- Reduce footprint with compact design

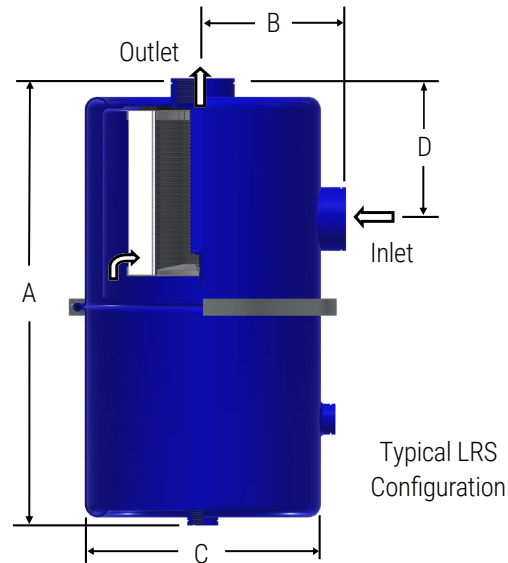
Features

- Corrosive resistant blue powder coat carbon steel
- Integrated baffle
- Expansion chamber
- 1/4" inlet/outlet taps (select models)
- 1" NPSC drain and sight port

Technical Specifications

- Vacuum Rating: rough to medium vacuum service
- Filter change out differential: 15-20" H₂O over initial ΔP
- Polyester: 99%+ particulate removal efficiency to 5 micron





Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)	Holding Capacity (gallons)
Size	Type			A	B	C	D		
3/4"	NPSC	60	LRS-19-075HC	17.74	4.59	9.05	3.00	5	1
1"	NPSC	85	LRS-19-100HC	17.88	4.59	9.05	3.00	5	1
1 1/4"	NPSC	85	LRS-19-125HC	17.93	4.59	9.05	3.00	5	1
1 1/2"	NPSC	100	LRS-19-150HC	17.96	4.63	8.93	3.53	5	1
2"	NPSC	135	LRS-237-200HC	22.19	6.75	13.61	6.62	9	2.4
2 1/2"	NPSC	195	LRS-237-250HC	22.72	7.28	13.61	7.15	9	2.4
3"	FNPT	300	LRS-237-300HC	22.75	7.31	13.61	7.18	9	2.4
4"	FLG	520	LRS-275-400F	23.38	11.50	17.16	8.00	10	4.5
6"	FLG	830	LRS-275-600F	39.38	12.00	17.16	9.00	10	10.5

Options ATEX Available

- PED, ASME rated vessels
- Stainless steel construction & nonstandard finishes
- Specialty filter media
- Extended bucket for additional holding capacity
- Preseparator stainless steel demister
- Vacuum gauges
- Adjustable support legs
- For larger flows, see our Liquid Knockout Separator Series

Multistage Liquid Knockout Tank & Filter

TKO Series

Overview

Solberg's Knockout Tank series provides heavy duty multistage liquid and particulate separators to protect vacuum pumps from harmful contaminants that destroy lubricating or seal oil. This turn-key solution for a majority of liquid removal applications is readily available and easily configured. Multiple separator pack options are available and adjustable legs are standard for easy installation. Sustain your vacuum levels and prevent emulsification in oil lubricated systems with the Knockout series.

Benefits

- Maximum pump protection with multi-stage filtration & separation
- Reduce costs with a singular modular design
- Housings may be used in a variety of conditions with multiple media pack options available
- Minimize frequent and costly maintenance checks with large liquid/slurry holding chamber

Features

- (2) 1" sight glass ports with sight glasses (low/high level)
- 1" upper chamber drain port
- ¼" plugged differential ports on inlet and outlet
- ½" plugged equalization port for use with pneumatic drain system
- 6 position adjustable legs, pre drilled to accept pneumatic drain system option
- Predrilled floor anchor holes
- Nameplate
- 2" drain with brass ball valve included
- Lifting lugs on the tank body

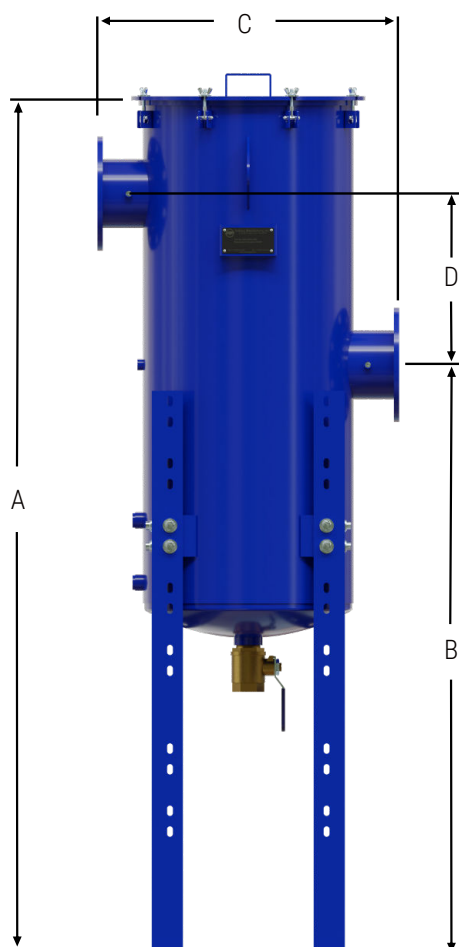
Technical Specifications

- Service range: up to 14.7 PSI absolute
- Polyester element: 99%+ removal efficiency to 1 or 5 micron



Options

- Flange adapters
- Available with either wire mesh element or demister pad
- Custom tanks denoted with SRS prefix



ANSI Flange Size		Pump Max Flow Rating (SCFM)							
		175	300	400	520	700	1100	1800	2900
3"	Demister								
	Wire Mesh								
4"	Demister								
	Wire Mesh								
6"	Demister								
	Wire Mesh								
8"	Demister								
	Wire Mesh								
10"	Demister								
	Wire Mesh								

Green	Suitable for use in this flow range
Yellow	Contact Solberg for review of application
Red	Not recommended for use at listed flowrate

ANSI Flange Size	Assembly Flow Range (SCFM)	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)		Holding Capacity (gallons)	Upper Element Part No.	Lower Element Part No.
			A*	B*	C	D	Upper	Lower			
3"	175 - 300	TK0300F	78.25	52.75	20.00	18.00	10	26	5	235™ / 235Z	230S / DM8
4"	300 - 520	TK0400F	78.25	52.75	23.50	18.00	10	28	9	245™ / 245Z	234S / DM12
6"	520 - 700	TK0600F	82.25	56.75	29.00	16.50	15	33	15	375™ / 375Z	274S / DM16
8"	700 - 1800	TK0800F	82.25	56.75	34.63	16.50	15	33	24	377™ / 377Z	276S / DM20
10"	1100 - 2900	TK01000F	93.25	63.75	40.00	17.00	15	40	40	385™ / 385Z	384S / DM26

*Height can be adjusted up or down in 6" increments to a maximum of 12" in either direction.

Note: Vacuum level, temperature, and materials being separated can significantly affect performance. For any conditions outside of those listed, please contact factory to discuss your application specifics.

Pneumatic Drain System

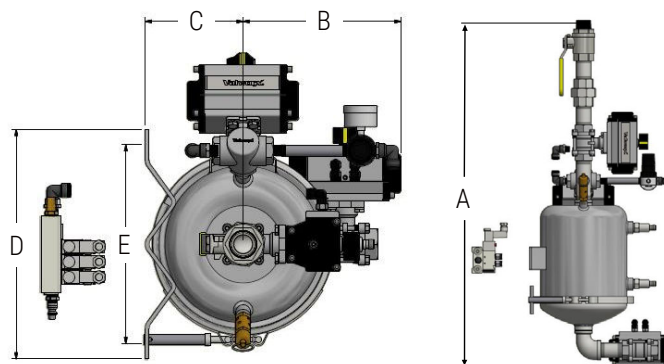
DSP Series

Overview

The Pneumatic Drain System allows Solberg Liquid Separator units to be drained during the process with minimal vacuum level fluctuations. The liquid removed by the liquid separator flows under gravity into the drain pot. When the high level sensor detects the liquid, the drain pot is isolated from the liquid separator by the upper pneumatic ball valve. The bleed in valve then opens along with the bottom drain valve, allowing the liquid to drain using compressed air. When the lower level sensor triggers, the bleed in valve closes along with the bottom drain valve and the upper pneumatic ball valve opens to allow the process to repeat.

Features

- Durable carbon steel construction
- Electronic level sensors which can be adjusted for sensitivity
- Bracket supports the system on a frame or wall
- Pneumatic ball valves in stainless steel, 24 VDC, operated by compressed air (ranges from 80-115 PSIG)
- Removable bottom section for easy maintenance
- Electrical controls are UL 508A listed



Inlet / Outlet		Assembly Part Number	Dimensions (inches)					Weight (lbs)	Holding Capacity (gallons)
Size	Type		A	B	C	D	E		
1"	NPSC	DSP-L005-X-100HC *	30.78	7.76	4.80	11.25	9.76	37	1.3

*For gravity drain package (DSG Series), contact factory for more information. X will vary based on fluid captured.

Multistage Vapor Condensers

JRS Series 2"-8"

Overview

JRS Series vacuum filter systems are designed to protect equipment from harmful vapors and liquids that can break down pump oils and destroy a pump's inner workings. Vapor removal is accomplished through transitioning a substance from a gaseous state to a liquid or solid state and collecting any condensed material that accumulates.

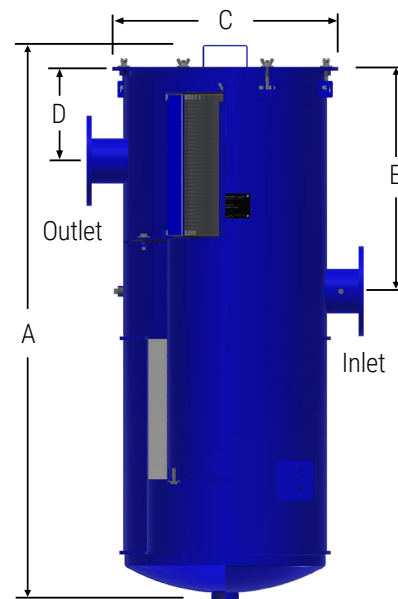
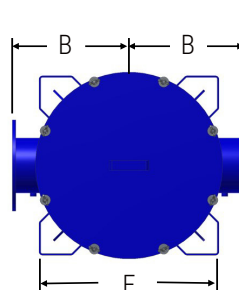
Features

- Removable heat exchanger fin pack for ease of cleaning and long lasting optimum performance
- Coolant flask system
- Demister
- Corrosive resistant blue powder coat carbon steel
- Coolant inlet and outlet ports
- 2" NPSC drain port

Options



- ASME, PED rated vessels
- Stainless steel construction
- Ports, gauges, leg supports
- Davit arm
- For removable or unremovable bottom, please contact Solberg



Flange Inlet / Outlet	Assembly Part Number	Dimensions (inches)						Suggested Service Height (inches)
		A	B	C	D	E	F	
3"	JRS-CAC245-300F	57.47	12.00	18.50	7.00	24.00	14.85	10
4"	JRS-CAC275-400F	61.95	14.00	20.25	8.00	26.00	22.09	10
5"	JRS-CAC377-500F	59.38	15.75	24.00	9.00	22.00	20.98	15
6"	JRS-CAC385-600F	73.99	20.00	30.00	12.50	31.50	27.04	15
8"	JRS-CAC485-800F	75.17	20.00	33.00	14.50	33.50	27.04	22

Compact Vapor Condensers

JCT/JST Series 2"-6"

JST & JCT Series vapor condensers are designed to protect equipment from harmful vapors and liquids that can break down pump oils and harm a pump's inner workings. Vapor removal is accomplished through transitioning a substance from a gaseous state to a liquid or solid state and collecting any condensed material that accumulates.

Features

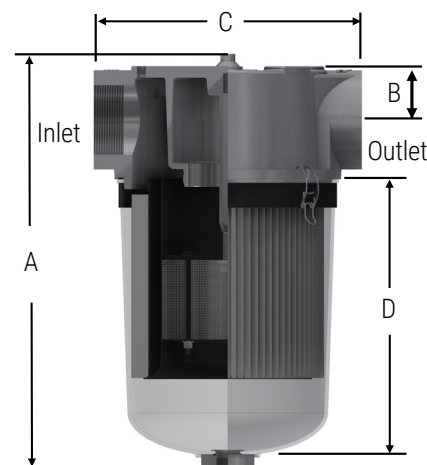
- Removable heat exchanger fin pack for ease of cleaning and long lasting optimum performance
- Coolant flask system
- Stainless steel demister pad
- Compact housing for minimal footprint
- Coolant inlet and outlet ports
- 1" drainport
- JST Series: Durable see-through polycarbonate bucket
- JCT Series: Corrosive resistant powder coat carbon steel bucket

Options



- ATEX available for JCT versions only
- Additional ports
- Vacuum gauge
- Support frame
- Extended capacity (select models)
- Taps for gauges and mounting brackets

Inlet / Outlet		Assembly Part Number	Dimensions (inches)				Suggested Service Ht. (inches)
Size	Type		A	B	C	D	
2"	NPSC	JST-C2048-200C	19.26	1.98	9.00	13.05	11
2 1/2"	FNPT	JST-C2048-250C	19.26	1.98	9.36	13.05	11
3"	FNPT	JST-C2081-300C	22.81	2.70	13.50	14.78	11
4"	FNPT	JST-C2081-400C	22.81	2.72	13.50	14.78	11
2"	NPSC	JCT-C2048-200C	20.58	1.98	9.00	16.09	11
2 1/2"	FNPT	JCT-C2048-250C	20.58	1.98	9.36	16.09	11
3"	FNPT	JCT-C2081-300C	19.91	2.70	13.50	13.48	11
4"	FNPT	JCT-C2081-400C	19.85	2.70	13.50	13.48	11
6"	FNPT	JCT-C3226-600C	29.85	3.89	19.00	20.75	11



Did you know?

Our oil mist discharge filters help prevent oil mist from being emitted into the environment around industrial equipment. The oil can be returned to the equipment to reduce oil consumption and pollution!

All of our products protect the environment, protect equipment, and help keep industrial working conditions safe.



Vacuum Pump Discharge & Air/Oil Separation

Technical Data	3-2
Discharge Oil Mist Filters: HDL Series	3-4
Discharge Oil Mist Filters: EF, EFDB, EE Series	3-6
Discharge Oil Mist & Odor Filters: DSV, DEE Series	3-9
Hydraulic Breathers: HB Series	3-10
Discharge Silencer with Filter: EFS Series	3-12



Technical Data

Oil Mist Discharge Filters

Applications & Equipment

- Vacuum Pumps & Systems
- Vacuum Furnaces & Ovens
- Vacuum Freeze Drying & Outgassing
- Vacuum Metalizing
- Vacuum Drying
- Vacuum Coating
- Custom Vacuum Pumping Systems
- Food Processing & Packaging
- Industrial Vacuum Processes
- Pressure Unloading Vents on Piston Compressors
- Medical Work Areas
- Industrial Aerosol Scrubbing
- Heat Treating Equipment
- Vacuum Hold Down
- Routing Equipment
- Laboratory Industry
- Leak Detectors
- Autoclaving, Sterilization
- Reciprocating Engines
- Crankcase Ventilation Systems

Identification

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

- Assembly Model #
- Replacement Element #

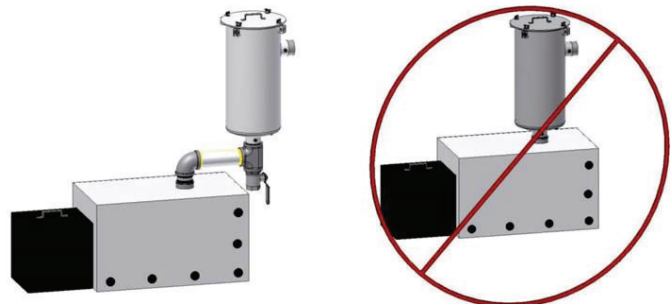
The part number designates the filter type, the element configuration and housing connection size. For example, the following part number identifies the filter as being an "HDL" design filter with a "PSG344/2" coalescing element, and 3" MNPT connection size.

HDL-PSG344/2-300



Installation & Maintenance

Mounting orientation is typically top-up vertical, so draining can occur. See figure below for proper installation method. Request the appropriate maintenance manual from your Solberg representative or through www.solbergmfg.com.



General

Coalescing air/oil separation technology is highly effective at capturing oil mist from the exhaust of an oil sealed/lubricated vacuum pump and keeping surrounding work environments clean and safe. Each pump technology produces its own specific oil discharge characteristics and requires the appropriate housing and element configuration to optimize performance.

Critical factors that influence performance of a coalescing air/oil separator include quality of the oil, equipment type, oil type and viscosity, challenge rate, process gas characteristics, operating temperature, operating vacuum level, and maximum air flow rating of the pump. Because of these variables, it is always best to work with Solberg personnel when selecting and sizing a vacuum pump discharge filter. However, Solberg's standard product lines will perform well in most general duty applications. The following guidelines will help when selecting a standard product.

Filter Selection Guidelines

- #1:** Protect the pump with adequate inlet filtration. Contaminants such as particulates, water, and solvents can damage the pump internals and significantly reduce the effectiveness of the discharge filter.
- #2:** Identify the type of vacuum pump oil being used. Solberg's standard coalescing technology works well with most commercially available vacuum pump oils across a broad range of viscosities. Generally, maximum coalescing effectiveness is achieved with temperatures at the inlet of the filter: at or below 160°F (~70°C) for mineral oils, at or below 180°F (~82°C) for synthetics. For best results, consult with the factory and provide information on operating temperature and viscosity/grade of oil prior to making any filter selection.
- #3:** Determine the filter size based on the flow rating of the pump at atmospheric conditions, not the connection size. An undersized coalescing filter will cause increased back pressure and negatively affect pump performance.
- #4:** To capture oil, the coalescing element must receive the oil challenge in an aerosol form. If the oil is in a vapor state, it will pass through the coalescing media. Generally, the coalescing technology will perform more effectively at lower operating temperatures. In many cases, adding distance between the pump and the filter will help to lower the air stream temperature and improve coalescing effectiveness.
- #5:** Install in external environments where temperatures will not fall below freezing or exceed 100°F (37°C). Creating distance between the pump and the exhaust filter is desirable, however, avoid installing long pipe runs and horizontal sections where condensed oil can accumulate. When possible, install a drip-leg to gather any excess oil within the piping.
- #6:** Drain the filter and drip-leg to ensure your vacuum system performs at optimal levels. If the system is not drained regularly, issues such as high back pressure and unsafe working conditions can occur.

Once as much information as possible has been obtained, send the data to Solberg for review, review our data sheets, or visit our website, www.solbergmfg.com.



Discharge Oil Mist Filters

HDL Series 1" - 2 1/2"

Benefits

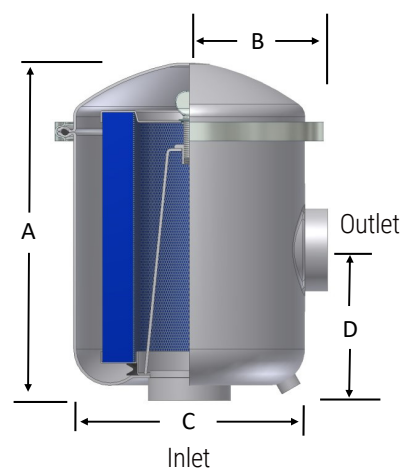
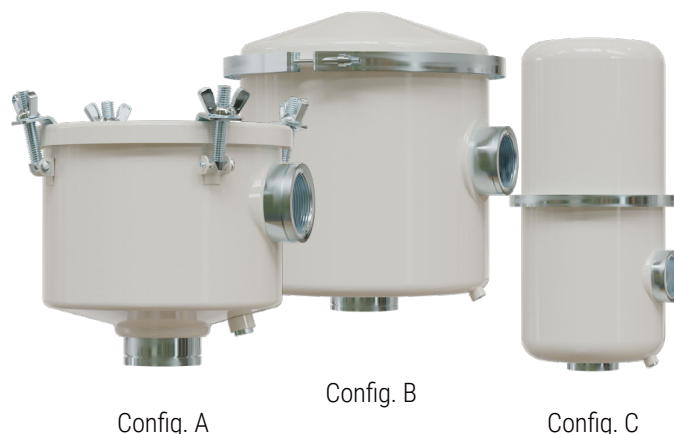
- Easy field maintenance
- Pleated filter element provides increased surface area for low back pressure separation of ultra-fine oil mists
- Waste oil can be recycled

Features

- Captures oil fog, mist or aerosol from exhaust of oil sealed vacuum pumps
- Seamless drawn housings
- O-ring sealed housings
- Corrosive resistant white powder coat carbon steel
- Discharge baffle
- 1/4" NPSC for external drain

Technical Specifications

- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) up to 180°F (80°C)
- Mounted vertically
- Pressure rating: 5 PSI



Inlet / Outlet		Assembly SCFM Rating	Housing Config.	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
Size	Type				A	B	C	D		
1"	NPSC	40	A	HDL-PSG848-100KC	7.61	4.13	7.35	4.25	5	5
1 1/4"	NPSC	50	A	HDL-PSG848-125KC	7.62	4.13	7.35	4.25	5	5
1 1/2"	NPSC	50	A	HDL-PSG848-150KC	7.64	4.16	7.35	4.28	5	5
2"	NPSC	125	B	HDL-PSG850/1-200KC	11.26	4.59	8.93	5.00	9	15
2"	NPSC	175	C	HDL-PSG860/1-200KC	17.42	4.59	8.93	5.00	15	30
2 1/2"	FNPT	250	B	HDL-PSG244/2-250C	16.07	8.82	13.61	8.73	10	35

Note: 2 1/2" housing has 1/4" NPSC taps standard on inlet and outlet.

Discharge Oil Mist Filters

HDL Series 3" - 8"

Benefits

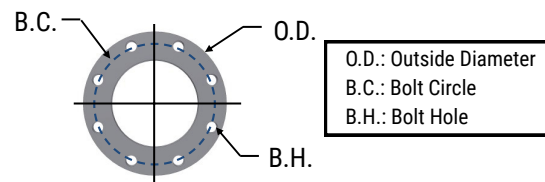
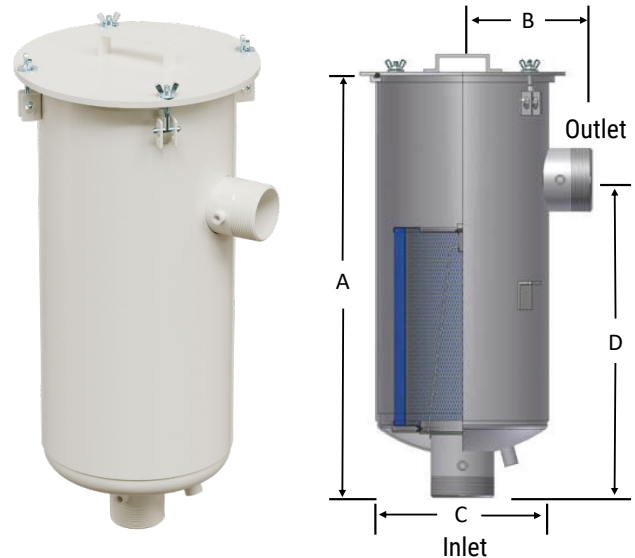
- Large oil holding capacity and easy field maintenance
- Pleated filter element provides increased surface area for low back pressure separation of ultra-fine oil mists
- Multiple separation stages in single element design
- Waste oil can be recycled

Features

- Captures oil fog, mist or aerosol from exhaust of oil sealed vacuum pumps
- O-ring sealed housings
- Corrosive resistant white powder coat carbon steel
- 1/2" NPSC for external drain

Technical Specifications

- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) up to 180°F (80°C)
- Mounted vertically
- Pressure rating: 14.5 PSI



Vacuum Pump Discharge
& Air/Oil Separation



125/150# Pattern Flange	Dimensions (inches)			Number of Holes	Flange Thickness (inches)
	O.D.	B.C.	B.H.		
8"	13.5	11.75	0.88	8	0.5

Inlet / Outlet	Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)	Approx. Weight (lbs)
			A	B	C	D		
3" MNPT	300	HDL-PSG344/2-300	29.50	9.00	12.00	22.50	15	75
4" MNPT	500	HDL-PSG344/2-400	29.34	9.00	12.00	22.50	15	78
5" MNPT	800	HDL-PSG474/2-500	36.50	11.00	16.00	29.50	22	160
6" MNPT	1100	HDL-PSG474/2-600	37.50	12.00	16.00	30.50	22	160
8" Flange	1800	HDL-PSG476-800F	37.25	14.00	20.00	25.50	22	180

Discharge Oil Mist Filters (Open)

EF Series 1/2" - 1 3/4", ISO FLG

Features

- Captures oil fog, mist or aerosol from discharge of oil sealed vacuum pumps
- Steel construction with nickel plated finish
- Easy thumb screw access for element maintenance
- Oil run-off from the filter returns to the pump

Technical Specifications

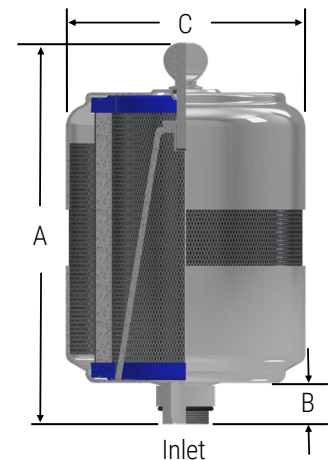
- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) to 180°F (80°C)

Options

- Additional ISO flange connections
- Non-standard connection styles



Connection		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
Size	Type			A	B	C		
1/2"	MNPT	4.5	EF-FG5-050	4.47	0.89	2.50	4	0.6
1/2"	MNPT	7	EF-FG7-050	5.60	0.89	2.50	5	1.8
3/4"	3/4-20 UNEF	4	EF-FG3-077	3.72	1.02	2.50	3	1.2
3/4"	MNPT	4.5	EF-FG5-075	4.68	1.10	2.50	4	0.9
3/4"	MNPT	7	EF-FG7-075	5.80	1.10	2.50	4	1.8
1"	1-20 UNEF	4.5	EF-FG5-103	4.40	0.82	2.50	4	0.7
1"	1-20 UNEF	7	EF-FG7-103	5.53	0.82	2.50	5	0.8
1"	1-20 UNEF	16	EF-FG9-103	6.17	0.82	5.09	5	1.8
1"	1-20 UNEF	24	EF-FG10-103	8.14	0.88	5.09	7	7
1 3/4"	1 3/4-20 UNEF	24	EF-FG10-177	9.26	2.00	5.09	7	3.5
16 mm	ISO Flange	4.5	EF-FG5-NW16	4.46	0.88	2.50	4	0.6
25 mm	ISO Flange	4.5	EF-FG5-NW2516	4.46	0.88	2.50	4	1.4
25 mm	ISO Flange	24	EF-FG10-NW25	9.43	2.11	5.09	7	3.5
40 mm	ISO Flange	44	EF-FG20-NW40	7.91	2.09	10.25	5	7



Discharge Oil Mist Filters (Internal Drain)

EFDB Series

Features

- Captures oil fog, mist or aerosol from exhaust of oil sealed vacuum pumps
- Auto drain back design to recycle oil mist:
 - Internal drain returns oil back into pump
 - Prevents oil blow back with auto sealing
 - Enclosed housing allows clean environment
- Steel construction with nickel plated finish
- Seamless drawn housings
- Easy thumb screw access for element maintenance
- Oil run off from the filter returns to the pump

Options

- Additional ISO flange connections
- Non-standard connection styles

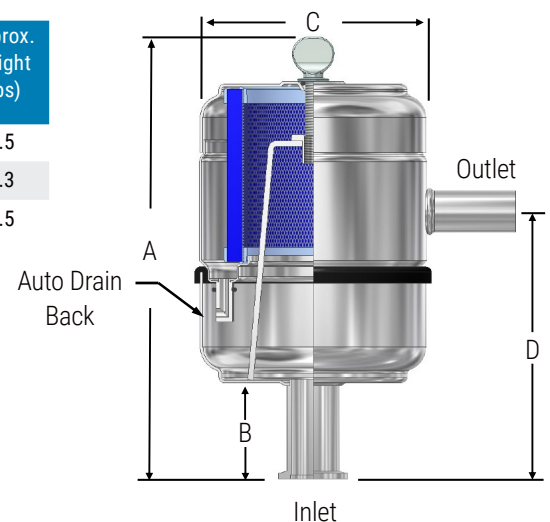
Technical Specifications

- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) to 180°F (80°C)

Inlet Size/Type	Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Approx. Weight (lbs)
			A	B	C	D	
25 mm ISO Flange	16	EFDB-FG9-NW25	10.04	2.17	5.25	6.02	2.5
1-20 UNEF	16	EFDB-FG9-103	8.67	0.82	5.25	4.73	2.3
1 3/4 - 20 UNEF	24	EFDB-FG11-177	10.60	2.00	6.25	6.92	2.5



Vacuum Pump Discharge
& Air/Oil Separation



Discharge Oil Mist Filters (External Drain)

EE Series

Benefits

- Compact, low profile design
- Easy field maintenance

Features

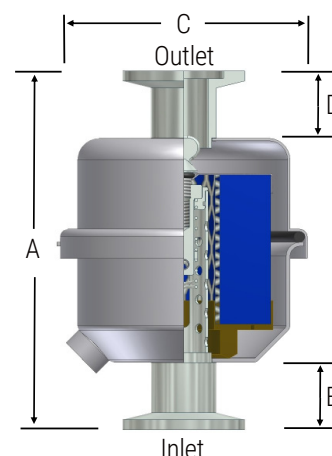
- Captures oil fog, mist or aerosol from discharge of oil sealed vacuum pumps
- Seamless drawn housings
- Corrosive resistant white powder coat carbon steel
- EE-PSG925 assemblies come standard in zinc nickel finish
- 1/8" external drain

Technical Specifications

- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) to 180°F (80°C)
- Back pressure valve designed to release element at 7.35 PSI differential for pump safety

Options

- Additional ISO flange connections
- Non-standard finishes available



Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)				Suggested Service Height (inches)
Size	Type			A	B	C	D	
3/4" MNPT	1/2" NPSC	8	EE-GL915-075	4.57	1.10	3.20	0.53	3
16 mm ISO Flange	16 mm ISO Flange	8	EE-GL915-NW16	4.69	0.88	3.20	0.87	3
25 mm ISO Flange	25 mm ISO Flange	8	EE-GL915-NW2516	4.69	0.88	3.20	0.87	3
25 mm ISO Flange	25 mm ISO Flange	20	EE-PSG925-NW25	7.34	0.86	5.33	0.86	5

Discharge Oil Mist & Odor Filters

DSV / DEE Series NW16 - NW25

The Solberg DSV is an extremely effective vacuum pump discharge filter that offers two stages of filtration to remove both oil mist and undesirable odors from the pump's exhaust. It offers a compact, straight-through design, with an integrated drain port to easily evacuate any collected contaminants. This innovative two-stage design starts with a proprietary coalescing media that cleans the discharge air by capturing and coalescing oil mist. The oil free air is then directed through an adsorptive activated carbon cartridge to remove any residual vapors or odors. The DSV was designed to be easily disassembled and serviced without the use of tools, allowing for extremely fast filter change-out and minimal downtime.

Technical Specifications

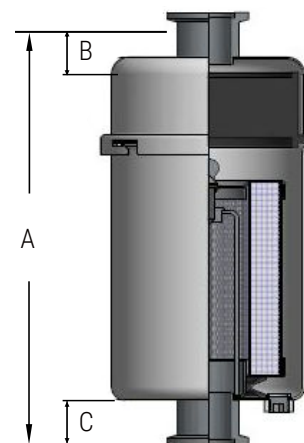
- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 32°F (0°C) to 180°F (80°C)

Features

- Corrosive resistant white powder coat carbon steel
- Primary filter captures and coalesces oil entrained in air stream
- Activated carbon element removes offensive odors generated by the process
- External drain
- DEE Series: back pressure valve at 7.35 PSI differential for pump safety



Vacuum Pump Discharge
& Air/Oil Separation



Connection Size	Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)			Suggested Service Height (inches)	Approx. Weight (lbs)
			A	B	C		
NW16	12	DSV-PSG725/AC10-NW16	8.37	0.88	0.82	4	3
NW25	12	DSV-PSG725/AC10-NW25	8.40	0.87	0.87	4	3
NW16	12	DEE-PSG725/AC10-NW16	8.42	0.88	0.82	4	3
NW25	12	DEE-PSG725/AC10-NW25	8.42	0.87	0.87	4	3

Hydraulic Breathers

HB Series 1/4" - 2"

Overview

Solberg's breathers are designed to protect hydraulic tanks, lube oil reservoirs, gearboxes and other enclosures that need bidirectional venting. Our line of breathers improve flow dynamics, reduce noise, help maintain fluid purity, and minimize oil migration to the surrounding environment. Keep your system free of contaminants and maximize uptime with Solberg's breathers.

Benefits

- Toolless design
- Ease of maintenance
- Equipment protection
- Noise reduction
- Compact designs

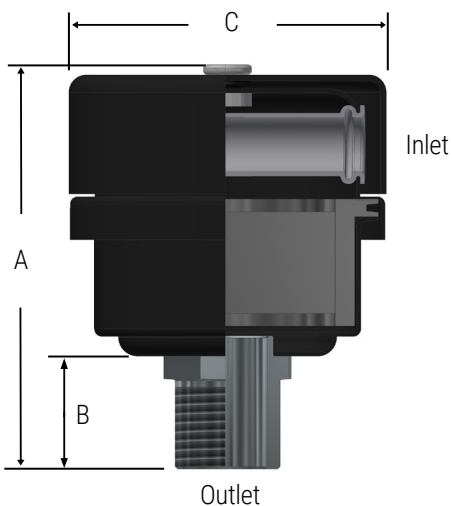
Features

- Integrated gasket seal
- High-efficiency polyester media
- Integrated rain cap and metal inlet tube design minimizes the potential for moisture migration during wash down
- Corrosive resistant black powder coat carbon steel
- Integrated silencing tubes for noise reduction

Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Breather change out differential: 15-20" H₂O over initial ΔP
- Pressure drop graphs available upon request
- Polyester: 99+% removal efficiency
 - Cylindrical style cartridge 5 micron rating
 - Hockey Puck style cartridge 10 micron rating





MNPT Outlet	Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)			Suggested Service Height	Approx. Weight (lbs)
			A	B	C		
1/4"	4	HB-05-025	2.94	0.67	2.50	2"	0.25
3/8"	8	HB-05-038	2.95	0.69	2.50	2"	0.25
3/8"	8	HB-07-038	3.74	0.69	3.25	2"	0.50
1/2"	8	HB-05-050	3.16	0.89	2.50	2"	0.25
1/2"	12	HB-07-050	3.95	0.89	3.25	2"	0.50
1/2"	12	HB-11-050	4.36	0.89	5.10	2"	1.00
3/4"	12	HB-07-075	4.29	1.24	3.25	2"	0.50
3/4"	25	HB-11-075	4.71	1.24	5.10	2"	1.00
1"	35	HB-11-100	4.71	1.24	5.10	2"	1.00
1"	35	HB-15-100	4.47	1.24	6.09	3	2.00
1 1/4"	70	HB-19P-125	7.42	1.63	6.12	5	3.00
1 1/2"	85	HB-19P-150	7.42	1.63	6.12	5	4.00
2"	135	HB-31P-200	8.16	2.25	10.31	5	14.00

Discharge Silencer with Filter

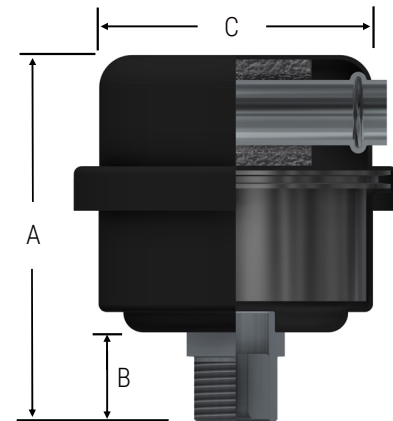
EFS Series 3/8" - 1", NW16 - NW25

Features

- Captures tip seal dust
- Compact design combines both filtration efficiency and noise reduction
- Integrated inlet diffuser optimizes sound attenuation
- Multi-stage noise reducing features, including final stage sound absorbent insert
- Tubular silencing design - tube is positioned to maximize attenuation and air flow while minimizing pressure drop
- Patented high grade element with built-in Butterfly gasket seal which creates a positive seal between housing hemispheres, and a new seal with each element
- Seamless drawn housings
- Corrosive resistant black powder coat carbon steel
- Ability to mount vertically, or horizontally

Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Polyester: 99%+ removal efficiency standard to 10 micron



Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)			Suggested Service Height (inches)	Approx. Weight (lbs)
Size	Type			A	B	C		
3/8"	MNPT	2.1	EFS-05-038/1	2.80	0.69	2.48	2	0.50
1/2"	MNPT	9	EFS-07-050/1	3.77	0.89	3.20	2	0.75
NW16	ISO Flange	9	EFS-07-NW16/1	3.76	0.88	3.20	2	0.75
NW25	ISO Flange	11	EFS-07-NW25/1	3.74	0.86	3.20	2	0.75
1"	MNPT	24	EFS-11-100/2	4.52	1.24	4.15	2	1.25
NW25	ISO Flange	24	EFS-11-NW25/2	4.13	0.86	4.15	2	1.25

Did you know?

The first product invented and launched by our founder, Charlie Solberg Sr. was the FS Series - a tubular filter silencer designed for small air compressors - in 1966.

Since then, Solberg has been serving the global compressor, blower, and fan markets with the supply of air intake filter silencer assemblies. From the very small to the very large, we have a solution to suit your requirements.

Also available in stainless steel and ATEX-certified.



Filter Silencers

Technical Data	4-2
Filter Silencers: FS, PS Series	4-4
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Discharge Silencer Frames for PD Blowers: BBF Series	4-12
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Sound Attenuation and Depressurization: CAM Series Air Mufflers	4-16



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

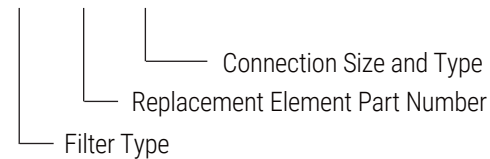
Identification

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

- Assembly Model #
- Replacement Element #

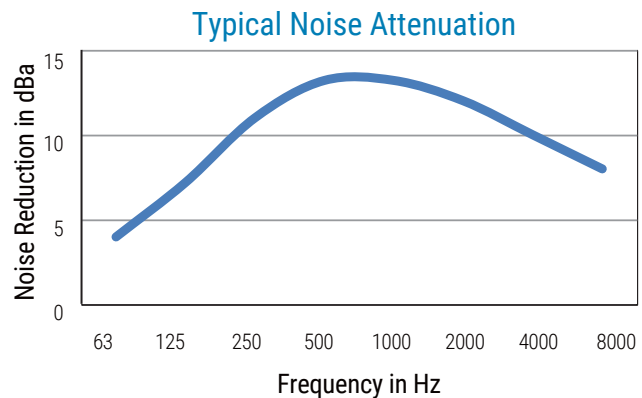
The part number designates the filter type, the element configuration and housing connection size. For example, the following part number identifies the filter as being an “FS” design filter with a “275” element, “P” prefilter and 3” MNPT connection size.

FS-275P-300



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.: MNPT, Flange, NPSC, etc.)
 - a. Verify 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.)

- 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 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.

Stamped Steel Filter Silencers

FS Series 1/4" - 1"

Features

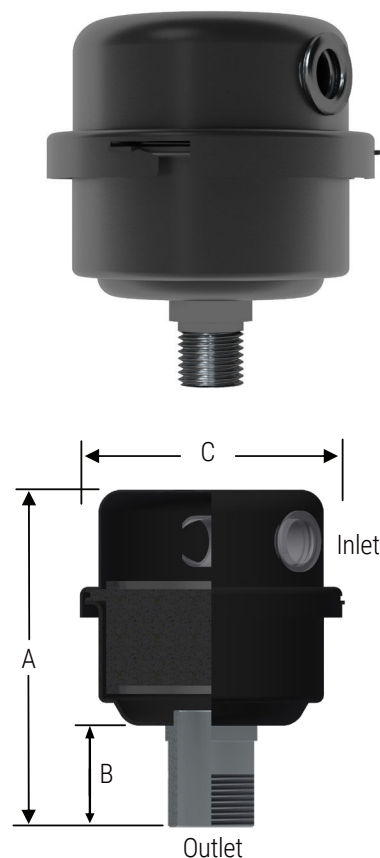
- High grade filter element with integrated gasket seal
- Fully drawn weatherhood
- Tubular silencing design: tube maximizes attenuation and air flow while minimizing pressure drop
- Corrosive resistant black powder coat carbon steel
- Ability to mount vertically and horizontally

Technical Specifications

- Temp (continuous): min -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 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



MNPT Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	No. of Silencing Tubes	Approx. Weight (lbs)
		Polyester	Paper	A	B	C			
1/4"	4	FS-05-025	FS-04-025	2.75	0.67	2.48	2	1	0.25
3/8"	8	FS-05-038	FS-04-038	2.77	0.69	2.09	2	1	0.25
3/8"	8	FS-07-038	FS-06-038	3.57	0.69	3.25	2	1	0.50
1/2"	8	FS-05-050	FS-04-050	2.97	0.89	2.48	2	1	0.25
1/2"	12	FS-07-050	FS-06-050	3.78	0.89	3.20	2	1	0.50
1/2"	12	FS-11-050	FS-10-050	4.16	0.89	4.15	2	1	1.00
3/4"	12	FS-07-075	FS-06-075	4.12	1.24	3.20	2	1	0.50
3/4"	25	FS-11-075	FS-10-075	4.51	1.24	4.15	2	1	1.00
1"	35	FS-11-100	FS-10-100	4.51	1.24	4.15	2	1	1.00

Molded Polymer Filter Silencers

PS Series 1/8" - 1"

Features

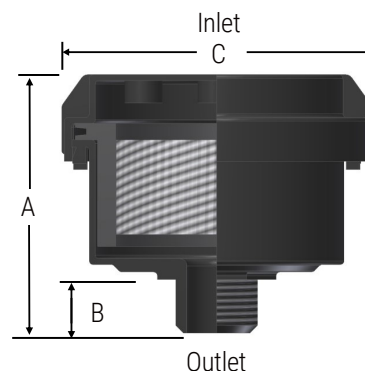
- Easy snap-on design for quick servicing
- Durable glass reinforced nylon housing
- Compact, low profile configuration
- Noise reducing silencing design
- High grade filter element with integrated gasket seal

Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O 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

Benefits

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



MNPT Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
		Polyester	Paper	A	B	C		
1/8"	3	PS-03-013	PS-02-013	1.75	0.45	1.72	2	0.05
1/4"	3	PS-03-025	PS-02-025	1.59	0.45	1.72	2	0.05
1/4"	4	PS-05-025	PS-04-025	2.03	0.45	2.56	2	0.09
3/8"	6	PS-05-038	PS-04-038	2.03	0.45	2.56	2	0.09
1/2"	6	PS-05-050	PS-04-050	2.03	0.45	2.56	2	0.09
1/2"	10	PS-07-050	PS-06-050	3.18	0.71	3.24	2	0.20
1/2"	12	PS-11-050	PS-10-050	3.19	0.71	4.17	2	0.30
3/4"	12	PS-07-075	PS-06-075	3.53	1.05	3.24	2	0.30
3/4"	20	PS-11-075	PS-10-075	3.73	1.24	4.17	2	0.35
1"	35	PS-11-100	PS-10-100	3.73	1.24	4.17	2	0.40

Stamped Steel Filter Silencers

FS Series 1/2" - 6"

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

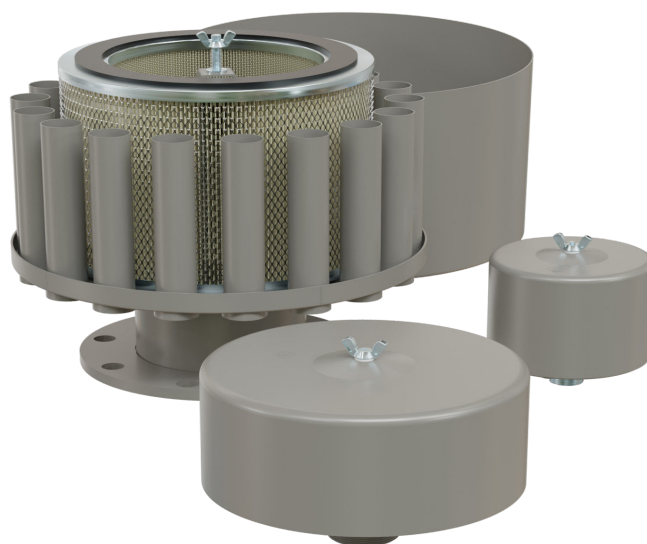
Technical Specifications

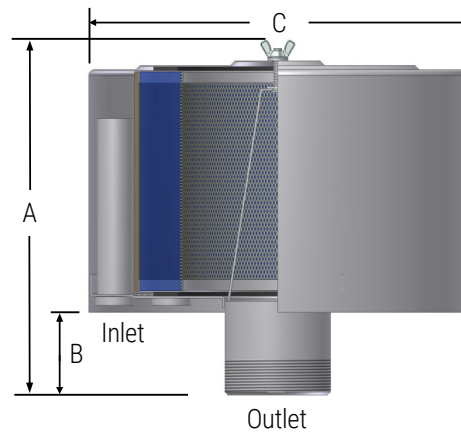
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O over initial ΔP
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

Options



- 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)





Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	No. of Silencing Tubes	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C			
1/2"	MNPT	10	FS-15-050	FS-14-050	4.12	0.94	6.09	3	1	2
3/4"	MNPT	25	FS-15-075	FS-14-075	4.47	1.24	6.09	3	2	2
1"	MNPT	35	FS-15-100	FS-14-100	4.47	1.24	6.09	3	3	2
1"	MNPT	55	FS-19P-100	FS-18P-100	7.08	1.24	6.12	5	3	3
1 1/4"	MNPT	70	FS-19P-125	FS-18P-125	7.30	1.63	6.12	5	5	3
1 1/2"	MNPT	85	FS-19P-150	FS-18P-150	7.42	1.63	6.12	5	5	4
2"	MNPT	135	FS-31P-200	FS-30P-200	8.16	2.25	10.31	5	5	8
2"	MNPT	135	FS-231P-200	FS-230P-200	12.85	2.00	10.25	10	5	14
2 1/2"	MNPT	195	FS-31P-250	FS-30P-250	8.51	2.50	10.31	5	5	8
2 1/2"	MNPT	195	FS-231P-250	FS-230P-250	13.10	2.50	10.25	10	9	15
3"	MNPT	300	FS-231P-300	FS-230P-300	13.60	3.00	10.25	10	9	15
3"	MNPT	300	FS-235P-300	FS-234P-300	13.70	3.00	12.25	10	3	29
3"	MNPT	300	FS-275P-300	FS-274P-300	13.79	3.00	16.00	10	9	33
4"	MNPT	520	FS-235P-400	FS-234P-400	14.71	4.00	12.25	10	6	29
4"	MNPT	520	FS-275P-400	FS-274P-400	14.02	4.00	16.00	10	9	34
5"	MNPT	800	FS-245P-500	FS-244P-500	14.02	4.00	16.00	10	14	33
5"	MNPT	800	FS-275P-500	FS-274P-500	14.02	4.00	16.00	10	14	36
6"	MNPT	1100	FS-275P-600	FS-274P-600	16.04	5.00	16.00	10	18	38
4"	FLG	520	FS-235P-400F	FS-234P-400F	14.84	4.13	12.25	10	6	32
4"	FLG	520	FS-275P-400F	FS-274P-400F	14.83	4.00	16.00	10	9	39
5"	FLG	800	FS-245P-500F	FS-244P-500F	14.81	4.13	16.00	10	14	38
5"	FLG	800	FS-275P-500F	FS-274P-500F	14.14	4.13	16.00	10	14	41
6"	FLG	1100	FS-275P-600F	FS-274P-600F	15.99	5.13	16.00	10	18	42

Big Boy Filter Silencers

FS Series 6" - 24"

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

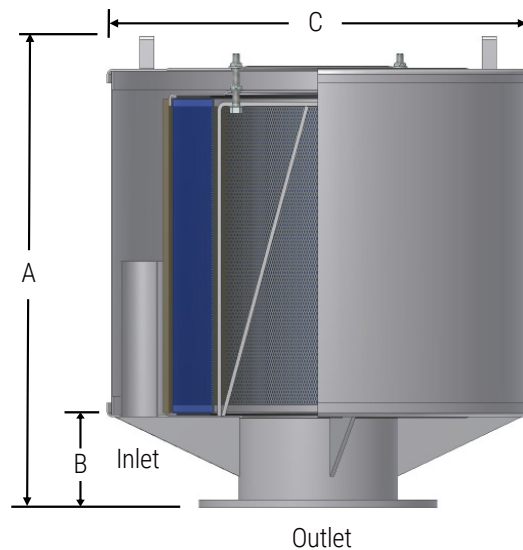
Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O 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

- 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)





Flange Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Height	No. of Silencing Tubes	Approx. Weight (lbs)
		Polyester	Paper	A	B	C			
6"	1100	FS-377P-600F	FS-376P-600F	23.28	5.13	21.88	15"	6	95
8"	1800	FS-377P-800F	FS-376P-800F	23.47	6.13	21.88	15"	12	105
8"	1800	FS-385P-800F	FS-384P-800F	24.13	6.13	28.31	15"	12	125
10"	3300	FS-385P-1000F	FS-384P-1000F	24.14	6.13	28.31	15"	16	130
10"	3300	FS-485P-1000F	FS-484P-1000F	31.59	6.13	28.31	22"	16	143
12"	4700	FS-485P-1200F	FS-484P-1200F	31.64	6.13	28.31	22"	24	155
12"	4700	FS-685P-1200F	FS-384P(2)-1200F	38.64	6.13	28.31	29"	24	175
14"	6000	FS-485P(2)-1400F	FS-484P(2)-1400F	53.64	6.13	28.31	22"	18	245

Flange Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Height
		Polyester	Paper	A	B	C	
18"	5500	FS-391P-1800F	FS-390P-1800F	26.48	6.13	43.00	16"
18"	8000	FS-491P-1800F	FS-490P-1800F	31.98	6.13	43.00	23"
20"	8000	FS-491P-2000F	FS-490P-2000F	31.95	6.13	43.00	23"
24"	8000	FS-491P-2400F	FS-490P-2400F	32.11	6.13	43.00	23"

Enhanced Filter Silencers for Blowers

2G Series 3" - 12"

Features

- Fully drawn carbon steel weatherhood (3" to 6" connections only)
- Multiple silencing features to reduce and deaden sound
 - Tubular Silencing: tubes placed to maximize attenuation
 - Quiet Band Support: with "Quiet band" technology, utilizes sound suppression in the design of the housing
- Internal Silencer: center tubular silencer
- 1/8" NPSC tap hole standard
- Low pressure drop housing design
- Corrosive resistant gray powder coat carbon steel

Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O 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



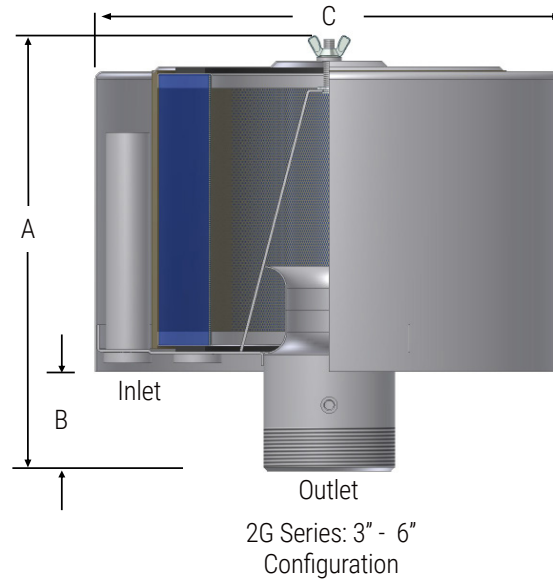
- Pressure drop indicator
- Various media for different environments
- Stainless steel construction
- Various non-standard finishes and connection styles
- Side Access Filter Silencers (LQB Series) available for space restricted enclosures (select models)



Threaded Assembly



Flanged Assembly



Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	No. of Silencing Tubes	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C			
3"	MNPT	300	2G-275P-300	2G-274P-300	13.86	3.00	16.00	10	9	38
4"	MNPT	520	2G-275P-400	2G-274P-400	14.87	4.00	16.00	10	9	39
5"	MNPT	800	2G-275P-500	2G-274P-500	14.87	4.00	16.00	10	14	41
6"	MNPT	1100	2G-275P-600	2G-274P-600	16.20	5.00	16.00	10	18	42

Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	No. of Silencing Tubes	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C			
4"	Flange	520	2G-275P-400F	2G-274P-400F	15.00	4.13	16.00	10	9	44
5"	Flange	800	2G-275P-500F	2G-274P-500F	14.87	4.00	16.00	10	14	46
6"	Flange	1100	2G-275P-600F	2G-274P-600F	16.33	5.13	16.00	10	18	47
8"	Flange	1600	2G-377P-800F	2G-376P-800F	23.97	6.00	21.88	15	12	125
8"	Flange	1800	2G-385P-800F	2G-384P-800F	24.01	6.00	28.31	15	12	130
8"	Flange	1800	2G-485P-800F	2G-484P-800F	31.51	6.00	28.31	22	12	142
10"	Flange	3300	2G-385P-1000F	2G-384P-1000F	24.14	6.13	28.31	15	16	135
10"	Flange	3300	2G-485P-1000F	2G-484P-1000F	31.64	6.13	28.31	22	16	148
12"	Flange	4700	2G-485P-1200F	2G-484P-1200F	31.51	6.00	28.31	22	24	160
12"	Flange	4700	2G-685P-1200F	2G-384P(2)-1200F	36.54	6.00	28.31	29	24	180

Discharge Silencer Frames for PD Blowers

BBF Series 2" - 6"

Blower Market Solutions

Maximize Productivity - From junior to experienced technicians, assemble & ship blower packages faster with fewer resources.

Significant Costs Savings - Only one vendor needed to help you improve margins through lower labour and material handling costs.

Engineering Support - Design specifications and drawings are available to help you configure and present your package to your customers.

Ultra Compact Design - Integrated Discharge Silencer offers a low profile and small footprint.

Build Your Sound Enclosure Competitively - The compact design allows you to build significantly smaller and less costly enclosures to meet more stringent noise level requirements.



Benefits

- Low profile allows for easier maintenance inspections
- Quick installation time
- Cost savings (minimal packaging, freight & storage)
- Sound enclosures are more economical due to compact frame footprint
- Engineering support provided by Solberg for sizing specifications and specific requirements

Features

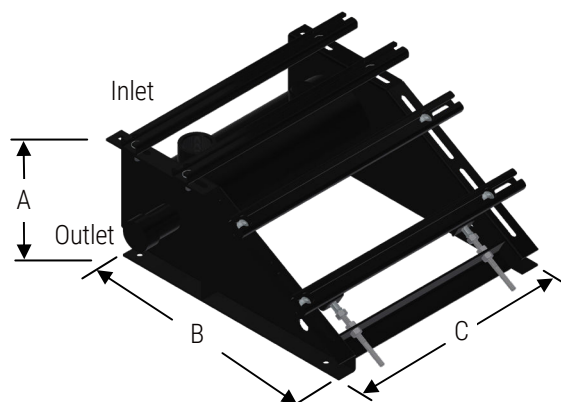
- Reactive style silencing design
- Integrated discharge silencer
- Adjustable motor supports for belt tensioning
- Pre-assembled rails to frame
- Corrosive resistant black powder coat carbon steel
- Assembly hardware included

Technical Specifications

- Pressure rating: 14.7 PSIG
- Hardware kit included (USA std. nuts, bolts, washers)
- Ports for relief valve, pressure & temperature gauges

Options

- Purpose built belt guard
- Flexible boot kit (clamp, flex adapter)
- Flange adapters
- Snubber discharge silencer for vacuum applications
- Contact factory for best Solberg filter for your package



Pipe Stub Inlet	MNPT Outlet	Assembly SCFM Rating	Part Number	Dimensions (inches)			FNPT Relief Valve Port	Suggested HP Range	Approx. Weight (lbs)	Belt Guard for BBF Series		Boot Kit Part Number
				A	B	C				Part No.	Approx. lbs	
2"	2"	135	BBF-200	12.02	27.50	23.50	2 1/2"	5 - 20	130	DL-200	20	BK200
2 1/2"	2 1/2"	195	BBF-250	12.02	27.50	23.50	2 1/2"	5 - 20	130	DL-200	20	BK200
3"	3"	300	BBF-300	15.19	35.00	28.00	2"	10 - 50	180	DL-300	23	BK300
4"	4"	520	BBF-400	15.19	35.00	28.00	2"	10 - 50	180	DL-300	23	BK400
6"	6" Flg	1100	BBF-600F	17.76	39.50	38.45	3"	20 - 60	398	DL-600	28	BK600

Optional Accessories



Belt guard



Boot kit (includes flexible boot and 2 clamps).

Side Channel Blower Silencers

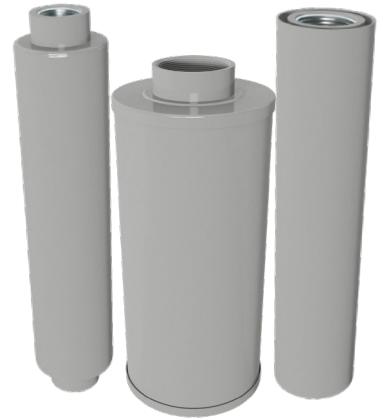
SLCR, SLCRT Series 1/2" - 4"

Features

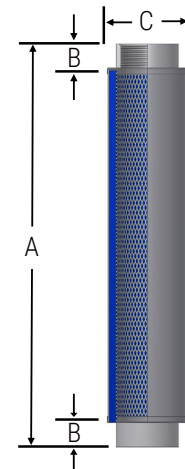
- Absorptive media pack
- Designed for minimal pressure drop
- For inlet and discharge inline air service
- Corrosive resistant gray powder coat carbon steel

Technical Specifications

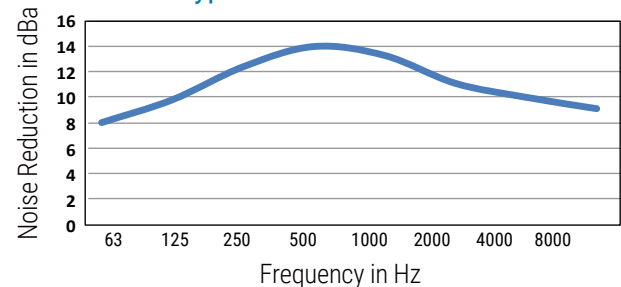
- Max. temperature (continuous): 225°F (107°C)
- Due to the wide range of equipment and environments, please contact factory for typical noise attenuation for your application



Inlet/Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)			Approx. Weight (lbs)
Size	Type			A	B	C	
1"	NPSC	42	SLCR100	11.97	0.75	2.50	2
1 1/4"	NPSC	55	SLCR125	12.03	0.75	2.50	2
1 1/2"	NPSC	155	SLCR150	12.03	0.78	2.50	3
2"	NPSC	270	SLCR200	15.73	0.75	3.63	4
2 1/2"	FNPT	385	SLCR250	20.98	1.28	4.65	8
3"	FNPT	575	SLCR300	25.87	1.56	5.18	10
4"	FNPT	575	SLCR400	24.68	1.69	10.00	26
1/2"	MNPT	25	SLCRT050	13.85	1.69	2.50	2
3/4"	MNPT	35	SLCRT075	14.47	2.00	2.50	2
1"	MNPT	42	SLCRT100	14.48	2.00	2.50	2
1 1/4"	MNPT	55	SLCRT125	14.46	2.00	2.50	2
1 1/2"	MNPT	155	SLCRT150	14.47	2.00	2.50	3
2"	MNPT	270	SLCRT200	18.50	2.13	3.63	4
2 1/2"	MNPT	385	SLCRT250	23.68	2.63	4.65	8
3"	MNPT	575	SLCRT300	28.00	2.63	5.18	10
4"	MNPT	575	SLCRT400	29.32	4.00	10.00	26



Typical Noise Attenuation



Chamber Silencers

RQS / RQL Series

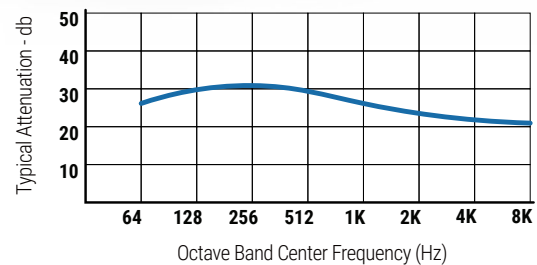
The Solberg RQL/RQS Series multi-chambered silencers are engineered to effectively dampen pulsations and reduce acoustical noise. These heavy duty silencers target low to mid range-frequencies and are most effective for PD blowers operating below transition speed. Robust construction and design versatility allows for vertical or horizontal mounting. The RQS/RQL silencers will enhance overall system performance and help create a safer working environment.

Features

- Multi-chambered reactive silencer designed for improved air flow with low pressure drop
- Installation versatility with straight through and right angle configurations
- Welded carbon steel construction with corrosion resistant powder coat finish
- Appropriate for intake and exhaust silencing applications
- Design Pressure: 14.7 PSIG
- Integrated drain port
- ASME Code available

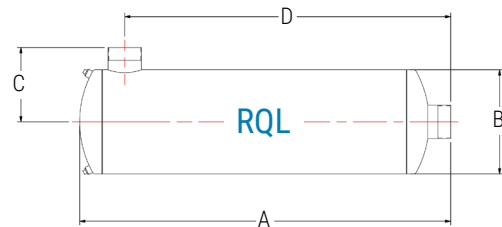


Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions (inches)	
Size	Type			A	B
2"	MNPT	175	RQS-200	33	8
3"	MNPT	300	RQS-300	46	10
4"	MNPT	520	RQS-400	53	14
4"	Flange	520	RQS-400F	53	14
6"	Flange	1100	RQS-600F	72	18



Applications

- Positive Displacement Blowers, Dry Vacuum Pumps, Vent/Blowdown, Reciprocating Engines



Inlet / Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions - (inches)			
Size	Type			A	B	C	D
2"	MNPT	175	RQL-200	31.25	8	6	26.50
3"	MNPT	300	RQL-300	43.50	10	7.50	38
4"	MNPT	520	RQL-400	50	14	10	44
4"	Flange	520	RQL-400F	50	14	10	44
6"	Flange	1100	RQL-600F	67.63	18	13	58

Sound Attenuation and Depressurization

CAM Series Air Mufflers

Solberg's patent-pending CAM Series air mufflers are highly effective at reducing noise levels, and provide impressively low pressure drop, making them ideal for pressure swing absorption and AODD pump applications.

CAM air mufflers incorporate cutting-edge reactive and absorptive silencing technologies. With its tuned flow control tube and energy absorbing silencing pack, this air muffler eliminates the need for relief valves, which are prone to excessive noise and particulate bypass. Whether you need to comply with noise regulations or improve your equipment's performance, our CAM Series air mufflers are the solution.

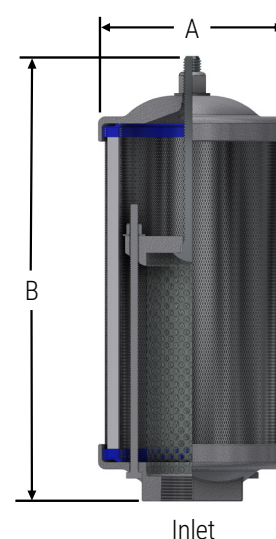
Applications

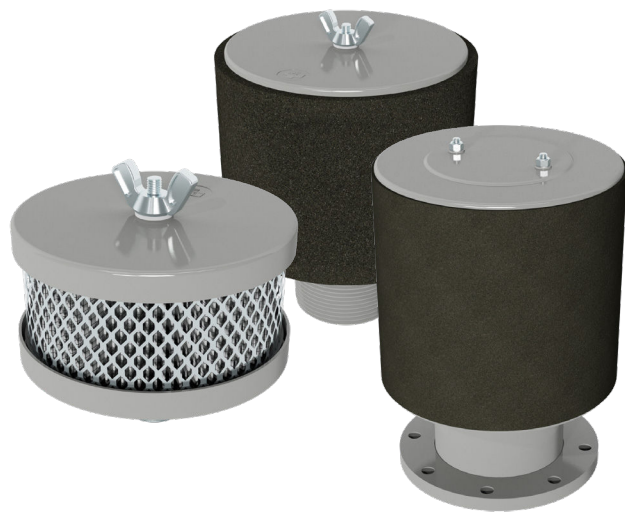
- Dryer System Desiccant Regeneration
- Oxygen and Nitrogen Generator Desiccant Regeneration
- Exhaust Port Silencing
- Vent Breather and Pressure Relief
- Compressor Blowdown Silencing

Technical Specifications

- Temp (continuous): min -15°F (-26°C), max 220°F (104°C)
- Pressure Relief applications, standard up to 10 bar/150 PSI
- Sound Attenuation up to 30 dBA
- 99% efficient at 5 micron
- Synthetic energy absorbing silencing element

CAM Housing		Assembly Part Number	Dimensions (inches)		Replacement Silencing Element
Size	Type		A	B	
3/4"	FNPT	CAM-SW8103-075C	3.5	7	SW8103
1"	FNPT	CAM-SW8109-100C	4.25	7.5	SW8109
1 1/4"	FNPT	CAM-SW8109-125C	4.25	7.5	SW8109
1 1/2"	FNPT	CAM-SW8211-150C	5.25	10.5	SW8211
2"	FNPT	CAM-SW8311-200C	5.25	15.5	SW8311





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

www.solbergmfg.com

Inlet Filters

Technical Data	5-2
Compact Inlet Filters: F Series	5-4
Big Boy Inlet Filters: F Series	5-6
Exposed Inlet Filters: FT Series	5-8
Extreme Duty SpinMeister® Filters: SM Series	5-10
Dry Bulk Air Filters - Side Outlet: DBL Series	5-12



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

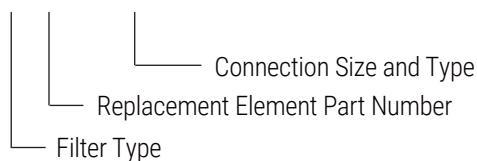
Identification

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 10" flange connection size.

F-385P-1000F



Choosing the Best Filter for Your Equipment

A. When the connection & airflow is known:

1. Select the appropriate connection style. (i.e.: MNPT, Flange, NPSC, etc.)
- a. Verify 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.)

- 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 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.

Compact Inlet Filters

F Series 1/2" - 6"

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
- Corrosive resistant gray powder coat carbon steel

Technical Specifications

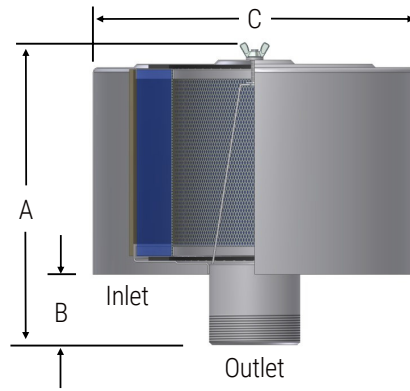
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O over initial ΔP
- Pressure drop graphs available upon request
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

Options



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





Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C		
1/2"	MNPT	10	F-15-050	F-14-050	4.10	0.89	6.09	3	2
3/4"	MNPT	25	F-15-075	F-14-075	4.44	1.24	6.09	3	2
1"	MNPT	35	F-15-100	F-14-100	4.45	1.24	6.09	3	2
1"	MNPT	55	F-19P-100	F-18P-100	7.06	1.24	6.12	5	3
1 1/4"	MNPT	70	F-19P-125	F-18P-125	7.54	1.75	6.12	5	3
1 1/2"	MNPT	85	F-19P-150	F-18P-150	7.64	1.75	6.12	5	3
2"	MNPT	135	F-31P-200	F-30P-200	8.00	2.25	7.87	5	5
2"	MNPT	135	F-231P-200	F-230P-200	12.95	2.25	10.25	10	12
2 1/2"	MNPT	195	F-31P-250	F-30P-250	8.69	3.00	7.87	5	6
2 1/2"	MNPT	195	F-231P-250	F-230P-250	12.95	2.50	10.25	10	13
3"	MNPT	300	F-231P-300	F-230P-300	13.51	3.00	10.25	10	14
3"	MNPT	300	F-235P-300	F-234P-300	13.59	3.00	10.25	10	15
3"	MNPT	300	F-275P-300	F-274P-300	14.16	3.00	16.00	10	24
4"	MNPT	520	F-235P-400	F-234P-400	14.72	4.00	10.25	10	15
4"	MNPT	520	F-245P-400	F-244P-400	15	4.00	12.13	10	22
4"	MNPT	520	F-275P-400	F-274P-400	14.10	4.00	16.00	10	26
5"	MNPT	800	F-245P-500	F-244P-500	14.78	4.00	16.00	10	23
5"	MNPT	800	F-275P-500	F-274P-500	14.91	4.00	16.00	10	27
6"	MNPT	1100	F-275P-600	F-274P-600	15.96	5.00	16.00	10	29
4"	Flange	520	F-235P-400F	F-234P-400F	14.83	4.13	10.25	10	20
4"	Flange	520	F-245P-400F	F-244P-400F	15	4	12.13	10	27
4"	Flange	520	F-275P-400F	F-274P-400F	15.09	4.13	16.00	10	31
5"	Flange	800	F-245P-500F	F-244P-500F	15.04	4.13	12.13	10	27
5"	Flange	800	F-275P-500F	F-274P-500F	15.11	4.13	16.00	10	32
6"	Flange	1100	F-275P-600F	F-274P-600F	16.01	5.13	16.00	10	34

See Filter Assembly Technical Data for sizing guidelines.

Big Boy Inlet Filters

F Series 6" - 24"

Features

- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Low entry velocity air gap between base and cover
- Corrosive resistant gray powder coat carbon steel

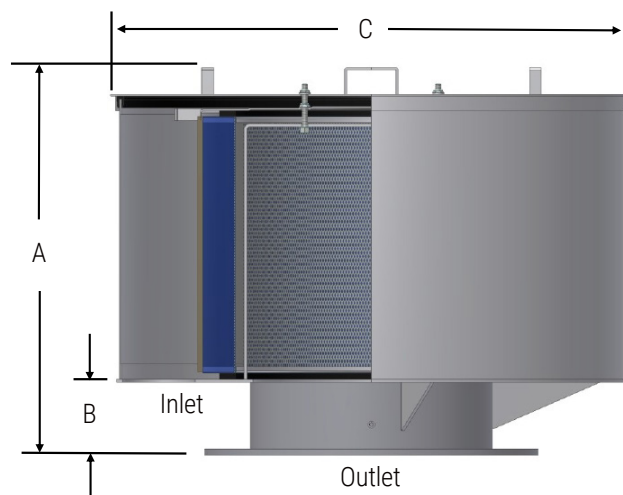
Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O 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

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





Outlet Flange Size	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
		Polyester	Paper	A	B	C		
6"	1100	F-377P-600F	F-376P-600F	22.01	5.13	21.88	15	90
8"	1800	F-377P-800F	F-376P-800F	23.13	6.13	21.88	15	100
8"	1800	F-385P-800F	F-384P-800F	23.13	6.13	28.09	15	125
10"	3300	F-385P-1000F	F-384P-1000F	23.13	6.13	28.31	15	130
10"	3300	F-485P-1000F	F-484P-1000F	30.13	6.13	28.31	22	143
12"	4700	F-485P-1200F	F-484P-1200F	30.12	6.13	28.31	22	155
12"	4700	F-685P-1200F	F-384P(2)-1200F	38.64	6.13	28.31	29	175
14"	6000	F-485P(2)-1400F	F-484P(2)-1400F	53.64	6.13	28.31	22	245

Outlet Flange Size	Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)
		Polyester	Paper	A	B	C	
18"	5500	F-391-1800F	F-390-1800F	26.48	6.13	43.00	16
18"	8000	F-491-1800F	F-490-1800F	31.98	6.13	43.00	23
20"	8000	F-491-2000F	F-490-2000F	31.98	6.13	43.00	23
24"	8000	F-491-2400F	F-490-2400F	31.98	6.13	43.00	23

Exposed Inlet Filters

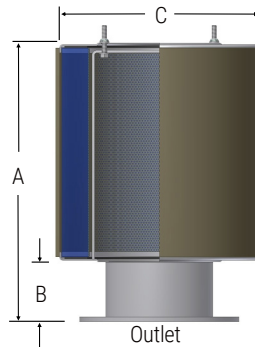
FT Series 1/2" - 14"

Features

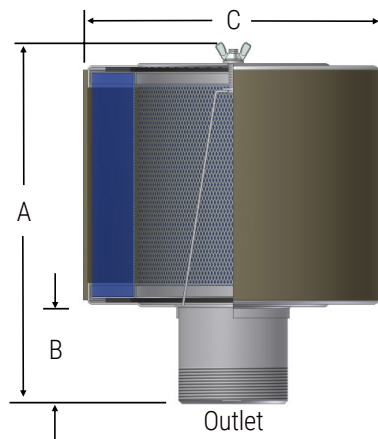
- Exposed element for optimal air flow & low restriction
- Heavy gauge base with low pressure drop outlet pipe and center bracket design
- Corrosive resistant gray powder coat carbon steel

Technical Specifications

- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O 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



Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C		
4"	Flange	520	FT-235P-400F	FT-234P-400F	14.70	4.00	8.12	10	15
4"	Flange	520	FT-275P-400F	FT-274P-400F	15.01	4.13	12.00	10	24
5"	Flange	800	FT-275P-500F	FT-274P-500F	15.00	4.13	12.00	10	28
6"	Flange	1100	FT-275P-600F	FT-274P-600F	16.01	5.13	12.00	10	31
8"	Flange	1800	FT-377P-800F	FT-376P-800F	21.75	6.13	15.01	15	53
8"	Flange	1800	FT-385P-800F	FT-384P-800F	21.91	6.13	20.00	15	70
10"	Flange	3300	FT-385P-1000F	FT-384P-1000F	21.93	6.13	20.00	15	80
10"	Flange	3300	FT-685P-1000F	FT-384P(2)-1000F	36.93	6.13	20.00	29	95
12"	Flange	4700	FT-485P-1200F	FT-484P-1200F	29.93	6.13	20.38	22	90
12"	Flange	4700	FT-685P-1200F	FT-384P(2)-1200F	36.93	6.13	20.00	29	100
14"	Flange	6000	FT-485P(2)-1400F	FT-484P(2)-1400F	51.94	6.13	20.00	22	160



Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C		
1/2"	MNPT	10	FT-15-050	FT-14-050	4.16	1.75	4.60	3	1
3/4"	MNPT	25	FT-15-075	FT-14-075	4.16	1.75	4.60	3	1
1"	MNPT	35	FT-15-100	FT-14-100	4.43	1.24	4.60	3	1
1"	MNPT	55	FT-19P-100	FT-18P-100	7.45	1.75	4.60	5	2
1 1/4"	MNPT	70	FT-19P-125	FT-18P-125	7.22	1.63	4.60	5	2
1 1/2"	MNPT	85	FT-19P-150	FT-18P-150	7.34	1.75	4.60	5	2
2"	MNPT	135	FT-31P-200	FT-30P-200	7.85	2.25	6.00	5	3
2"	MNPT	135	FT-231P-200	FT-230P-200	12.65	2.25	6.00	10	7
2 1/2"	MNPT	195	FT-31P-250	FT-30P-250	8.17	2.50	6.00	5	4
2 1/2"	MNPT	195	FT-231P-250	FT-230P-250	12.97	2.50	6.00	10	7
3"	MNPT	300	FT-231P-300	FT-230P-300	13.47	3.00	6.00	10	8
3"	MNPT	300	FT-235P-300	FT-234P-300	13.60	3.00	8.12	10	13
3"	MNPT	300	FT-275P-300	FT-274P-300	13.89	3.00	12.00	10	22
4"	MNPT	520	FT-235P-400	FT-234P-400	14.64	4.00	8.13	10	17
4"	MNPT	520	FT-275P-400	FT-274P-400	14.89	4.00	12.00	10	24
5"	MNPT	800	FT-275P-500	FT-274P-500	14.89	4.00	12.00	10	25
6"	MNPT	1100	FT-275P-600	FT-274P-600	15.89	5.00	12.00	10	27

Extreme Duty Filters

SpinMeister® SM Series 1/2" - 12"

Overview

Intake air is drawn through the angled louver plates which direct 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 filtered by a 99% efficient pleated element.

Benefits

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

Features

- SpinMeister® made of molded fiber filled composite material
- All small compact filters with seamless housings
- Corrosive resistant gray powder coat carbon steel

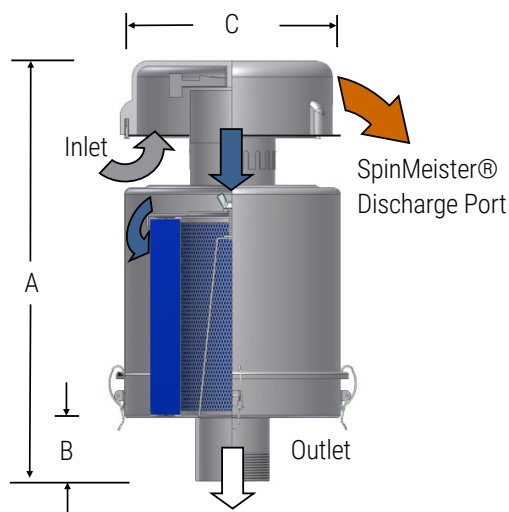
Technical Specifications

- 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 to 5 micron
- Paper: 99%+ removal efficiency to 2 micron
- SpinMeister® Precleaner: 85+% efficiency to 15 micron

Options

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





Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions (inches)			Suggested Service Ht. (inches)	Approx. Weight (lbs)
Size	Type		Polyester	Paper	A	B	C		
1/2"	MNPT	30	SM1.5-11-050	SM1.5-10-050	6.96	0.89	4.15	2	1.5
3/4"	MNPT	30	SM1.5-11-075	SM1.5-10-075	7.22	1.24	4.15	2	1.5
1/2"	MNPT	35	SM2-11-050	SM2-10-050	5.93	0.89	4.78	2	2
3/4"	MNPT	35	SM2-11-075	SM2-10-075	6.77	1.24	4.78	2	2
1"	MNPT	35	SM2-11-100	SM2-10-100	8.17	1.24	4.78	2	2
1"	MNPT	75	SM2-19P-100	SM2-18P-100	11.60	2.00	6.90	5	3.7
1 1/4"	MNPT	75	SM2-19P-125	SM2-18P-125	11.98	2.00	6.90	5	3.7
1 1/2"	MNPT	85	SM2-19P-150	SM2-18P-150	11.60	2.00	6.90	5	3.7
2"	MNPT	100	SM2-19P-200	SM2-18P-200	12.21	2.50	6.90	5	4
2 1/2"	MNPT	100	SM2-19P-250	SM2-18P-250	12.80	3.00	6.90	5	4
3"	MNPT	250	SM3-235P-300	SM3-234P-300	20.65	3.00	11.00	10	31
3"	MNPT	300	SM4-235P-300	SM4-234P-300	20.18	3.00	11.00	10	32
4"	MNPT	250	SM3-235P-400	SM3-234P-400	21.42	4.00	11.00	10	32
4"	MNPT	400	SM4-235P-400	SM4-234P-400	21.00	4.00	11.00	10	33
4"	Flange	250	SM3-235P-400F	SM3-234P-400F	21.32	4.13	11.00	10	35
4"	Flange	400	SM4-235P-400F	SM4-234P-400F	21.30	4.13	11.00	10	36
6"	Flange	1100	SM62-377P-600F	SM62-376P-600F	39.92	5.13	20.00	15	100
8"	Flange	1800	SM62-377P-800F	SM62-376P-800F	41.61	6.00	20.00	15	103
10"	Flange	2700	SM63-385P-1000F	SM63-384P-1000F	41.18	6.13	28.31	15	138
12"	Flange	2700	SM63-485P-1200F	SM63-484P-1200F	48.06	6.00	28.31	22	163

Dry Bulk Air Filters - Side Outlet

DBL Series

Solberg's side outlet DBL series is designed to protect PD blowers from contaminants carried over in the dry bulk trucking industry. Made in the USA using high quality materials, the DBL series is designed and built to last for the most robust applications. The design is bidirectional, meaning it can be used in a pressure or vacuum application. When being used in a pressure application, it is highly recommended to pair the DBL series with the heavy duty Spinmeister precleaner (SMA series). For vacuum use, the Solberg design includes a 4" camlock coupling for an easy hose connection.

Features

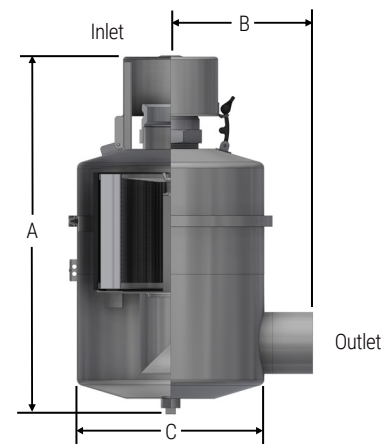
- Available in corrosion resistant black powder coat carbon steel or 304 stainless steel
- Unique housing design offers element protection from intake flow
- Rated pressure and vacuum function
- For loading and unloading dry bulk tankers
- 40-50% increased dust loading capacity with prefilter
- 1" NPSC drain

Technical Specifications

- Polyester: 99%+ removal efficiency standard to 5 micron
- Filter change out differential: 15-20" H₂O over initial ΔP

Options and Accessories

- 1/4" taps
- Polished finish for 304 stainless steel
- Stainless steel mounting bracket
- Rubber Flexible coupling
- Heavy Duty SpinMeister® Precleaners (SMA series)
- Vacuum gauge



Inlet		Outlet		Assembly SCFM Rating	Assembly Part Number	Dimensions - (inches)			Suggested Service Height	Approximate Weight (lbs)
Size	Type	Size	Type			A	B	C		
4"	Camlock	5"	Tube	1100	DBL-275/2P-4L/5T	30.5	11.5	15	13"	50
4"	Camlock	5"	Tube	1100	DBL-275/2P-4L/5TS1	30.5	11.5	15	13"	50

Did you know?

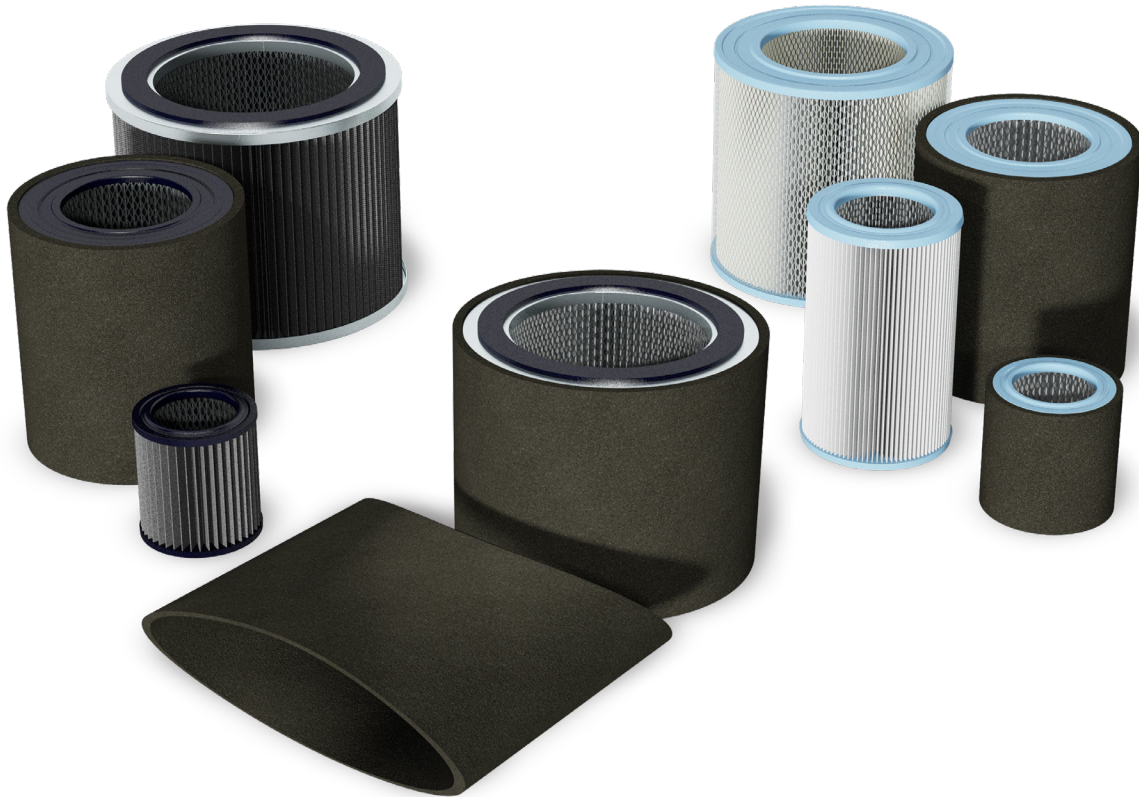
Our elements come in a variety of sizes, shapes, and media. Whether you need Polyester, Paper, HEPA or a specialty media, we have what you're looking for. We also offer many different end cap styles and materials from plastic, to rubber, to metal.

Find these on our website at www.solbergmfg.com/replacement-elements



Replacement Elements

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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 replaced once the pressure drop reaches 15-20" H₂O 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" H₂O.

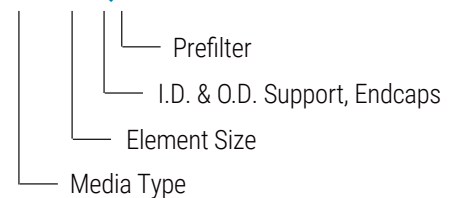
If the pressure drop exceeds 20" H₂O at start-up, it should be replaced with a new element. With many types of equipment, the maximum pressure drop allowed will be dictated by the ability of the equipment to perform to its rated capacity. Under all circumstances, the operator should avoid exceeding the manufacturer's recommended maximum pressure drop for their specific equipment.

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

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 HE234QP, identifies the filter element as having a HEPA media "HE", with dimensions of a 234™ element, "Q" designates stainless steel ID & OD & endcaps, and "P" means it has a prefilter wrap. See partial list below for other filter media designations.

HE234QP



Filter Media Nomenclature

(contact Solberg for other media types and stainless steel.)

Polyester Std.: 5 µm, i.e. 385™

Paper Std.: 2 µm, i.e. 384™

Z Media: 1 µm Polyester, i.e. 15Z

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

TF Media: PTFE, i.e. TF345

TG Media: Hi-Temp PTFE, i.e. TG235

PSG Media: Coalescing, i.e. PSG244

AC Media: Activated Carbon, i.e. AC18

FC Media: Activated Carbon layers, i.e. FC18

AA Granulate: Activated Alumina, i.e. AA850

ACG Granulate: Activated Carbon, i.e. ACG30

RY Media: PPS, i.e. RY485

Y Media: Polypropylene, i.e. 849Y

ZE Granulate: Zeolite, i.e. ZE848

S Media: Wire Mesh, i.e. 274S

N Media: 4 µm Polyester, i.e. 231N

U Media: 25 µm Polyester, i.e. 685U

W Media: 100 µm Polyester, i.e. 15W

Polyester Element Features

- Identified typically 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
- 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: EU6
- Temperature min: -15°F (-26°C), max: 220°F (104°C)

Advantages

- Less maintenance: washable
- More durable
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor

Paper Element Features

- Identified typically by "even number" nomenclature:
i.e. 18™, 234P™
- Heavy duty industrial strength paper surrounded by galvanized expanded metal
- Dust loading capacity is increased 40-50% with prefilter "P" designation at end of element part number i.e.: 234P™

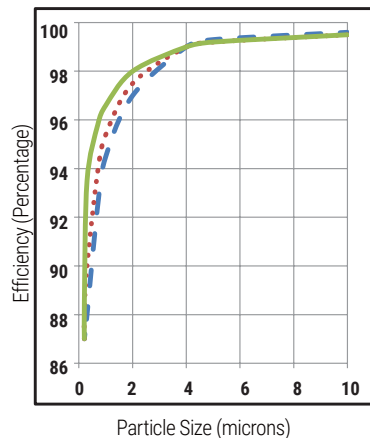
Technical Specifications

- 2 micron, 99+% efficiency
- Media classification: EU6
- Temperature min: -15°F (-26°C), max: 220°F (104°C)

Advantages

- Optimal surface area available
- Higher efficiency than many alternative media
- Cost effective

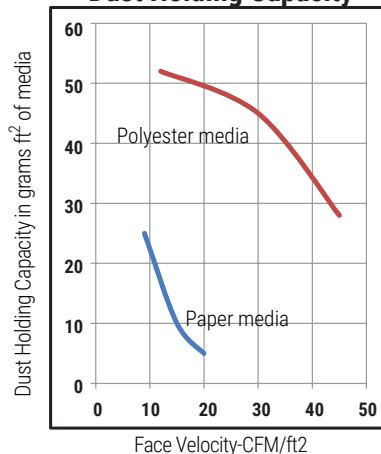
Polyester Media Efficiency



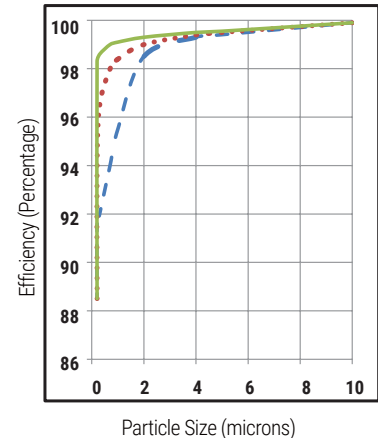
Indicated Face Velocity:

- 15 CFM/ft² media —————
- 30 CFM/ft² media
- 45 CFM/ft² media - - - - -

Face Velocity vs. Dust Holding Capacity



Paper Media Efficiency



Indicated Face Velocity:

- 10 CFM/ft² media —————
- 15 CFM/ft² media
- 20 CFM/ft² media - - - - -

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

Filter Media Specifications

Filter Elements

Standard Media

5 µm Polyester: 5 micron, 99+% efficiency

- ID: "odd number": i.e. **19@**, **235P™**
- Classification: ePM₁₀ 75% (ISO 16890)
- Pleated industrial needle felt polyester media
- Plastisol potting
- Temperature min: -15°F (-26°C), max: 220°F (104°C)
- Reinforced epoxy coated steel wire on on both sides of media

2 µm Paper: 2 micron, 99+% efficiency

- ID: "even number": i.e. **18™**, **234P™**
- Classification: ePM_{2.5} 50% (ISO 16890)
- Heavy duty industrial strength paper
- Plastisol potting
- Galvanized or black powder coated expanded metal
- Temperature min: -15°F (-26°C), max: 220°F (104°C)

High Efficiency

1 µm Polyester - Z Media: 1 micron, 99+% efficiency

- ID: "odd number" & "Z" suffix: i.e. **19Z**, **235ZP**
- Classification: ePM_{2.5} 60% (ISO 16890)
- Epoxy coated steel wire on both sides of media
- Temp min: -15°F (-26°C), max: 220°F (104°C)
- Washable - lukewarm water & mild detergent

4 µm Polyester - N Media: 4 micron, 99+% efficiency

- ID: "odd number" & "N" suffix: i.e. **15N**, **377NP**
- Classification: ePM_{2.5} 60% (ISO 16890)
- Epoxy coated steel wire on both sides of media
- Temp min: -15°F (-26°C), max: 220°F (104°C)
- Washable - lukewarm water & mild detergent

HEPA - HE Media: 0.3 µm, 99.97%

- ID: "HE" prefix & "even number": i.e. **HE230**, **HE334P**
- Classification: E12 under EN 1822/ISO 30E under ISO 29463
- Heavy duty industrial strength glass surrounded by galvanized expanded metal
- Maximum oversizing required to minimize pressure drop
- Plastisol potting standard
- Temp min: -15°F (-26°C), max: 220°F (104°C)
- Options: silicone potting, viton gaskets

ULPA - UL Media: 0.1 micron, 99.995% efficiency

- ID: "UL" prefix & "even number": i.e. **UL234**
- Classification: H14 under EN1822/ISO45H under ISO 29463
- Plastisol potting
- Temp min: -15°F (-26°C), max: 220°F (104°C)
- Options: silicone potting, viton gaskets

Dutch Twill Weave - DT Media

- ID: "DT" prefix & "odd number": i.e. **DT245**
- Classification: ePM₁₀ 70% (ISO 16890)
- Stainless steel woven wire cloth
- Viton gaskets & epoxy potting
- Temp min: -15°F (-26°C), max: 375°F (190°C)

Chemical / Food / Pharmaceutical

Polypropylene (PP) - Y Media: 5 micron, 99+% efficiency

- ID: "odd number" & "Y" suffix: i.e. **31Y**, **345YP**
- Epoxy coated steel wire on on both sides of the media

PTFE - TG Media: 0.3 micron, 99.5% efficiency

- ID: "TG" prefix & "odd number": i.e. **TG375**
- Classification: E11 under EN1822/ISO 15E under ISO 29463
- High temperature, chemical, & moisture resistant
- Options: epoxy potting, viton gaskets
- Temp (intermittent): Up to 482°F (250°C)

PTFE - TF Media: 0.3 micron, 99.5% efficiency

- ID: "TF" prefix & "odd number": i.e. **TF275**
- Classification: E11 under EN1822/ISO 15E under ISO 29463
- Chemical & moisture resistant
- Minimal pressure drop
- Temp (intermittent): 220°F (104°C)
- Options: epoxy potting, viton gaskets

PPS - RY Media

- Broad chemical resistant media, high temp
- ID: "RY" prefix & "odd number": i.e. **RY485**
- Temp min: -15°F (-26°C), max: 220°F (104°C)
- Options: epoxy potting, viton gaskets

Coarse Efficiency

25 µm Polyester - U Media: 25 micron, 99+% efficiency

- ID: "odd number" & "U" suffix: i.e. **19U**, **685UP**
- Temp min: -15°F (-26°C), max: 220°F (104°C)

100 µm Polyester - W Media: 100 micron, 99+% efficiency

- ID: "odd number" & "W" suffix: i.e. **15W**, **385WP**
- Temp min: -15°F (-26°C), max: 220°F (104°C)

Wire Mesh - S Media

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

Stainless Steel - S2 Media

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

High Temperature

Nomex - MX Media: 5 Micron, 99+% efficiency

- ID: "odd number" & "MX" suffix: i.e. **377MX**
- Classification: ePM₁₀ 80% (ISO 16890)
- Silicone potting
- Temperature min: -15°F (-26°C), max: 385°F (196°C)
- Reinforced epoxy coated steel wire on ID and OD

Nomex with Stainless Steel Support - MXD Media

- 5 micron, 99+% efficiency
- ID: "odd number" & "MX" suffix: i.e. **377MXD**
- Classification: ePM₁₀ 80% (ISO 16890)
- Silicone potting
- Reinforced stainless steel wire mesh on ID and OD
- Temperature min: -15°F (-26°C), max: 385°F (196°C)

Chemical Adsorption

Activated Carbon - AC Media: 10 micron, 99+% efficiency

- ID: "AC" prefix & "even number": i.e. **AC18**
- Removes gas or vapor odors, contaminants, & particulate
- Pleated media
- Reinforced with epoxy coated steel wire on both sides of cloth

Activated Carbon Granulate - ACG Media

- ID: "ACG" prefix & "even number": i.e. **ACG30**
- Removes gaseous or vapor odors
- Granulates are enclosed within a plain dutch wrap

Activated Alumina - AA Media

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

Activated Carbon - GMAC Media

- 3 micron, 70% efficiency
- ID: "GMAC" prefix & "odd number": i.e. **GMAC235**
- Superior odor removal
- Chemically inert

Coalescing Media

PSG Media, FG Media, GL Media

- 0.3 micron, 99.97% efficiency
- ID: "PSG" prefix & "even number": 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: 68°F (20°C) to 180°F (80°C)
- Environmentally friendly sealing material
- High D.O.P. efficiency - low oil carryover
- Multiple media configurations, contact factory

Note 1: Elements rated for higher temperatures can be achieved with optional gasket material and potting compounds.

Note 2: Classifications are best estimates based on ISO 16890-1:2016.



Replacement Elements

Replacement Elements - Standard

35 - 8000 SCFM Flow Range

Benefits

- Pleated media for high dirt holding capacity
- Polyester: reinforced with epoxy coated steel wire on both sides of cloth, expanded metal I.D.
- Paper: heavy duty industrial strength paper surrounded by galvanized expanded metal
- 40 - 50% increased dust loading capacity with prefilter (part number suffix P)

Technical Specifications

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

Polyester Media Benefits/Specs

- Less maintenance due to longer durability
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor
- Washable with lukewarm water and mild detergent*

Paper Media Benefits/Specs

- Cost effective
- Gently blow out media*

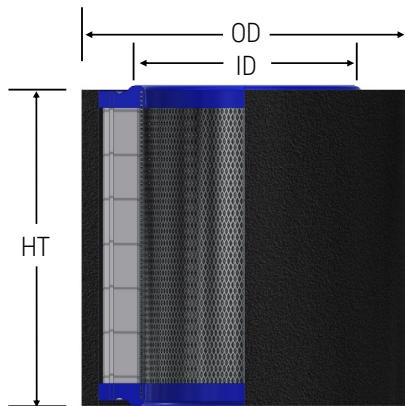
*Replacing element is recommended.



Paper Elements



Polyester Elements



Endcap Construction

- M = Molded plastisol
- B = Closed one end with bolt hole, open on other end
- G = Galvanized metal
- N = Neoprene blended gasket on open endcaps

Element Part Number		Element SCFM Rating	Surface Area (ft ²)		Dimensions (inches)			Standard Endcap Features
Polyester	Paper		Polyester	Paper	ID	OD	HT	
15P™	14P™	35	0.5	0.9	3.00	4.40	2.31	M
19P®	18P™	100	1.4	2.6	3.00	4.38	4.81	M
31P™	30P™	195	2.2	6.2	3.63	5.75	4.88	M
35P	34P	275	4.0	11.0	4.75	7.88	4.84	M
231P™	230P™	300	4.7	12.3	3.63	5.75	9.50	M
237™	236	550	8.0	22.6	4.69	7.75	8.63	GBN
235P™	234P™	570	8.3	22.1	4.75	7.88	9.47	M
335P™	334P™	800	14.4	35.3	4.75	7.88	14.22	M
239P™	238P™	570	13.1	48.3	4.85	9.22	10.50	GBN
2541	2540	800	15.1	35.1	6.00	9.00	11.81	G
245P™	244P™	880	14.8	35.6	6.00	9.75	9.68	GN M
345P™	344P™	1100	22.1	57.0	6.00	9.75	14.43	GN
275P™	274P™	1100	19.8	44.0	8.00	11.75	9.68	GN
375P™	374P™	1500	30.7	68.5	8.00	11.75	14.43	GN
377P™	376P™	1825	46.9	118.3	9.00	14.63	14.45	GN
385P™	384P™	3300	46.9	141.7	14.00	19.63	14.45	GN
391	390	5500	92.3	249.38	22.25	27.88	15.07	GN
485P™	484P™	4705	71.7	216.7	14.00	19.63	21.45	GN
491	490	8000	140.9	352.3	22.25	27.88	22.07	GN
685P™	-	6600	96.5	-	14.00	19.63	28.45	GN

Replacement Elements - 800 Series

Small Vacuum Pumps 4 - 375 SCFM Flow Range

Features

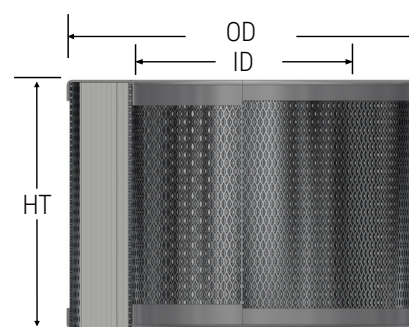
- Pleated media for high dirt holding capacity
- Polyester: reinforced with epoxy coated steel wire on both sides of cloth, expanded metal I.D.
- Paper: heavy duty industrial strength paper surrounded by galvanized expanded metal O.D.
- 40 - 50% increased dust loading capacity with prefilter (part number suffix P)

Technical Specifications

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



Polyester Element Part Number	Mann Ref Number	SCFM Rating	Dimensions (inches)			Standard Endcap Features
			I.D.	O.D.	H.T.	
821	C66/1	18	0.72	2.31	2.03	GB
825	C75	25	1.50	2.54	2.66	GC
827	C75/2	20	1.50	2.54	2.84	GCF
841	C1049	80	1.78	3.68	5.56	G
843	C1112	55	2.38	3.85	2.73	G
845	C1112/2	55	2.38	3.85	2.86	GCF
847	C1132	62	2.38	3.85	3.97	G
849	C1337	115	2.56	5.00	4.81	G
851	C15124/1	290	3.50	5.88	8.69	GR
851/1	N/A	290	3.50	5.91	8.52	GBR
857	C26240	375	7.56	10.00	7.62	G
859	C1574	110	3.50	5.88	4.82	G
863	C21138/1	322	5.72	8.28	6.49	M
879	N/A	115	2.56	5.00	4.81	GB
897	N/A	80	2.38	3.98	8.44	GB



Endcap Construction

- B = Closed one end w/bolt hole
- C = Closed one end
- E = EPDM gasket
- F = Felt gaskets on open endcaps
- G = Galvanized metal
- H = Felt gasket on bolt hole
- M = Molded plastisol
- R = Mixed rubber/cork gasket on open endcaps

FILTRATION

Paper Element Part Number	Mann Ref Number	SCFM Rating	Surface Area (ft²)	Dimensions (inches)			Standard Endcap Features
				I.D.	O.D.	H.T.	
800	C31	3	0.14	0.40	1.18	1.16	GB
802	C31/1	5	0.22	0.40	1.18	1.47	GB
804	C32	9	0.4	0.40	1.18	2.66	GB
806	C42/1	8	0.3	0.50	1.50	1.47	GB
808	C42/2	4	0.18	0.50	1.50	1.16	GB
810	C43	13	0.6	0.50	1.50	2.41	GB
812	C44	8	0.3	0.50	1.50	1.48	GC
814	C64/1	13	0.6	0.72	2.31	1.53	GB
816	C64/3	13	0.55	0.72	2.31	1.53	GC
818	C66	20	0.89	0.72	2.31	2.41	GB
820	C66/1	18	0.76	0.72	2.31	2.03	GB
824	C75	23	0.76	1.50	2.54	2.66	GC
826	C75/2	20	0.92	1.50	2.54	2.78	GCF
828	C76/2	12	0.48	1.50	2.54	1.66	GC
830	C79/1	24	1.1	1.00	2.54	2.84	GB
832	C79/2	25	0.8	1.50	2.54	2.78	GCF
834	C713	40	1.3	1.50	2.54	4.72	GBHF
836	C718	48	2.0	1.50	2.54	6.72	GBHF
838	C912	30	1.0	2.37	3.28	2.71	GCF
840	C1049	80	3.1	1.78	3.68	5.56	G
842	C1112	55	1.7	2.38	3.85	2.73	G
844	C1112/2	55	1.5	2.38	3.85	2.86	GCF
846	C1132	62	2.3	2.38	3.85	3.97	G
848	C1337	115	5.0	2.56	5.00	4.82	G
850	C15124/1	290	13.1	3.50	5.88	8.69	GR
850/1	N/A	290	13.1	3.50	5.91	8.59	GBR
852	C711/1	26	0.9	1.50	2.63	2.75	GC
854	C411	27	1.1	0.50	1.50	5.09	GB
856	C26240	375	6.1	7.56	10.00	7.62	G
858	C1574	152	7.1	3.50	5.88	4.82	G
862	C21138/1	322	12.5	5.72	8.28	6.49	M
868	N/A	25	1.31	2.38	3.69	2.93	M
872	N/A	23	0.8	1.50	2.54	2.78	GBF
874	N/A	176	2.7	6.00	8.50	3.38	GCE
878	N/A	115	5.0	2.56	5.00	4.82	GB
896	N/A	80	5.0	2.38	3.98	8.44	GB

Replacement Elements - 32 Series

Blower Market

Features

- Pleated media for high dirt holding capacity
- Polyester: reinforced with epoxy coated steel wire on both sides of cloth, expanded metal I.D.
- Paper: heavy duty industrial strength paper surrounded by galvanized expanded metal
- 40 - 50% increased dust loading capacity with prefilter (part number suffix P, select models)

Technical Specifications

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

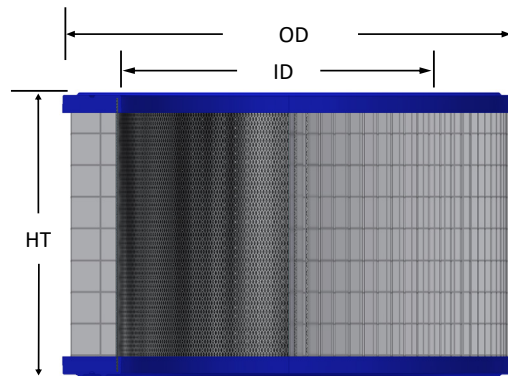
Polyester Media Benefits/Specs

- Less maintenance due to longer durability
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor
- Washable with lukewarm water and mild detergent*

Paper Media Benefits/Specs

- Cost effective
- Gently blow out media (replacing element is recommended)





Common Filter Elements for the Blower Market

Solberg Part Number Polyester	Universal Ref. Number	Solberg Part Number Paper	Universal Ref. Number	Dimensions (inches)			Std. Endcap Features
				I.D.	O.D.	H.T.	
32-01	81-1202	32-00	81-0470	4.25	6.00	2.00	M
32-03	81-1203	32-02	81-0471	4.25	6.00	2.50	M
32-05	81-1204	32-04	81-0472	7.25	9.75	3.87	M
32-07	81-1205	32-06	81-1063	7.25	9.75	6.00	M
32-09	81-1206	32-08	81-0474	9.87	11.50	7.00	M
32-11	81-1207	32-10	81-0475	11.63	13.75	8.63	M
32-13	81-1209	32-12	81-1163	13.00	17.00	10.00	M
32-15	81-1210	32-14	81-1164	19.00	23.00	14.00	M

Solberg Part Number Polyester	Stoddard Ref. Number	Solberg Part Number Paper	Stoddard Ref. Number	Dimensions (inches)			Std. Endcap Features
				I.D.	O.D.	H.T.	
32-17	F8-151	32-16	F8-108	4.79	6.88	4.29	M
32-19	F8-135	32-18	F8-109	7.10	10.15	5.13	M
32-21	F8-134	32-20	F8-110	9.39	12.50	4.88	M
32-23	F8-139	32-22	F8-111	9.39	12.50	10.00	M
32-25	F8-148	32-24	F8-137	15.00	19.75	14.76	M

Endcap Construction

- M = Molded plastisol

Replacement Elements - Hockey Puck

Small FS/PS 3 - 250 SCFM Flow Range

Features

- High grade filter element
- Element construction of injection molded thermoplastic
- Integrated gasket seal
 - Positive seal between housing hemispheres
 - New seal with each element
 - Minimizes parts
- Optimal surface area per given size
- Pleated media for high dirt holding capacity

Technical Specifications

- Polyester: 99+% removal efficiency standard to 10 micron
- Paper: 99+% removal efficiency standard to 2 micron
- Temp (continuous): min -15°F (-26°C), max 220°F (104°C)
- Filter change out differential: 15-20" H₂O over initial ΔP

Polyester Media Benefits/Specs

- Less maintenance due to longer durability
- Moisture resistant
- Handles hot air and oil mist from unload cycle of reciprocating/piston compressor
- Washable with lukewarm water and mild detergent (replacing element is recommended)

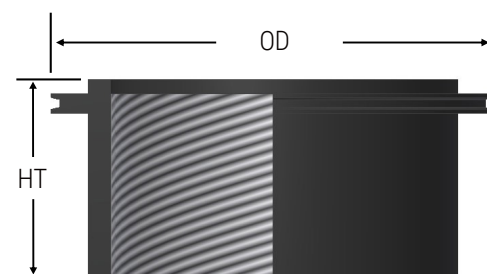


Paper Media Benefits/Specs

- Heavy duty industrial strength paper
- Cost effective
- Gently blow out media (replacing element is recommended)

Element Part Number		Element SCFM Rating	Surface Area (ft ²)	Dimensions (inches)	
Polyester	Paper			O.D.	H.T.
03™	02™	3	0.1	1.58	1.00
05™	04™	8	0.2	2.38	1.00
07™	06™	12	0.58	3.07	1.38
11™	10™	35	1.1	4.00	1.46
17*	16™	250	8	7.50	3.25

*Minimum order quantity applies.



Air/Oil Separator Elements - FG, GL, PSG

Oil Mist Coalescing 4 - 1800 SCFM Flow Range

Benefits

- High efficiency at low pressure drop
- Low oil carryover

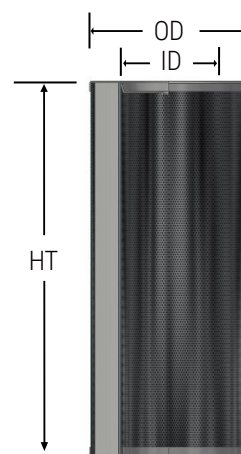
Features

- Reinforced with epoxy coated steel wire
- Metal support on both sides of media

Technical Specifications

- 0.3 micron media; 99.97% efficiency
- Continuous operating temp: 68°F (20°C) to 180°F (80°C)

Element Part Number	Element SCFM Rating	Dimensions (inches)			Construction
		I.D.	O.D.	H.T.	
FG3	4	1.25	2.25	2.12	MW
FG5	4.5	1.25	2.25	3.00	MW
FG7	7	1.25	2.25	4.13	MW
FG9	16	2.98	4.02	4.08	MW
FG10	24	3.00	4.02	6.08	MW
FG11	30	3.88	5.00	4.20	MW
FG20	45	8.00	9.02	4.70	MW
GL910	4	0.53	1.80	1.68	DW
GL915	8	0.80	2.31	2.39	DW
PSG925	20	1.50	3.00	4.81	GBP
PSG848	50	2.58	5.00	4.82	GP
PSG850/1	-	3.50	5.91	8.46	GBP
PSG145	175	2.56	5.00	14.07	GP
PSG860/1	200	3.50	5.91	14.09	GBP
PSG244/2	300	6.00	9.75	9.31	GBP
PSG344/2	500	6.00	9.75	14.06	GBP
PSG374/2	800	8.00	11.75	14.06	GBP
PSG474/2	1100	8.00	11.75	21.25	GBP
PSG476	1800	9.00	14.63	21.45	GP



Construction

- M = Molded plastisol
- B = Closed one end with bolt hole, open on other end
- G = Galvanized metal
- D = Element with molded open end, metal closed
- W = Wrapped coalescing media
- P = Pleated coalescing media

Did you know?

Our gauges offer an effective way to monitor pressure drop, and are a convenient way to help achieve maximum filter-life from elements. They enable easy filter maintenance, reducing downtime for processes.

Find these on our website at **www.solbergmfg.com/accessories**

Accessories

Prefilters	7-2
SpinMeister® Precleaners	7-3
Pop Up Style Pressure Drop Gauge	7-4
Pressure Drop Gauges	7-5



Prefilters

Extend the Life of Your Filter Elements

Features

- Foam wrap material construction
- Dust loading capacity is increased by 40-50% with a prefilter added to the filter element
- Minimal impact on pressure drop

Part Number	Fits Element Size	
	Polyester	Paper
PF14	15™	14™
PF18	19®	18™
PF24	25	24
PF30	31™	30™
PF34	35	34
PF44	45	44
PF84	85	84
PF230	231™	230™
PF234	235™	234™
PF244	245™ / 239™	244™ / 238™
PF274	275™	274™
PF334	335™	334™
PF344	345™	344™
PF374	375™	374™
PF376	377™	376™
PF384	385™	384™
PF390	391	390
PF484	485™	484™
PF490	491	490
PF544	545	544
PF570	571	570
PF684	685™	-
PF842	843	842
PF848	849	848
PF850	851	850



Part Number with Prefilter

234P™

Prefilter

Element Size

SpinMeister® Precleaners

Extreme Duty Filtration

Technical Specifications

- Temp (continuous): min -60°F (-51°C), max 250°F (121°C)
- 85%+ removal efficiency standard to 15 microns
- Heavy duty vibration resistant stainless steel clamp

Molded SpinMeister®

- Molded fiber filled composite housing
- Plastic rotors
- To be used with Solberg Inlet SpinMeister® Filter Assemblies

Part Number	SCFM Flow Rating Range	Slip Fit Outlet	Dimensions (inches)		
			H.T.	Slip Fit I.D.	Cover O.D.
SM1.5	3-20	1.5"	2.25	1.50	3.63
SM2	20-110	2"	3.06	2.00	4.78
SM3	75-250	3"	4.03	3.00	7.13
SM4	250-400	4"	5.38	4.00	9.63
SM6	450-900	6"	7.00	6.00	12.25

Aluminum SpinMeister®

- Polished aluminum housing
- Stainless steel rotors
- To be used with Solberg Inlet SpinMeister® Filter Assemblies

Part Number	SCFM Flow Rating Range	Slip Fit Outlet	Dimensions (inches)		
			H.T.	Slip Fit I.D.	Cover O.D.
SMA2	10-110	2"	3.02	2.05	4.80
SMA3	140-300	3"	4.80	3.00	8.50
SMA4	140-350	4"	4.80	4.00	8.50
SMA6	400-850	6"	7.33	6.00	12.25
SMA9	900-2000	9"	8.13	9.00	17.13



SpinMeister® for Vacuum

- Low pressure drop design
- Molded fiber filled composite housing
- Stainless steel rotors
- To be used with Solberg Vacuum Filter Series

Part Number	SCFM Flow Rating Range	Slip Fit Outlet	Dimensions (inches)		
			H.T.	Slip Fit I.D.	Cover O.D.
SML235	40-110	3.5"	4.05	3.45	7.39
SML345	100-200	4.5"	5.57	4.53	10.23
SML445	200-450	4.5"	7.19	4.53	10.23

Pop Up Style Pressure Drop Gauge

Inlet Filter Assemblies

Overview

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 way to receive the maximum usage from every element.

The yellow indicator in the filter monitor gauge drops as 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 replaced at the maximum noted pressure drop, or the manufacturer's recommended level. For use on inlet filter silencer and inlet filters.

Benefits

- Continuously monitors filter
- Easy filter maintenance
- Maximized filter element life
- Reduced downtime
- Graduated restriction readings



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.

Part Number	Pressure Drop Rating (inches H ₂ O)	MNPT Outlet
VG-020-013	20	1/8"

Gauge tubing not included.
Contact Solberg to add an 1/8" tap hole to the appropriate location on your housing orders.

Pressure Drop Gauges

For Vacuum Filters

Differential Vacuum Gauge

- Indicates pressure drop across the filter assembly or filter element
- Shock and vibration resistant
- To be used on CSL & HDL Series

EZ Read Pressure Drop Gauge

- Gauge kit includes: gauge, connectors, mounting hardware
- To be used on ST, CT and HV Series

Vacuum Gauges

- Monitor amount of restriction across the filter assembly or element, when installed on the inlet and outlet
- Convenient and inexpensive way to assure maximum usage from filter element
- 1/4" connection
- 0 - 30" Hg (0 - 760 mm Hg)
- To be used on CSL, ST, CT Series

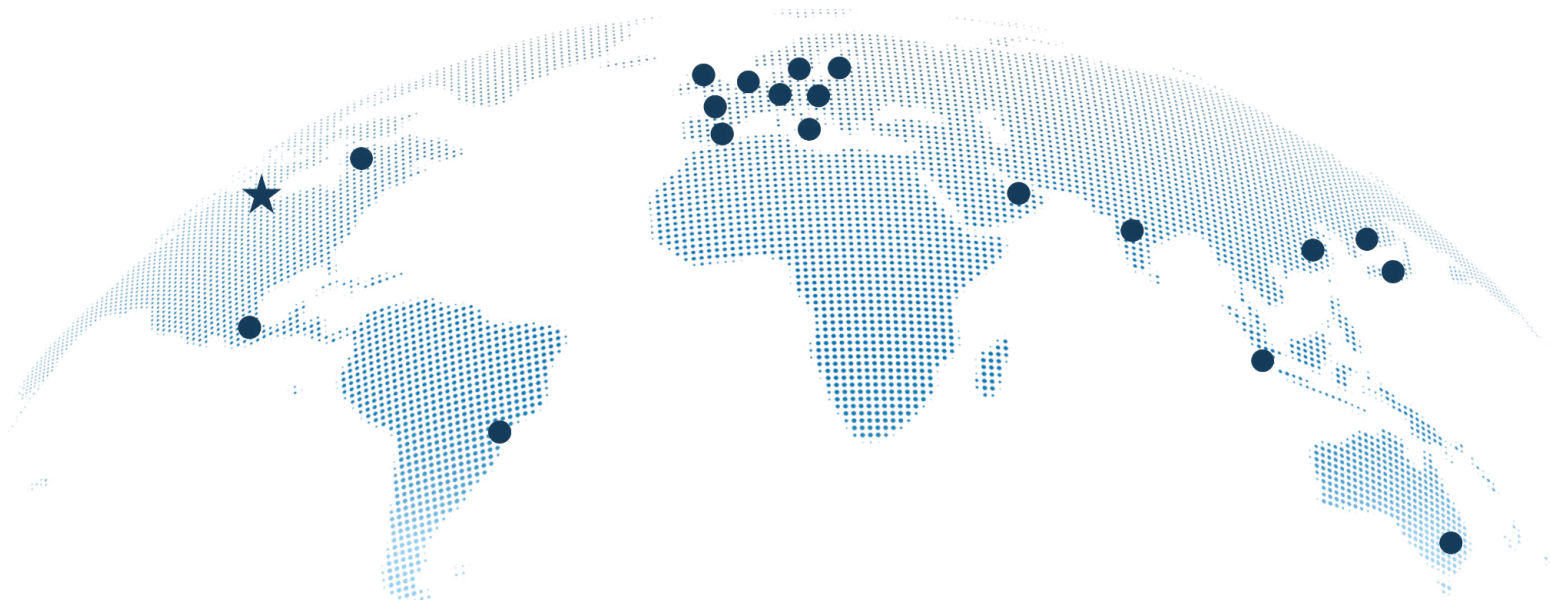


Part Number	Gauge Type
2030	Magnehelic Gauge 0 - 30" WC
555-0048	Easy Read Color Differential Pressure Gauge
PG-030-025	Pressure Gauge
VG-030-025	Vacuum Gauge

Gauge tubing not included.
Contact factory for installation requirements.

Element Part Number		Dimensions (inches)			Element SCFM Rating	Std. Endcap Features	Reference Numbers			
Polyester	Paper	I.D.	O.D.	H.T.						
---	802	0.40	1.18	1.47	5	GB	C31/1			
---	804	0.40	1.18	2.66	9	GB	C32			
---	808	0.50	1.50	1.16	4	GB	C42/2			
---	806	0.50	1.50	1.47	8	GB	C42/1			
---	812	0.50	1.50	1.48	8	GC	C44			
---	810	0.50	1.50	2.41	13	GB	C43			
---	854	0.50	1.50	5.09	27	GB	C411			
03	02	---	1.55	1	3	M				
09	08	1.14	2.25	2.25	15	M				
05	04	---	2.36	1	8	M				
---	814	0.72	2.31	1.53	13	GB	C64/1			
---	816	0.72	2.31	1.53	13	GC	C64/3			
821	820	0.72	2.31	2.03	18	GB	C66/1			
---	818	0.72	2.31	2.41	20	GB	C66			
---	830	1.00	2.54	2.84	24	GB	C79/1			
---	828	1.50	2.54	1.66	12	GC	C76/2			
825	824	1.50	2.54	2.66	25	GC	C75			
---	832	1.5	2.54	2.78	25	GCF	C79/2			
827	826	1.5	2.54	2.78	20	GCF	C75/2			
---	872	1.5	2.54	2.78	23	GBF	C75/2			
---	834	1.5	2.54	4.72	40	GBHF	C713			
---	836	1.5	2.54	6.72	48	GBHF	C718			
---	852	1.5	2.63	2.75	26	GC	C711/1			
07	06	---	3.07	1.38	12	M				
---	838	2.37	3.28	2.71	30	GCF	C912			
841	840	1.78	3.68	5.56	80	G	C1049			
---	868	2.38	3.69	2.93	25	M				
---	100	1.25	3.88	2.75	50	M				
843	842	2.38	3.85	2.73	55	G	C1112			
845	844	2.38	3.85	2.86	55	GCF	C1112/2			
847	846	2.38	3.85	3.97	62	G	C1132			
897	896	2.38	3.98	8.44	80	GB				
11	10	---	4	1.37	35	M				
15P	14P	3	4.4	2.31	35	M				
19P	18P	3	4.38	4.81	100	M				
127	---	3	4.38	2.07	35	M				
849	848	2.56	5	4.81	115	G	C1337			
879	878	2.56	5	4.82	115	GB				
---	108	3.63	5.75	2.94	60	M				
31P	30P	3.63	5.75	4.88	195	M				
231P	230P	3.63	5.75	9.5	300	M				
32-01	32-00	4.25	6	2	125	M	81-1202	81-0470		
859	858	3.5	5.88	4.82	152	G	C1574			
851	850	3.5	5.88	8.69	290	GR	C15124/1			
851/1	850/1	3.5	5.91	8.59	290	GBR				

Element Part Number		Dimensions (inches)			Element SCFM Rating	Std. Endcap Features	Reference Numbers			
Polyester	Paper	I.D.	O.D.	H.T.						
25	24	3.67	5.75	4	105	M				
32-03	32-02	4.25	6	2.5	175	M	81-1203	F642		
101	---	4.5	6.63	5	120	M				
32-17	32-16	4.79	6.88	4.31	---	M	F8-151	F8-108		
---	104	5.13	7.25	5.38	150	M				
109	---	5.63	7.75	3.94	170	M				
---	102	5.69	7.75	2.87	85	M				
237	236	4.69	7.75	8.63	550	GBN				
---	80P	4.13	7.88	3	175	M				
---	84P	4.13	7.88	4	255	M				
35P	34P	4.75	7.88	4.84	275	M				
235P	234P	4.75	7.88	9.47	570	M				
335P	334P	4.75	7.88	14.22	800	M				
17	16	---	7.5	3.25	250	M				
863	862	5.72	8.28	6.49	322	M	C21138/1			
875	874	6	8.5	3.18	180	GCE				
239P	238P	4.85	9.22	10.5	570	GBN				
45P	44P	6	9.75	5	430	GN M				
	144P	6	9.75	6.18	519	GN				
245P	244P	6	9.75	9.63	880	M				
345P	344P	6	9.75	14.5	1100	GN				
32-05	32-04	7.25	9.75	3.87	350	M	81-1204	F974	81-0472	P974
32-07	32-06	7.25	9.75	6	500	M	81-1205	F976	81-1063	P976
857	856	7.56	10	7.62	375	G	C26240			
32-19	32-18	7.1	10.15	5.13	---	M	F8-135		F8-109	
32-09	32-08	9.87	11.5	7	800	M	81-1206	F1197	81-0474	P1197
75P	74P	8	11.75	5.06	550	GN M				
275P	274P	8	11.75	9.68	1100	GN				
375P	374P	8	11.75	14.43	1500	GN				
575P	---	8	11.75	24.47	2500	GN				
32-21	32-20	9.39	12.5	4.88	---	M	F8-134		F8-110	
32-23	32-22	9.39	12.5	10	---	M	F8-139		F8-111	
32-11	32-10	11.63	13.75	8.63	1100	M	81-1207	F13118	81-0475	P13118
371P	370P	10	13.75	14.45	1800	GN				
571P		10	13.75	24.45	3000	GN				
377P	376P	9	14.63	14.45	1825	GN				
32-13	32-12	13.03	16.77	10	3000	M	81-1209	F171310	81-1163	P171310
385P	384P	14	19.63	14.45	3300	GN				
485P	484P	14	19.63	21.45	4705	GN				
685P		14	19.63	28.45	6600	GN				
32-25	32-24	15	19.75	14.76	---	M	F8-148		F8-137	
32-15	32-14	19	23	14	4300	M	81-1210	F231914	81-1164	P231914
391	390	22.25	27.88	15.07	5500	GN				
491	490	22.25	27.88	22.07	8000	GN				



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