SOLBERG

ATEX

Certified Inlet Vacuum Filters and Discharge Air/Oil Separation Filters

- *Safety*
- *Explosion Prevention*
- *Environmental Protection*

Jamieson Equipment Company
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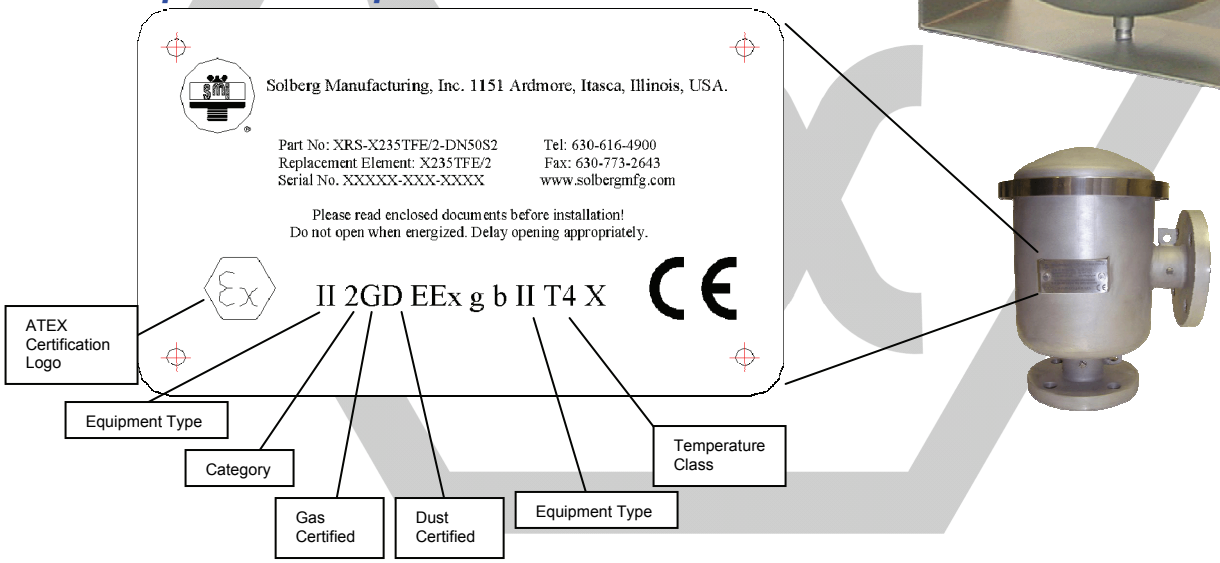
Statistics show that filters are involved in the second highest percentage of dust explosions that occur in industrial applications including pharmaceutical, chemicals, metal, food, plastics, coal and wood.

In July 2003, the new ATEX Directive 94/9/EC (ATEX 95) was implemented Europe-wide to eliminate the possibility of explosions related to equipment used in potentially explosive gaseous or dusty environments.

Solberg became one of the first to be certified to service those industries in need of compliance with this directive.

Under the ATEX directive, Solberg's certification includes the following: to manufacture and supply any type of inlet filter silencers, inlet filters, inlet vacuum filters, integrated liquid separators/vacuum filters and air/oil separation filters. Solberg was registered by the TUV Rheinland Group under Ref-N 968/Ex-Ab 557/04 as of 29 November 2004.

ID Nameplate Description



ATEX Classifications

Category	Design of safety	Design Requirements	Application	Zone of use	Solberg Certified
1	Very high level of safety	Two independent means of protection or safe with two separate faults	Where explosive atmospheres are present continuously or for lengthy periods	Zone 0 Zone 20	
2	High level of safety	Safe with frequently occurring disturbances or with an operating fault	Where explosive atmospheres are likely to occur	Zone 1 Zone 21	Yes
3	Normal level of safety	Safe in normal operation	Where explosive atmospheres are likely to occur infrequently and be of short duration	Zone 2 Zone 22	Yes

Solberg is ATEX certified under equipment groups for non mining applications and is classified for Category 2 gases and dusts. This is also classified under Zones 1, 2, 21, and 22.

ATEX Certified

How Solberg Eliminates the Possibility of Explosions: Electrical Conductivity

Filter Housing

- Filter housing parameters constructed of conductive materials
- Grounding terminals on housing
- Conductive o-rings and gaskets

Testing and Documentation

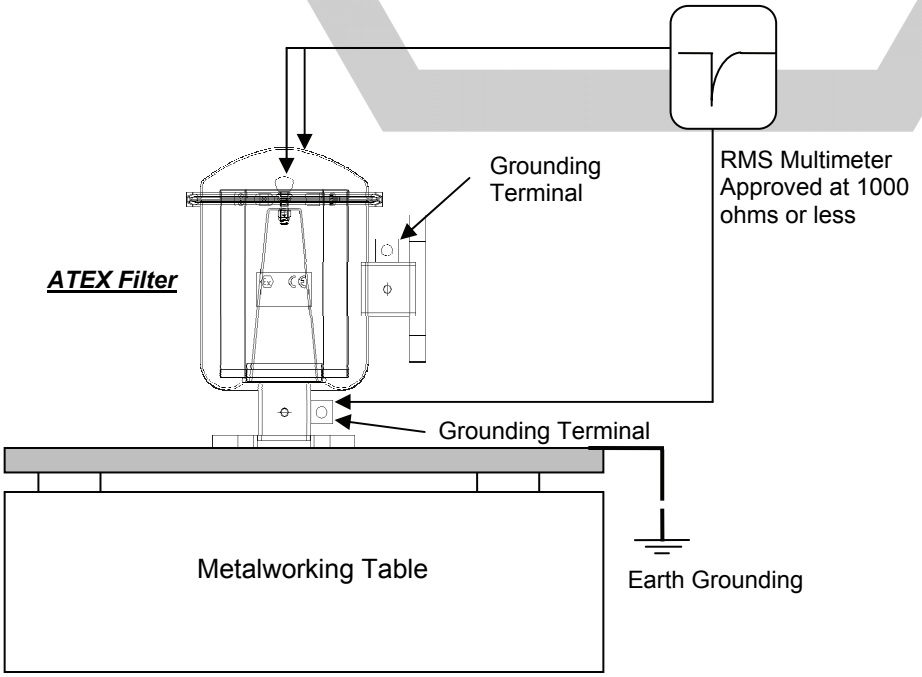
- Each filter assembly and filter element is individually tested for conductivity
  - A point to point resistance test is performed
  - Filter housings are approved at 1000 ohms or less
  - In process inspections and a final inspection is performed
- Each filter is assigned a serial number for easy traceability
- Documentation is recorded and is available upon request

Filter Element

There are many aspects involved in providing an ATEX certified filter element. Much of a filter element's components are made from naturally non-conductive material . Solberg has developed materials and design parameters that enables the filter element to be certified.

- Each filter element is individually tested for conductivity
- Filter media tested under EN 13463 and EN 1127 standards.
- Custom conductive gaskets and adhesive
- Stainless steel endcaps, wirescreen and expanded metal support
- Multiple independent means of protection integrated within filter element design
- Currently approved media types for inlet filter silencers and inlet vacuum filters
  - Polyester: 99+% efficient to 5 microns
  - Paper: 99+% efficient to 2 microns
  - "Z" Series, Polyester: 99.9% efficient to 1 micron
  - PTFE Special: 99.97% efficient with non-clinging characteristics

Conductivity Testing



Filter Element to Housing Conductivity Test

ATEX Certified Inlet Vacuum Filters and Discharge Air/Oil Separation Filters

APPLICATIONS & EQUIPMENT

- Ash Handling
- Plastic Industry
- Chemical Processing
- Pneumatic Conveying Systems
- Industrial Aerosol Scrubbing
- Vacuum Metallizing
- Woodworking
- Coal Industry
- Pharmaceutical Industry
- Food Industry
- Vacuum Pumps & Systems – Rotary Vane, Screw, Piston
- Blowers - Side Channel & Roots
- Inquires Encouraged

FEATURES & SPECIFICATIONS

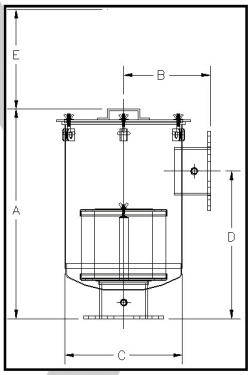
- ATEX certified housing construction
- All housings have an electrical conductive path between grounding terminal and housing cover
- All gaskets and o-rings are electrically conductive
- All filter elements have been designed and constructed to be electrically conductive
- Durable zinc plated carbon steel housings
- Heavy duty T bolts or industrial strength v-band for easy maintenance
- Positive engagement o-ring seal system
- Inlet/outlet 1/4" taps for gauges
- Temp (continuous):min –15°F max 220°F

Inlet Vacuum Filters

- Vacuum level: Typ. $1x10^{-3}$ mmHg ($1.3x10^{-3}$ mbar)
- Large dirt holding capacity
- Filter change out differential: 10"-15" H_2O over initial delta p

Discharge Air/Oil Separation Filters

- Minimum 99.97% D.O.P. on 0.3 micron particles
- Large oil holding capacity
- 10 PSIG proof pressure
- 1/4" drain tap



Dimension tolerance ± 1/4"

OPTIONS (Inquiries Encouraged)

- ASME/PED certified housings
- Stainless Steel - 304L (1.4306) and 316L (1.4404)
- Nickel chrome finish
- Straight-Through Configurations
- Support brackets
- Inlet Filter Silencers (XS Series),
- Inlet Filters (XF Series)
- Integrated Liquid Separators/ Vacuum Filters (XRS Series)

Inlet Vacuum Filters

Reference Only Models with Polyester Element	Reference Only Models with Paper Element	Inlet & Outlet	Connection Style	Reference Only DIMENSIONS - inches A	B	C	D	E	Rated Flow SCFM Nominal Rating	Element Rating	Approx. Wt. lbs
XSL-X843-075HC	XSL-X842-075HC	3/4"	FPT	4 3/8	3	5 7/8	2 1/2	3 1/4	25	55	3
XSL-X843-125HC	XSL-X842-125HC	1 1/4"	FPT	4 3/8	3 1/4	5 7/8	2 5/8	3 1/4	55	55	3
XSL-X849-125HC	XSL-X848-125HC	1 1/4"	FPT	6 3/4	4 1/8	7 5/16	4 1/2	5 1/4	60	115	5
XSL-X849-150HC	XSL-X848-150HC	1 1/2"	FPT	6 3/4	4 1/8	7 5/16	4 1/2	5 1/4	80	115	5
XSL-X851/1-200HC	XSL-X850/1-200HC	2"	FPT	10 1/4	4 5/9	8 3/4	5	9 1/4	175	290	15
XSL-X851/1-250HC	XSL-X850/1-250HC	2 1/2"	FPT	10 1/2	5 1/8	8 3/4	5 1/2	9 1/4	210	290	15
XSL-X851/1-200F	XSL-X850/1-200F	2"	Flange	10 1/4	4 5/9	8 3/4	5	9 1/4	175	290	15
XSL-X851/1-250F	XSL-X850/1-250F	2 1/2"	Flange	10 1/2	5 1/8	8 3/4	5 1/2	9 1/4	210	290	15
XSL-X239-300C	XSL-X238-300C	3"	FPT	15 3/4	8 7/8	13 1/4	8 3/4	11	300	570	33
XSL-X239-300F	XSL-X238-300F	3"	Flange	15 3/4	8 7/8	13 1/4	8 3/4	11	300	570	33
XSL-X235/2-300F	XSL-X234/2-300F	3"	Flange	27 1/8	9	14	18 1/2	15	520	570	62
XSL-X235/2-400F	XSL-X234/2-400F	4"	Flange	27 1/8	9	14	18 1/2	15	520	570	62
XSL-X245/2-500F	XSL-X244/2-500F	5"	Flange	28 1/8	11	18 1/2	19 1/2	15	800	880	88
XSL-X275/2-600F	XSL-X274/2-600F	6"	Flange	29 1/8	12	18 1/2	20 1/2	15	1100	1100	110
XSL-X377/2-800F	XSL-X376/2-800F	8"	Flange	38	14	22 1/2	25 1/2	20	1800	1825	185
XSL-X385/2-1000F	XSL-X384/2-1000F	10"	Flange	44 1/2	16 1/8	27	34	15	2900	6600	380
XSL-X485/2-1200F	XSL-X484/2-1200F	12"	Flange	44 1/2	16 1/8	27	34	22	2900	6600	380

Discharge Air/Oil Separation Filters

Reference Only Model No.	Inlet & Outlet	Connection Style	Reference Only DIMENSIONS - inches A	B	C	D	E	SCFM Nom. Vacuum Pump Rating	Element Rating	Approx. Wt. lbs
XDL-XSG848-125HC	1 1/4"	FPT	6 3/4	4 1/8	7 1/3	4 5/8	5 1/4	50	50	5
XDL-XSG848-150HC	1 1/2"	FPT	6 3/4	4 1/8	7 1/3	4 5/8	5 1/4	50	50	5
XDL-XSG850/1-200HC	2"	FPT	11 1/4	4 3/5	8 3/4	5	9 1/4	125	125	15
XDL-XSG860/1-250HC	2 1/2"	FPT	18	5 1/8	8 3/4	5 1/2	14 1/2	200	200	30
XDL-XSG850/1-200F	2"	Flange	11 1/4	4 3/5	8 3/4	5	9 1/4	125	125	15
XDL-XSG860/1-250F	2 1/2"	Flange	18	5 1/8	8 3/4	5 1/2	14 1/2	200	200	30
XDL-XSG244/2-300C	3"	FPT	16	8 7/8	15 1/4	8 3/4	10	250	300	35
XDL-XSG244/2-300F	3"	Flange	16	8 7/8	15 1/4	8 3/4	10	250	300	35
XDL-XSG344/2-300F	3"	Flange	31 1/8	9	14	22 1/2	15	300	500	75
XDL-XSG344/2-400F	4"	Flange	31 1/8	9	14	22 1/2	15	500	500	78
XDL-XSG474/2-500F	5"	Flange	38 1/8	11	18 1/2	29 1/2	15	800	1100	160
XDL-XSG474/2-600F	6"	Flange	39 1/8	12	18 1/2	30 1/2	22	1100	1100	160
XDL-XSG476-800F	8"	Flange	38 4/5	14	21	25 1/2	22	1800	1800	180

ISO 9001 : 2000 REGISTERED FIRM

RoHS Compliant 2002/95/EC

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