

CF SERIES

COMPRESSED AIR FILTRATION

20-21250 SCFM





**SOME COMPANIES ARE FOUNDED ON HARD WORK.
OTHERS ARE FOUNDED ON IDEALS.**

FS-CURTIS WAS FOUNDED ON BOTH.

More than 165 years ago, the FS-Curtis way of doing business was established through two key commitments: a dedication to building quality products and a dedication to responsive customer service.

Over the decades, the company and its products have evolved through innovation and new technologies. But those commitments to quality and service remain unchanged. Today, just as in 1854, FS-Curtis customers can depend on our products for reliable, long-term service. Equally as important, they can depend on getting the same from our people.

A HISTORY OF EXCELLENCE

1854 1857 1876 1897 1914 1940 1955 1976

Curtis & Co. – Empire Saw founded in St. Louis, MO, USA

Earned Agricultural and Mechanical Fair award for excellence and quality

Named Curtis and Co. Manufacturing

Built first reciprocating air compressor that later evolved into the Master Line Series

Supported U.S. Government efforts by producing more than 2 million Howitzer shell forgings

Designed and developed mobile oxygen compressors to be used in Aerospace applications

Merged with U.S. Air Compressor Company, Central Petroleum Company, Lewis Machine Company

Merged with Toledo Tools as Curtis-Toledo Inc.

1979 1995 2005 2006 2010 2015 2016 2017

Introduction of Challenge Air Series reciprocating air compressors

Began manufacturing and assembling Rotary Screw Air compressors

Expanded global market reach by joining forces with Fusheng Industrial

U.S. Headquarters certified as ISO9001:2000 and ISO14001:2004

Introduced next generation GSV Variable Speed Rotary Screw compressors

Introduced Nx series Fixed and Variable Speed Rotary Screw compressors

Nx Series named Plant Engineering's 2015 Product of the Year - Gold Award for Compressed Air

Nx Series claims Plant Engineering's Product of the Year - Gold Award 2nd year in a row



HIGH STANDARD OF PERFORMANCE



FS-Curtis CF series compressed air filtration further protects your investment with lower pressure drop.

Designed utilizing innovative air filtration media and manufacturing techniques, CF Series compressed air filters and elements from FS-Curtis increase performance and minimize pressure drop. The result is a savings in operating costs while further protecting your downstream process. Compact and efficient, CF Series filters and mist eliminators are built to FS-Curtis world-class quality standards with comprehensive third-party testing, including ISO and PNEUROP.

ISO 8573.1 QUALITY CLASSES

Class	Solid Particles - Maximum Numbers of Particles per m ³			Humidity and Liquid Water		Oil
	Particle Size (micron)			Pressure Dew Point		Total concentration, Aerosol, Liquid, and Vapor
	0.10 - 0.5	0.5 - 1.0	1.0 - 5.0	°C	°F	mg/m ³
0	As Specified			As Specified		≤ 0.01
1	100	1	0	≤ -70	≤ -94	≤ 0.1
2	100,000	1,000	10	≤ -40	≤ -40	≤ 1
3	-	10,000	500	≤ -20	≤ -4	≤ 5
4	-	-	1,000	≤ +3	≤ +38	
5	-	-	20,000	≤ +7	≤ +45	
6				≤ +10	≤ +50	



TECHNICAL DATA

CF COMPRESSED AIR FILTERS

"X" represents the filter grade, refer to the "Choose From Seven Filtration Grades" chart below when ordering the corresponding filter.

MODELS	Max. Flow @ 100 psig (scfm)	INLET/OUTLET (npt. male)	MAX. PRESSURE @ 150°F WITH MANUAL DRAIN (psi)	DIMENSIONS (WxH-In.)	WEIGHT (Lbs.)
Modular type housings					
CF(X)-12	20	3/8" NPT or 1/2" NPT	300	4 x 8	4.2
CF(X)-16	35			4 x 11	8.1
CF(X)-20	60			4 x 13	8.5
CF(X)-24	100	3/4" NPT or 1" NPT		5 x 15	6.3
CF(X)-28	170			5 x 20	6.9
CF(X)-32	250	1" NPT or 1 1/2" NPT		6 x 23	10.2
CF(X)-36	375	2" or 2 1/2" NPT		6 x 27	11.3
CF(X)-40	485			8 x 31	28
CF(X)-44	625	2 1/5" NPT		8 x 37	33
CF(X)-48	780			8 x 43	38
ASME stamped pressure vessels					
CF(X)-52	625	3" NPT or DN 80 Flange	225	10 x 41	37
CF(X)-54	1,000			16 x 48	93
CF(X)-56	1,250			16 x 49	93
CF(X)-60	1,875	3" NPT		123	
CF(X)-64	2,500	4" ANSI Flg.		185	
CF(X)-68	3,125			20 x 52	189
CF(X)-72	5,000	6" ANSI Flg.		24 x 55	285
CF(X)-76	6,875			28 x 63	537
CF(X)-80	8,750			33 x 69	599
CF(X)-84	11,875	8" ANSI Flg.		39 x 68	742
CF(X)-88	16,250		46 x 71	936	
CF(X)-92	21,250	10" ANSI Flg.	1471		

Use the corresponding number to fill in the "X" in the model number above

CHOOSE FROM SEVEN FILTRATION GRADES

You can design a filter system that delivers the air quality you need with the efficient performance you desire.

Air Quality / Pressure Drop Data						
GRADE	ELEMENT TYPE	SOLID PARTICLES (Micron)	REMAINING OIL CONTENT (PPM by Weight)	PRESSURE DROP AT RATED CONDITIONS (psig)		APPLICATIONS AND SPECIFICATION
				Dry	Wet	
11	Moisture Separator	10	-	0.8	0.8	Bulk liquid
9	Separator	3	5	1	1.5	Large liquid particles
7	General Purpose Filter	1	1	1	2	Tools, motors, cylinders
6	Dry Particulate Filter	1	-	1	-	Pipeline protection from abrasive desiccant dust
5	High Efficiency Oil Removal Filter	0.01	0.008	1	3	Painting, injection molding, instruments, control valves
3	Ultra High Efficiency Oil Removal Filter	0.01	0.0008	2	6	Where air contacts product, conveying, electronics manufacturing, nitrogen replacement
1	Oil Vapor Removal Filter	0.01	0.003	1	N/A	Food and drug manufacturing, gas processing

CF FILTERS FEATURES AND BENEFITS

A typical compressed air system is contaminated with abrasive solid particles such as dust, dirt, rust and pipe scale, compressor lubricants (mineral or synthetic), condensed water droplets and acidic condensates and oil and hydrocarbon vapors. If not removed, these contaminants increase pneumatic equipment maintenance costs, lead to instrument and control failure, contribute to poor product fit and finish and contaminate processes.

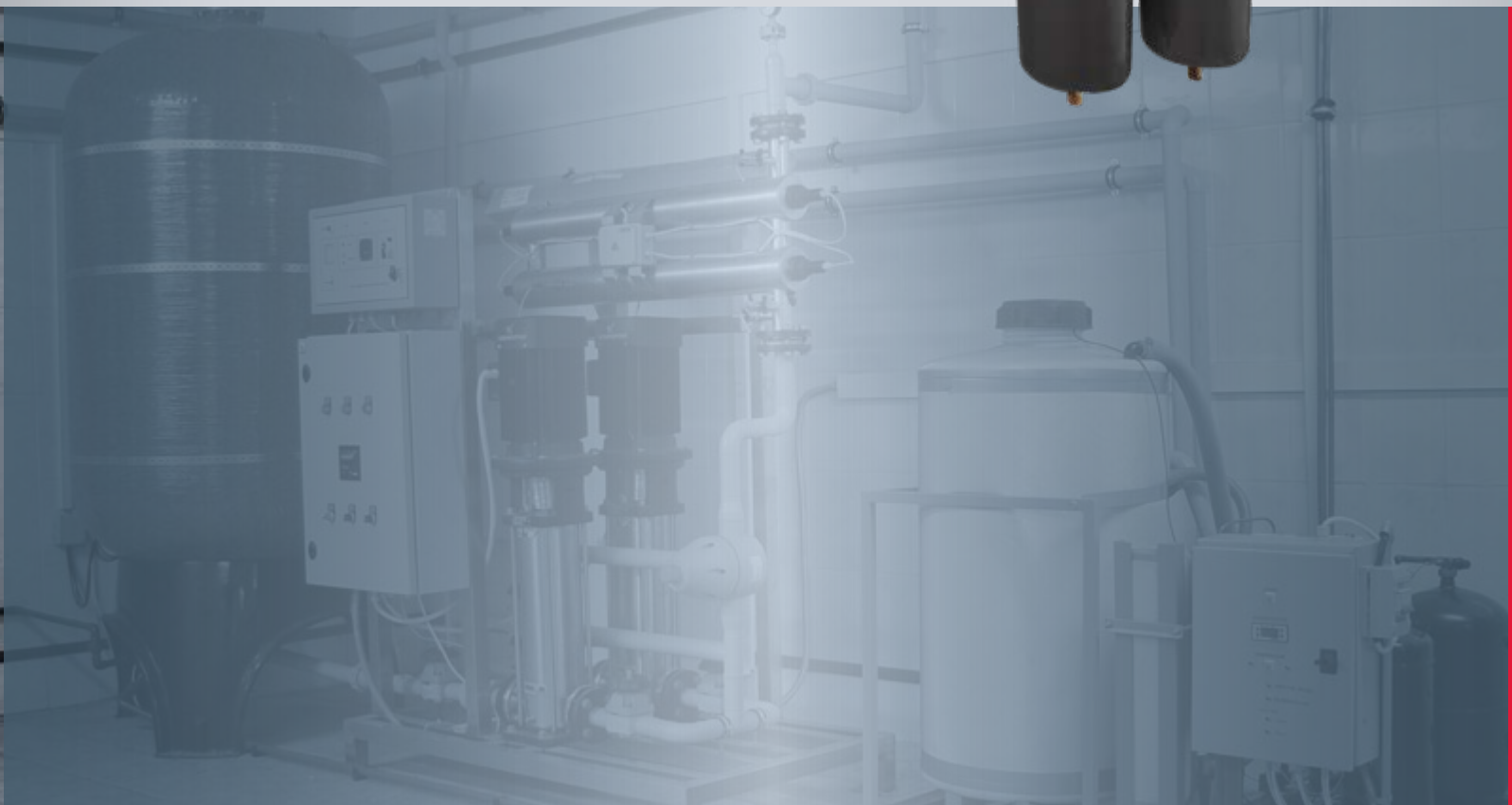
The right FS-Curtis filter or filter system will remove these contaminants allowing your compressed air system to deliver the quality of air required by your application; whether it's plant air, instrument air, or medical air—helping to ensure consistent output quality while minimizing operating costs.

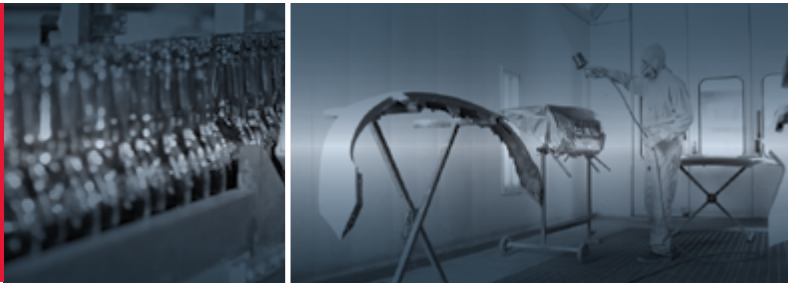
CF Series Filters feature:

- Push-on elements make element replacement easy
- Piston type element to housing seal keeps unfiltered air from by-passing element
- Corrosion resistant cores-Stainless steel for added structural integrity
- Low resistance to flow-Seam welded for extra strength
- "Matrix blended fiber" media-large, effective surface area -improves capture rate
- Ensures high efficiencies-large open area minimizes pressure drop
- Coated, closed cell foam sleeve - resists chemical attack from oils and acids
- Ensures high efficiencies by preventing re-entrainment of coalesced liquids
- Chemically resistant end caps bound to media with specially formulated adhesive
- Silicone free
- Withstands temperatures to 150°F (66°C)
- Low resistance to flow

A choice of Seven Element Grades allows you to design a system that delivers the air quality you require:

- Grade 11 - Moisture Separator
- Grade 9 - Separator/Filter
- Grade 7 - General Purpose Air Line Filter
- Grade 6 - Dry Particulate Air Line Filter
- Grade 5 - High Efficiency Oil Removal Filter
- Grade 3 - Ultra High Efficiency Oil Removal Filter
- Grade 1 - Oil Vapor Removal Filter





THE NAME TO KNOW IS FS-CURTIS.
 For a complete selection of top-quality, reliable air compressors, dryers and accessories, the only name you need to remember is FS-Curtis.

CFH HIGH TEMPERATURE COMPRESSED AIR FILTER

MODELS	Max. Flow @ 100 psig (scfm)	INLET/OUTLET ¹ (npt. male)	MAX. PRESSURE @ 450°F (psi)	DIMENSIONS (WxH-In.)	WEIGHT (Lbs.)
CFH100	100	1" NPT	250	4 x 14	13
CFH200	200			4 x 24	19
CFH400	400	3" NPT	165	10 x 40	97
CFH600	600			16 x 41	159
CFH1200	1,200			16 x 43	219
CFH1800	1,800			20 x 55	236
CFH2400	2,400	4" ANSI Flg.	165	24 x 53	319
CFH3000	3,000				
CFH4800	4,800	6" ANSI Flg.	165	28 x 62	548
CFH6600	6,600				
CFH8400	8,400				
CFH1400	11,400	8" ANSI Flg.		33 x 68	772

Pressure drop: At rated flow conditions pressure drop will be less than 1 psig. Pressure drop will increase only as the filter cartridges become loaded with solid particles.
 Filter cartridge replacement: Filter cartridges should be replaced annually or, when pressure drop across the cartridge exceeds acceptable differential pressure. Maximum temperature: 450°F
¹ BSP connections and DIN Flanges are available.

CFE MIST ELIMINATOR

MODELS	Max. Flow @ 100 psig (scfm)	INLET/OUTLET ¹ (npt. male)	MAX. PRESSURE @ 150°F (psi)	DIMENSIONS (WxH-In.)	WEIGHT (Lbs.)
CFE125	125	2" NPT	150	17 x 40	194
CFE250	250			18 x 52	200
CFE500	500	2 1/2" NPT	150	26 x 77	368
CFE1100	1,100			27 x 85	410
CFE1500	1,500	4" ANSI Flg.	150	33 x 94	735
CFE2100	2,100				
CFE2400	2,400				
CFE3000	3,000				

Maximum operating temperature: 150°F
¹ BSP connections and DIN Flanges are available.

CAPACITY CORRECTION FACTORS To find the maximum flow at pressures other than 100 psig, multiply the Max. Flow (from table below) by the Correction Factor corresponding to the minimum pressure at the inlet of the filter.

CORRECTION FACTORS (MULTIPLIERS) FOR INLET PRESSURE

Minimum Inlet Pressure (psig)	20	30	40	60	80	100	120	150	200	250	300
Correction Factor	0.30	0.39	0.48	0.65	0.82	1.00	1.17	1.43	1.87	2.31	2.74

* Do not select filters by pipe size; use flow rate and operating pressure.

THE PERFECT FILTER FOR YOUR APPLICATION



CF FILTERS
(20-21250 SCFM)

With a choice of seven filtration grades, you can design a filter system that delivers the air quality you need with the efficient performance you desire. Operation and maintenance are a breeze, and the long-lasting filter life and low pressure drop give you outstanding performance.

- Low pressure drop delivers energy savings
- Piston-type element to housing seal keeps unfiltered air from bypassing the element
- Corrosion-resistant cores
- With a large, effective surface area, the "Matrix-blended fiber" media improves capture rate and ensures high efficiency
- Coated, closed-cell foam sleeve resists chemical corrosion from oils and acids



CFH HIGH-TEMPERATURE FILTERS
(100-11400 SCFM)

For high inlet temperature applications, such as a reciprocating compressor without an aftercooler, the CFH filters has you covered. Able to handle temperatures up to 450° F, CFH filters feature efficient operation and a low pressure drop for reduced operating costs.

- High dust-loading capacity
- Three filtration techniques maximize cartridge life
- Removes solid particles one micron and larger



CFE MIST ELIMINATORS
(125-3000 SCFM)

Enjoy the peace of mind of extra protection for your system. FS-Curtis CFE mist eliminators cut energy costs while removing oil and water aerosols from compressed-air systems.

- Captures large slugs of oil and water for extra protection should compressor's drain trap fail
- Long-life mist eliminator element lasts 8 to 15 years
- 0.5 to 1 psi pressure drop reduces energy consumption
- Superior installation flexibility thanks to a variety of inlet positions for easy adaption to your piping arrangement
- Heavy-duty ASME pressure vessel
- Floor stand
- Dedicated vent port for demand-type drains



CONTINUED COMMITMENT

A company history that dates back more than 165 years is a company history that, to us, is just the beginning. FS-Curtis is committed to offering a world-class portfolio of products. Through the dependability of our people and our quality-focused manufacturing, FS-Curtis will continue to be the most trusted and dependable name in compressed air serving even more markets through our ever-growing global presence.

You can count on **FS-Curtis** to approach the next 165 years by staying true to the values and strengths that are appreciated by our customers today.

A WORLD OF DIFFERENCE

The FS-Curtis headquarters in St. Louis, Missouri, U.S.A. is the anchor of a larger global network. FS-Curtis builds quality products — and a quality reputation — at locations around the world.

In addition to our manufacturing and packaging locations, a large global network of sales agents and distributors ensures that sales and service support is available around the world, day in and day out.

ST. LOUIS, MO USA (HEADQUARTERS)

PUNE, INDIA | JUNDIAI, BRAZIL | OBERHAUSEN, GERMANY | SHANGHAI, CHINA | TAIPEI, TAIWAN | PITTSBURGH, PA USA (FS-ELLIOTT)
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Improvements and research are continuous at FS-Curtis. Specifications may change without notice.

ISO 9001

ISO 14001

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