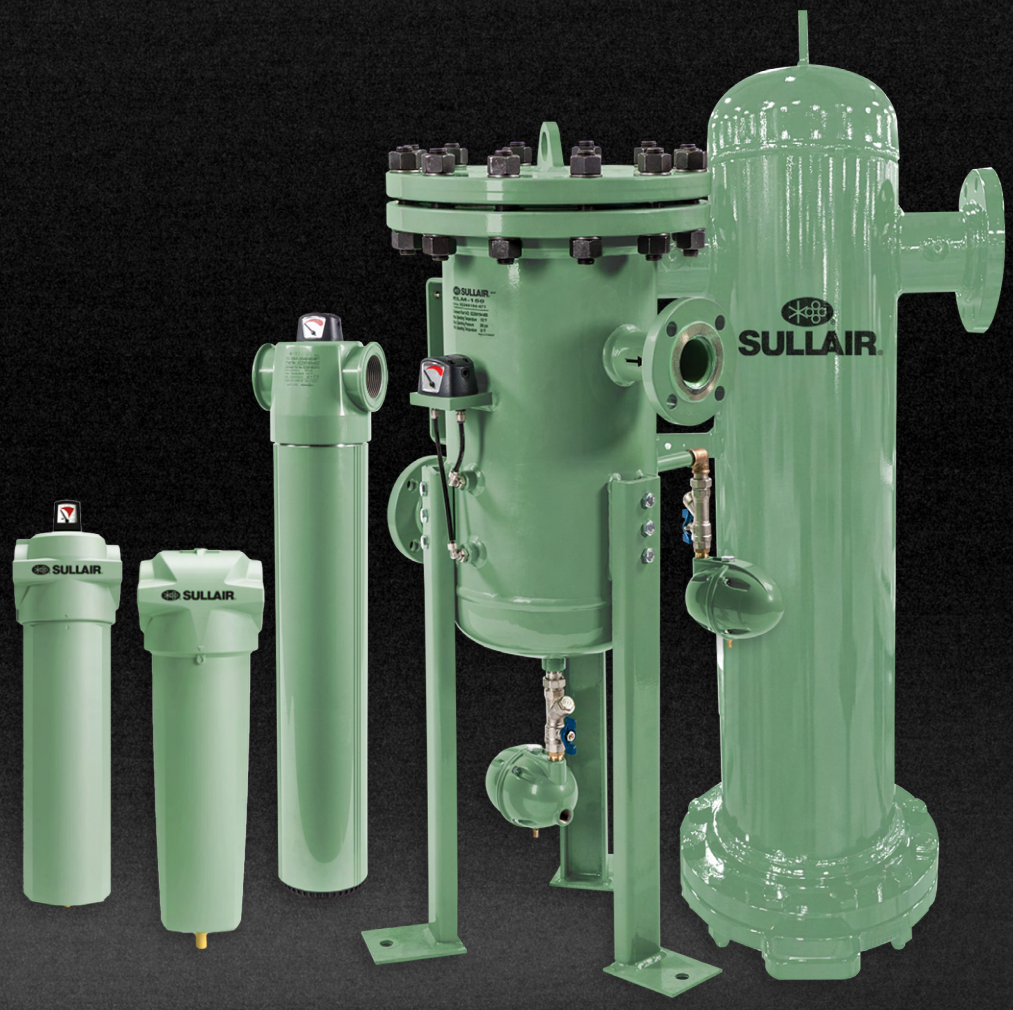
HITACHI

SULLAIR

SULLAIR FILTRATION & MIST ELIMINATION

Activated Carbon; Coalescing; Particulate; High Pressure; High Temperature; Mist Elimination; Water Separation



Hitachi Global Air Power

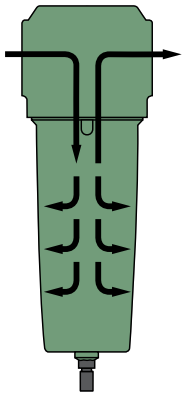
THE IMPORTANCE OF RELIABLE FILTRATION

Effectively removing contaminants throughout the air compression cycle is crucial to help maintain part quality, prevent machine damage and ensure employee safety.

Sullair filtration helps remove contaminants, along with humidity and oil from the compressed air stream.

How?

Compressed air enters the filter housing inlet. The inlet design helps optimize air flow as compressed air moves into the physical medium of a filter element.



Then, untreated compressed air passes through filter material designed for retention of particles such as liquid oil, oil aerosols, dirt and scale.

Finally, the treated, clean compressed air flows downstream to other inline components or point-of-use.

Removed condensate moves from the treated air to be easily drained.

SULLAIR FILTRATION SERIES

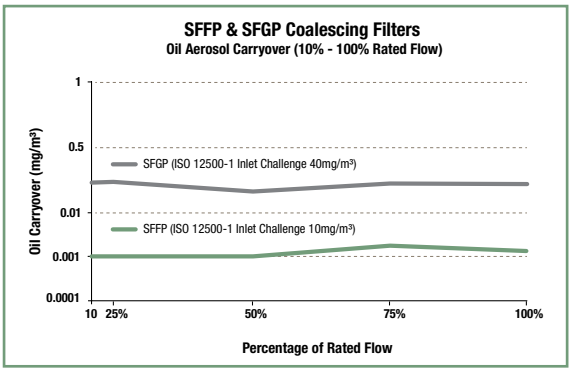
Sullair filtration is built for reliable operation and designed to help you save money.

- Engineered for energy efficiency—helps reduce operating costs
- Durable housing construction for corrosion resistance
- Broad filtration from general purpose to highly stringent applications
- Designed for safe and easy maintenance

- **SFGP — General Purpose Filtration** — 21 to 11,019 cfm
- **SFFP — Fine Particulate Filtration** — 21 to 11,019 cfm
- **SFAC — Activated Carbon Filtration** — 21 to 11,019 cfm
- **SFWS — Water Separation** — 21 to 6300 cfm
- **FH Series — High Pressure Threaded Filtration** — 60 to 1750 cfm
- **SFHT — High Temperature Particulate Threaded Filtration** — 83 to 1660 cfm
- **FWFRHT — High Temperature Particulate Flange Filtration** — 1500 to 17,700 cfm

SF SERIES FILTRATION

- Pleated filter design for maximum efficiency and extended filter life
  - Extremely low pressure drop
  - Reduced maintenance and energy costs
  - Increased dirt holding capacity
  - Low oil aerosol carryover
- Designed for applications requiring the highest purity—such as Food & Beverage and Pharmaceuticals



SF SERIES WATER SEPARATORS

- Low maintenance
- Optimized for efficiency—helping save money and energy

SULLAIR ELM MIST ELIMINATORS

RELIABLE PERFORMANCE IN VARYING LOAD CONDITIONS. EXTREMELY LOW PRESSURE DROP.

SULLAIR ELM SERIES HELPS YOU SAVE ENERGY

ELM Series Mist Eliminators have a .05 psi pressure drop—4 psi lower than conventional filters.

Generally, reducing pressure drop by 2 psi saves 1% in compressor energy consumption.

4 psi = 2% compressor power savings

Annual Energy Savings on 100 hp System

$0.05/kWh x 8760 hours x 74.6 kW x 2% = $653

$0.08/kWh x 8760 hours x 74.6 kW x 2% = $1046

$0.10/kWh x 8760 hours x 74.6 kW x 2% = $1307

Annual energy savings based on assumptions of normal operating conditions. Your results may vary.

Element

- Ultra-low differential pressure—.05 psi
- High load factor compared to conventional hand-packed media
  - 9–10x greater surface area and dirt holding capacity
- Special, machine-pleated element construction
  - Increases stability under changing loads
  - Reduces specific surface tension

DESIGNED FOR A LONGER SERVICE LIFE

Frame

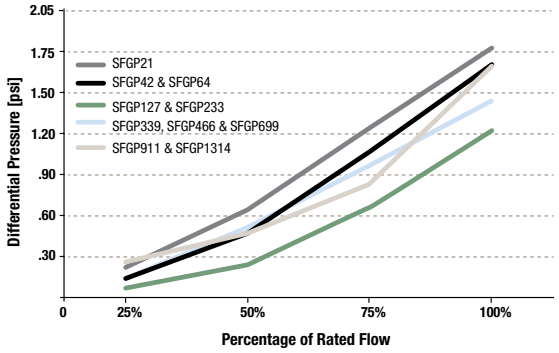
- Engineered to stand up to harsh environments
  - Strong stainless steel support sleeve construction—helps prevent rust and corrosion

SFGP SERIES

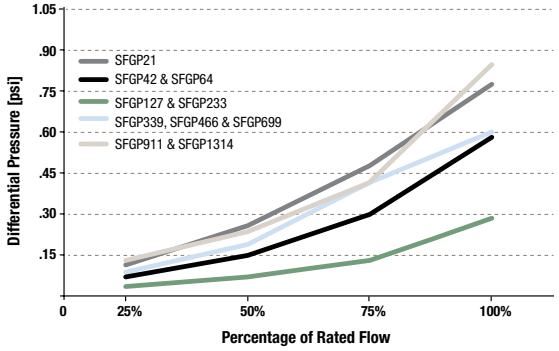
GENERAL PURPOSE THREADED/FLANGE FILTERS

Flow Rate (cfm)	Connection Size (NPT)	Housing Width (in)	Housing Height (in)	Weight (lbs)
21	¼″	3	7.1	1.8
21	⅜″	3	7.1	1.8
21	½″	3	7.1	1.8
42	⅜″	3.5	9.4	3.1
42	½″	3.5	9.4	3.1
64	½″	3.5	9.4	3.1
64	¾″	3.5	9.4	3.1
127	¾″	4.7	10.9	5.9
127	1″	4.7	10.9	5.9
233	1″	6.5	14.5	6.6
233	1 ½″	6.5	14.5	6.6
339	1 ½″	6.5	17.3	15.1
466	2″	6.5	20.9	15.8
699	2″	6.5	20.9	15.8
699	2 ½″	6.5	20.9	15.8
911	2 ½″	7.6	25.8	22.4
1314	2 ½″	7.6	33.2	34.8
1314	3″	7.6	33.2	34.8
2119	4″ FLG	21.1	56.4	325
2755	4″ FLG	21.1	56.4	325
4132	6″ FLG	23.8	58.4	425
6887	8″ FLG	28.8	62.4	725
11,019	10″ FLG	29.1	63.6	850

SFGP Coalescing Filter
Initial Saturated Differential Pressure (25% - 100% Rated Flow)
ISO12500-1 Challenge - 40mg/m³



SFGP Dry Particulate Filter
Initial Dry Differential Pressure (25% - 100% Rated Flow)



ELEMENT TYPES			
Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psi)	Wet Δ Pressure (psi)
1	0.5	1	1.8

CORRECTION FACTORS																					
Minimum Inlet Pressure *psi*	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor	2.65	1.87	1.53	1.32	1.18	1.08	1	0.94	0.88	0.84	0.8	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Validated in accordance with ISO 12500-1 and 3
ASME/CRN Certified*

Min operating pressure *psi*	22 (float), 15 (manual)
Max operating pressure *psi*	232 (float), 260 (manual)
Min operating temperature *°F*	35
Max operating temperature *°F*	149 (float), 176 (manual)

To find the correct filter for your application, multiply the system flow rate by the above factor to derive the corrected flow rate. Then select the filter closest to the calculated flow rate.

Example: *The system flow rate is 550 cfm at 150 psi. Multiply 550 x 0.84 = 462 cfm. Select the SFGP466 filter.*

Standard Features

- Versatile housing connections
- Float drain

Options

- Manual Drain
- Differential pressure gauge

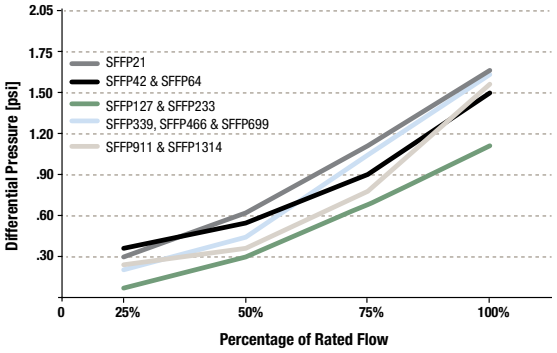
**Some filter models are not registered in all provinces.*

SFFP SERIES

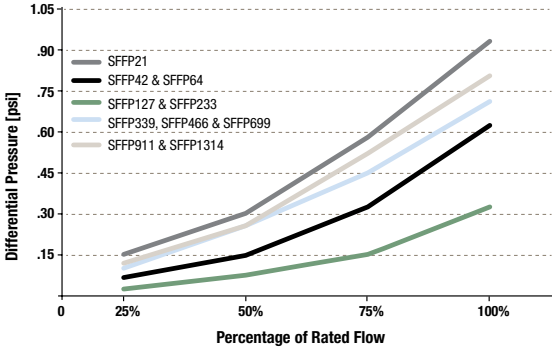
FINE PARTICULATE THREADED/FLANGE FILTERS

Flow Rate (cfm)	Connection Size (NPT)	Housing Width (in)	Housing Height (in)	Weight (lbs)
21	¼″	3	7.1	1.8
21	⅜″	3	7.1	1.8
21	½″	3	7.1	1.8
42	⅜″	3.5	9.4	3.1
42	½″	3.5	9.4	3.1
64	½″	3.5	9.4	3.1
64	¾″	3.5	9.4	3.1
127	¾″	4.7	10.9	5.9
127	1″	4.7	10.9	5.9
233	1″	6.5	14.5	6.6
233	1 ½″	6.5	14.5	6.6
339	1 ½″	6.5	17.3	15.1
466	2″	6.5	20.9	15.8
699	2″	6.5	20.9	15.8
699	2 ½″	6.5	20.9	15.8
911	2 ½″	7.6	25.8	22.4
1314	2 ½″	7.6	33.2	34.8
1314	3″	7.6	33.2	34.8
2119	4″ FLG	21.1	56.4	325
2755	4″ FLG	21.1	56.4	325
4132	6″ FLG	23.8	58.4	425
6887	8″ FLG	28.8	62.4	725
11,019	10″ FLG	29.1	63.6	850

SFFP Coalescing Filter
Initial Saturated Differential Pressure (25% - 100% Rated Flow)
ISO12500-1 Challenge - 10mg/m³



SFFP Dry Particulate Filter
Initial Dry Differential Pressure (25% - 100% Rated Flow)



ELEMENT TYPES			
Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psi)	Wet Δ Pressure (psi)
0.01	0.01	1	1.8

CORRECTION FACTORS																					
Minimum Inlet Pressure *psi*	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor	2.65	1.87	1.53	1.32	1.18	1.08	1	0.94	0.88	0.84	0.8	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Validated in accordance with ISO 12500-1 and 3
ASME/CRN Certified*

Min operating pressure *psi*	22 (float), 15 (manual)
Max operating pressure *psi*	232 (float), 260 (manual)
Min operating temperature *°F*	35
Max operating temperature *°F*	149 (float), 176 (manual)

To find the correct filter for your application, multiply the system flow rate by the above factor to derive the corrected flow rate. Then select the filter closest to the calculated flow rate.

Example: *The system flow rate is 550 cfm at 150 psi. Multiply 550 x 0.84 = 462 cfm. Select the SFFP466 filter.*

Standard Features

- Versatile housing connections
- Float drain

Options

- Manual Drain
- Differential pressure gauge

**Some filter models are not registered in all provinces.*

SFAC SERIES

ACTIVATED CARBON THREADED/FLANGE FILTERS

Flow Rate (cfm)	Connection Size (NPT)	Housing Width (in)	Housing Height (in)	Weight (lbs)
21	¼″	3	7.1	1.8
21	⅜″	3	7.1	1.8
21	½″	3	7.1	1.8
42	⅜″	3.5	9.4	3.1
42	½″	3.5	9.4	3.1
64	½″	3.5	9.4	3.1
64	¾″	3.5	9.4	3.1
127	¾″	4.7	10.9	5.9
127	1″	4.7	10.9	5.9
233	1″	6.5	14.5	6.6
233	1 ½″	6.5	14.5	6.6
339	1 ½″	6.5	17.3	15.1
466	2″	6.5	20.9	15.8
699	2″	6.5	20.9	15.8
699	2 ½″	6.5	20.9	15.8
911	2 ½″	7.6	25.8	22.4
1314	2 ½″	7.6	33.2	34.8
1314	3″	7.6	33.2	34.8
2119	4″ FLG	21.1	56.4	325
2755	4″ FLG	21.1	56.4	325
4132	6″ FLG	23.8	58.4	425
6887	8″ FLG	28.8	62.4	725
11,019	10″ FLG	29.1	63.6	850

ELEMENT TYPE			
Element Type	**Micron Rating (µm)**	**Oil Carryover (mg/m³)**	**Dry Δ Pressure (psi)**
Oil Vapor Reduction Filter	0.003	0.003	1.2

CORRECTION FACTORS																					
Minimum Inlet Pressure *psi*	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232	248	263	277	290
Correction Factor	2.65	1.87	1.53	1.32	1.18	1.08	1	0.94	0.88	0.84	0.8	0.76	0.73	0.71	0.68	0.66	0.64	0.62	0.61	0.59

Validated in accordance with ISO 12500-1 and 3
ASME/CRN Certified*

Min operating pressure *psi* 15
Max operating pressure *psi* 232 (float), 260 (manual)
Min operating temperature *°F* 35
Max operating temperature *°F* 122

To find the correct filter for your application, multiply the system flow rate by the above factor to derive the corrected flow rate. Then select the filter closest to the calculated flow rate.

Example: *The system flow rate is 550 cfm at 150 psi. Multiply 550 x 0.84 = 462 cfm. Select the SFAC466 filter.*

Standard Features

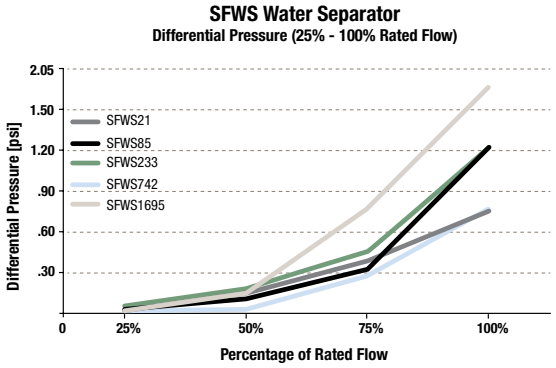
- Versatile housing connections
- Manual Drain

**Some filter models are not registered in all provinces.*

SFWS SERIES

THREADED/FLANGE WATER SEPARATORS

Flow Rate (cfm)	Connection Size (NPT)	Housing Width (in)	Housing Height (in)	Weight (lbs)
21	¼″	3	7.1	1.8
21	⅜″	3	7.1	1.8
21	½″	3	7.1	1.8
85	⅜″	3.5	9.4	3.1
85	½″	3.5	9.4	3.1
85	¾″	3.5	9.4	3.1
233	¾″	4.7	10.9	5.9
233	1″	4.7	10.9	5.9
233	1 ½″	4.7	10.9	5.9
742	1 ½″	6.5	17.3	15.1
742	2″	6.5	17.3	15.1
742	2 ½″	6.5	17.3	15.1
1695	2 ½″	7.6	20.3	18.7
1695	3″	7.6	20.3	18.7
2100	6″ FLG	24	60.5	325
6300	8″ FLG	29	66.7	1250



ELEMENT TYPE	
Element Type	**Wet Δ Pressure (psi)**
Liquid Separator	1.8

CORRECTION FACTORS																
Minimum Inlet Pressure *psi*	15	29	44	58	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor	4	2.63	2	1.59	1.33	1.14	1	0.94	0.89	0.85	0.82	0.79	0.76	0.73	0.71	0.68

Validated in accordance with ISO 12500-1 and 3
ASME/CRN Certified*

Min operating pressure *psi*	22
Max operating pressure *psi*	232
Min operating temperature *°F*	35
Max operating temperature *°F*	149

To find the correct filter for your application, multiply the system flow rate by the above factor to derive the corrected flow rate. Then select the filter closest to the calculated flow rate.

Example: *The system flow rate is 550 cfm at 150 psi. Multiply 550 x 0.85 = 468 cfm. Select the SFWS742 filter.*

Standard Features

- Versatile housing connections
- Float drain

**Some filter models are not registered in all provinces. SFWS 2100 & 6300 models not certified for Canada.*

SFHT SERIES

PARTICULATE HIGH TEMPERATURE THREADED FILTERS

Flow Rate (cfm)	Connection Size (NPT)	Housing Width (in)	Housing Height (in)	Weight (lbs)	Drain NPT
83	½″	3.25	10.5	2	½″
232	1"	5	15.5	4	½″
600	1 ½″	6	19.25	12	½″
600	2"	6	19.25	12	½″
1035	2"	6	30.5	16	½″
1330	2 ½″	8	37	35	½″
1660	3″	8	37	35	½″

ELEMENT TYPES			
Micron Rating (µm)	Oil Carryover (mg/m3)	Dry Δ Pressure (psi)	Wet Δ Pressure (psi)
1	0.5	1	1.8

CORRECTION FACTORS											
Minimum Inlet Pressure *psi*	60	80	100	120	140	160	180	200	220	240	250
Correction Factor	1.54	1.21	1	0.85	0.74	0.66	0.59	0.53	0.49	0.45	0.43

Validated in accordance with ISO 12500-1 and 3
CRN Certified*

Min operating pressure *psi*	15
Max operating pressure *psi*	250
Min operating temperature *°F*	35
Max operating temperature *°F*	450

To find the correct filter for your application, multiply the system flow rate by the above factor to derive the corrected flow rate. Then select the filter closest to the calculated flow rate.

Example: *System flow rate is 550 cfm at 150 psi. Multiply 550 x 0.74 = 407 cfm. Select the SFHT600 filter.*

Standard Features

- Manual drain valve

**Some filters not certified in all provinces*

FH SERIES

HIGH PRESSURE THREADED FILTERS

Flow Rate (cfm)	Connection Size (NPT)	Dimension A (in)	Dimension B (in)	Dimension C (in)	Dimension D (in)	Weight (lbs)
60	¼″	4.5	4.5	1	6	7
175	½″	4.5	4.5	1	6.2	7
350	¾″	4.3	4.5	1.3	8.1	9
500	1″	5.2	5.4	1.5	9.8	14
700	1″	5.2	5.4	1.5	12.4	18
950	1 ½″	5	5.4	1.7	14.5	21
1500	2″	5.7	6.2	2	15.5	25
1750	2 ½″	6.3	7	2.3	15.2	28

ELEMENT TYPES

Element Type Designator	Element Type	Package Description	Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psi)	Wet Δ Pressure (psi)
F	Fine	General Purpose Filter	1	0.5	0.6	1.2
H	Superfine	Oil Removal Filter	0.01	0.01	1.2	2.3
C	Activated Carbon Element	Activated Carbon Filter	0.01	0.003	2.3	2.3

CORRECTION FACTORS

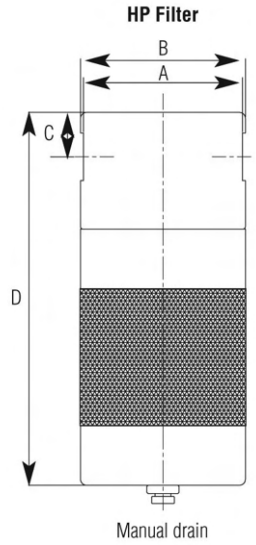
Operating Pressure *psi*	290	363	435	508	580	653	725
Correction Factor	0.63	0.7	0.78	0.83	0.9	0.95	1

Validated in accordance with ISO 8573-1
ASME/CRN Certified

Max operating pressure *psi*	725
Min operating temperature *°F*	36
Max operating temperature *°F*	176

Standard Features

- Manual drain ball valve



FWFRHT SERIES

PARTICULATE HIGH TEMPERATURE FLANGE FILTERS

DIMENSIONS & WEIGHT							
Flow Rate (cfm)	Connection Size (FLG)	Dimension A (in)	Dimension B (in)	Dimension C (in)	Dimension D (in)	Dimension E (in)	Weight (lbs)
1500	3″	17.7	51	11	29.5	25.5	230
1900	4″	17.7	52.2	11	30.3	25.5	246
2500	4″	20.9	53.2	11.1	30.4	25.5	324
3800	6″	22.8	56.4	13.1	31.4	25.5	450
5000	6″	25.6	57.1	13.3	31.6	25.5	580
6500	8″	29.5	59.6	14.5	32.6	25.5	752
8300	8″	31.5	60.7	15	32.7	25.5	866
10,000	10″	33.5	64	16.3	33.8	25.5	1148
12,400	12″	33.5	66	17.5	34.8	25.5	1214
15,000	14″	39.4	69.7	18.9	35.8	25.5	1716
17,700	14″	39.4	69.7	18.9	35.8	25.5	1730

ELEMENT TYPE						
Sullair Model Nomenclature	Element Type	Package Description	Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psig)	Wet Δ Pressure (psig)
F	Fine	Reverse Flow GP Filter	1	0.5	0.6	1.2

ASME/CRN Certified

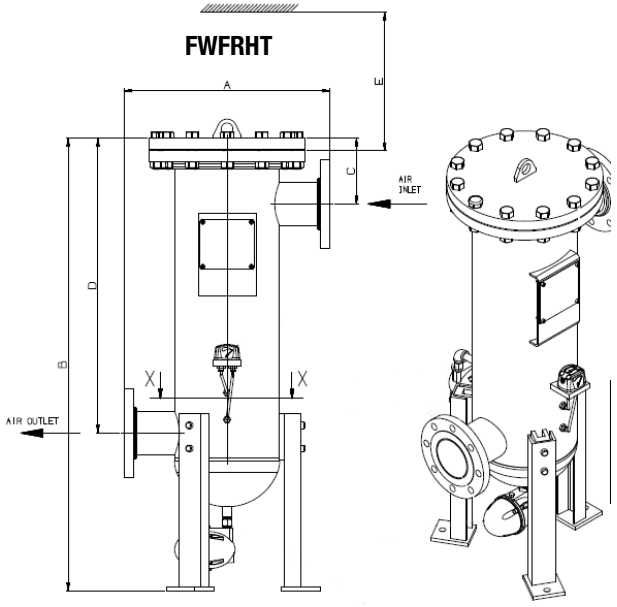
Max operating pressure *psi* 290

Max operating temperature *°F* 350

Standard Features

- External float drain
- Differential pressure gauge

FWFRHT



ELM SERIES

MIST ELIMINATORS

Model	Flow Rate (cfm)	Connection size (FLG)	Width (in)	Height (in)	Min. Clearance for Element Change (in)	Drain Port Size (NPT)	Weight (lbs)
ELM-150	150	2″	19.7	39.9	13	0.5″	250
ELM-300	300	2″	19.7	43.9	17	0.5″	264
ELM-600	600	2″	19.7	57.9	31	0.5″	304
ELM-800	800	3″	19.7	65.3	37	0.5″	343
ELM-1200	1200	3″	23.6	60.2	31	0.5″	436
ELM-1600	1600	3″	23.6	66.2	37	0.5″	460
ELM-2100	2100	4″	27.6	62.4	31	0.5″	682
ELM-2750	2750	4″	27.6	68.4	37	0.5″	713
ELM-4200	4200	6″	31.5	65.7	31	0.5″	858
ELM-6000	6000	6″	31.5	75.7	41	0.5″	940
ELM-8000	8000	8″	33.5	79.4	41	0.5″	1188
ELM-10,000	10,000	10″	39.4	83.5	41	0.5″	1642
ELM-12,000	12,000	12″	39.4	105.9	61	0.5″	1914

ASME/CRN Certified

Pressure drop *psi* .05

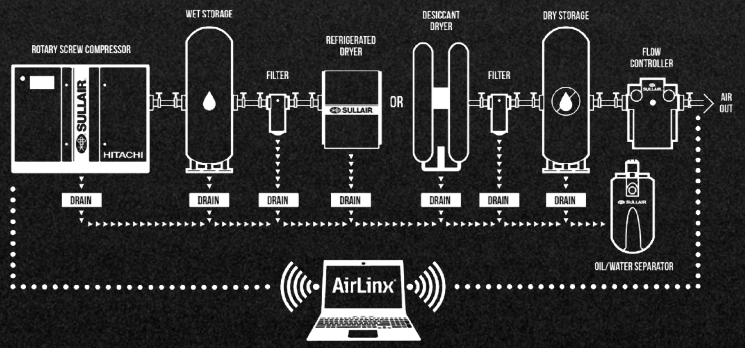
Micron rating *µm* .01

Standard Features

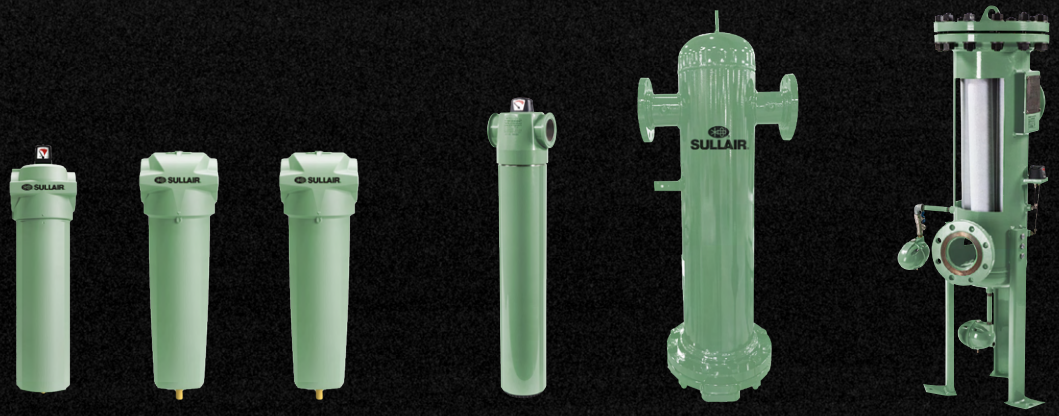
- Float drain
- Differential pressure gauge

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.

ADDITIONAL AIR TREATMENT SOLUTIONS



- Desiccant Dryers
- Refrigerated Dryers
- Drains
- Oil/Water Separators



SULLAIR FILTRATION	THREADED FILTERS						FLANGE FILTERS				
	SF SERIES					FH SERIES	SF SERIES				FWFRHT
Filter Type	General Purpose	Fine Particulate	Activated Carbon	Water Separator	Particulate High Temperature	High Pressure	General Purpose	Fine Particulate	Activated Carbon	Water Separator	Particulate High Temperature
Flow Rates *cfm*	21-1314	21-1314	21-1314	21-1695	83 - 1660	60-1750	2119-11,019	2119-11,019	2119-11,019	2100-6300	1500–17,700
Max Operating Pressure *psi*	232 (float), 290 (manual)	232 (float), 290 (manual)	290	232	250	725	232 (float), 260 (manual)	233 (float), 260 (manual)	260	232	290
Max Operating Temperature *°F*	149 (float), 176 (manual)	149 (float), 176 (manual)	122	149	450	176	150 (float), 200 (manual)	150 (float), 200 (manual)	200	140	350
Standard Connection	¼″–3″ NPT	¼″–3″ NPT	¼″–3″ NPT	¼″–3″ NPT	½″–3″ NPT	¼″–2½″ NPT	4″–10″ FLG	4″–10″ FLG	4″–10″ FLG	4″–10″ FLG	3″–14″ FLG
Housing Material	Diecast Aluminum	Diecast Aluminum	Diecast Aluminum	Diecast Aluminum	Diecast Aluminum	Aluminum	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel	Steel
Drains	Float, Manual	Manual Drain	Manual Drain	Float	Manual Drain	Manual Drain	Float, Manual	Float, Manual	Manual	Float	External Float Drain

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