Gardner Denver

FILTRATION | 18–13,200 CFM
MIST ELIMINATORS | 125–10,000 CFM

XG Series Filtration

X Series: NeXt-Generation Gardner Denver Air Treatment

XG SERIES FILTRATION

Better Quality

Without effective filtration, products and processes that depend on compressed air are subject to increased scrap, poor quality and additional maintenance. Gardner Denver XG Series filters address these issues, helping to assure your compressed air system delivers clean, high-quality air throughout your facility.

Better Efficiency

Maintaining a low pressure drop on all compressed air components is critical for an energy-efficient system. Gardner Denver XG Series filters have been engineered to deliver low pressure drop throughout the life of the filter element and to provide a unique dual indicator that illustrates the true cost of pressure drop on the system.

Better Choices

Every compressed air system has unique filtration requirements. XG Series filters are available in four different filtration grades, providing complete filtration solutions for all critical compressed air processes.

Designed & Built for Exceptional Performance

Advanced XG Series compressed air filters by Gardner Denver reduce contamination in your air stream to help protect your critical processes and valuable equipment. Our filters are rigorously tested and engineered with superior components to provide years of reliable performance and consistently high-quality air.

Complete Filtration Solution

XG Series filters are engineered to be a complete filtration solution, incorporating features that address air quality, energy efficiency and ease of maintenance.

The Standard for High-Quality Air

XG Series filters provide clean, high-quality air as defined by ISO 8573-1:2010. With multiple filter element grades available, there is a filtration solution that will meet your unique requirements.

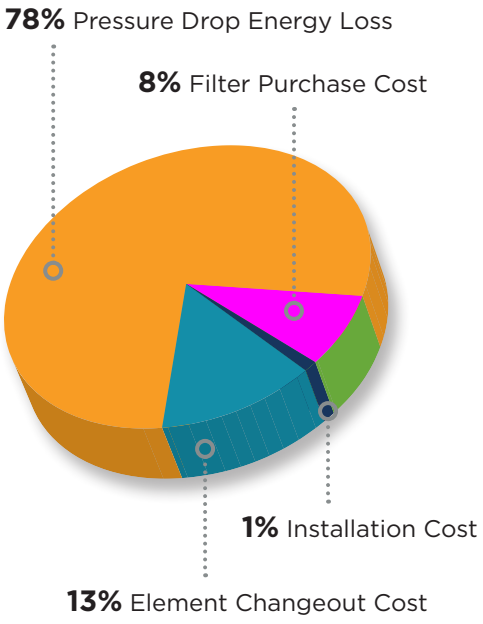
Energy Efficient Through & Through

Pressure drop accounts for over three-quarters of the ownership cost of a compressed air filter. Even when a filter element is clean and dry, it can rob a compressed air system of pressure, causing the air compressor to work harder and increase energy costs. The flow path through the XG Series filter housing reduces turbulence and enhances efficiency, while the deep-pleated element design further minimizes pressure drop.

Designed with Maintenance in Mind

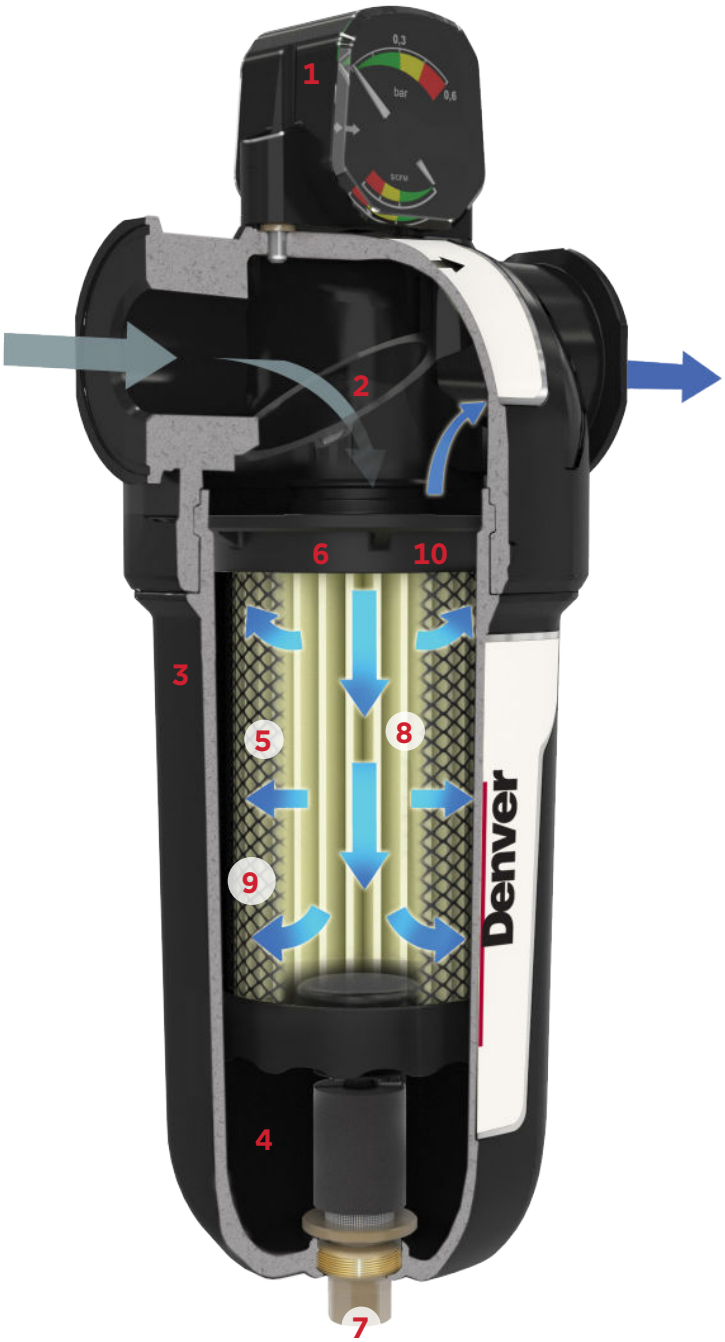
Features such as no-touch element replacement and visual bowl-to-head alignment indicators make maintaining the XG Series filter hassle-free. The “zero-clearance” design requires minimal space around the filter, allowing XG Series filters to be installed where other filters won’t fit. Long element life provides efficient operation for up to one year between element changeouts, helping to reduce overall ownership costs*.

*Frequency of element changeout will depend on the unique conditions of each customer’s air system.



Based on a 900 scfm (25.48 m^3/min) filter with a five-year lifecycle.

Superior Filtration Technology



1 PATENTED DUAL INDICATOR
shows differential pressure drop and economical operating efficiency

2 PATENTED SMOOTH BORE FLOW INSERT
directs air into the filter element, minimizing turbulence and pressure losses

3 ALL-ALUMINUM, PRECISION DIE CAST BODY
suitable for 176°F (80°C) and 250 psig (17 bar g) applications

4 PROPRIETARY COATING
applied to the inside and outside surfaces provides corrosion protection in harsh industrial environments

5 FILTER ELEMENT WITH STAINLESS STEEL MESH
withstands high differential pressure while minimizing flow restriction through the element

6 ERGONOMIC BOWL DESIGN WITH NO-TOUCH FILTER ELEMENT
simplifies element replacement

7 INDUSTRIAL-GRADE BRASS FLOAT DRAIN
discharges accumulated condensate and oil more reliably than lesser quality plastic drains (no-loss and manual drains also available)

8 DEEP-PLEATED FILTER MEDIA
reduces air flow velocity to maximize filtration efficiency and minimize pressure losses

9 HIGH-EFFICIENCY DRAINAGE LAYER
improves liquid drainage properties and enhances chemical compatibility

10 SIMPLE VISUAL ALIGNMENT
of the filter head and bowl ensures accurate assembly of components and helps to improve safety

XG-SERIES FILTER SPECIFICATIONS

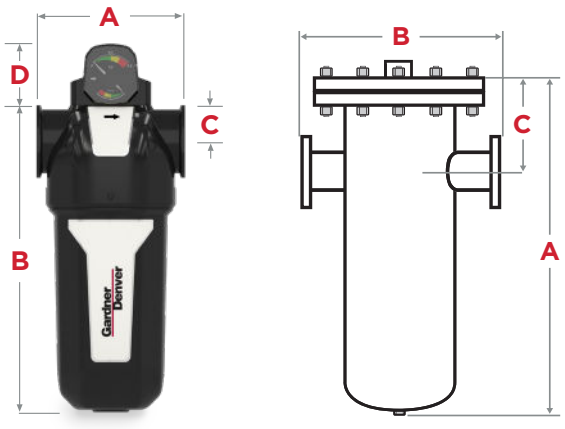
FILTER MODEL NUMBER		PIPE SIZE	FLOW RATES 100 PSIG/7 BAR G		DIMENSIONS								WEIGHT	
MODEL	GRADE	IN	SCFM	M³/MIN	IN	MM	IN	MM	IN	MM	IN	MM	LB	KG
XG18	GP, HE, DP, AC	⅜	18	0.48	2.99	76	6.81	173	0.63	16	2.09	53	1.2	0.56
XG24	GP, HE, DP, AC	½	24	0.62	2.99	76	6.81	173	0.63	16	2.09	53	1.2	0.55
XG44	GP, HE, DP, AC	¾	44	1.27	3.86	98	8.98	228	0.87	22	2.09	53	2.4	1.07
XG65	GP, HE, DP, AC	¾	65	1.84	3.86	98	8.98	228	0.87	22	2.09	53	2.4	1.09
XG88	GP, HE, DP, AC	1	88	2.49	5.08	129	10.51	267	1.26	32	2.09	53	4.5	2.06
XG112	GP, HE, DP, AC	1	112	3.12	5.08	129	10.51	267	1.26	32	2.09	53	4.5	2.06
XG135	GP, HE, DP, AC	1	135	3.82	5.08	129	10.51	267	1.26	32	2.09	53	4.5	2.06
XG235	GP, HE, DP, AC	1 ½	235	6.66	5.08	129	14.06	357	1.26	32	2.09	53	5.2	2.36
XG288	GP, HE, DP, AC	1 ½	288	8.21	5.08	129	14.06	357	1.26	32	2.09	53	5.2	2.36
XG353	GP, HE, DP, AC	2	353	9.91	6.69	170	18.35	466	1.50	38	2.09	53	11.5	5.20
XG471	GP, HE, DP, AC	2	471	13.31	6.69	170	18.35	466	1.50	38	2.09	53	11.5	5.24
XG589	GP, HE, DP, AC	2	589	16.99	6.69	170	18.35	466	1.50	38	2.09	53	11.6	5.26
XG706	GP, HE, DP, AC	3	706	20.11	8.07	205	21.42	544	2.17	55	2.09	53	20.5	9.31
XG918	GP, HE, DP, AC	3	918	26.05	8.07	205	25.35	644	2.17	55	2.09	53	23.6	10.69
XG1077	GP, HE, DP, AC	3	1077	30.59	8.07	205	25.35	644	2.17	55	2.09	53	23.6	10.69
XG1354	GP, HE, DP, AC	3	1354	38.23	8.07	205	34.49	876	2.17	55	2.09	53	30.2	13.70
XG1589	GP, HE, DP, AC	3	1589	45.31	8.07	205	34.49	876	2.17	55	2.09	53	30.2	13.70
PLEASE NOTE: THE BELOW MODELS REQUIRE A 150 LB FLANGE														
XG1800	GP, HE, DP, AC, HT	4 FLG	1800	50.00	37.00	940	19.00	483	9.25	235	-	-	168	75.6
XG2400	GP, HE, DP, AC, HT	4 FLG	2400	67.00	37.00	940	19.00	483	9.25	235	-	-	170	76.5
XG3000	GP, HE, DP, AC, HT	4 FLG	3000	83.00	37.00	940	22.00	559	10.37	263	-	-	208	93.6
XG3600	GP, HE, DP, AC, HT	6 FLG	3600	102.00	42.50	1080	27.50	699	12.63	321	-	-	210	94.5
XG4200	GP, HE, DP, AC, HT	6 FLG	4200	118.00	42.50	1080	27.50	699	12.63	321	-	-	316	142.2
XG4800	GP, HE, DP, AC, HT	6 FLG	4800	135.00	42.50	1080	27.50	699	12.63	321	-	-	318	143.1
XG6000	GP, HE, DP, AC, HT	6 FLG	6000	168.00	42.50	1080	27.50	699	12.63	321	-	-	320	144.0
XG9000	GP, HE, DP, AC, HT	8 FLG	9000	253.00	52.00	1321	39.00	991	17.25	438	-	-	586	263.7
XG13200	GP, HE, DP, AC, HT	8 FLG	13200	373	52	1321	39	991	17.25	438	-	-	600	270

LINE PRESSURE	1	2	3	5	7	9	11	13	15	16	17
	15	29	44	73	100	131	160	189	218	232	250
CORRECTION FACTORS	0.38	0.53	0.65	0.85	1.00	1.13	1.25	1.36	1.46	1.51	1.56

To use correction factors, multiply the filter's capacity by the correction factor to get the new filter flow capacity at the non-standard operating pressure.

For example, a 110 SCFM filter operating at 160 psig has a correction factor of 1.25.

1.25 × 110 = 138.75 SCFM capacity at 160 psig



Filtration Grade Ratings

Grade AC | Activated Carbon Filtration

Oil vapor and hydrocarbon odor removal, providing a maximum remaining oil content of <0.003 ppm (<0.003 mg/m^3) @ 69°F (21°C).

Grade GP | General Purpose Protection

Particle removal down to 1 micron including coalesced liquid, water and oil, providing a maximum remaining oil aerosol content of 0.1 ppm (0.1 mg/m^3) @ 69°F (21°C).

Grade HE | High Efficiency Oil Removal Filtration

Particle removal down to 0.01 micron including water and oil aerosols, providing a maximum remaining oil aerosol content of 0.01 ppm (0.01 mg/m^3) @ 69°F (21°C).

Grade DP | General Purpose Dust Filtration

Dust particle removal down to 1 micron.

Operating Limitations

- Maximum Operating Pressure: 250 psig (17 bar g)
- Maximum Recommended Operating Temperature (Grade GP, HE, DP): 176°F (80°C)
- Maximum Recommended Operating Temperature (Grade AC): 86°F (30°C)
- Minimum Recommended Operating Temperature: 34°F (1°C)

ISO 8573.1 Quality Classes

ISO 8573.1 was developed in 1992 by ISO (International Organization for Standardization) to help plant engineers specify desired compressed air quality globally by providing “Quality Classes” for solid particulates, humidity and oil. Quality classes provide engineers with an internationally accepted unit of measure. A typical pharmaceutical plant, for example, would have a compressed air specification of ISO Quality Class 1.2.1. This is equivalent to 0.1 micron solid contaminants, -40° F (-40° C) dew point, and 0.008 ppm (0.01 mg/m^3) oil content filtration.

No matter what language is spoken and what unit of measure is used, using ISO 8573.1 Air Quality Classes ensure that your factory will get the compressed air quality you specified.

QUALITY CLASSES	SOLID CONTAMINANTS (MAX. PARTICLE SIZE) MICRONS	MAXIMUM PRESSURE DEW POINTS °F (°C)	MAXIMUM OIL CONTENT (DROPLETS, AEROSOLS, VAPOR) PPM W/W (MG/M^3)
1	0.1	-94 (-70)	0.008 (0,01)
2	1	-40 (-40)	0.08 (0,1)
3	5	-4 (-20)	0.8 (1)
4	15	38 (3)	4 (5)
5	40	45 (7)	21 (25)
6	-	50 (10)	-

XGME SERIES MIST ELIMINATORS

Less Engergy Use, Longer Life

XGME Series coalescing filters provide true oil-free compressed air with minimal pressure drop of 0.5 psid for long-term cost savings. Superior air quality is achieved by effectively removing damaging oil and water aerosols before they flow through air system piping, process equipment and pneumatic valves and tools.

Conventional filters used to achieve similar air quality typically operate at a pressure drop 6 psid higher than the XGME Series, and have a far shorter service life.

These maintenance-free filters feature a high-quality design that extends element life to 10 to 15 years and help eliminate system downtime by reducing the effects of a catastrophic failure of the compressor's air/oil separator.

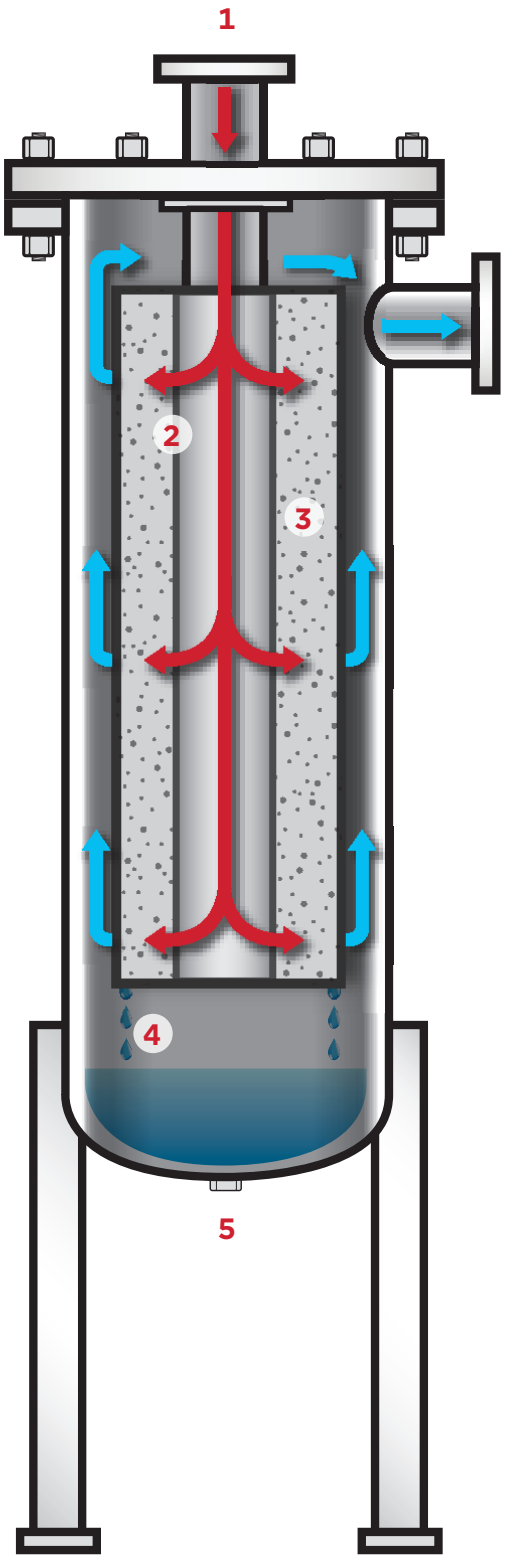
Once the pressure differential reaches 3 psid or greater, it is time to change the element. This requires depressurization of the vessel as well as lid and element removal.

Benefits

- High-efficiency particulate filtration to 0.5 ppm
  - > 3 microns at 100%
  - 0.1 to 3 microns at 99.98%
- Effective oil removal
  - 2 ppm in = 0.01 ppm out
  - 10 ppm in = 0.05 ppm out
- Low pressure drop resulting in low energy costs
- Extended element life: 10–15 years
- Effective on all common mineral and synthetic lubricants
- Standard differential pressure gauge indicates element condition
- Virtually maintenance-free

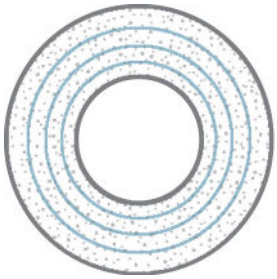
How Coalescing Filters Work

Air contaminated with mineral or synthetic oil and water aerosols enters the **XGME Series filter housing (1)** and flows horizontally through a **deep filter bed (2)**. Sub-micron particles collect on individual bed fibers and coalesce to form **droplets (3)**. As the droplets move through the filter bed, they become larger and their resulting weight forces them to drop to the bottom of the **housing (4)**. Low internal velocity prevents oil re-entrainment, while the large surface area keeps the pressure drop very low over the life of the element. The long residence time through the deep filter bed ensures the highest coalescing efficiency. Automatic or manual drains can be used to discharge lubricant and water that accumulate in the **bottom of the housing (5)**. Compressed air and drain hookups are all that's required to integrate an XGME Series filter into your compressed air system—no electricity is used.



Depth of Bed Filtration

Deep-bed filtration provides more surface area for the highest coalescing efficiency.

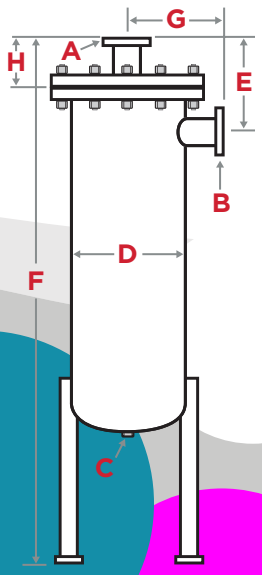


Typical cross-section of an XG Filter

Typical cross-section of a standard filter

SPECIFICATIONS | XGME SERIES MIST ELIMINATORS

MODEL	SCFM FLOW @100 PSIG	CONNECTION SIZE	DRAIN PORT	SHIPPING WEIGHT LB		DIMENSIONS INCHES				
				HOUSING & ELEMENT	REPLACEMENT ELEMENT					
XGME125	125	2" MPT	1" FPT	455	20	14	14.5	42.3	13	21
XGME250	250	2" MPT	1" FPT	455	25	14	14.4	42.3	13	25
XGME500	500	3" MPT	1" FPT	520	35	14	14.4	68.3	13	37
XGME800	800	3" MPT	1" FPT	530	60	14	14.5	68.3	13	51
XGME1100	1,100	3" MPT	1" FPT	660	70	16	15.5	72.3	14	57
XGME1500	1,500	4" FLG	1" FPT	775	100	18	15.6	72.3	15	57
XGME1900	1,900	4" FLG	1" FPT	1,225	120	24	16.9	75.8	18	59
XGME2400	2,400	4" FLG	1" FPT	1,245	140	24	16.9	75.8	18	59
XGME3000	3,000	4" FLG	1" FPT	1,385	160	24	16.9	88.8	18	69
XGME4500	4,500	6" FLG	1.5" FLG	1,770	250	24	18	153	18	118
XGME6000	6,000	8" FLG	2" FLG	2,460	350	30	18	155	21	118
XGME8000	8,000	8" FLG	2" FLG	2,850	375	30	19	181	21	142
XGME10000	10,000	10" FLG	2" FLG	4,500	475	30	21	211	25.75	173



XGME Series Dimensions

Please refer to the table above to find dimensions for each XGME Series model.

Annual Savings from 6 psig Reduction

KW COST	AIR COMPRESSOR HP		
	50	100	200
$0.06	$274	$548	$1,096
0.08	365	730	1,460
0.10	457	913	1,826

Savings calculations based on (2) 8-hour shifts/day, 5 days/week,
51 weeks/year = 4,080 hours

XG Series Filtration

Better Quality | Better Efficiency | Better Choices

The leader in every market we serve

by continuously improving all business processes

with a focus on innovation and velocity

Gardner Denver®

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QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

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KNOW PRESSURE COMPRESSED AIR CHALLENGE

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Please recycle after use.