

Compressed Air Filters



Superior Filtration for Increased Productivity

Kaeser Gives You the Air Quality You Require

Ambient air contains contaminants that are drawn into the compressor. These contaminants are concentrated during compression and find their way into the compressed air system. A typical compressed air system is contaminated with abrasive solid particles such as dirt, rust and pipe scale, compressor lubricants, condensed water droplets, and oil and hydrocarbon vapors.

Contaminated compressed air systems increase operating costs by robbing the air system of useful power. This results in reduced efficiency, damaged air-operated equipment, higher maintenance and repair costs, reduced production caused by downtime, and increased product rejections.

The properly sized and selected Kaeser filter(s) in conjunction with the appropriate dryer will remove these contaminants. This will allow the compressed air system to deliver the quality of air required for the particular application whether it's plant air, instrument air, or breathing air.

High Performance Filters and Separators

Designed and developed using the latest innovations and manufacturing techniques, Kaeser filter housings are designed with larger flow areas to ensure low pressure drop and to provide easier installation, operation and maintenance. The result is consistent product quality while minimizing operating costs.

Kaeser Reduces the Cost of Compressed Air

Kaeser filters remove more contaminants with less pressure drop. Compare the operating pressure drop of competitive brand filters and remember, for every extra 2 psi of pressure drop, power requirements increase by 1%.

With a complete selection of application-specific filter types, sizes, technical service and support, Kaeser offers a customized solution for all of your compressed air quality needs.

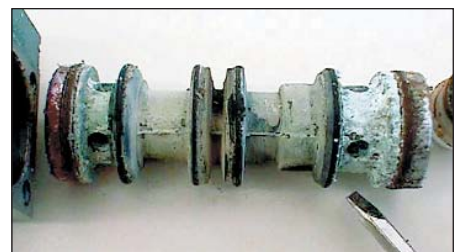
What happens when you don't use an air filter?



All ambient air contains harmful particulates and contaminants



Any contaminants that are not filtered from the compressor will eventually wind up in the machinery or end product



Contaminants corrode and damage air-operated equipment

Premium Options



1 Filter Monitor

- Microprocessor control and LCD display
- Indicates optimum element replacement based on:
 - operating time
 - differential pressure
 - filter type
- Filter replacement “warning”
- Continuously measures differential pressure

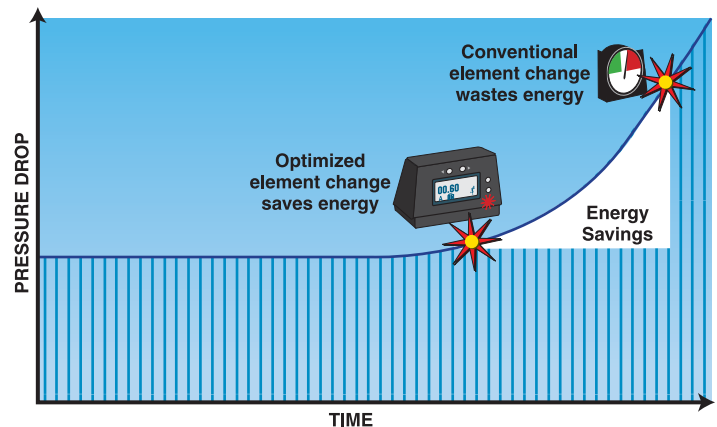
2 Filter Connection Set

Quickly isolates condensate drain for easy maintenance without interrupting air supply.

3 Eco-Drain

- Non-wearing electronic probe does not have moving parts
- Reliably discharges condensate, but not costly compressed air
- Self-checking electronics with automatic alarm test button, and voltage free alarm contact
- LEDs for power supply and alarm

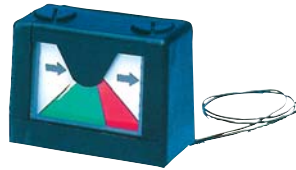
Potential Energy Savings with Filter Monitor



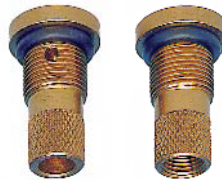
Filter Accessories



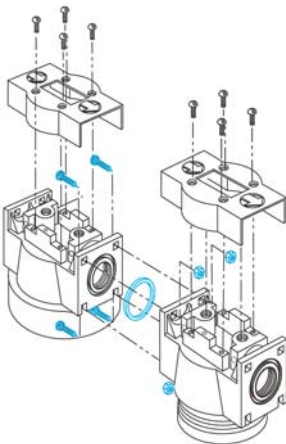
Wall Mounting Bracket
Available for housings from 20 through 780 scfm



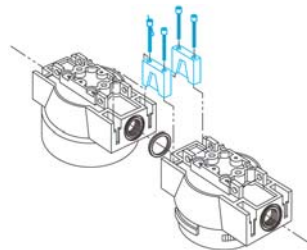
Remote Indication Differential Pressure Gauge
Available for housings from 20 through 780 scfm



Manual Drain and External Drain Adapter
Available for housings from 20 through 170 scfm



Manifold Connector Kit
Available for housings from 250 through 780 scfm (Threaded-type head)



Modular Connector Kit
Available for housings from 20 through 170 scfm (Bayonet-type head)

Other Clean Air Treatment Products



Kaeser's Automatic Drains like the AMD (shown) are reliable and require low maintenance. These traps remove moisture from separators, receiver tanks, intercoolers, aftercoolers, dryers, filters, and drip legs.



Kaeser's Aquamat System automatically removes oil from compressor condensate. This allows for easy and economical disposal of compressed air condensate in an environmentally responsible way. The low maintenance system requires no electricity for operation.



Kaeser's Air Quality Monitor (AQM) reliably analyzes compressed air contamination, pressure dewpoint, temperature and pressure at a given point in the system. It provides real time monitoring and guarantees consistent air quality.



Kaeser's Secotec Refrigerated Air Dryers are offered for capacities from 20 to 460 scfm. The cycling control provides maximum efficiency by utilizing a thermal mass medium for storage.

Kaeser's Desiccant Air Dryers (KAD, KEP, KBP) provide extremely dry air for applications requiring complete water and water vapor removal. Dew points achieved are as low as -100°F.



Kaeser Membrane Dryers (KMD) provide a dew point suppression without requiring any external power or regular maintenance. These dryers are well suited for point of use applications and are easy to install with simple piping connections.

Standard Features and Benefits



Modular Housings for Flows up to 780 scfm

- Manufactured from top quality aluminum and steel
- Epoxy powder coated (interior and exterior) for added durability and corrosion resistance
- All filter types fit same size housings
- 1/8 turn bayonet head to bowl connections for easy access (20 to 170 scfm)
- Threaded connection for 250 scfm and up
- Optimized air flow through housing minimizes pressure drop
- The tapered housing and non-turbulent lower filter zone prevents condensate from being picked up by the air flow

- Audible leak warning
- Wall mounting brackets available

Enhanced Performance

- Latest filter media technology results in higher efficiencies and lower Delta P
- Additional filter types for extra critical applications
- 150°F maximum inlet temperature
- 250 psig maximum working pressure (pressure vessels, 225 psig)
- Push-on element for quick, reliable replacement
- Coalescing filters have new horizontal-web fiber filter structure
- Optimum filter efficiency even at low airflow of up

1 Delta P Slide Indicator

Ensures economical operation by changing color when filter element requires replacement. Fitted as standard on filters up to 60 scfm (excluding KVA).

2 Color Coded Elements

Allows easy identification. Elements are designed using the latest media innovations and manufacturing technology.

3 Internal Automatic Drain

Reliably discharges collected condensate (excluding KVA and KFS 250 and above).

4 Delta P Gauge

Large, easy-to-read dual gauge faces allow housings to be mounted in any flow direction. Fitted as standard on filters from 100 scfm and up (except KVA).

5 Modular Connections

Space-saving design allows housings to be connected in series without additional piping.

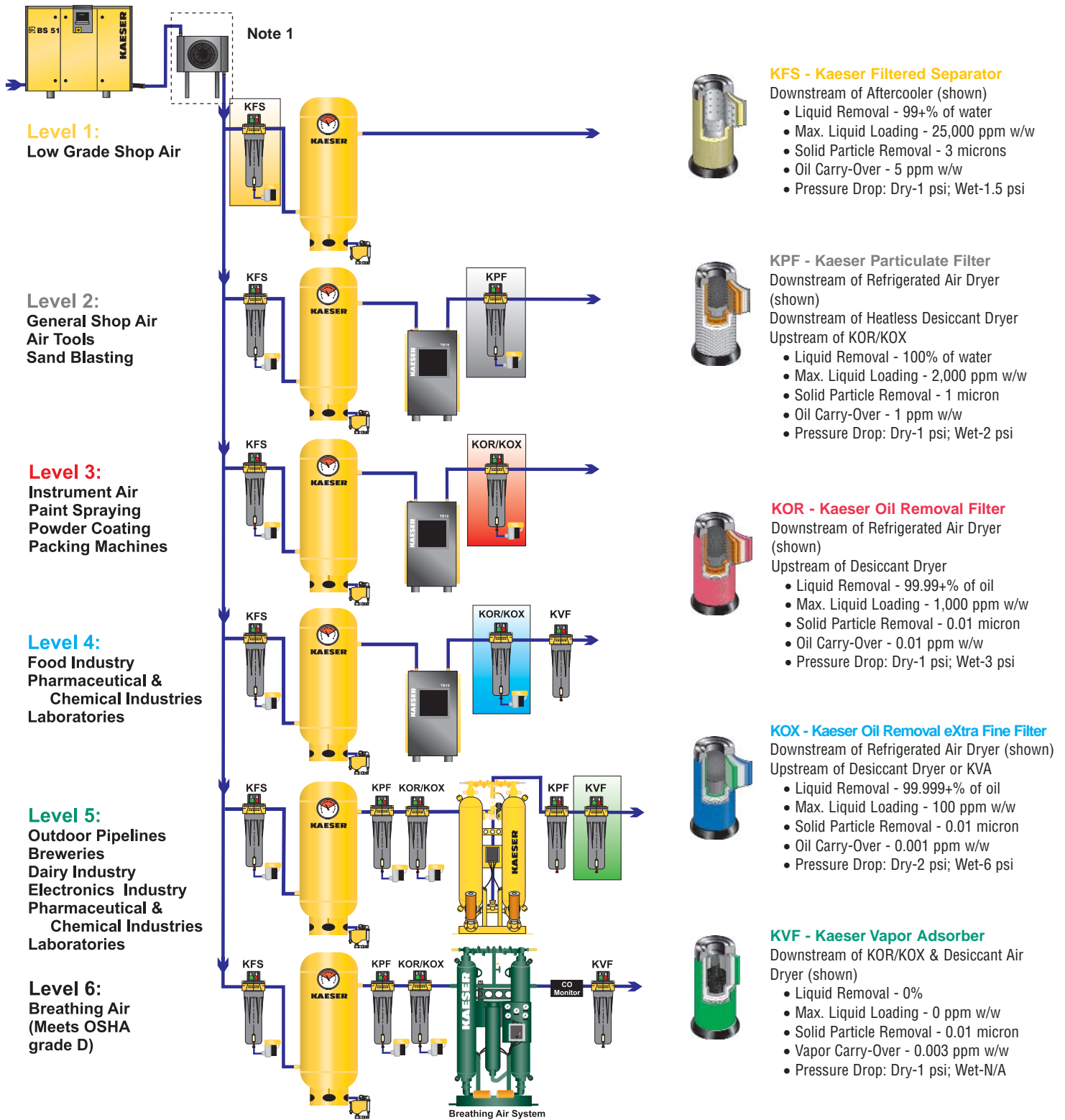
6 Liquid Level Indicator

Visually monitor liquid level and verify drain operation.

to five percent of nominal flow

- Filter element seals to housing
- Stainless steel support sleeves, oil and acid resistant coated collars and end caps

Six Levels of Compressed Air Quality



Note 1: All Kaeser Rotary Screw Compressors have built-in aftercoolers. However, for equipment without an aftercooler or where the discharge temperature is 110°F or higher, an aftercooler should be positioned at the location shown.

KFS/KPF/KOR/KOX filter elements should be replaced at 10 psid (red area of Delta P gauge) or annually, whichever occurs first. KVF filter elements should be replaced after 1,000 hours of operation or annually, whichever occurs first. Kaeser recommends processing condensate through the Aquamat which safely and economically disposes of the environmentally threatening oil/water mixture. KPF is offered in a reverse flow version (KPF-RF) for cold regenerative desiccant dryers. Consult factory for specifications.

Engineering Data

Filter Type	
KFS	- Kaesar Filtered Separator (removable sleeve)
KPF	- Kaesar Particulate Filter (mesh over white)
KOR	- Kaesar Oil Removal Filter (Standard Applications - red element)
KOX	- Kaesar Oil Removal eXtra Fine Filter (Critical Applications - blue element)
KVF	- Kaesar Oil Vapor Adsorber (green element)

Model	Air Flow @100 psig (cfm)	Connection size	Standard Features of Filters					Max. Working Pressure (psig)	Dimensions W x H (inches)	Weight (lbs)
			KFS	KPF	KOR	KOX	KVF			
Modular Type Housing										
(Filter Type) - 20	20	½" NPTF	1	1	1	1	6	250	4¼ x 11¼	8
(Filter Type) - 35	35	½" NPTF	1	1	1	1	6	250	4¼ x 11¼	8¼
(Filter Type) - 60	60	½" NPTF	1	1	1	1	6	250	4¼ x 13½	8½
(Filter Type) - 100	100	1" NPTF	2	2	2	2	6	250	5¼ x 15½	9½
(Filter Type) - 170	170	1" NPTF	2	2	2	2	6	250	5¼ x 19¾	10½
(Filter Type) - 250	250	1½" NPTF	4	2	2	2	6	250	6½ x 23	10¼
(Filter Type) - 375	375	1½" NPTF	4	2	2	2	6	250	6½ x 27½	11½
(Filter Type) - 485.2	485	2" NPTF	5	3	3	3	7	250	7¾ x 31¼	28
(Filter Type) - 485.2.5	485	2½" NPTF	5	3	3	3	7	250	7¾ x 31¼	28
(Filter Type) - 625	625	2½" NPTF	5	3	3	3	7	250	7¾ x 37	33
(Filter Type) - 780	780	2½" NPTF	5	3	3	3	7	250	7¾ x 43	38
Pressure Vessel										
(Filter Type) - 1000P	1,000	3" NPTM	8	8	8	8	9	225	16 x 48	91
(Filter Type) - 1250P	1,250	3" NPTM	8	8	8	8	9	225	16 x 48	91
(Filter Type) - 1875P	1,875	3" NPTM	8	8	8	8	9	225	16¼ x 49	120
(Filter Type) - 2500P	2,500	4" Flange	8	8	8	8	9	225	20 x 52¼	179
(Filter Type) - 3125P	3,125	4" Flange	8	8	8	8	9	225	20 x 52¼	182
(Filter Type) - 5000P	5,000	6" Flange	8	8	8	8	9	225	24 x 54¾	271
(Filter Type) - 6875P	6,875	6" Flange	8	8	8	8	9	225	28 x 62¾	518
(Filter Type) - 8750P	8,750	6" Flange	8	8	8	8	9	225	28 x 62¾	527
(Filter Type) - 11875P	11,875	8" Flange	8	8	8	8	9	225	22 x 69¼	709
(Filter Type) - 16250P	16,250	8" Flange	8	8	8	8	9	225	39 x 68	918
(Filter Type) - 21250P	21,250	10" Flange	8	8	8	8	9	225	46 x 71	1412

- 1 - Internal Automatic Drain, Delta P Slide Indicator, Liquid Level Indicator.
- 2 - Internal Automatic Drain, Delta P Gauge, Liquid Level Indicator.
- 3 - Internal Automatic Drain, Delta P Gauge.
- 4 - Manual Drain, Delta P Gauge, Liquid Level Indicator (For automatic draining, optional external drain is available).
- 5 - Manual Drain, Delta P Gauge (For automatic draining, optional external drain is available).
- 6 - Manual Drain, liquid Level Indicator (Drain trap not required).
- 7 - Manual Drain (Drain trap not required).
- 8 - Plugged Drain Port, Delta P Gauge & Installation Kit (For automatic draining, optional external drain is available).
- 9 - Plugged Drain Port (Installation of a manual drain is recommended).

Sizing

To find the maximum flow for a filter size at pressures other than 100 psig, multiply the rated flow by the Correction Factor corresponding to the minimum pressure at the inlet of the filter. Do not select filters by pipe size. Use flow rate and operating pressure.

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

Note: Maximum inlet temperature is 150°F.

Specifications are subject to change without notice.



Kaeser's U.S. Headquarters in Fredericksburg, Virginia

Mission Statement

We strive to earn our customers' trust by supplying high quality Kaeser air compressors, related compressed air equipment and premium blower systems. Our products are designed for reliable performance, easy maintenance, and energy efficiency. Prompt and dependable customer service, quality assurance, training, and engineering support contribute to the value our customers have come to expect from Kaeser. Our employees are committed to implementing and maintaining the highest standards of quality to merit customer satisfaction. We aim for excellence in everything we do.

Our engineers continue to refine manufacturing techniques and take full advantage of the newest machining innovations. Extensive commitment to research and development keeps our products on the leading edge of technology to benefit our customers.



Built for a lifetime.™

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Member:



The Air Systems Specialist

With over 80 years of experience, Kaeser is the air systems specialist. Our extensive 100,000 square foot facility allows us to provide unequalled product availability. With service centers nationwide and our 24-hour emergency parts guarantee, Kaeser customers can rely on the best after-sales support in the industry. Kaeser stands committed to providing the highest quality air system for your specific compressed air needs.

