CompAir

CFH Series High Efficiency Filters

Intelligent Air Technology

CompAir

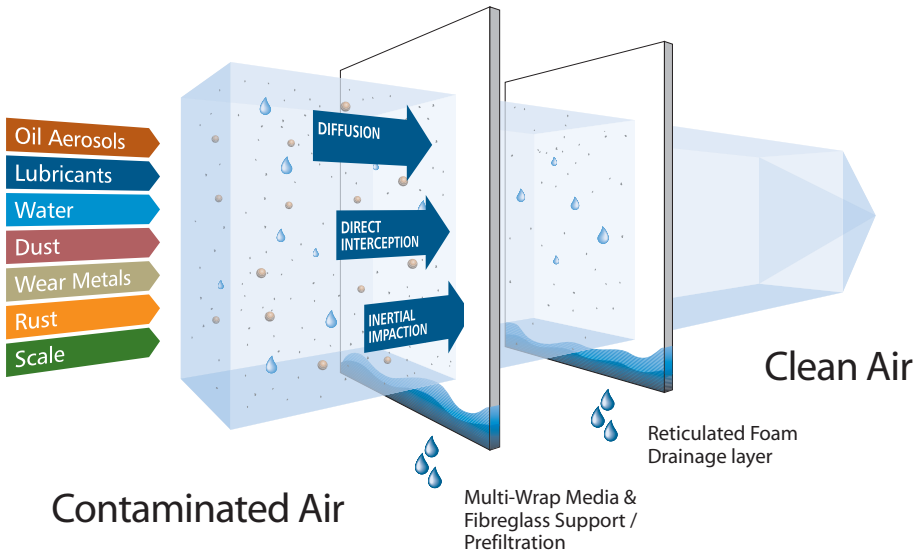
Save energy, dollars & protect your air system…

The **Compressed Air Challenge,**™ a government/ industry sponsored energy savings awareness program, estimates that $1.5 billion dollars a year is spent in the US to compress air. Over 20% of this could be saved by better design and management of compressed air systems. Excessive filter pressure drop is a key target to achieve this goal.

CompAir CFH Industrial High Efficiency Filters can save energy dollars because they have a lower pressure drop throughout the **Filter Element** life, when compared to competitive filters using older wrapped / pleated element technology.

Don't be fooled by calculated savings from competitive de-mister filter modules. They do not have the efficiency of the **CompAir Element**, so tiny particulates flow downstream to pneumatic equipment, causing the wear and damage that a filter should prevent.

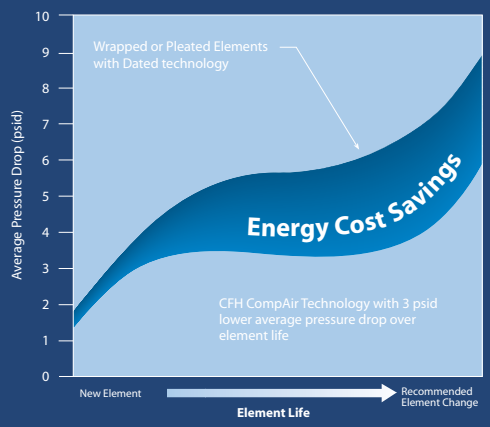
Your compressed air is contaminated! Airborne water vapor and dust are drawn into your compressor intake. The compressor adds oil aerosols, vapors and wear metals. Piping can add rust and scale.



Real Dollars Example:

With a 200 HP Air Compressor running 24 hours per day, at 93% motor efficiency, and an electrical cost of $0.10/kW-HR, the 3 psid lower average pressure drop of a CompAir filter would represent an annual saving of over $3,000! A system that has three filters can save up to $9,000 per year.

Typical Pressure Drop Curves for 0.01 micron Compressed Air Filters



Introducing CompAir's High Technology Filter Elements

Unique Push-Fit, Double O-Ring Seal
Filter-to-head chamfered connection for ease of installation and removal. Eliminates tie rods.

Steel Support

Fiberglass Support
Provides prefiltration.

Deep Bed Multi-Wrap Borosilicate Glass Microfiber
Large flow passages prevent high pressure drop and allow for a high dirt holding capacity. Wrap tension prevents channeled air flow.

Fiberglass Support
Provides prefiltration.

Steel Support

Foam Sock - anti re-entrainment barrier for collected liquid drainage prevents carryover.

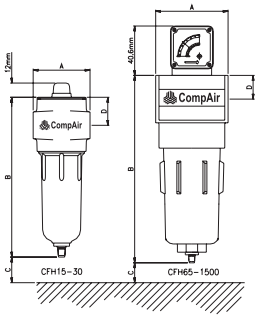
End Cap is a durable and non-corrosive glass filled nylon which is attached to the element with a multi part urethane resin. The element is then held in place by internal ribs within the filter housing.

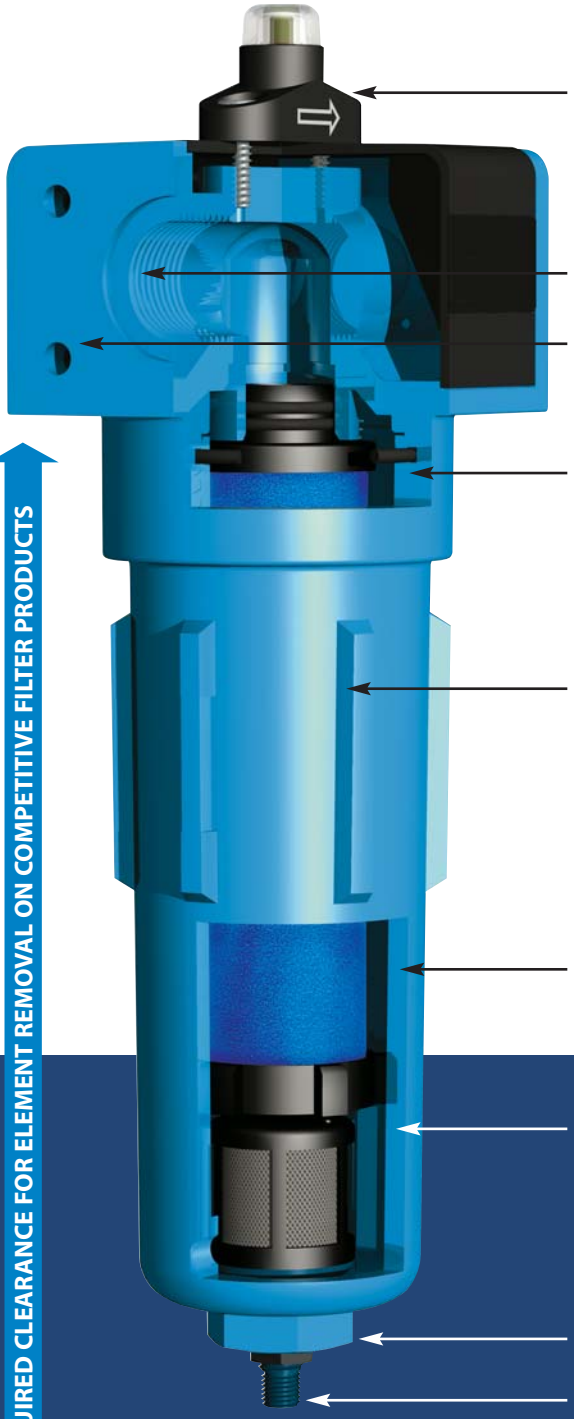
Suitable for temperatures up to 140°F. Low average pressure drop over life of element. Regular replacement suggested for best performance and energy cost savings.

Low Operating Cost

REGULAR FILTER ELEMENT REPLACEMENT SAVES MONEY. IT MINIMIZES PRESSURE DROP AND ENSURES PROTECTION OF YOUR COMPRESSED AIR SYSTEM, PNEUMATIC EQUIPMENT, AND FINISHED PRODUCT.

21st century filtration





Pop-up Indicator

Modular NPT Connections
Option to bolt multiple filters together with Hi-Nitrile O-ring connection for ease of installation, eliminate leaks and space saving.

Heavy Aluminum Construction
Castings 100% leak-tested, 300 psi pressure and 250°F temperature ratings.

Annular Seal and Captive O-Ring
between head and bowl with threaded connection to prevent leaks.

External Ribs
for easy bowl removal.

Internal Ribs
secure element in-place and form dead-air zone to prevent condensate re-entrainment.

Large Capacity Condensate sump with automatic drain valve is standard so coalesced condensate is always removed.

Hexagon on bottom
for easy bowl removal.

Threaded Bottom Port
external auto or manual drain.

REQUIRED CLEARANCE FOR ELEMENT REMOVAL ON COMPETITIVE FILTER PRODUCTS

Only 4-7" clearance for element removal

Features & Benefits

Performance Monitoring
- Easy indication of excessive pressure drop to reduce energy costs.

Pop-up DP Indicators
- Standard on CFH0015 and CFH0030, optional on other models
- Nylon pop-up is compatible with synthetic oils and lubricants.

Delta-P Gauge
- Standard on CFH0065 thru CFH16100
- DP gauge face is not pressurized.
- Unique magnetic sensor survives high impact.
- DP gauge can be remote or panel mounted.

Remote Contact DP Alarm (Optional)
- Dry contacts close at 6 psid to send a notification signal to a bell, light, or control panel.
- Can be field installed.

Modular Head Design (65-1500 scfm)
- Multiple filters can be bolted together with O-ring seal.
- Minimizes threaded connections — leak points.
- Simplifies installation.
- Saves space.
- Modular mounting kits available with high tensile strength cap screws with nuts and O-ring.

Accessories

CK - Connecting Kits

Available for models 15-1500 SCFM.

Side Port (65-16100 scfm)
- Side mounting of external auto drain for low clearance applications.
- Can be used as a separate manual drain or as a vent line connection to an external demand drain mounted to bottom connection.

Bottom Drain Adapter Plate (1000-1500 scfm)
- Releases drain adapter for ease of float drain maintenance.
- Easy disconnect of external drain when element is changed.

CompAir

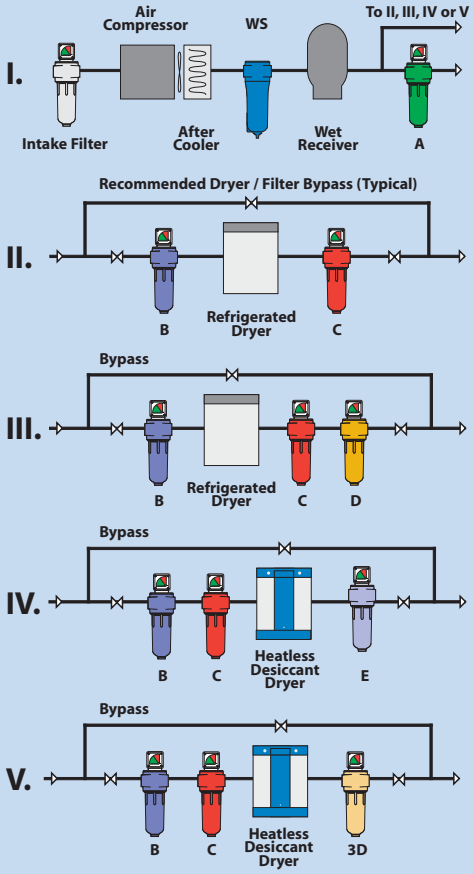
Typical Compressed Air Treatment System

ISO 8573-1: 2001(E) System Ratings

System	ISO 8573.1 Quality Class Rating	Applications
i.	3.7.4	Air Tools, Air Motors
ii.	1.4.1	Automated Equipment, Robotics, Rough Paintings
iii. iv.	1.4.1 1.2.1 or 1.1.1	Injection Molding, Electronics Semi-Conductors, Instrumentation
v.	1.2.1 or 1.1.1	Food Processing, Hospital Grade, Breathing Air

WARNING: CompAir Breathable Air systems are designed to offer the user protection in potentially harmful environments, as such it is imperative that these products are correctly installed and properly controlled by a competent person. Proper control means the equipment installed should be fully checked prior to every use, should any fault be discovered it must be repaired or the failed component replaced to guarantee full working order before use. CompAir Breathable Air systems are not designed to remove CO, CO^2, NO^x and SO^2. If in doubt do not use the system until it has been confirmed to be fit for purpose by the CompAir technical department.

Filter Grade Selection



A General Purpose, Coalescing and Bulk Contaminant Removal; point- of-use.

B Prefiltration to refrigerated dryer; higher efficiency, coalescing point-of-use.

C High efficiency coalescing oil removal after refrigerated dryer; upstream of desiccant dryers.

D Oil vapors / odor / taste removal downstream of C filter.

E Reverse Flow P Afterfilter to heatless desiccant dryer.

ISO 8573-1: 2001(E) Quality Class

Quality Class	Solid Cntmnts (max. particle size in microns)	Max. Pressure Dew Point °F	Max. Oil Content (droplets, aerosols & vapor) ppm
1	0.1	-94	0.01
2	1	-40	0.1
3	5	-4	1
4	15	37.4	5
5	40	44.6	25
6	—	50	—
7	—	not specified	—

Ask CompAir about applying condensate management systems, dry air storage and flow controllers.

Specifications

		A General Purpose Point-of-Use	B Prefiltration/ Coalescing	C High Efficiency	D Activated Charcoal	E ??
Particle removal	micron	5	1	0.01	0.01	1
Maximum carryover at 68°F	ppm	10	0.1	0.01	0.003	N/A
Maximum recommended temperature	°F	149	149	149	77	149
Pressure drop - clean and dry	psid	0.6	1.5	2.0	1.5	1.5
Pressure drop - oil saturated	psid	1.0	2.9	5.8	N/A	N/A
Pressure drop - change element	psid	5.8	5.8	7.3	N/A	5.8
Element media		borosilicate microfiber multi-wrap			carbon impregnated paper	comb. C&V
Housing material		high quality aluminum/ASME high carbon steel				
Maximum working pressure	psig	232	232	232	232	232

Note: Activated charcoal filters must not operate in oil saturated conditions and will not remove certain types of gases including carbon monoxide and carbon dioxide. Change interval depends on application, please contact CompAir. Also see WARNING NOTE above for Breathable Air systems.

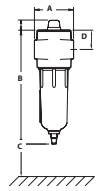
Correction Factors

For maximum flow rate, multiply model flow rate shown in the top chart by the correction factor corresponding to the working pressure. See specifications for maximum pressure.

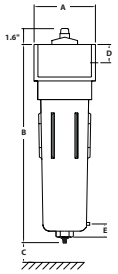
Operating Pressure (psig)	10	20	30	40	50	60	70	80	90	100	110	125	150	175	200	225	250	275	300
Correction Factor	**0.32**	**0.45**	**.055**	**0.64**	**0.71**	**0.78**	**0.84**	**0.90**	**0.95**	**1.00**	**1.05**	**1.12**	**1.22**	**1.32**	**1.41**	**1.49**	**1.57**	**1.65**	**1.72**

Note: To reduce pressure drop by 50%, reduce flow rate by 30%.

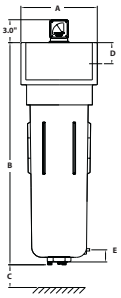
Dimensions



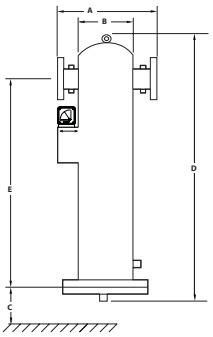
Model CFH0015 thru CFH0030



Models CFH0065 thru CFH650
(Pop-up option shown)



Models CFH1000 thru CFH1500



Models CFA700* thru CFA16100*
Dual certified ASME and CRN coded vessels are standard.

	Model Number	Flow Rate SCFM	Flow Rate Nm³/h	Dimensions inches A	B	C	D	E	NPT Connections In/Out	Side	Bottom**	Weight lbs	Replacement Element Model
Aluminum Housings	CFH0015*	15	25	3.00"	12.00"	4.00"	6.00"	7.00"	1/4"	N/A	1/8" MPT	2.0	CFE0015 [*] E
	CFH0030*	30	51	3.00"	7.50"	4.00"	1.50"	N/A	3/8"	N/A	1/8" MPT	1.5	CFE0030 [*] E
	CFH0065*	65	110	4.50"	10.50"	6.00"	1.50"	1.25"	1/2"	1/4"	1/8" MPT	4.5	CFE0065 [*] E
	CFH0085*	85	144	4.50"	10.50"	6.00"	1.50"	1.25"	3/4"	1/4"	1/8" MPT	4.5	CFE0075 [*] E
	CFH0125*	125	212	4.50"	14.00"	6.00"	1.50"	1.25"	1"	1/4"	1/8" MPT	5.5	CFE0100 [*] E
	CFH0175*	175	297	4.50"	14.00"	6.00"	1.50"	1.25"	1"	1/4"	1/8" MPT	5.5	CFE0150 [*] E
	CFH0250*	250	425	5.75"	19.00"	6.50"	2.00"	1.50"	1 1/2"	1/2"	1/4"	12.0	CFE0225 [*] E
	CFH0325*	325	552	5.75"	19.00"	6.50"	2.00"	1.50"	1 1/2"	1/2"	1/4"	12.0	CFE0300 [*] E
	CFH0450*	450	765	5.75"	19.00"	6.50"	2.00"	1.50"	2"	1/2"	1/4"	12.0	CFE0450 [*] E
	CFH0650*	650	1105	5.75"	26.75"	6.50"	2.00"	1.50"	2"	1/2"	1/4"	12.5	CFE0650 [*] E
	CFH1000*	1000	1700	9.00"	27.50"	7.00"	2.50"	1.50"	3"	1/2"	1/2"	32.0	CFE1000 [*] E
	CFH1250*	1250	2125	9.00"	32.50"	7.00"	2.50"	1.50"	3"	1/2"	1/2"	33.5	CFE1250 [*] E
	CFH1500*	1500	2550	9.00"	38.50"	7.00"	2.50"	1.50"	3"	1/2"	1/2"	35.5	CFE1500 [*] E
ASME & CRN Code Vessels	CFA2100*	2100	3570	18.00"	10.80"	32.00"	48.20"	38.40"	4" flg	1/2"	1/2"	326	CFE700 [*] E (3 ea.)
	CFA2800*	2800	4760	20.00"	12.80"	32.00"	50.30"	39.30"	6" flg	1/2"	1/2"	439	CFE700 [*] E (4 ea.)
	CFA3500*	3500	5950	20.00"	12.80"	32.00"	50.30"	39.30"	6" flg	1/2"	1/2"	439	CFE700 [*] E (5 ea.)
	CFA4200*	4200	7140	20.00"	14.00"	32.00"	54.30"	40.40"	6" flg	1/2"	1"	536	CFE700 [*] E (6 ea.)
	CFA5600*	5600	9520	24.00"	16.00"	32.00"	55.10"	40.60"	8" flg	1/2"	1"	647	CFE700 [*] E (8 ea.)
	CFA7000*	7000	11900	28.00"	18.00"	32.00"	58.10"	42.60"	8" flg	1/2"	1"	778	CFE700 [*] E (10 ea.)
	CFA8400*	8400	14280	28.00"	18.00"	32.00"	58.10"	42.60"	10" flg	1/2"	1"	778	CFE700 [*] E (12 ea.)
	CFA9800*	9800	16660	28.00"	20.00"	32.00"	59.40"	42.80"	10" flg	1/2"	1"	936	CFE700 [*] E (14 ea.)
	CFA11200*	11200	19040	33.00"	24.00"	32.00"	61.00"	43.20"	10" flg	1/2"	1"	1214	CFE700 [*] E (16 ea.)
	CFA12600*	12600	21420	33.00"	24.00"	32.00"	61.00"	43.20"	10" flg	1/2"	1"	1214	CFE700 [*] E (18 ea.)
	CFA16100*	16100	27370	CF	CF	32.00"	CF	CF	12" flg	1/2"	1"	CF	CFE700 [*] E (23 ea.)

* Fill in element grade (A B C D E) to appropriate model number. ** Bottom drain, 1/8" MPT with mechanical float drain.

Ordering Information

CFH / _____ / _____ / _____

Aluminum Housings
0015
0030*
0065*
0075*
0100
0150*
0225
0300*
0450
0650*
1000
1250
1500*

ASME & CRN Code Vessels
2100
2800
3500
4200
5600
7000
8400
9800
11200
12600
16100

Element Grade

- A - 5 micron bulk liquid / particulate
- B - 1 micron coalescing / particulate
- C - 0.01 micron coalescing
- D - Activated charcoal / vapor removal
- E - Reverse flow P afterfilter

Options

P - Pop-up Indicator
(available on 65 - 1500 SCFM models, only on G, P, C, and RP grades)

R - Differential pressure gauge with remote alarm
(available on 65 - 1500 SCFM G, P, C, RP grades)

Intelligent Air Technology

Compressed air solutions for every application

COMPRESSORS

3-1520cfm

1-350HP

LUBRICATED

Rotary Vane

Single Stage Screw

Speed Regulated Screw

Piston

Portable

OIL-FREE

Two Stage Screw

Water-Sealed Screw

Piston

Portable

COMPLETE ACCESSORIES PROGRAM

Filters and Dryers

Cooling Systems

Heat Recovery

Condensate Management

Air Receivers

Multi-Set Controllers

Lubricants

VALUE ADDED SERVICES

Air Audit

Performance Reporting

Utility Air

Performance Contracting

COMPLETE SERVICE FOR COMPRESSED AIR TECHNOLOGY

Engineering of Complete Compressor Stations

Local Service Centers

Guaranteed Parts Availability

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