

Filters 0.58 to 248 m³/min
up to 16 bar

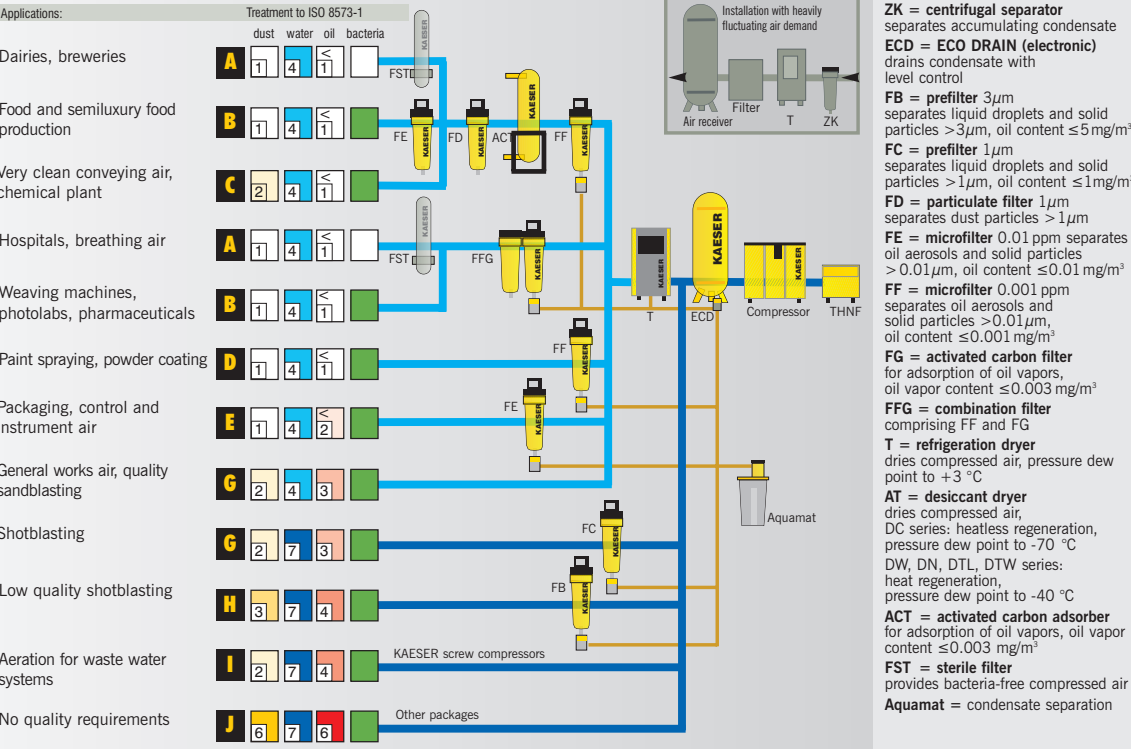


Why do we need air treatment?

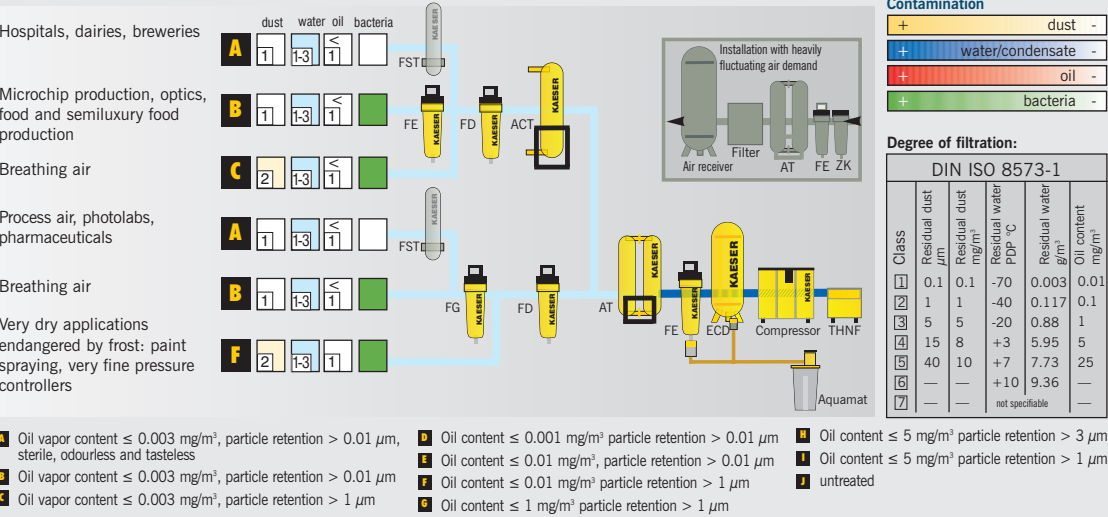
On average, a compressor sucks in up to 190 million particles of dirt, hydrocarbons, viruses and bacteria with every cubic meter of atmospheric air. The compressor itself can only remove the larger dirt particles and the majority of the pollution remains in the compressed air. This means that for most applications careful treatment of the air is necessary:

Choose the right grade of treatment according to your field or application

Air treatment using a refrigeration dryer (+3 °C pressure dew point)



For air mains endangered by frost: treatment with a desiccant dryer (down to -70 °C dew point)



Pure air reduces the downtime of pneumatic machines and controllers to an absolute minimum, greatly extends the service life of tools, and keeps pipes and valves free of contaminants. Pure compressed air, therefore, saves servicing, maintenance and repair costs and, in the long run, even procurement costs.

Filter for pure air

Reliable filtration

- **coalescence filters** with new, matrix blended fibre media
- **high filter efficiency** with very low pressure drop, which means low operating costs
- **high efficiency even at low airflows** of down to five percent of nominal
- **reliable element to housing seal** prevents unfiltered air bypassing the element

Long service life

- **durable, anticorrosive filter housing** epoxy coated (inside and out)
- filter elements: stainless steel orifice tubes, **oil and acid resistant** end caps bound to media with special adhesive, **completely impervious** to chemicals
- high operating temperatures up to +66 °C



comprehensive range

- **choice of differential pressure indicators:**
 - analog display
 - filter monitor for optimal monitoring (option)
- **choice of condensate drains:**
 - automatic internal drain, pilot controlled, pneumatically driven
 - electronically controlled ECO-DRAIN (D-Pack version)

Simple maintenance

- **bayonet bowl to head connection** with safe 1/8-turn to open and close the housing (up to model F...-48)
- **audible warning** if the filter is opened under pressure
- **secure sealing** of the housing with **captive O-ring**
- **plug-in filter elements** for quick, simple change

D-Pack version – with ECO DRAIN (filter monitor and filter monitor box available as options)



The pressure differential indicator ...

... shows the actual pressure drop

The filter monitor ... (option)

... indicates correct moment for filter element change based on:

- **analysis of** preset operational data
- **intelligent electronics**, continuous measurement

... has the advantage of

- easily read LC display, alarm LED
- digital display of pressure drop

The high performance filter element ...

... ensures reliable filtration with low pressure losses:

- **coalescence filter** with new matrix blended fibre filter media
- **optimum filter efficiency even at low airflows** down to five percent of nominal
- **reliable element to housing seal** prevents unfiltered air bypassing the element
- stainless steel orifice tubes, **oil and acid resistant** end caps

The filter housing ...

... has extraordinary advantages:

- **long housing life** because it is epoxy coated inside and out (verified in 1000 hour salt spray tests)
- **easy removal** of the filter element
- **low pressure drop** because of optimized air flow
- the conical bowl and turbulence-free lower filter zone prevent **condensate from being picked with the air flow**
- **audible warning** if the filter is opened under pressure

The shut-off valve ...

... allows maintenance of the condensate drain without interrupting air supplies

The ECO DRAIN condensate drain ...

... is electronically level controlled and fully automatic, that means:

- **no air losses**
- **maximum operational reliability**



Filter monitor (option)

- **microprocessor driven LC display**
- **best supervision of the filter element based on:**

- operating time
- differential pressure
- an integrated economic-computation derived from the comparison of increasing energy requirement caused by filter clogging with a maximum value computed by the monitor that is dependent on operating conditions

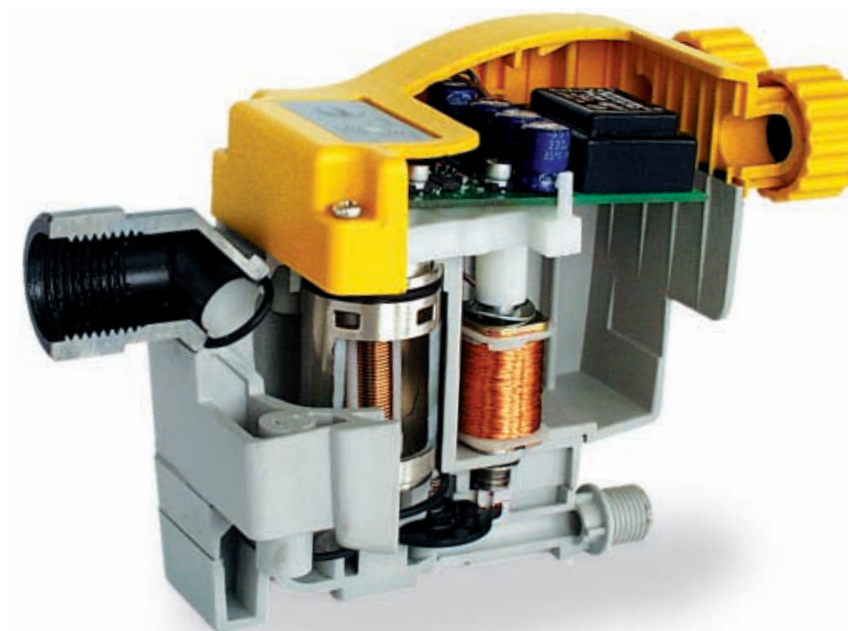
- **resulting in energy savings**

- **'filter change' warning** with red LED and alarm contact

- **continuous display of pressure drop** with pressure transducer (0.025 bar accuracy)

ECO DRAIN condensate drainage:

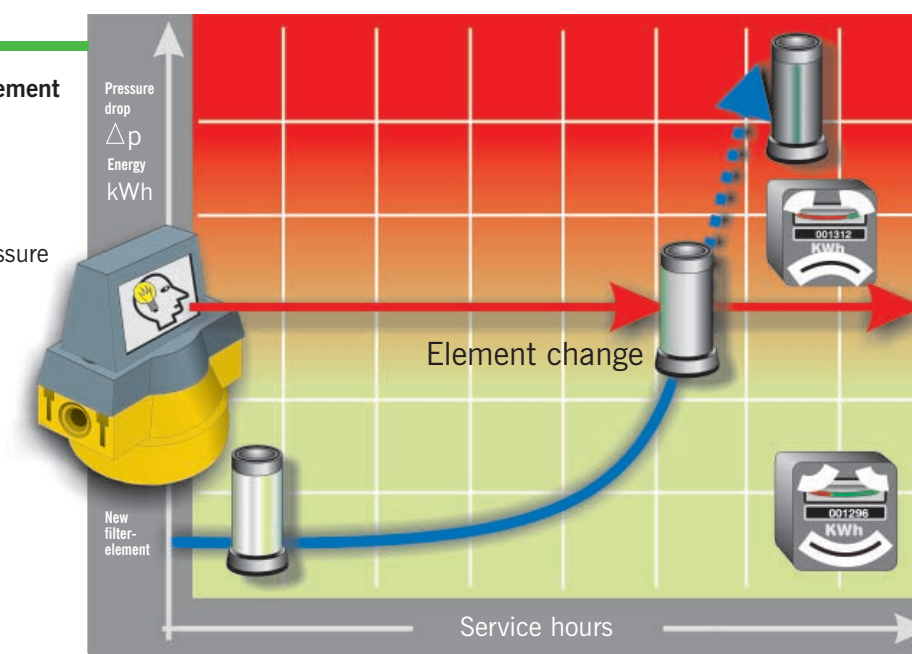
- **non-wear electronic level sensor** no moving parts
- **reliable function** no clogging or dirtying
- **no air loss**
- test button
- **self-checking electronics** with automatic alarm routines
- **volt-free alarm contact**
- **LEDs for power supply and alarm**
- DC and AC, 50/60 Hz versions available
- all controls and controller enclosure protected to IP 65



- **direct data input** no separate programming device needed

Intelligence instead of power consumption

- **determination of optimum filter element life** related to actual operating conditions
- **continuous, precise evaluation of pressure drop** with masking of pressure peaks.



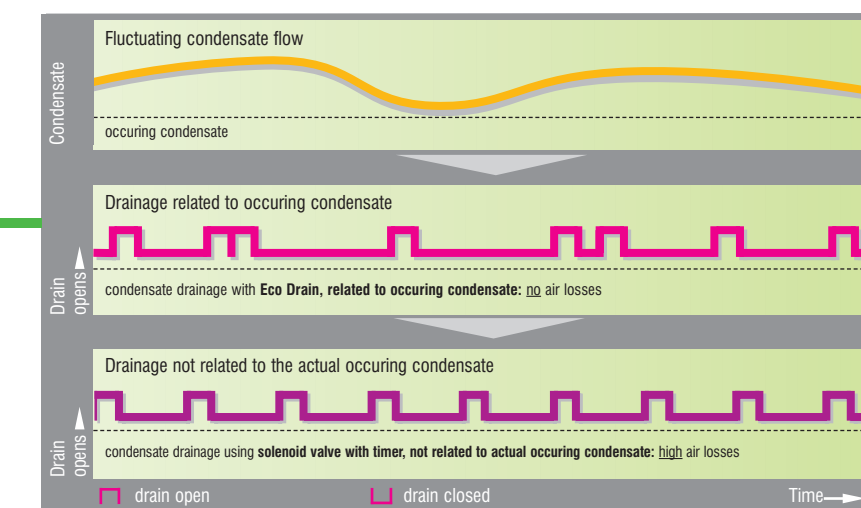
Integration into the remote monitoring system provides Increased reliability



Filter monitor box

visualisation / central control system

Maximum reliability No air loss



The Basic Version

Pressure differential indicator ...

... shows the current pressure drop across the filter

High performance filter element ...

... ensures reliable filtration with low pressure
... losses:

- **coalescence filter** with new matrix blended fibre filter media
- **optimum filter efficiency even at low airflows**
down to five percent of nominal
- **reliable element to housing seal** prevents unfiltered air bypassing the element
- stainless steel orifice tubes, **oil and acid resistant** sleeve and end caps

Filter housing ...

... has extraordinary advantages:

- **long life** because it is epoxy coated inside and out (verified in 1000 hour salt spray tests)
- **easy removal** for filter element changing
- **low pressure drop** because of optimized air flow
- the conical bowl and turbulence-free lower filter zone prevent **condensate from being picked up with the air flow**
- **audible warning** if the housing is opened under pressure

Automatic condensate drain ...

... with floating level sensing



FB, FC Prefilters

Filter monitor (option)

D-Pack version

with automatic ECO-DRAIN and pressure differential indicator

Basic version

with pressure differential indicator and automatic condensate drain

FB filter element

FC filter element



Filter model:	FB prefilter 3 µm
Particle retention:	> 3 µm class 3 to ISO 8573-1
Oil content:	≤ 5 mg/m³ class 4 to ISO 8573-1
Pressure drop, new:	0.07 bar
Maximum inlet liquid load:	25000 mg/m³
Two-stage filtration, 1st stage:	two SS orifice tubes, initial separation 10 microns
2nd stage:	in-depth fibre media captures solid and liquid particles to 3 microns

Filter model:	FC prefilter 1 µm
Particle retention:	> 1 µm class 2 to ISO 8573-1
Oil content:	≤ 1 mg/m³ class 3 to ISO 8573-1
Pressure drop, new:	0.07 bar
Maximum inlet liquid load:	2000 mg/m³
Two-stage filtration, 1st stage:	alternate layers of fibre media and media screen
2nd stage:	coalesces aerosols, captures solid particles with multiple layers of epoxy bonded, blended fibre media

Typical uses for the FB/FC prefilters:

- particulate filter for dirt, rust, scale
- first stage filter in combination with microfilter

Models FB + FC	Airflow m³/min	Air connec- tion	Re- moval height D mm	Basic version				D-Pack version				Filter element		
				Model 3 µm	Model 1 µm	Dimensions mm A B C	Weight kg	Model	Model	Dimensions mm A B C	Weight kg	Model	Model	No.
	0.58	R 3/8	76	FB-6	FC-6	105 306 224	3.6	FB-6 D	FC-6 D	105 545 444	4.3	E-B-6	E-C-6	1
	1.00	R 1/2	76	FB-10	FC-10	105 306 224	3.7	FB-10 D	FC-10 D	105 545 444	4.4	E-B-10	E-C-10	1
	1.75	R 1/2	76	FB-18	FC-18	105 367 285	3.9	FB-18 D	FC-18 D	105 600 499	4.6	E-B-18	E-C-18	1
	2.83	R 3/4	89	FB-28	FC-28	133 389 298	4.4	FB-28 D	FC-28 D	133 650 540	5.1	E-B-28	E-C-28	1
	4.83	R 1	89	FB-48	FC-48	133 497 406	4.8	FB-48 D	FC-48 D	133 745 635	5.5	E-B-48	E-C-48	1
	7.10	R 1 1/2	102	FB-71	FC-71	164 579 482	4.6	FB-71 D	FC-71 D	164 826 710	5.3	E-B-48	E-C-71	1
	10.7	R 1 1/2	102	FB-107	FC-107	164 693 596	5.1	FB-107 D	FC-107 D	164 940 824	5.8	E-B-107	E-C-107	1
	13.8	R 2	102	FB-138	FC-138	194 789 681	12.7	FB-138 D	FC-138 D	194 1037 909	13.4	E-B-138	E-C-138	1
	17.7	R 2 1/2	102	FB-177	FC-177	194 935 827	15.0	FB-177 D	FC-177 D	194 1183 1055	15.7	E-B-177	E-C-177	1
	22.1	R 2 1/2	102	FB-221	FC-221	194 1091 983	17.2	FB-221 D	FC-221 D	194 1357 1230	17.9	E-B-221	E-C-221	1
	18.5	DN 80	610	FB-185	FC-185	350 1130 950	29.9	FB-185 D	FC-185 D	350 1270 1090	29.9	E-B-185	E-C-185	1
	28.3	DN 80	610	FB-283	FC-283	400 1205 1013	41.4	FB-283 D	FC-283 D	400 1290 1098	38.9	E-B-283	E-C-283	2
	35.4	DN 80	610	FB-354	FC-354	400 1205 1013	41.8	FB-354 D	FC-354 D	400 1290 1098	39.6	E-B-185	E-C-185	2
	52.6	DN 100	610	FB-526	FC-526	440 1240 1023	53.4	FB-526 D	FC-526 D	440 1330 1113	51.2	E-B-185	E-C-185	3
	70.8	DN 100	610	FB-708	FC-708	535 1255 1022	70.0	FB-708 D	FC-708 D	535 1350 1117	67.8	E-B-185	E-C-185	4
	88.5	DN 100	610	FB-885	FC-885	535 1255 1022	71.7	FB-885 D	FC-885 D	535 1350 1117	69.5	E-B-185	E-C-185	5
	142	DN 150	610	FB-1420	FC-1420	600 1355 1043	126.5	FB-1420 D	FC-1420 D	600 1490 1178	124.5	E-B-185	E-C-185	8
	195	DN 150	610	FB-1950	FC-1950	720 1520 1183	182.8	FB-1950 D	FC-1950 D	720 1540 1203	180.5	E-B-185	E-C-185	11
	248	DN 150	610	FB-2480	FC-2480	750 1540 1192	237.7	FB-2480 D	FC-2480 D	750 1560 1212	235.4	E-B-185	E-C-185	14

Conversion factor *f* for other pressures

Airflow at 7 bar (g), referred to 1 bar (a) and 20 °C – max. working pressure 16 bar, max. operating temperature +66 °C

Working pressure bar	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor <i>f</i> =	0.38	0.52	0.63	0.75	0.88	1.00	1.13	1.26	1.38	1.52	1.65	1.76	1.87	2.00	2.14

FD Particulate Filter

Filter monitor (option)

Basic version

with pressure differential indicator

FD filter element

The **FD filter element** has the same two-stage filtration as the FC.

The filter layers are, however, arranged in reverse and the airflow is in the opposite direction, i.e. from the outside to the inside.

This provides a larger filter surface and longer service life when used as a dust filter.



Filter model:	FD particulate filter
Particle retention:	> 1 µm class 2 to ISO 8573-1
Efficiency:	99.99999 %
Oil content:	≤ 1 mg/m³ class 3 to ISO 8573-1
Pressure drop, new:	0.07 bar
Maximum inlet liquid load:	- (only used as dust filter)
Two-stage filtration, 1st stage:	alternate layers of fibre media and media screen
2nd stage:	multiple layers of epoxy bonded, blended fibre media

Typical uses for the FD particulate filter:

- dust filter for solid particles
- filter downstream of adsorption dryers and activated carbon adsorbers

Note: Special FD-HT particulate filters must be used for air inlet temperatures between 66 °C and 150 °C .
FD and FD-HT filters are not fitted with condensate drains as standard

Model FD	Airflow m³/min	Air connection	Removal height D mm	Basic version				Filter element	
				Model	Dimensions mm A B C	Weight kg		Model	No.
	0.58	R 3/8	76	FD-6	105 306 224	3.5		E-D-6	1
	1.00	R 1/2	76	FD-10	105 306 224	3.6		E-D-10	1
	1.75	R 1/2	76	FD-18	105 367 285	3.8		E-D-18	1
	2.83	R 3/4	89	FD-28	133 389 298	4.3		E-D-28	1
	4.83	R 1	89	FD-48	133 497 406	4.7		E-D-48	1
	7.10	R 1 1/2	102	FD-71	164 579 482	4.5		E-D-71	1
	10.7	R 1 1/2	102	FD-107	164 693 596	5.0		E-D-107	1
	13.8	R 2	102	FD-138	194 789 681	12.6		E-D-138	1
	17.7	R 2 1/2	102	FD-177	194 935 827	14.9		E-D-177	1
	22.1	R 2 1/2	102	FD-221	194 1091 983	17.1		E-D-221	1
	18.5	DN 80	610	FD-185	350 1025 845	28.4		E-D-185	1
	28.3	DN 80	610	FD-283	400 1045 853	37.0		E-D-283	2
	35.4	DN 100	610	FD-354	400 1045 853	37.4		E-D-185	2
	52.6	DN 100	610	FD-526	440 1085 868	48.4		E-D-185	3
	70.8	DN 100	610	FD-708	535 1105 872	64.4		E-D-185	4
	88.5	DN 100	610	FD-885	535 1105 872	65.4		E-D-185	5
	142	DN 150	610	FD-1420	600 1215 903	118.4		E-D-185	8
	195	DN 150	610	FD-1950	720 1245 908	171.4		E-D-185	11
	248	DN 150	610	FD-2480	750 1265 917	224.4		E-D-185	14

Conversion factor *f* for other pressures

Airflow at 7 bar (g), referred to 1 bar (a) and 20 °C – max. working pressure 16 bar, max. operating temperature +66 °C

Working pressure bar	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor <i>f</i> =	0.38	0.52	0.63	0.75	0.88	1.00	1.13	1.26	1.38	1.52	1.65	1.76	1.87	2.00	2.14

FE, FF Microfilters

Filter monitor (option)

D-Pack-Version

with ECO DRAIN and pressure differential indicator option

Basic version

with pressure differential indicator and automatic condensate drain

FE microfilter element

FF microfilter element

Filter model:	FE microfilter 0.01 ppm
Particle retention:	> 0.01 µm class 1 to ISO 8573-1
Oil content:	≤ 0.01 mg/m³ class 1 to ISO 8573-1
Pressure drop, new:	0.07 bar
Maximum inlet liquid load:	1000 mg/m³
Two-stage filtration, 1st stage:	multiple layers of fibre media and media screen
2nd stage:	multiple layers of bonded, blended fibre media, outer coated closed cell foam sleeve

Filter model:	FF, microfilter 0.001 ppm
Particle retention:	> 0.01 µm class 1 to ISO 8573-1
Oil content	≤ 0.001 mg/m³, thus better than class 1 to ISO 8573-1
Pressure drop, new:	0.14 bar
Maximum inlet liquid load:	100 mg/m³ (use downstream of FE filter or dryer)
Two-stage filtration, 1st stage:	coated closed-cell foam sleeve prefilter
2nd stage:	multiple layers of matrix blended fibre media, outer coated closed cell foam sleeve

Typical uses for the FE/FF microfilters:

- pneumatic controllers, measuring instruments, paint spray and powder coating plant
- prefilter for membrane dryers, desiccant dryers and activated carbon adsorbers

Tip: fit your FE/FF microfilters at points where the compressed air is as cool as possible.

FFG Microfilter-Activated Carbon Combination Filter

Filter monitor (option)

D-Pack-Version

with ECO DRAIN and pressure differential indicator option

Basic version

with pressure differential indicator and automatic condensate drain

Microfilter element

for separation of solid particles and oil aerosols
(see FF microfilter for details)

Activated carbon filter element

for adsorption of oil and hydrocarbon vapours, with after-filtration of particles

Filter model:	FFG microfilter-activated carbon combination filter
Particle retention:	> 0.01 µm class 1 to ISO 8573-1
Oil content:	≤ 0.001 mg/m³, thus better than class 1 to ISO 8573-1
Oil vapour content:	≤ 0.003 mg/m³, thus better than class 1 to ISO 8573-1 oil-free compressed air
Pressure drop new:	0.21 bar
Max. inlet liquid load	100 mg/m³ (use downstream of FE filter or dryer)
Two-stage FF filter:	see FF microfilter for details
Two-stage FG filter:1st stage:	stabilized bed of fine activated carbon particles
2nd stage:	multiple layers of matrix blended fibre media with bonded microfine carbon particles

Typical uses for

FFG combination microfilters:

- food and beverage industries, bottle-filling plants
- hospitals, pharmaceuticals, packaging, breathing air production

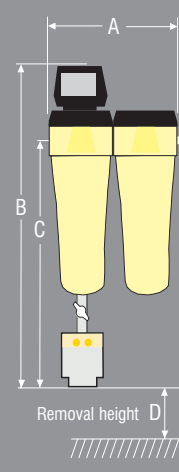
Tip: fit your FFG combination filter at a point where the compressed air is as cool as possible. This will extend the life of the activated carbon element considerably.

Models FE & FF	Airflow m³/min	Air connection	Removal height D mm	Basic version				D-Pack version				Filter element		
				Model	Model	Dimensions mm A B C	Weight kg	Model	Model	Dimensions mm A B C	Weight kg	Model	Model	No.
	0.58	R 3/8	76	FE-6	FF-6	105 306 224	3.6	FE-6 D	FF-6 D	105 545 444	4.3	E-E-6	E-F-6	1
	1.00	R 1/2	76	FE-10	FF-10	105 306 224	3.7	FE-10 D	FF-10 D	105 545 444	4.4	E-E-10	E-F-10	1
	1.75	R 1/2	76	FE-18	FF-18	105 367 285	3.9	FE-18 D	FF-18 D	105 600 499	4.6	E-E-18	E-F-18	1
	2.83	R 3/4	89	FE-28	FF-28	133 389 298	4.4	FE-28 D	FF-28 D	133 650 540	5.1	E-E-28	E-F-28	1
	4.83	R 1	89	FE-48	FF-48	133 497 406	4.8	FE-48 D	FF-48 D	133 745 635	5.5	E-E-48	E-F-48	1
	7.10	R 1 1/2	102	FE-71	FF-71	164 579 482	4.6	FE-71 D	FF-71 D	164 826 710	5.3	E-E-48	E-F-48	1
	10.7	R 1 1/2	102	FE-107	FF-107	164 693 596	5.1	FE-107 D	FF-107 D	164 940 824	5.8	E-E-107	E-F-107	1
	13.8	R 2	102	FE-138	FF-138	194 789 681	12.7	FE-138 D	FF-138 D	194 1037 909	13.4	E-E-138	E-F-138	1
	17.7	R 2 1/2	102	FE-177	FF-177	194 935 827	15.0	FE-177 D	FF-177 D	194 1183 1055	15.7	E-E-177	E-F-177	1
	22.1	R 2 1/2	102	FE-221	FF-221	194 1091 983	17.2	FE-221 D	FF-221 D	194 1357 1230	17.9	E-E-221	E-F-221	1
	18.5	DN 80	610	FE-185	FF-185	350 1130 950	29.3	FE-185 D	FF-185 D	350 1270 1090	29.3	E-E-185	E-F-185	1
	28.3	DN 80	610	FE-283	FF-283	400 1205 1013	40.1	FE-283 D	FF-283 D	400 1290 1098	37.9	E-E-283	E-F-283	2
	35.4	DN 80	610	FE-354	FF-354	400 1205 1013	40.5	FE-354 D	FF-354 D	400 1290 1098	38.3	E-E-185	E-F-185	2
	52.6	DN 100	610	FE-526	FF-526	440 1240 1023	51.5	FE-526 D	FF-526 D	440 1330 1113	49.3	E-E-185	E-F-185	3
	70.8	DN 100	610	FE-708	FF-708	535 1255 1022	66.7	FE-708 D	FF-708 D	535 1350 1117	64.5	E-E-185	E-F-185	4
	88.5	DN 100	610	FE-885	FF-885	535 1255 1022	67.7	FE-885 D	FF-885 D	535 1350 1117	65.5	E-E-185	E-F-185	5
	142	DN 150	610	FE-1420	FF-1420	600 1355 1043	121.5	FE-1420 D	FF-1420 D	600 1490 1178	119.5	E-E-185	E-F-185	8
	195	DN 150	610	FE-1950	FF-1950	720 1520 1183	175.9	FE-1950 D	FF-1950 D	720 1540 1203	173.6	E-E-185	E-F-185	11
	248	DN 150	610	FE-2480	FF-2480	750 1540 1192	228.9	FE-2480 D	FF-2480 D	750 1560 1212	226.6	E-E-185	E-F-185	14

Conversion factor *f* for other pressures

Airflow at 7 bar (g), referred to 1 bar (a) and 20 °C – max. working pressure 16 bar, max. operating temperature +66 °C

Working pressure bar	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor <i>f</i> =	0.38	0.52	0.63	0.75	0.88	1.00	1.13	1.26	1.38	1.52	1.65	1.76	1.87	2.00	2.14

Model FFG	Airflow m³/min	Air connection	Removal height D mm	Basic version				D-Pack version				Filter element		
				Model	Dimensions mm A B C	Weight kg		Model	Dimensions mm A B C	Weight kg		1st stage Typ FF	2nd stage Typ FG	No.
	0.58	R 3/8	76	FFG-6	210 306 224	7.1		FFG-6 D	210 545 444	7.8		E-F-6	E-G-6	1
	1.00	R 1/2	76	FFG-10	210 306 224	7.3		FFG-10 D	210 545 444	8.0		E-F-10	E-G-10	1
	1.75	R 1/2	76	FFG-18	210 367 285	7.7		FFG-18 D	210 600 499	8.4		E-F-18	E-G-18	1
	2.83	R 3/4	89	FFG-28	266 389 298	8.7		FFG-28 D	266 650 540	9.4		E-F-28	E-G-28	1
	4.83	R 1	89	FFG-48	266 497 406	9.5		FFG-48 D	266 745 635	10.2		E-F-48	E-G-48	1
	7.10	R 1 1/2	102	FFG-71	328 579 482	9.1		FFG-71 D	328 826 710	9.8		E-F-48	E-G-48	1
	10.7	R 1 1/2	102	FFG-107	328 693 596	10.1		FFG-107 D	328 940 824	10.8		E-F-107	E-G-107	1
	13.8	R 2	102	FFG-138	388 789 681	25.3		FFG-138 D	388 1037 909	26.0		E-F-138	E-G-138	1
	17.7	R 2 1/2	102	FFG-177	388 935 827	29.9		FFG-177 D	388 1183 1055	30.6		E-F-177	E-G-177	1
	22.1	R 2 1/2	102	FFG-221	388 1091 983	34.3		FFG-221 D	388 1357 1230	35.0		E-F-221	E-G-221	1
	18.5	DN 80	610	FFG-185	700 1130 950	58.6		FFG-185 D	700 1270 1090	58.6		E-F-185	E-G-185	1
	28.3	DN 80	610	FFG-283	800 1205 1013	78		FFG-283 D	800 1290 1098	75.8		E-F-283	E-G-283	2
	35.4	DN 100	610	FFG-354	800 1205 1013	79.3		FFG-354 D	800 1290 1098	77.1		E-F-185	E-G-185	2
	52.6	DN 100	610	FFG-526	880 1240 1023	101.9		FFG-526 D	880 1330 1113	99.7		E-F-185	E-G-185	3
	70.8	DN 100	610	FFG-708	1070 1255 1022	133.6		FFG-708 D	1070 1350 1117	131.4		E-F-185	E-G-185	4
	88.5	DN 100	610	FFG-885	1070 1255 1022	136.2		FFG-885 D	1070 1350 1117	134		E-F-185	E-G-185	5
	142	DN 150	610	FFG-1420	1200 1355 1043	244.6		FFG-1420 D	1200 1490 1178	242.6		E-F-185	E-G-185	8
	195	DN 150	610	FFG-1950	1440 1520 1183	353.7		FFG-1950 D	1440 1540 1203	351.4		E-F-185	E-G-185	11
	248	DN 150	610	FFG-2480	1500 1540 1192	461.3		FFG-2480 D	1500 1560 1212	459		E-F-185	E-G-185	14

Conversion factor *f* for other pressures

Airflow at 7 bar (g), referred to 1 bar (a) and 20 °C – max. working pressure 16 bar, max. operating temperature +66 °C

Working pressure bar	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor <i>f</i> =	0.38	0.52	0.63	0.75	0.88	1.00	1.13	1.26	1.38	1.52	1.65	1.76	1.87	2.00	2.14

FST Sterile Filter

Sterile filter

The FST sterile filter is made of high quality stainless steel that prevents bacterial growth and corrosion.

The upper and lower housings are fitted with BSP screw connections and plugs.

All filter elements are subjected to multiple testing in the factory to ensure absolute reliability.

FST filter element

The prefilter and microfibre web consist of binder-free borosilicate.

Retention of bacteria and particles occurs throughout the whole filter volume. On average, over 100 sterilization cycles are possible with saturated steam at 141 °C.



Filter model:	FST sterile filter
Bacteria retention:	LRV separation >7/cm² for 0.01 µm particle size (referred to T1 coliphage test bacteria)
Efficiency:	100 % sterile
Operating temperature:	up to +200 °C
Pressure drop, new:	0.12 bar
Max. permissible press. drop:	5 bar
Filter media:	binder-free borosilicate (prefiltration: microfibre web)
Filter element construction:	2-stage, inner and outer stainless-steel support sleeves and end caps, sealed in silicon
Filter housing:	stainless steel, TÜV approved

Typical uses for FST sterile filters:

- food and chemical industries
- packaging
- pharmaceuticals
- hospitals

Modular Installation of Range up to F... 221 Accessories

Wall bracket (option)

Simple fitting:

- remove pressure differential indicator, remove fixing screws
- screw the bracket to the wall
- use fixing screws to screw the housing to the bracket
- refit the differential pressure indicator



Modular design

The specially designed housing allows various filters to be combined together in series without the need for additional piping.



Model FST	Air flow m³/min	Air connection	Removal height C mm	Model	Dimensions in mm			Weight kg	Filter element	
					A	B	D		Model	No
	1	R 1/4	90	F 6 P-ST	215	108	55	1.7	03/10 P-ST	1
	1.5	R 3/8	120	F 9 P-ST	243	108	55	1.9	04/10 P-ST	1
	2	R 1/2	120	F 12 P-ST	243	108	55	1.9	04/20 P-ST	1
	3	R 3/4	150	F 18 P-ST	266	125	55	2	05/20 P-ST	1
	4.5	R 1	150	F 27 P-ST	293	125	75	2.6	05/25 P-ST	1
	6	R1 1/4	200	F 36 P-ST	344	140	75	3	07/25 P-ST	1
	8	R1 1/2	200	F 48 P-ST	386	170	94	4.3	07/30 P-ST	1
	12	R 2	280	F 72 P-ST	460	170	94	4.8	10/30 P-ST	1
	18	R 2	450	F 108 P-ST	587	170	94	5.3	15/30 P-ST	1
	24	R2 1/2	580	F 144 P-ST	732	216	106	9	20/30 P-ST	1
	32	R 3	850	F 192 P-ST	987	216	106	10.8	30/30 P-ST	1
	48	R 3	850	F 288 P-ST	1026	240	119	16.2	30/50 P-ST	1

Conversion factor f for other pressures

Airflow at 7 bar (g), referred to 1 bar (a) and 20 °C

Working pressure bar	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Conversion factor f=	0.25	0.36	0.5	0.6	0.75	0.9	1	1.1	1.2	1.4	1.5	1.6	1.75	1.9	2.0	2.1

Filter Monitor Box

Remote monitoring of the filter is possible with the Filter Monitor Box. It evaluates the signals of a filter monitor and a condensate drain and passes on status signals to a remote maintenance monitoring system via two alarm contacts.

Group alarm (volt-free contact)

- Indication of the (time controlled) service interval for filter element service
- Indication of the optimal time of filter element service using microprocessor

aided measurement data processing

- Maximum differential pressure exceeded (two-minute delay)
- Condensate drain alarm

Safety alarm

(volt-free contact, in safety mode only)

- Maximum differential pressure exceeded (five-second delay)

The filter monitor box provides the power supply for the filter monitor and the ECO DRAIN.



Original KAESER filters



Scope of delivery:

Filter housing containing element.
Filters available either as D-Pack or basic version.

KAESER Service

KAESER Service and Maintenance Contracts ensure real reliability.

This vital service proves its worth in increased availability and reliability of air production and treatment plant.

Original KAESER replacement filter elements

guarantee reliable filtration and low pressure loss.



- **coalescence filters** with new, matrix blended fibre media
- **optimum filter efficiency** even with a low airflow down to five percent of nominal flow
- **reliable sealing of the filter element** to the housing
- stainless steel orifice tubes, **oil and acid resistant** coated sleeves and end caps

KAESER replacement filter elements are also available for other housings.