

Inlet Vacuum Filters



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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
- Remote Installations for Piston & Screw Compressors
- Paper Processing
- Waste Water Aeration
- Cement Processing
- Bag House Systems
- Vacuum Vent Breathers
- Chemical Processing
- Factory Automation Equipment
- Leak Detection Systems

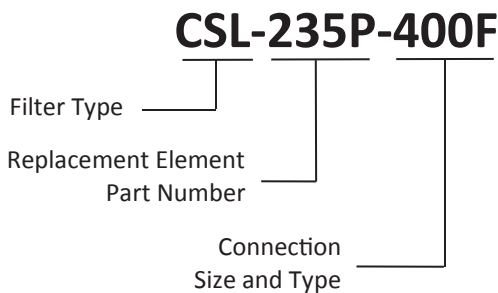
Identification

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

Assembly Model

Replacement Element

The part number designates the filter type, the element configuration and housing connection size. For example, the following part number identifies the filter as being a “CSL” design filter with a “235” element, “P” prefilter and 4” flange connection size.



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.

	Pressure (mbar)	Pressure (Torr)	Pressure (Pa)
Atmospheric Pressure	1013	760	$1.013 \times 10^{+5}$
Coarse Vacuum	1013 to 33	760 to 25	$1 \times 10^{+5}$ to $3 \times 10^{+3}$
Medium Vacuum	33 to 1.3×10^{-3}	25 to 1×10^{-3}	$3 \times 10^{+3}$ 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

- A. Connection & Airflow Known: When the connection & airflow is known:
1. Select appropriate connection style. (i.e.: MPT, Flange, NPSC, etc.)
 2. Check assembly SCFM (flow) rating. Compare with your required airflow. (Note: Assembly flow ratings are based on 6,000 FPM or 30m/sec for a given connection size to achieve low pressure drop performance. When required flow exceeds assembly flow rating, the pressure drop through the outlet connection will increase. In such cases select by element SCFM (flow) rating.)
 3. When required flow rating matches connection size; skip to “C. Selecting Elements”.
- B. Unknown Connection: When the connection size is unknown, flexible, or the required flow rating exceeds assembly flow rating:
1. Match required flow rating with the element flow rating.
 2. Choose related connection size.
- C. Selecting Elements: The filter performance is influenced by the actual application duty and the equipment it is installed on. Regular maintenance checks and proper servicing is required.
- Application Duty Descriptions:
- Industrial Duty:* Clean workshop or clean outdoor environment - small element sizing is sufficient.
- Severe Duty:* Dirty workshop, wastewater – medium to large element is recommended.
- Extreme Duty:* Cement, steel making, plastics or dusty material conveying – Largest element sizing is recommended.
1. Select media required by your application. Options include:
 - a. Standard media
 1. Polyester: All purpose; it withstands pulses, moisture, and oily air
 2. Paper: Mostly dry, smooth flow applications
 - b. Special Media: For a variety of micron levels and media types, see the “Filter Media Specifications” in the Replacement Element Section.
 2. Select Element size by matching the element with the anticipated duty and upsize accordingly.

Filter Assembly Maintenance

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

Element Maintenance

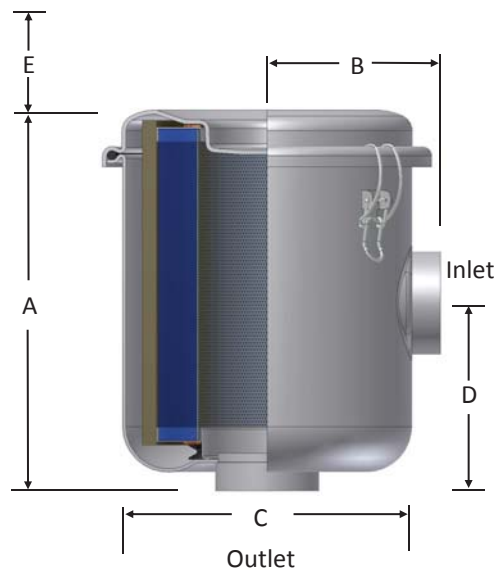
Solberg elements should be replaced, once the pressure drop reaches 15-20” H₂O above the initial pressure drop of the installation. Cleaning an element is also an option.

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.

"L" Style Compact Vacuum Filters CSL Series 3/8" - 3"



Features

- Seamless drawn housings
- O-ring seal
- Corrosion resistant carbon steel construction
- Powder coat finish
- Stainless steel torsion clips for durability

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 Δ P
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

** See Vacuum Filter Technical Data for vacuum service data.

Benefits

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

Options



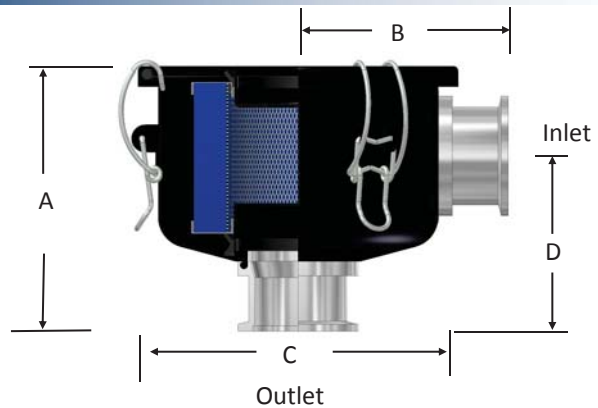
- Vacuum gauge
- Higher holding capacity configurations available (select models)
- Material/Finishes: stainless steel, epoxy coating
- Support brackets
- Alternative top-to-canister fastening system for low pressure or pulsating systems
- Stainless steel (select models)

Inlet Vacuum Filters

Inlet/Outlet		Assembly SCFM Rating	Housing Config.	Assembly Part Number		Dimensions - inches				Suggested Service HT.	Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
Size	Type			Polyester	Paper	A	B	C	D			Polyester	Paper	
3/8"	BSPP	18	A	CSL-825-039HCB	CSL-824-039HCB	3 3/8	2 1/8	3 3/4	1 13/16	3	0.88	825	824	25
1/2"	NPSC	18	A	CSL-825-050HCB	CSL-824-050HCB	3 1/2	2 1/4	3 3/4	2	3	0.88	825	824	25
1/2"	NPSC	20	B	CSL-843-050HC	CSL-842-050HC	4	3	5 3/4	2 1/2	3	3	843	842	55
3/4"	NPSC	24	A	CSL-825-075HCB	CSL-824-075HCB	3 1/2	2 5/16	3 3/4	2	3	0.88	825	824	25
3/4"	NPSC	25	B	CSL-843-075HC	CSL-842-075HC	4	3	5 3/4	2 1/2	3	3	843	842	55
1"	NPSC	35	B	CSL-843-100HC	CSL-842-100HC	4 1/4	3 1/4	5 3/4	2 5/8	3	3	843	842	55
1"	NPSC	40	C	CSL-849-100HC	CSL-848-100HC	6 11/16	4 1/8	7 3/8	4 1/2	5	5	849	848	115
1 1/4"	NPSC	55	B	CSL-843-125HC	CSL-842-125HC	4 1/4	3 1/4	5 3/4	2 5/8	3	3	843	842	55
1 1/4"	NPSC	60	C	CSL-849-125HC	CSL-848-125HC	6 11/16	4 1/8	7 3/8	4 1/2	5	5	849	848	115
1 1/2"	NPSC	80	C	CSL-849-150HC	CSL-848-150HC	6 3/4	4 1/8	7 3/8	4 1/2	5	5	849	848	115
2"	NPSC	175	D	CSL-851-200HC	CSL-850-200HC	10 1/4	4 1/2	8 3/4	5	9	15	851	850	290
2 1/2"	FPT	210	D	CSL-851-250HC	CSL-850-250HC	10 11/16	5 1/8	8 3/4	5 1/2	9	15	851	850	290
3"	FPT	300	E	CSL-239-300C	CSL-238-300C	15 3/4	8 13/16	13 1/4	8 11/16	11	33	239	238	570

See Vacuum Filter Technical Data section for sizing guidelines.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.



Features

- ISO flange connections
 - Stainless steel ISO flange
 - Buna o-ring sealed
- Seamless drawn housings
- Corrosive resistant carbon steel construction
- Powder coat finish (Black models)
- O-ring housing seal
- Stainless steel torsion clips

Technical Specifications

- Vacuum Leak Rate: 1×10^{-5} mbar l/sec
- 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

** See Vacuum Filter Technical Data for vacuum service data.

SS ISO Flange w/Black Housing Finish

ISO Flg Inlet & Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C	D		Polyester	Paper	
NW16	23	CSL-825-NW16B	CSL-824-NW16B	3 7/8	2 5/8	3 3/4	2 1/4	0.88	825	824	25
NW25	25	CSL-825-NW25B	CSL-824-NW25B	3 7/8	2 5/8	3 3/4	2 1/4	0.88	825	824	25
NW25	35	CSL-843-NW25B	CSL-842-NW25B	4 3/8	3 3/8	5 3/4	2 5/8	3	843	842	55
NW40	55	CSL-843-NW40B	CSL-842-NW40B	4 3/4	3 3/4	5 3/4	3 1/8	3	843	842	55
NW40	80	CSL-849-NW40B	CSL-848-NW40B	7 3/16	4 5/8	7 3/8	5	5	849	848	115
K63	175	CSL-851-K63B	CSL-850-K63B	11 11/16	6	8 12/16	6 1/2	15	851	850	290
K100	300	CSL-239-K100B	CSL-238-K100B	16 1/8	8 3/4	13 1/4	8 9/16	33	239	238	570

SS ISO Flange w/Nickel Housing Finish

ISO Flg Inlet & Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C	D		Polyester	Paper	
NW16	23	CSL-825-NW16EN	CSL-824-NW16EN	3 7/8	2 5/8	3 3/4	2 1/4	0.88	825	824	25
NW25	25	CSL-825-NW25EN	CSL-824-NW25EN	3 7/8	2 5/8	3 3/4	2 1/4	0.88	825	824	25
NW25	35	CSL-843-NW25EN	CSL-842-NW25EN	4 3/8	3 3/8	5 3/4	2 5/8	3	843	842	55
NW40	55	CSL-843-NW40EN	CSL-842-NW40EN	4 3/4	3 3/4	5 3/4	3 1/8	3	843	842	55
NW40	80	CSL-849-NW40EN	CSL-848-NW40EN	7 3/16	4 5/8	7 3/8	5	5	849	848	115
K63	175	CSL-851-K63EN	CSL-850-K63EN	11 11/16	6	8 12/16	6 1/2	15	851	850	290
K100	300	CSL-239-K100EN	CSL-238-K100EN	16 1/8	8 3/4	13 1/4	8 9/16	33	239	238	570

See Vacuum Filter Technical Data section for sizing guidelines.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Series Specific Applications

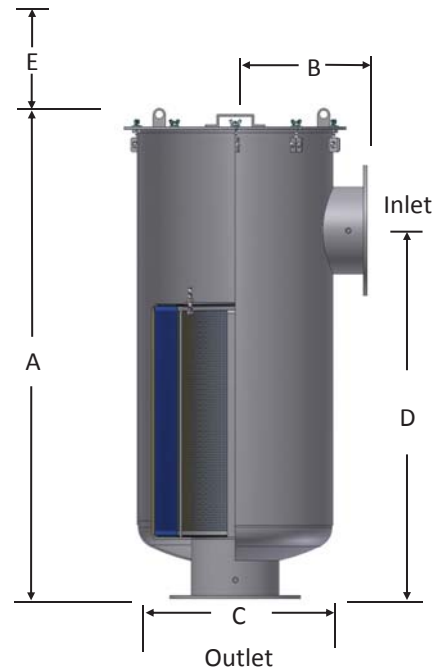
- Prevent dry scroll tip seal migration
- Polycrystalline silicone ingot production
- Vacuum coating
- Solar cell lamination
- Trap condensable vapors
- Thin-film manufacturing
- Protect against backstreaming

Options



- Contact factory for larger sizes & ISO flanges
- Viton seals
- Stainless steel (select models)
- Activated Alumina, Activated Zeolite media available for foreline trap and other applications

"L" Style Vacuum Filters CSL Series 3"-6"MPT,4"-12"FLG



Features

- Heavy duty T bolts for easy maintenance
- Corrosive resistant carbon steel construction
- Black powder coat finish
- O-ring seal with U-channel groove
- Inlet & outlet 1/4" gauge taps

Technical Specifications

- Vacuum Rating: Medium vacuum service**
- Hydrostatically tested to 0.5 bar pressure
- Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
- Filter change out differential: 15-20" H₂O over initial Δ P
- Polyester: 99%+ removal efficiency standard to 5 micron
- Paper: 99%+ removal efficiency standard to 2 micron

** See Vacuum Filter Technical Data for vacuum service data.

Benefits

- Mount horizontally or inverted with "Stay in Place" o-ring u-channel groove
- Low pressure drop construction

Options



- Straight-through configurations
- Various filter media
- Stainless steel
- Various nonstandard finishes and connection styles
- ISO Flange (contact factory for specs, sizes & availability)
- Flange faces free of paint
- Internal surfaces free of paint
- Lifting lugs
- Brackets for optional support legs
- Mounting housing bands
- Nameplate bracket

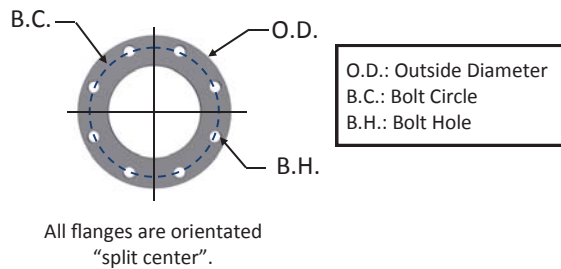
Flanged Assemblies

Flange Inlet & Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Suggested Service HT. E	Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C	D			Polyester	Paper	
4"	520	CSL-235P-400F	CSL-234P-400F	27 3/8	9	14	18 1/2	15	62	235P	234P	570
4"	520	CSL-335P-400F	CSL-334P-400F	27 3/8	9	14	18 1/2	20	64	335P	334P	800
5"	800	CSL-245P-500F	CSL-244P-500F	28 1/4	11	18 1/2	19 1/2	15	88	245P	244P	880
5"	800	CSL-345P-500F	CSL-344P-500F	28 1/4	11	18 1/2	19 1/2	20	90	345P	344P	1100
6"	1100	CSL-275P-600F	CSL-274P-600F	29 1/4	12	18 1/2	20 1/2	15	110	275P	274P	1100
6"	1100	CSL-375P-600F	CSL-374P-600F	29 1/4	12	18 1/2	20 1/2	20	113	375P	374P	1500
8"	1800	CSL-377P-800F	CSL-376P-800F	39 1/8	14	22 1/2	25 1/2	20	185	377P	376P	1825
10"	2900	CSL-685P-1000F	CSL-384P(2)-1000F*	57 1/2	16	27	45	33	380	685P	384P (2)	6600
12"	4950	CSL-485P(2)-1200F*	CSL-484P(2)-1200F*	70 1/4	16	27	57	25	465	485P (2)	484P (2)	9410

See Vacuum Filter Technical Data section for sizing guidelines.

* Denotes 2 elements stacked in housing.

125/150# Pattern Flg	Dimensions - inches			No. of Holes	Flange Thickness
	O.D.	B.C.	B.H.		
4"	9	7 1/2	0.75	8	0.38
5"	10	8 1/2	0.88	8	0.38
6"	11	9 1/2	0.88	8	0.38
8"	13 1/2	11 3/4	0.88	8	0.38
10"	16	14 1/4	1	12	0.38
12"	19	17	1	12	0.5

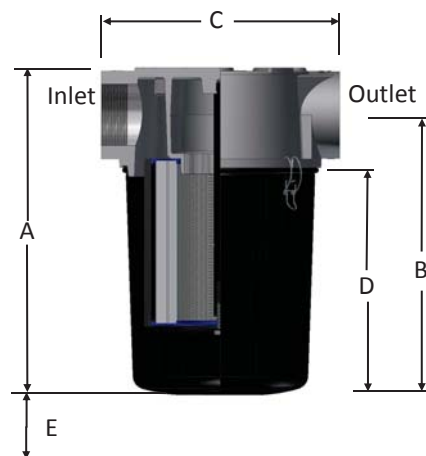


MPT Assemblies

MPT Inlet & Outlet	Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Suggested Service HT. E	Approx. Wt. lbs	Replacement Element Part No.		Element SCFM Rating
		Polyester	Paper	A	B	C	D			Polyester	Paper	
3"	300	CSL-235P-300	CSL-234P-300	27 3/8	9	14	18 1/2	10	47	235P	234P	570
3"	300	CSL-335P-300	CSL-334P-300	27 3/8	9	14	18 1/2	15	50	335P	334P	800
4"	520	CSL-235P-400	CSL-234P-400	27 3/8	9	14	18 1/2	10	52	235P	234P	570
4"	520	CSL-335P-400	CSL-334P-400	27 3/8	9	14	18 1/2	15	55	335P	334P	800
5"	800	CSL-245P-500	CSL-244P-500	28 1/4	11	18 1/2	19 1/2	10	82	245P	244P	880
5"	800	CSL-345P-500	CSL-344P-500	28 1/4	11	18 1/2	19 1/2	15	88	345P	344P	1100
6"	1100	CSL-275P-600	CSL-274P-600	29 1/4	12	18 1/2	20 1/2	10	95	275P	274P	1100
6"	1100	CSL-375P-600	CSL-374P-600	29 1/4	12	18 1/2	20 1/2	15	97	375P	374P	1500

See Vacuum Filter Technical Data section for sizing guidelines.

"T" Style Vacuum Filters CT Series 1" – 6"



Features

- Compact design for space restrictions; min. service area
- Inlet above element for extended element life & maintenance intervals
- Cast, corrosion resistant aluminum top with machined connections and integrated baffle design
- 4 taps for mounting brackets:
 - 2", 2-1/2", 6" connections: M12x1.75 taps
 - 3" to 4" connections: 1/2"-13 taps
- "T" style design minimizes piping requirements
- Black powder coat carbon steel drop down bucket
- Clip release shell for easy maintenance
- Swing bolts standard on 6" housings
- Drill points for additional taps:
 - 1", 1-1/4", 1-1/2", 3", 4" (gauge or bracket)
- 1/4" FPT inlet/outlet taps for gauges: 2", 2-1/2", & 6"

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 Δ P
 - Polyester: 99%+ removal efficiency standard to 5 micron
 - Paper: 99%+ removal efficiency standard to 2 micron
- ** See Vacuum Filter Technical Data for vacuum service data.

Options ATEX Available

- Swing bolts for heavy duty environments
- Drain ports
- Extended bucket (select models)
- Various nonstandard finishes
- Reverse pulse configuration

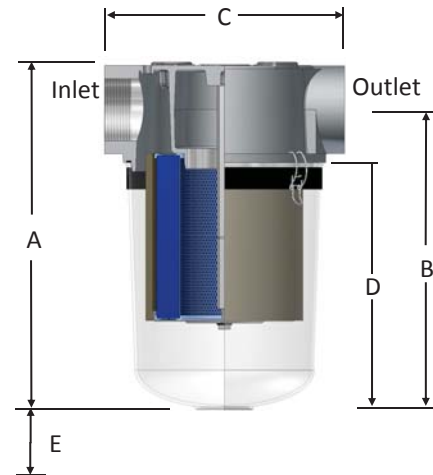
Inlet Vacuum Filters

Inlet/Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Suggested Service HT. E	Approx. Weight lbs.	Replacement Element Part No.		Element SCFM Rating
Size	Type		Polyester	Paper	A	B	C	D			Polyester	Paper	
1"	NPSC	40	CT-897-100C	CT-896-100C	13 1/8	11 11/16	7	10 1/8	9	12	897	896	80
1-1/4"	NPSC	60	CT-897-125C	CT-896-125C	13 1/8	11 11/16	7	10 1/8	9	12	897	896	80
1-1/2"	NPSC	80	CT-897-150C	CT-896-150C	13 1/8	11 11/16	7	10 1/8	9	11	897	896	80
2"	NPSC	175	CT-851-200C	CT-850-200C	12 13/16	10 13/16	9	9	9	16	851	850	290
2-1/2"	FPT	210	CT-851-250C	CT-850-250C	12 13/16	10 13/16	9	9	9	15	851	850	290
3"	FPT	300	CT-235P-300C	CT-234P-300C	18 5/8	16	13 1/2	13	9	30	235P	234P	570
4"	FPT	520	CT-235P-400C	CT-234P-400C	18 5/8	16	13 1/2	13	9	26	235P	234P	570
6"	FPT	1100	CT-275P-600C	CT-274P-600C	18 1/4	14 5/16	19	9 13/16	10	45	275P	274P	1100

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

See Vacuum Filter Technical Data section for sizing guidelines.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.



Features

- Compact design for space restrictions; min. service area
- Inlet above element for extended element life & maintenance intervals
- Cast, corrosion resistant aluminum top with machined connections and integrated baffle design
- 4 taps for mounting brackets:
 - 2" to 2-1/2" connections: M12x1.75 taps
 - 3" to 4" connections: 1/2"-13 taps
- "T" style design minimizes piping requirements
- Bucket made from shatter resistant polycarbonate
- Clip release shell for easy maintenance
- Swing bolts standard on 6" housings
- Drill points for additional taps:
 - 1", 1-1/4", 1-1/2", 3", 4" (gauge or bracket)
- 1/4" FPT inlet/outlet taps for gauges: 2", 2-1/2"

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 Δ P
 - Polyester: 99%+ removal efficiency standard to 5 micron
 - Paper: 99%+ removal efficiency standard to 2 micron
- ** See Vacuum Filter Technical Data for vacuum service data.

Options

- Swing bolts for heavy duty environments
- Drain ports
- Spool piece extender (select models)
- Reverse pulse configuration

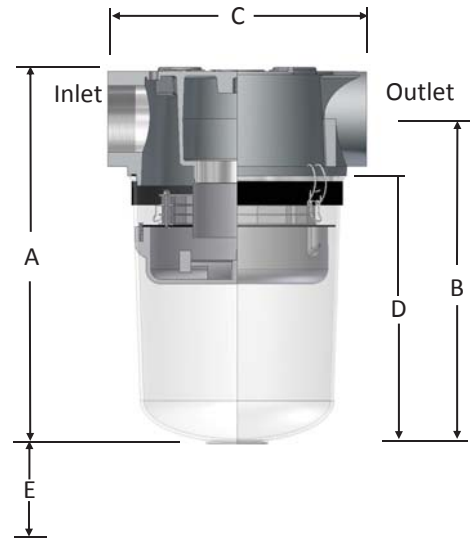
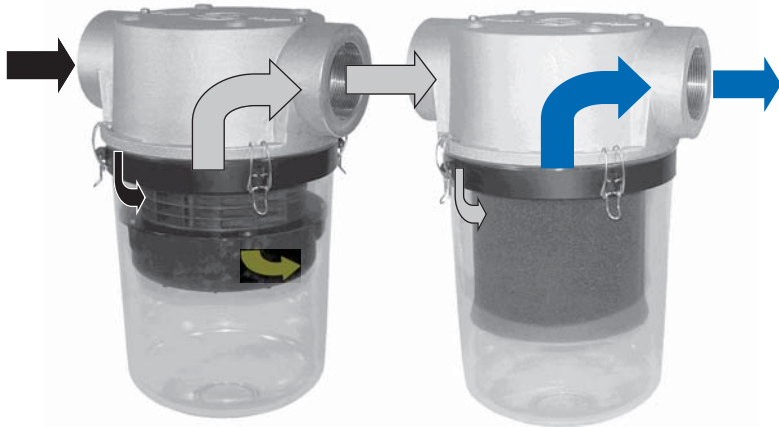
Inlet/Outlet		Assembly SCFM Rating	Assembly Part Number		Dimensions - inches				Suggested Service HT. E	Approx. Weight lbs.	Replacement Element Part No.		Element SCFM Rating
Size	Type		Polyester	Paper	A	B	C	D			Polyester	Paper	
1"	NPSC	40	ST-897-100C	ST-896-100C	13 3/8	11.94	7	10 3/8	9	11	897	896	80
1-1/4"	NPSC	60	ST-897-125C	ST-896-125C	13 3/8	11.94	7	10 3/8	9	11	897	896	80
1-1/2"	NPSC	80	ST-897-150C	ST-896-150C	13 3/8	11.94	7	10 3/8	9	10	897	896	80
2"	NPSC	175	ST-851/1-200C	ST-850/1-200C	16 1/4	14 1/4	9	12 7/16	9	15	851/1	850/1	290
2-1/2"	FPT	210	ST-851/1-250C	ST-850/1-250C	16 1/4	14 1/4	9	12 7/16	9	14	851/1	850/1	290
3"	FPT	300	ST-235P-300C	ST-234P-300C	19 3/4	17	13 1/2	14	9	29	235P	234P	570
4"	FPT	520	ST-235P-400C	ST-234P-400C	19 3/4	17	13 1/2	14	9	25	235P	234P	570

See Vacuum Filter Technical Data section for sizing guidelines.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Extreme Duty Vacuum Filters

SpinMeister™ ST Series



Operating Principle

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

Technical Specifications

- Vacuum Rating: Coarse vacuum service**
 - Temp (continuous): min -15°F (-26°C) max 220°F (104°C)
 - Filter change out differential: 15-20" H2O over initial Δ P
 - Polyester: 99%+ removal efficiency standard to 5 micron
 - Paper: 99%+ removal efficiency standard to 2 micron
- ** See Vacuum Filter Technical Data for vacuum service data.

Features

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

Options

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

Inlet Vacuum Filters

Inlet/Outlet		SCFM Rating		Assembly Part Number			Dimensions - inches				Suggested Service Area	Replacement Element Part No.		Element SCFM Rating
Size	Type	Range w/ SpinMeister	with Element	SpinMeister	Polyeter Element	Paper Element	A	B	C	D	E	Polyester	Paper	Rating
2"	NPSC	40-110	175	ST-SML235-200C	ST-851/1-200C	ST-850/1-200C	16 1/4	14 1/4	9	12 7/16	9	851/1	850/1	290
2-1/2"	FPT	40-110	210	ST-SML235-250C	ST-851/1-250C	ST-850/1-250C	16 1/4	14 1/4	9	12 7/16	9	851/1	850/1	290
3"	FPT	100-200	300	ST-SML345-300C	ST-235P-300C	ST-234P-300C	19	17	13 1/2	14	9	235P	234P	570
3"	FPT	200-450	300	ST-SML445-300C	ST-235P-300C	ST-234P-300C	19	17	13 1/2	14	9	235P	234P	570
4"	FPT	100-200	520	ST-SML345-400C	ST-235P-400C	ST-234P-400C	19	17	13 1/2	14	9	235P	234P	570
4"	FPT	200-450	520	ST-SML445-400C	ST-235P-400C	ST-234P-400C	19	17	13 1/2	14	9	235P	234P	570
6"	FPT	450-900	1100	CTD-SM6-600C**	CT-275P-600C*	CT-274P-600C*	25 3/8	21 1/2	19	17	10	275P	274P	1100

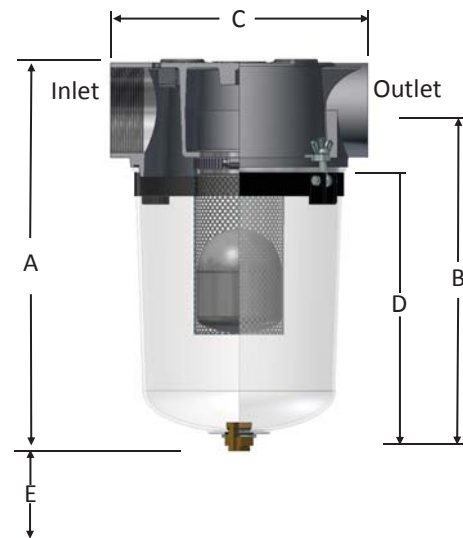
* Denotes housings with carbon steel buckets

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

See Vacuum Filter Technical Data section for sizing guidelines.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

See -Through Liquid Separator STS Series 1"-4"



Operating Principle

- Inlet air with potentially harmful liquid and large particulate enters the housing and is separated by a baffling mechanism and directional air flow changes.
- The larger particles and liquid drops down and collects 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.

Features

- Vacuum Rating: Medium vacuum service**
- Bucket made from shatter resistant polycarbonate
- Corrosion resistant cast aluminum head w/knock-out baffle
- Stainless steel float capsule for emergency shut off
- Stainless steel perforated float tube (SS expanded metal float tube on 1" - 1-1/2")
- Clamp style swing bolts on 3" & 4" standard
- Temperature ratings: max 220°F (104°C)
- 1/4" FPT drain (1" to 1-1/2"), 1/2" FPT drain (2" to 4")
- Drill points for additional taps:
 - 1", 1-1/4", 1-1/2", 3", 4" (gauge or bracket)
- 1/4" FPT inlet/outlet taps for gauges: 2", 2-1/2"

Benefits

- Minimize the likelihood of liquid and debris from damaging vacuum valves and pumps
- Easy visual inspection with see-through housing
- Reduce piping costs with "T" style configuration
- Compact design for space restricted work areas

Options

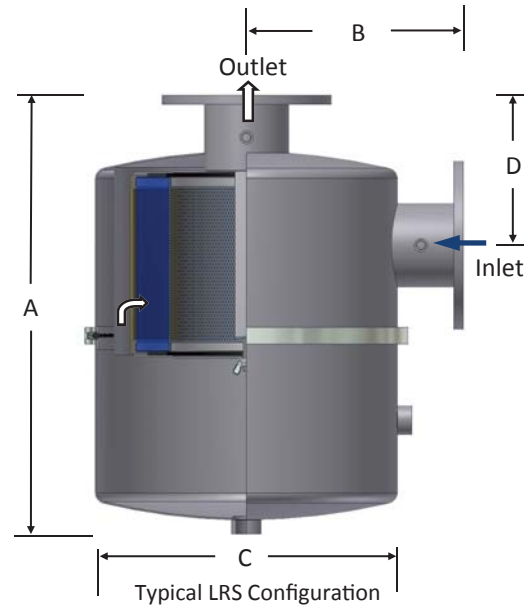
- Float level port/switch
- Cast head protective coatings
- Heavy duty carbon steel buckets available
- Clamp style swing bolts on 1" to 2-1/2"
- Spool piece extender on select models
- Drain packages
- Pressure drop gauge

** See Vacuum Filter Technical Data for vacuum service data.

Inlet/ Outlet		Assembly SCFM	Assembly Part Number	Dimensions - inches				Suggested Service HT.	Holding Capacity
Size	Type	Rating		A	B	C	D	E	gal.
1"	NPSC	40	STS-100C	14 1/4	12 13/16	7	11 1/4	9	0.4
1-1/4"	NPSC	60	STS-125C	14 1/4	12 13/16	7	11 1/4	9	0.4
1-1/2"	NPSC	80	STS-150C	14 1/4	12 13/16	7	11 1/4	9	0.4
2"	NPSC	175	STS-200C	17 1/4	15 1/4	9	13 1/2	9	1
2-1/2"	FPT	210	STS-250C	17 1/4	15 1/4	9	13 1/2	9	1
3"	FPT	300	STS-300C	20 9/16	17 7/8	13 1/2	14 7/8	9	2
4"	FPT	500	STS-400C	20 9/16	17 7/8	13 1/2	14 7/8	9	2

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Liquid Separator/Vacuum Filter LRS Series, SRS Series



Operating Principle

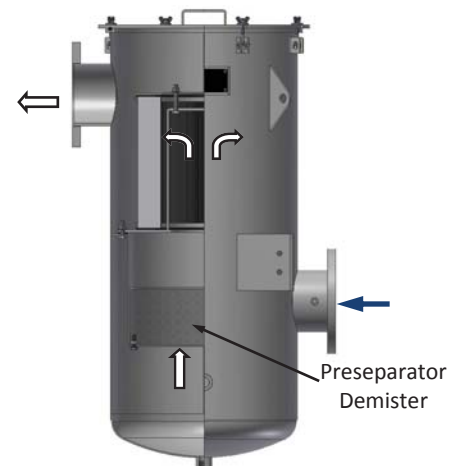
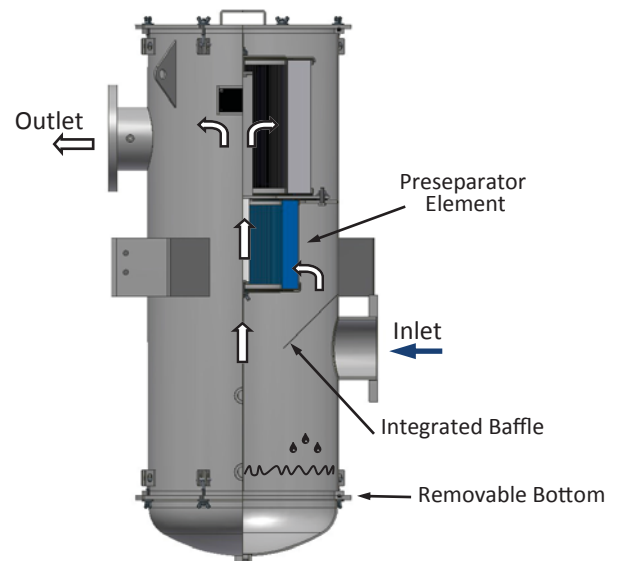
- The inlet air with potentially harmful liquids and particulate enters the highly efficient vacuum filter and is separated by a baffling system.
 - The larger particles and liquid drop down to the large capacity lower chamber.
 - The lower chamber has significant liquid/slurry holding capacity and has a removable base for easy cleaning.
 - The final stage has a replaceable filter element for particulate that is 99+% efficient before it reaches the vacuum pump.
- Note: A typical SRS Series design has a preseparator before the filter element for additional liquid/particulate removal.

LRS Series Specifications

- Multiple stage filtration:
 - Integrated baffle
 - 99+% efficient polyester particulate filter element
- For aerosol apps, additional knock out pot or separator is unnecessary
- Compact construction design

SRS Series Specifications

- Multiple stage filtration
 - Integrated baffle
 - Preseparator wire mesh element (Stainless steel construction recommended)
 - 99+% efficient polyester particulate filter element
- Additional knock out pot or separator unnecessary
- Significant liquid/slurry holding capacity
- Removable base for easy access cleaning
- Brackets for support legs & nameplate
- Lifting lugs



Benefits

- Simplified vacuum package: 2 functions in 1 (liquid separator & inlet air filter)
- High efficiency separation & multistage filtration
- Protects pump from harmful liquids that breaks down lubricating/sealing oil
- Lower costs from unnecessary piping
- Significant liquid/slurry holding capacity
- Prevents emulsification of oil in oil lubricated systems
- Reduce footprint with compact design

Features

- Corrosive resistant carbon steel construction
- Blue epoxy coating
- Baffle system
- 1/4" inlet/outlet taps (select models)
- 1"NPSC drain and sight port
- Wide range of operation flows

Technical Specifications

- Vacuum Rating: Medium vacuum service**
 - Filter change out differential: 15-20" H2O over Initial Δ P
 - Polyester: 99%+ particulate removal efficiency to 5 micron
- ** See Vacuum Filter Technical Data for vacuum service data.

Options

- ASME, PED rated vessels
- Stainless steel construction & nonstandard finishes
- Nonstandard filter media
- Extended bucket for additional holding capacity
- Preseparator stainless steel demister
- Stainless steel wire mesh preseparator element: (Stainless steel construction recommended)
- Safety switch port for high liquid warning
- Drain packages
- Support legs, lifting lugs, vacuum gauges

LRS Series

Assembly SCFM Rating	Inlet / Outlet		Assembly Part Number	Dimensions - inches				Approx. Holding Cap. Gal.	Replacement Element Part No.	Element SCFM Rating
	Size	Type		A	B	C	D			
60	3/4"	NPSC	LRS-19-075HC	17 3/4	4 7/16	7 11/16	3 5/16	1.5	19	100
85	1"	NPSC	LRS-19-100HC	18	4 5/8	7 11/16	3 1/2	1.5	19	100
85	1 1/4"	NPSC	LRS-19-125HC	18	4 5/8	7 11/16	3 1/2	1.5	19	100
100	1 1/2"	NPSC	LRS-19-150HC	18	4 5/8	7 11/16	3 1/2	1.5	19	100
135	2"	NPSC	LRS-237-200HC	22 3/16	6 3/4	12	6 5/8	2.5	237	550
195	2 1/2"	FPT	LRS-237-250C	24 5/16	8 7/8	12	8 3/4	2.5	237	550
300	3"	FPT	LRS-237-300C	24 5/16	8 7/8	12	8 3/4	2.5	237	550
520	4"	FLG	LRS-275-400F	23 3/8	11 1/2	16	8	4.5	275	1100
830	6"	FLG	LRS-275-600F	40 5/8	12	16	9	4.5	275	1100

See Vacuum Filter Technical Data section for sizing guidelines.

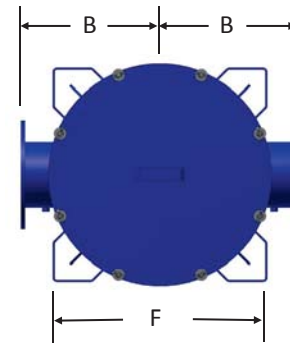
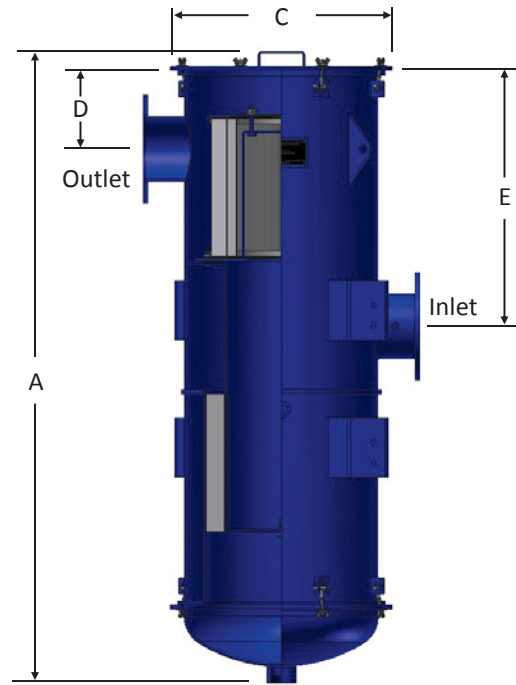
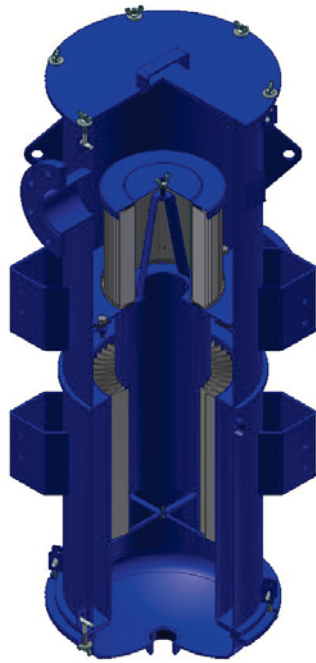
SRS Series (Contact factory for details. Stainless steel configurations available.)

Assembly SCFM Rating	Flange Inlet & Outlet	Reference Only Assembly Part Number	Approx Holding Cap. Gal.	Replacement Element Part No.
1100	6"	SRS-377/274S-600F	20	377 274S
1800	8"	SRS-385/376S-800F	45	385 376S
2450	10"	SRS-385/384S-1000F	45	385 384S
3300	10"	SRS-485/384S-1000F	80	485 384S
4400	12"	SRS-485/384S-1200F	80	485 384S

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Inlet Vacuum Filters

Vapor Condensing Separator Trap JRS Series



Operating Principle

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 jacket system
- Corrosion resistant carbon steel construction
- Coolant inlet and outlet ports
- Removable bottom for full accessibility
- 2" NPSC drain port

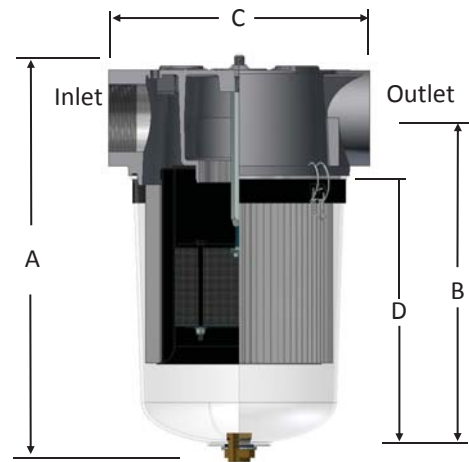
Options



- ASME, PED rated vessels
- Stainless steel construction
- Drain packages
- Ports, gauges, leg supports
- Davit arm

Reference Assembly SCFM	Inlet / Outlet		Reference Only Assembly Part Number	Reference Only Dimensions - inches						Reference Only Element PN
	Size	Type		A	B	C	D	E	F	
143	2"	NPSC	JRS-GMAC235-200C	50 3/8	8 7/8	13 3/8	6	22	18 3/8	GMAC235
143	2 1/2"	FPT	JRS-GMAC235-250C	50 3/8	8 7/8	13 3/8	6	22	18 3/8	GMAC235
220	3"	FLG	JRS-GMAC245-300F	57	11 13/16	17 5/16	7 7/8	24 5/8	21 5/16	GMAC245
275	4"	FLG	JRS-GMAC275-400F	57 1/2	11 13/16	18 1/2	7 7/8	24 5/8	21 5/16	GMAC275
455	5"	FLG	JRS-GMAC377-500F	63 7/8	13 3/4	21 1/4	7 7/8	31 1/2	24 1/4	GMAC377
825	6"	FLG	JRS-GMAC385-600F	64 5/16	16 1/4	22 1/2	7 7/8	31 1/2	27	GMAC385
1175	8"	FLG	JRS-GMAC485-800F	80 3/8	16 3/4	25 3/16	7 7/8	41 3/8	27	GMAC485

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.



Operating Principle

JST & JCT Series vapor condensers are designed to protect equipment from harmful vapors and liquids that can break down pump oils and harms 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.

Options



- ATEX available for JCT versions only
- Additional ports
- Vacuum gauge
- Support frame
- Spool piece/Extended bucket (select models/sizes)

Features

- Removable heat exchanger fin pack for ease of cleaning and long lasting optimum performance
- Coolant jacket system
- Stainless steel demister pad
- Compact housing for minimal footprint
- Removable bottom for full accessibility
- Coolant inlet and outlet ports
- JST Series:
 - Durable see-through bucket made from shatter resistant polycarbonate
 - 1/2" NPTF drain port
- JCT Series:
 - Corrosive resistant carbon steel bucket
 - 1" NPSC drain port
- Contact Solberg for flow rates for your specific application

See-Through Housing

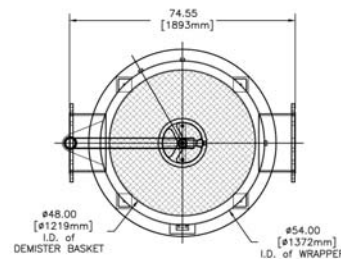
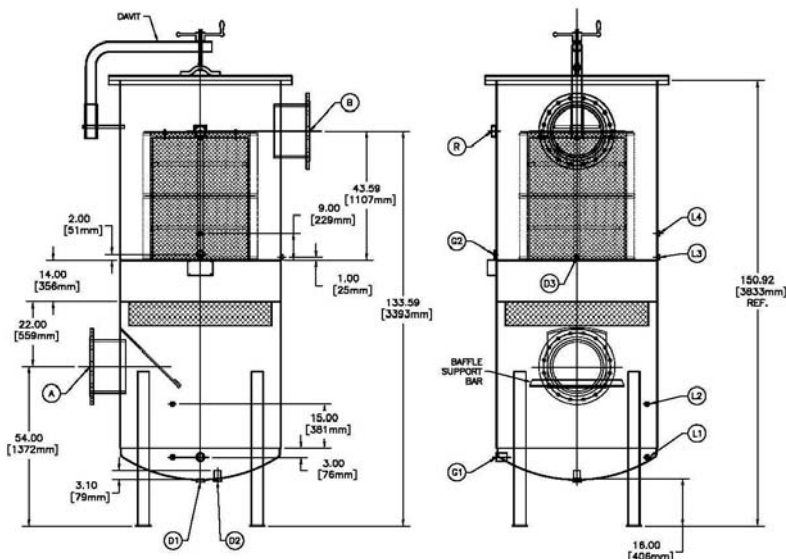
Inlet/ Outlet		Reference Only Assembly Part Number	Reference Dimensions - inches			
Size	Type		A	B	C	D
2"	NPSC	JST-C2048-200C	17 3/8	15	9	13 2/16
2-1/2"	FPT	JST-C2048-250C	17 3/8	15	9	13 2/16
3"	FPT	JST-C2081-300C	21	17 7/8	13 1/2	14 8/9
4"	FPT	JST-C2081-400C	21	17 7/8	13 1/2	14 8/9

Black Carbon Steel Housing

2"	NPSC	JCT-C2048-200C	16 3/4	14 3/8	9	12 1/2
2-1/2"	FPT	JCT-C2048-250C	16 3/4	14 3/8	9	12 1/2
3"	FPT	JCT-C2081-300C	25 13/16	22 1/2	13 1/2	19 1/2
4"	FPT	JCT-C2081-400C	25 13/16	22 1/2	13 1/2	19 1/2
6"	FPT	JCT-C3226-600C	29 13/16	25 7/16	19	21

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Natural Gas Filtration Suction/Interstage Scrubbers



Note: Drawings are shown with sample configuration and dimensions only.



Custom Configuration Shown

Series Specific Applications

- Landfill and Bio-Gas recovery
- Fuel for reciprocating engines and gas turbines
- Gas compression
- Compressor packages
 - Rotary Screw
 - Centrifugal
 - Reciprocating
 - Vane

Features

- Protects equipment from condensate, oil, and particulate entrained in the gas stream
- Multi-stage separation
 - 316 SS vane pack and/or demister pad for heavy condensate and oil removal
 - High efficiency 99+% final filter elements
- Corrosion resistant carbon steel construction
- Contact factory for model offering and availability



Options



- Special standards: PED, CRN, ATEX, ASME Vessel code sec. VIII division I
- Stainless steel construction
- Special coatings or finishes
- Replaceable filter elements in various media for particulate removal
- Gauge ports, float switches
- Custom leg supports
- Flush port for vessel cleaning
- Davit arm for vessel lid removal

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.



Operating Principle

- Reverse Pulse Technology extends maintenance intervals and improves process productivity by rapidly introducing atmospheric air or inert gas into the system.
- This process purges dust from loaded filters and allows the particles to settle in the bottom chamber for easy disposal.

Features

- Integrated reverse pulse technology unloads and extends filter life; improving maintenance intervals and process run time
- Safeguard pumps from harmful particles (SiO_x, GAN, etc.)
- Prevents particles from contaminating pump oil
- Prevents build up and seizing in dry pumps
- Integrated support stand
- Removable base for easy cleaning access
- Carbon steel or stainless steel housing construction

Technical Specifications

- Vacuum Leak Rate: 1×10^{-5} mbar l/sec
- Vacuum Rating: Medium vacuum service**
- Face Velocity @ 20 ft/min (.10 m/sec)

** See Vacuum Filter Technical Data for vacuum service data.

Vacuum Filtration for Solar, Semi-Con, LED, Coating

Reverse Pulse Filter: RX Series



Series Specific Applications

- Vacuum furnaces for crystal growing, steel, titanium, etc.
- Vacuum coating and lamination
- Wet & dry vacuum pumps & systems
- Compatible with most dopants
- Backstreaming

Benefits

- Extends filter life improving maintenance intervals and process run time
- High conductance design
- Lower costs from unnecessary piping
- Large liquid/slurry holding capacity
- Easy maintenance (removable base)
- Reduced footprint

Options

- Configured and custom designs
- Nonstandard finishes
- PTFE media: Temp (continuous): 104°C (220°F)
- Dutch Twill media: Temp (continuous): 190°C(375°F)
- ASME, PED rated vessels
- Parallel filtration systems
- Valves for semi or fully automated system operation
- Vacuum Leak Rating: 1×10^{-8} mbar l/sec
- Contact factory for model offering and availability

Vacuum Filters for Medical Facilities HV Series 1" – 4"



Series Specific Application

- Designed specifically for use in laboratory and hospital work area environments
- Vacuum Pumps & Vacuum Systems

Features

- ULPA - UL media
 - 99.97% @ 0.1 micron
 - Low air to media ratio minimizes pressure loss for optimal pump performance
 - High dirt holding capacity
- Vacuum Rating: Medium vacuum service**
- Corrosion resistant cast aluminum head with integrated baffle
- "E.R" pressure drop indicator gauge; this "Easy Read" gauge provides color coordinated pressure drop readings
- Bucket made from shatter resistant polycarbonate
- Brass valve and fittings for contaminated liquid release
- Easy removable & serviceable sterilizable glass flask
- Biohazard label included

** See Vacuum Filter Technical Data for vacuum service data.

Inlet/Outlet		Assembly	Assembly Part Number	Approx. Weight lbs	Replacement Element Part No.
Size	Type	SCFM Rating			
1"	NPSC	41	HV-UL896-100C	15	UL896
1-1/4"	NPSC	41	HV-UL896-125C	14	UL896
1-1/2"	NPSC	41	HV-UL896-150C	14	UL896
2"	NPSC	102	HV-UL850/1-200C	20	UL850/1
2-1/2"	FPT	102	HV-UL850/1-250C	19	UL850/1
3"	FPT	200	HV-UL234/2-300C	33	UL234/2
4"	FPT	200	HV-UL234/2-400C	29	UL234/2

Contact factory for dimensions.

Note: Model offerings and design parameters may change without notice. See www.solbergmfg.com for most current offering.

Industry Need

Inlet vacuum filters used in medical facilities' work areas prevents damage to vacuum pumps and protects the work area environment from harmful contaminants. They are designed for the removal of liquids, solids, and sub-micron particles.

These high efficiency inlet vacuum filters are specifically designed for medical vacuum service on atmospheric air applications and can be used on a variety of vacuum pumps in most laboratory and hospital environments.

Options

- Vacuum filter systems
- Support stand and protective shroud
- Carbon steel bucket for severe duty applications
- Oxygen rich systems-contact factory for specialized construction requirements
- Larger configurations, contact factory



PN: 2030

Differential Vacuum Gauge

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



PN: 555-0048

EZ Read Pressure Drop Gauge

- Gauge Kit includes: gauge, connectors, mounting hardware
- To be used on ST, CT and HV series
- Contact factory for installation requirements



PN: VG-030-025

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 (0-760mm Hg)
- To be used on CSL, ST, CT Series
- Contact factory for installation requirements



PN: VGB-030-025

Inlet Vacuum Filters



Inlet Vacuum Filters

