SULLAIR®

SULLAIR FILTRATION & MIST ELIMINATION

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

THE IMPORTANCE OF RELIABLE FILTRATION

Contaminants are introduced at various stages of the air compression cycle. Removing these contaminants is vital to help ensure part quality, avoid machine damage and protect employees.

Sullair filters reliably help remove contaminants plus humidity and oil from the compressed air stream.

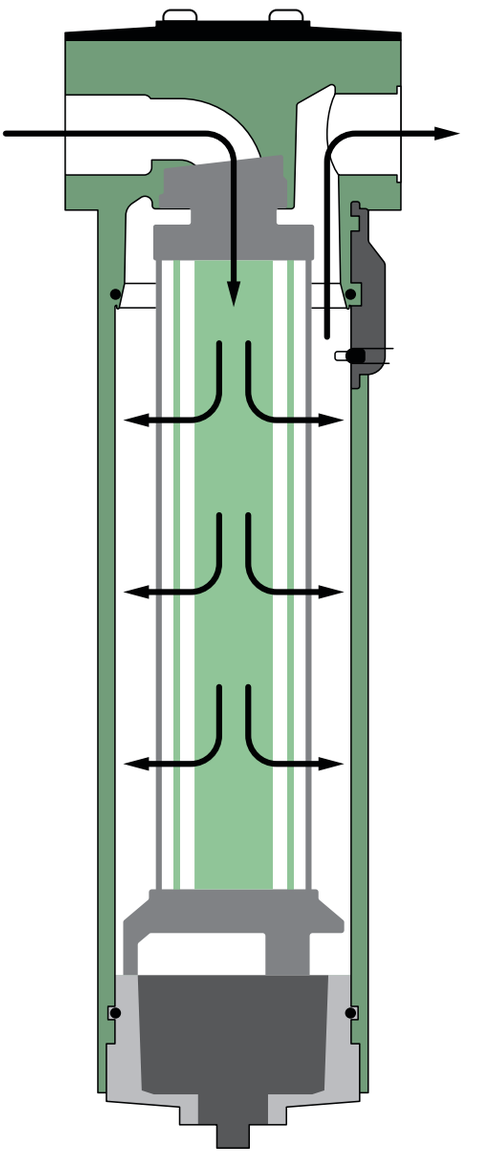
How?

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 filters are 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
- Optimized air flow design to help increase efficiency and reduce pressure loss
- Built for safe and easy maintenance

SULLAIR FILTRATION	THREADED FILTERS					FLANGE FILTERS			
	SX SERIES			FH SERIES	FXFRHT	SX SERIES			FWFRHT
Filter Type	**Coalescing**	**Particulate**	**Activated Carbon**	**High Pressure**	**Particulate High Temperature**	**Coalescing**	**Particulate**	**Activated Carbon**	**Particulate High Temperature**
Flow Rates *scfm*	25–1900			60–1750	25–1600	1900–21,000			1500–17,700
Max Operating Pressure *psig*	232			725	290	232			290
Max Operating Temperature *°F*	140			176	350	140			350
Standard Connection	⅜″–3″ NPT			¼″–2½″ NPT	½″–3″ NPT	4″–12″ ANSI Flange			3″–14″ ANSI Flange
Housing Material	Anodized, Powder-Coated Aluminum			Aluminum	Diecast Aluminum	Powder-Coated Carbon Steel			Steel
Drains	Float Drain	Manual Drain		Manual Drain	Manual Drain	SULLIMAX™ Zero Air Loss Drain		Manual Drain	External Float Drain

SULLIMAX™ Zero Loss Drain optional on SX Series Threaded Coalescing units

SULLAIR ELM MIST ELIMINATORS

Sullair ELM Series Mist Eliminators are engineered for reliable performance in varying load conditions, long service life and to stand up to harsh environments — all while ensuring 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, dirt holding capacity and pressure drop
- 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 eliminate rust and corrosion

ADDITIONAL SULLAIR AIR TREATMENT SOLUTIONS

SULLAIR COMPRESSED AIR DRYERS

REFRIGERATED; DESICCANT

SULLIMAX™
CONDENSATE DRAINS

SULLIPRO™ &
SP OIL/WATER SEPARATORS

Visit Sullair.com for more information.

ABOUT SULLAIR

For more than 50 years, Sullair has been on the leading edge of compressed air solutions. We were one of the first to execute rotary screw technology in our air compressors, and our machines are famous all over the world for their legendary durability. As the industry moves forward, Sullair will always be at the forefront with quality people, innovative solutions, and air compressors that are built to last.

Sullair was founded in Michigan City, Indiana in 1965, and has since expanded with a broad international network to serve customers in every corner of the globe. Sullair has offices in Chicago and manufacturing facilities in the United States and China — all ISO 9001 certified to ensure the highest quality standards in manufacturing. In addition, Sullair Suzhou and Shenzhen facilities are ISO 14001 and OHSAS 18001 certified.

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RELIABILITY.
DURABILITY.
PERFORMANCE.

These are the pillars that drive the quality of Sullair compressed air solutions. It's a promise we keep with every machine we make.

RELIABILITY

Customers who work with Sullair have found that the intangibles make all the difference — things like trust, confidence, and peace of mind. They go to work every day having full faith in their equipment, as well as the knowledge that dedicated distributors and Sullair personnel have their back every step of the way.

DURABILITY

Bulletproof. Built to last. However you spin it, Sullair compressed air solutions are in it for the long haul, driven by innovative designs pioneering the air treatment industry. And ready to stand the test of time.

PERFORMANCE

Sullair is constantly innovating to improve our compressed air solutions. For our compressed air treatment line, this means more energy efficiency. With air treatment being a vital part of your entire compressed air system, Sullair is committed to helping you protect your equipment and manage your operating expenses.

SX SERIES
THREADED FILTERS

SULLAIR®

			Dimensions & Weight			
Flow Rate (scfm)	**Connection Size (NPT)**	**Available Element Types**	**Width** *Top of Housing* **(in)**	**Housing Height** *Includes Gauge & Float Drain* **(in)**	**Housing Height** *Includes Gauge & Zero Loss Drain* **(in)**	**Weight (lbs)**
25	⅜″	Coarse Fine Superfine Activated Carbon	2.95	10.75	17.15	1.65
30	½″		2.95	10.75	17.15	1.65
50	½″		2.95	11.93	18.33	1.87
80	½″		2.95	14.1	20.49	2.65
100	¾″		3.94	14.69	21.08	3.75
125	1″		3.94	14.69	21.08	3.75
160	1″		3.94	17.44	23.84	4.63
200	1″		3.94	18.82	25.22	4.85
250	1½″		5.75	17.68	24.43	9.04
330	1½″		5.75	19.76	26.52	9.92
450	1½″		5.75	21.73	28.49	11.24
500	2″		5.75	21.73	28.49	11.24
600	2″		5.75	25.55	32.3	13.44
800	2″		5.75	30.2	36.95	15.65
1000	2½″		10.24	29.41	36.44	43.87
1300	2½″		10.24	33.5	40.53	49.82
1500	3″		10.24	38.23	45.26	57.1
1900	3″		10.24	44.06	51.18	65.92

Element Types

Element Type Designator	Element Type	Package Description	Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psig)	Wet Δ Pressure (psig)
CS	Coarse	Coarse Filter	25	5	0.44	0.73
F	Fine	General Purpose Filter	1	0.1	0.73	1.9
H	Superfine	Oil Removal Filter	0.01	0.01	0.87	1.7
C	Activated Carbon Element	Activated Carbon Filter	0.01	0.003	—	1.02

Correction Factors

Operating Pressure (psig)	20	40	60	80	90	100	110	120	130	140	160	180	200	230
Correction Factor	0.3	0.48	0.65	0.82	0.91	1	1.09	1.17	1.26	1.35	1.52	1.7	1.87	2.13

Validated in accordance with ISO 12500-1 and 3
CRN certified
Max operating pressure: 232 psig
Max operating temperature: 140°F
Standard Features:
- Versatile housing connections
- Simple, push-fit element design
- High-pitch safety alarm
- Differential pressure gauge *(Not available on activated carbon units)*
- Float drain *(Manual drain ball valve standard on activated carbon units)*

Options:
- SULLIMAX™ Zero Air Loss Drain *(Not available on activated carbon units)*

UNIQUE CURVED INLET DESIGN
HELPS REDUCE FLOW RESISTANCE UP TO
75%

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SX SERIES
PARTICULATE THREADED FILTERS

			Dimensions & Weight		
Flow Rate (scfm)	Connection Size (NPT)	Available Element Types	Width — *Top of Housing* (in)	Housing Height (in)	Weight (lbs)
25	⅜″	Fine	2.95	10.44	1.65
30	½″		2.95	10.44	1.65
50	½″		2.95	11.62	1.87
80	½″		2.95	13.78	2.65
100	¾″		3.94	14.37	3.75
125	1″		3.94	14.37	3.75
160	1″		3.94	17.13	4.63
200	1″		3.94	18.51	4.85
250	1½″		5.75	17.72	9.04
330	1½″		5.75	19.81	9.92
450	1½″		5.75	21.78	11.24
500	2″		5.75	21.78	11.24
600	2″		5.75	25.59	13.44
800	2″		5.75	30.24	15.65
1000	2½″		10.24	29.73	43.87
1300	2½″		10.24	33.02	49.82
1500	3″		10.24	38.55	57.1
1900	3″		10.24	44.47	65.92

Element Types

Element Type Designator	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	0.1	0.73	1.9

Correction Factors

Operating Pressure (psig)	20	40	60	80	90	100	110	120	130	140	160	180	200	230
Correction Factor	0.3	0.48	0.65	0.82	0.91	1	1.09	1.17	1.26	1.35	1.52	1.7	1.87	2.13

Validated in accordance with ISO 12500-1 and 3
CRN certified
Max operating pressure: 232 psig
Max operating temperature: 140°F
Standard Features:

- Versatile housing connections
- Simple, push-fit element design
- High-pitch safety alarm
- Manual drain ball valve

UNIQUE CURVED INLET DESIGN
HELPS REDUCE FLOW RESISTANCE UP TO
75%

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FH SERIES
HIGH PRESSURE THREADED FILTERS

			Dimensions & Weight				
Flow Rate (scfm)	Connection Size (NPT)	Available Element Types	Dimension A (in)	Dimension B (in)	Dimension C (in)	Dimension D (in)	Weight (lbs)
60	¼″	Fine Superfine Activated Carbon	4.46	4.54	1.01	6.1	7
175	½″		4.46	4.54	1.01	6.24	7
350	¾″		4.3	4.54	1.26	8.14	9
500	1″		5.23	5.43	1.47	9.84	14
700	1″		5.23	5.43	1.47	12.36	18
950	1½″		5.03	5.43	1.74	14.48	21
1500	2″		5.7	6.22	2.02	15.47	25
1750	2½″		6.29	7	2.26	15.19	28

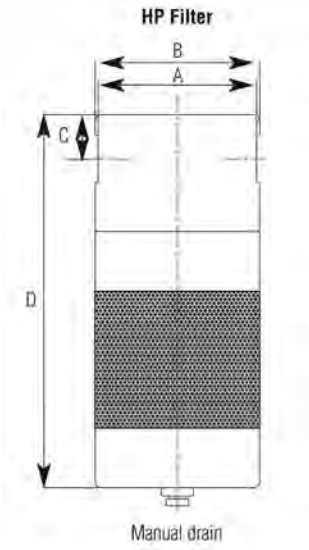
Element Types

Element Type Designator	Element Type	Package Description	Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psig)	Wet Δ Pressure (psig)
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 (psig)	290	363	435	508	580	653	725
Correction Factor	0.63	0.07	0.78	0.83	0.9	0.95	1

Validated in accordance with ISO 8573-1
ASME certified
CRN certified
Manual drain ball valve
Max operating pressure: 725 psig
Min operating temperature: 36°F
Max operating temperature: 176°F



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FXFRHT SERIES
PARTICULATE HIGH TEMPERATURE THREADED FILTERS

			Dimensions & Weight			
Flow Rate (scfm)	Pipe Size (ANSI)	Available Element Types	Dimension A (in)	Dimension B (in)	Dimension C (in)	Weight (lbs)
25	½″	Fine	4	8	7	3
45	½″		4	10	9	3
65	¾″		5	10	11	4
130	1″		5	15	14	6
240	1½″		5	19	17	7
350	1½″		5	21	19	8
475	2″		6	24	22	12
700	2″		6	27	25	12
925	3″		8	29	21	23
1350	3″		8	29	27	26
1600	3″		8	42	40	27

Element Type

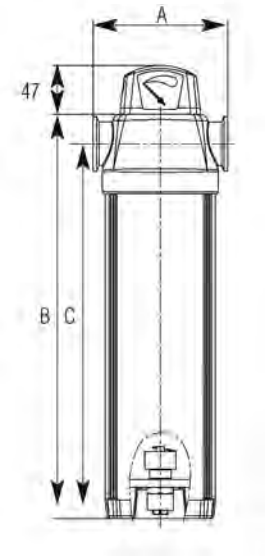
Element Type Designator	Element Type	Package Description	Micron Rating (µm)	Oil Carryover (ppm)	Dry Δ Pressure (psig)	Wet Δ Pressure (psig)
F	Fine	Reverse Flow GP Filter	1	0.5	0.6	1.2

Correction Factors

Operating Pressure (psig)	25	40	50	60	75	90	100	110	125	140	150	160	175	200
Correction Factor	0.49	0.62	0.69	0.76	0.86	0.95	1	1.04	1.1	1.17	1.21	1.25	1.31	1.4

Validated in accordance with ISO 8573-1
ASME certified
CRN certified
Differential pressure gauge
Manual drain ball valve
Max operating pressure: 290 psig
Min operating temperature: 36°F
Max operating temperature: 350°F

FXFRHT



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SX SERIES
FLANGE FILTERS

			Dimensions & Weight				
Flow Rate (scfm)	Pipe Size (ANSI)	Available Element Types	Dimension A (in)	Dimension B (in)	Dimension C (in)	Dimension D (in)	Weight (lbs)
1900	4″	Coarse Fine Superfine Activated Carbon	21.25	6.88	47	13	195
2800	4″		21.25	7.13	47.38	18	266
3800	6″		23.5	8	46.88	18	283
6500	6″		23.75	5.25	50.38	18	328
7500	8″		28	9.5	53	18	534
9300	8″		30.31	9.75	56.34	18	623
13,000	10″		34.65	9.88	60.18	18	727
21,000	12″		38.98	10.87	64.26	18	825

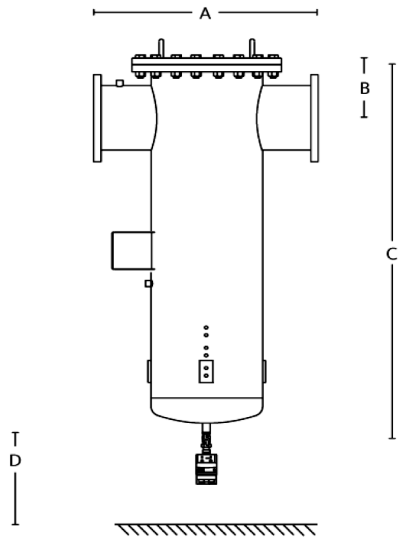
Element Type

Element Type Designator	Element Type	Micron Rating (µm)	Oil Carryover (mg/m³)	Dry Δ Pressure (psid)	Wet Δ Pressure (psid)	Approvals
CS	Coarse	25	5	0.44	0.73	ASME Coded Vessel with "UM" stamp standard (CRN optional)
F	Fine	1	.1	0.73	1.9	
H	Superfine	.01	.01	0.87	1.7	
C	Activated Carbon Element	.01	.003	1.45	—	

Correction Factors

Operating Pressure (psig)	20	40	60	80	90	100	110	120	130	140	160	180	200
Correction Factor	0.3	0.48	0.65	0.82	0.91	1	1.09	1.17	1.26	1.35	1.52	1.7	1.87

SULLIMAX™ Zero Loss Drain *(Manual drain ball valve standard on activated carbon units)*
ASME certified
Select models CRN certified
Connection kit with differential pressure gauge *(Not available on activated carbon units)*
Validated in accordance with ISO 12500
Max operating pressure: 232 psig
Max operating temperature: 140°F



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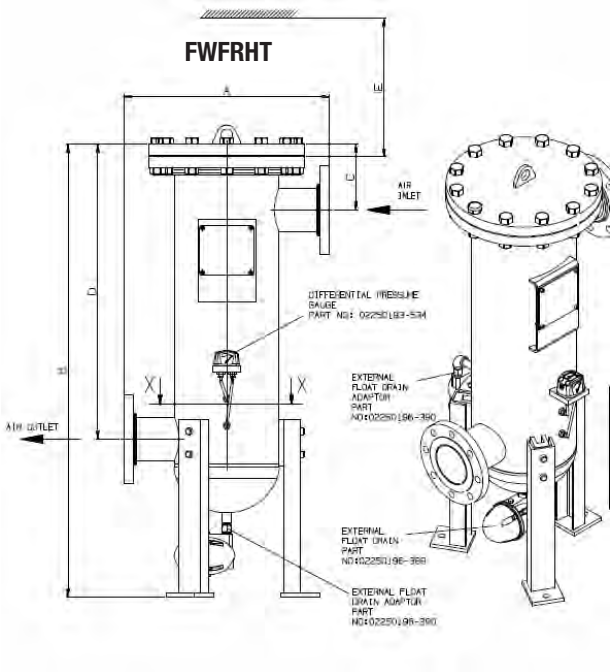
FWFRHT SERIES
PARTICULATE HIGH TEMPERATURE FLANGE FILTERS

			Dimensions & Weight					
Flow Rate (scfm)	Pipe Size (ANSI)	Available Element Types	Dimension A (in)	Dimension B (in)	Dimension C (in)	Dimension D (in)	Dimension E (in)	Weight (lbs)
1500	3″	Fine	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	13.25	31.56	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	33.84	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 certified
CRN certified
External float drain
Max operating pressure: 290 psig
Max operating temperature: 350°F
Differential pressure gauge
Float drain

FWFRHT



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ELM SERIES
MIST ELIMINATORS

Model	Inlet–Outlet Port Size (flange)	Dimension Sizes		Min. Clearance for Element Change (in)	Drain Port Size (NPT)	Weight (lbs)
		Width	Height			
		in	in			
ELM-150	2″	19.70	39.87	13	½″	250
ELM-300	2″	19.70	43.87	17	½″	264
ELM-600	2″	19.70	57.87	31	½″	304
ELM-800	3″	19.70	65.27	37	½″	343
ELM-1200	3″	23.60	60.17	31	½″	436
ELM-1600	3″	23.60	66.17	37	½″	460
ELM-2100	4″	27.56	62.42	31	½″	682
ELM-2750	4″	27.56	68.42	37	½″	713
ELM-4200	6″	31.50	65.67	31	½″	858
ELM-6000	6″	31.50	75.67	41	½″	940
ELM-8000	8″	33.50	79.42	41	½″	1188
ELM-10,000	10″	39.40	83.47	41	½″	1642
ELM-12,000	12″	39.40	105.92	61	½″	1914

ASME certified
CRN certified
Pressure drop: .05
Micron rating: .01 µm
Differential pressure gauge
Float drain

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.

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