



VOKES AIR

Taking small steps together, always ahead, towards a better world

JG • JK • JP

High efficiency cylindrical air filters





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High efficiency cylindrical air filters

APPLICATIONS



Clean Air



Power Generation



Clean Room



Industrial

KEY FACTS

- ▶ **Compact space-saving design**
Simple to install
- ▶ **Low pressure drop**
Reduces energy consumption and lower operating costs
- ▶ **Available in a wide variety of sizes and casing types**
Suitable for a vast array of applications
- ▶ **Large filter medium area**
Provides a long life service
- ▶ **Individually tested and leak-free**
For assured performance
- ▶ **Corrosion resistant (JK) with synthetic material casing (JKG-W)**
Ideal for use in demanding applications

The JG, JK and JP are cylindrical filters designed to filter particles such as bacteria, viruses or general contaminants suspended in air, compressed air or gases. The JP is a fine dust filter and the JG and JK are HEPA filters.

A wide variety of sizes and casing types are available, making these filters usable in a vast field of applications such as medical technique, research and industry.

The media, casings, sealing compounds and gaskets are manufactured under close supervision. The filtration media are tested for separation efficiency, pressure drop, tensile strength, weight and water repellancy. Each completed JK and JG high efficiency filter must pass the DIN 24184 oil mist test after manufacture. JP fine dust filters are subjected to visual inspection after manufacture.



Filtering efficiencies/Quality classifications/Temperature ranges

Initial efficiency ¹⁾	Filter type	JP	JG	JK
	Medium	Cellulose	Glassfibre	GlassfibreJP
MPPS Test ²⁾ as per EN1822	%	-	99.99	99.99
Sodium flame test B. S. 3928	%	-	> 99.995	> 99.995
DOP-Test, Mil-Std-282	%	-	> 99.99	> 99.99
Efficiency to ASHRAE 52-76/B.S. 6540/ DIN 24185	%	> 95	-	-
Maximum relative humidity of air	%	< 85	< 100	< 100
Classification to EUROVENT/SWKI 84	-	F9	H13	H13
Classification to DIN 24185/184	-	F9	S	S
Max. continuous temperature ³⁾	°C	90	90	90
Max. final pressure drop	Pa	500	1000	1000

1) At nominal air flow 2) Test aerosol approx. 0.15 µm 3) For short period (approx. 1 h) max. 105 °C permissible

Guide specifications

JP

Cylindrical fine dust filter class F9 (EN779).

Filtermedia made of cellulose fibres. Flanges made of elastic plastic material, serving as gaskets.

- ▶ Max. admissible RH 85 %
- ▶ Max. continuous temp. 90 °C
- ▶ Separation efficiency 95 %
(EN779)

JG

Cylindrical HEPA filters to class H13 (EN1822).

Filtermedia out of submicron glass fibres, metal parts of aluminium.

Connection threading 1" (brass).

- a) execution without cover protective
 - b) execution with steel cover, gasproof lacquered, 1 connection
 - c) execution with sheet steel casing, gasproof lacquered, 2 connections
- ▶ Max. admissible RH 100 %
 - ▶ Max. continuous temp. 90 °C
 - ▶ Separation efficiency 99.99 %
(EN1822)
 - ▶ Accessory Locknut R1" incl. gasket for connection of filter.

JK

Cylindrical HEPA filters to class H13 (EN1822).

Filtermedia out of submicron glass fibres. Ring and bottom disc made of Resocel.

- ▶ Max. admissible RH 100 %
- ▶ Max. continuous temp. 90 °C
- ▶ Separation efficiency 99.99 %
(EN1822)
- ▶ Accessories Clamp for installation of the filter, consisting of: connecting ring, wedge (brass) and gasket made of EPR (ethylene propylene rubber).

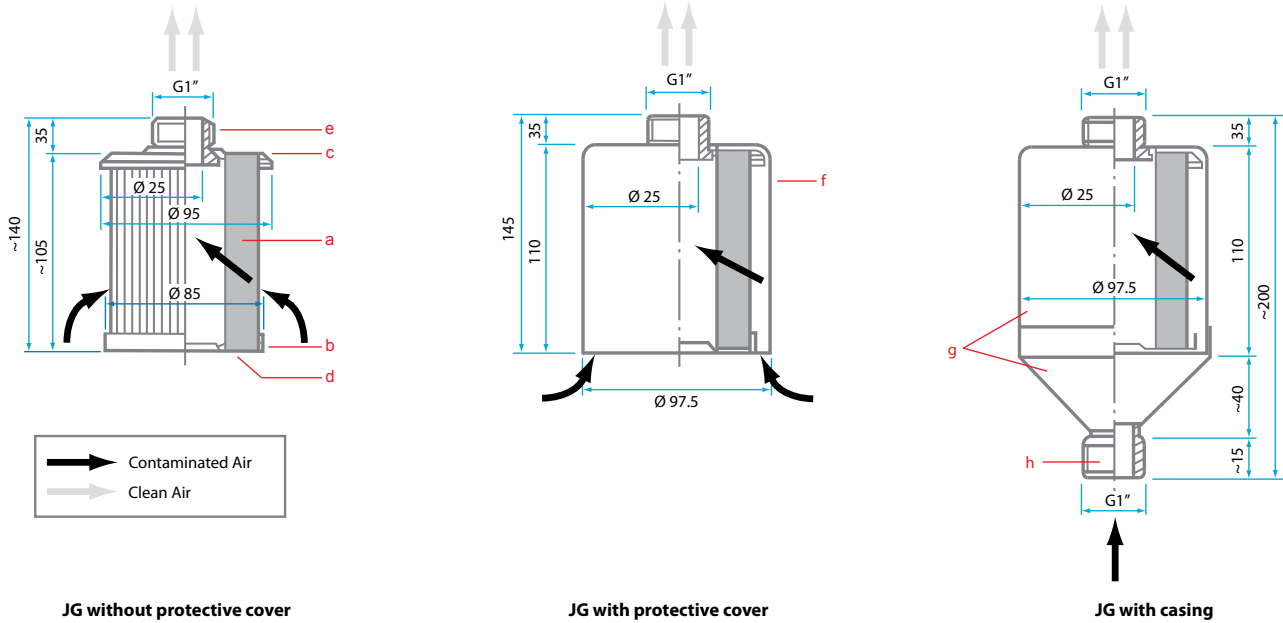
JKG-W casing

Plastic filter casing JKG-W 19/... for installation in air duct systems or for similar applications.

- ▶ Connection diameter: 125 mm
- ▶ Casing to accommodate a HEPA filter type JK 19/...
- ▶ Direction of air flow horizontal/vertical, downward/upward.
- ▶ Fitted with condensate drain, gasket and brackets for installation on wall or ceiling.

Dimensional sketch

Dimensions in mm

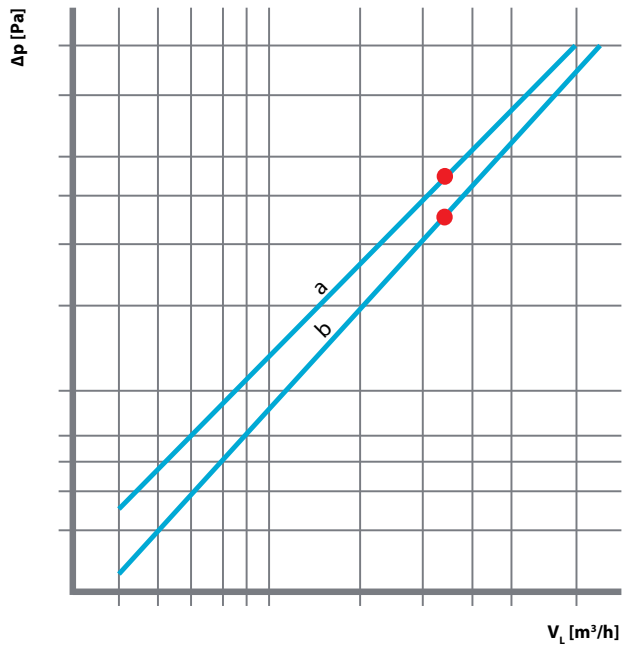


JG without protective cover

JG with protective cover

JG with casing

Initial pressure drop¹⁾ [Δp] as function of air flow [V_L]



Assembly

The threaded connection on the clean air side "e" is to be inserted through a cut-out of min. 35 mm diameter and fastened by means of a gasket and locknut.

Attention: the filter should not be screwed-in holding filterpart "c", "f" and "g".

Material specification²⁾

a = filter media: glassfibres

b = sealant: synthetic material

c = flange: aluminium

d = base: aluminium

e = connection socket: brass

f = protective cover: mild steel, gas proof laquered

g = casing (2 connections) mild steel, gasproof laquered

h = connection socket: brass

Remarks

1) Recommended final pressure drop approx. 3 times the initial pressure drop, but max. 1000 Pa. 2) For guide specifications see on page 2.

3) Max. differential pressure at 20 °C: $PB(max.) = 1.5 \text{ bar}$.

Technical data Part number	Air flow rating V_N [m³/h]	$\Delta p^{1)}$ at V_N [Pa]	Active filter surface [m²]	Weight [kg]
Filter type JG, without cover	22	230	0.3	0.30
Filter type JG, with cover	22	230	0.3	0.40
Filter type JG, with casing ³⁾	22	280	0.3	0.68
Accessory Lock nut G1" incl. gasket				

JK

JK are cylindrical HEPA filters available in heights from 50 to 400 mm and in diameters of 150 or 190 mm. Each filter is leak tested and leak free.

Mounting

With clamps in a cut-out of diameter "D4" (see on page 5) or by means of a special gasket in filter casing JKG-W (see on page 6).

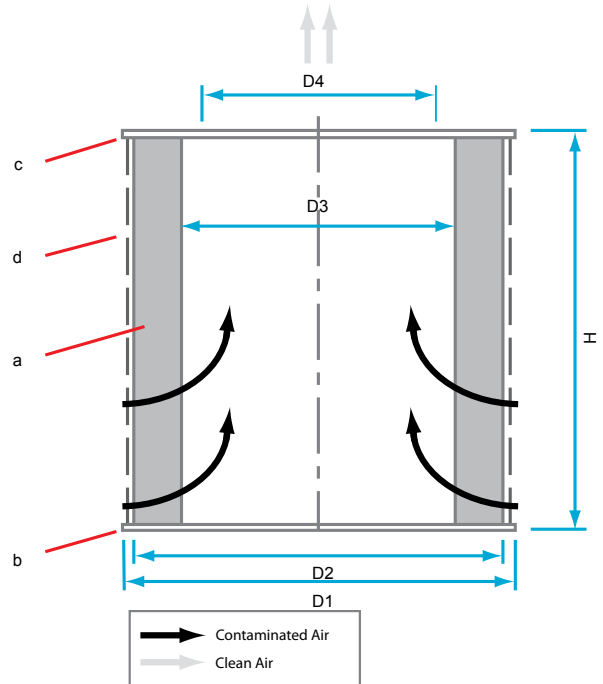
Filter Life

Depending on dust load and air flow. The filter should be changed if it has reached about 3 times the initial pressure drop, however latest at a final pressure drop of 1000 Pa.

Material specifications

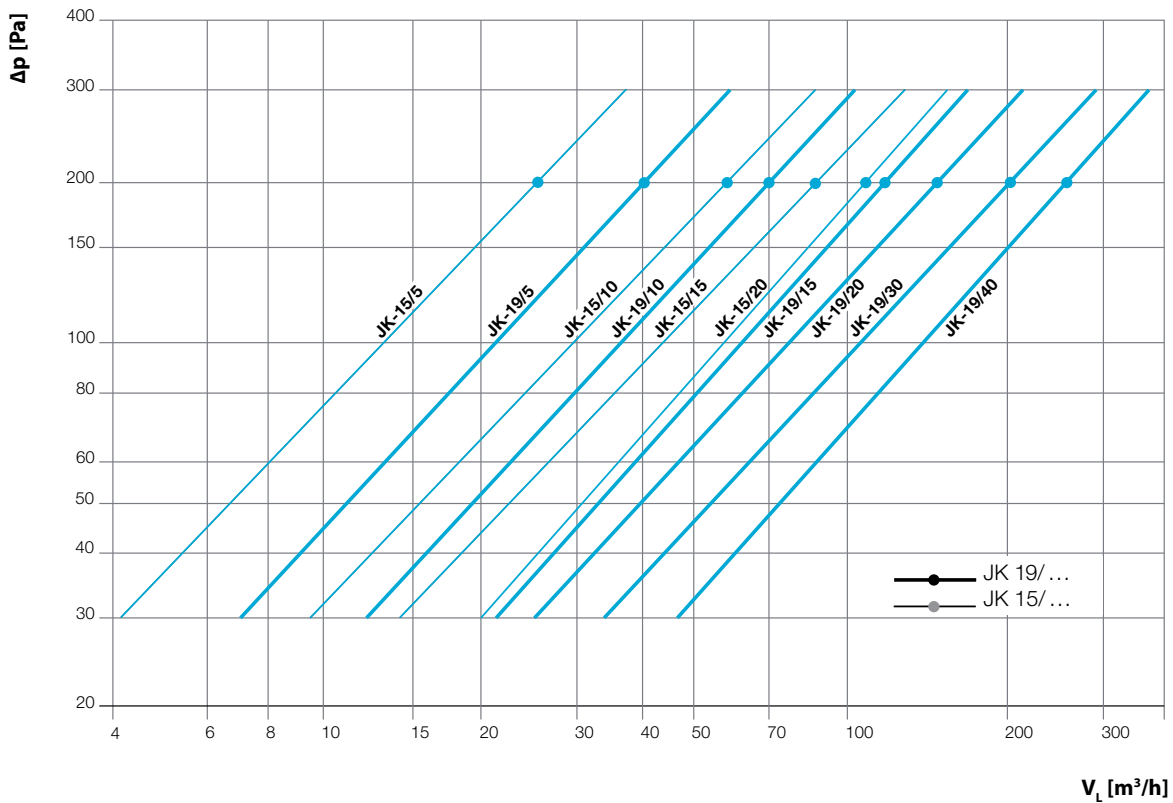
- a = filter media: glass paper
- b = sealant: synthetic resin
- c = ring and bottom disc: Resocel
- d = aluminium protection grid

Dimensional sketch



Normal air flow ¹⁾

Initial pressure drop [Δp] as function of air flow [V_L]



Technical data / part number

Type	Dimensions [mm]					Rated air flow V_N [m ³ /h]	Δp a V_N [Pa]	Active filter surface [m ²]	Filter weight [kg]
	D1	D2	D3	D4	H				
JK 15/5	155	150	110	95	50	25	200	0.2	0.11
JK 15/10	155	150	110	95	100	55	200	0.5	0.16
JK 15/15	155	150	110	95	150	80	200	0.8	0.21
JK 15/20	155	150	110	95	200	110	200	1.1	0.25
JK 19/5	200	190	150	130	50	40	200	0.3	0.20
JK 19/10	200	190	150	130	100	70	200	0.6	0.24
JK 19/15	200	190	150	130	150	115	200	1.0	0.33
JK 19/20	200	190	150	130	200	150	200	1.3	0.39
JK 19/30	200	190	150	130	300	200	200	1.9	0.55
JK 19/40	200	190	150	130	400	250	200	2.5	0.70

Accessories

Clamp for JK 15 filter (incl. gasket)

Clamp for JK 19 filter (incl. gasket)

Tool for installation³⁾ of JK 19 clamp

Clamp

for installation of JK filters in a cut-out of $D4 \pm 0.5$ mm diameter.

Material specifications³⁾

a = filter media: glass paper

c = flange: Resocel

d = connecting ring: brass

e = gasket: synthetic material

f = wedge: brass

Specials

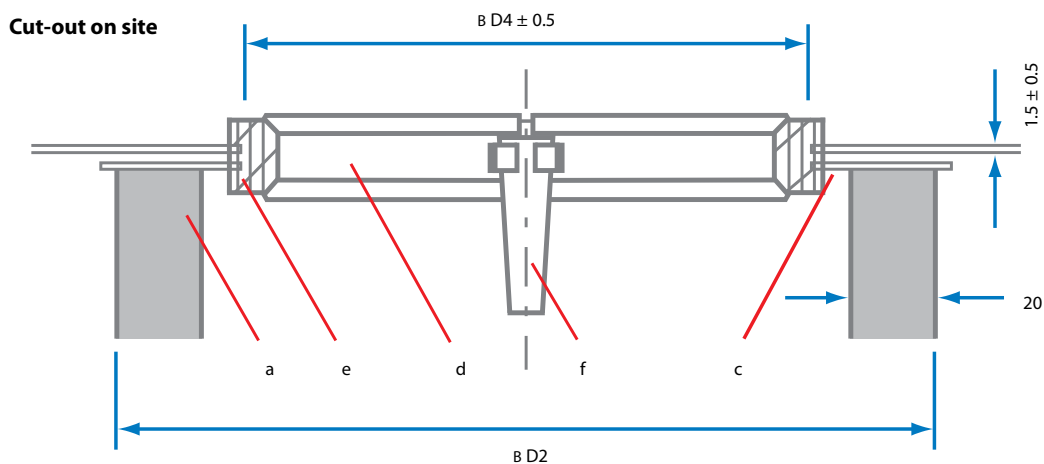
At request JK-filter may also be supplied in other filter efficiencies, heights, diameters and with supporting grill.

Remarks

1) Reverse airflow is permitted and may be an advantage when filtering toxic or radioactive dust (filter serves as a dust container).

2) For fast and easy mounting of filters.

3) Guide specifications see on page 2.



JK

JKG-W casing is a cylindrical synthetic material casing for all JK19 filters (see on pages 4 + 5). It can be installed directly into the piping system and is easy to mount on walls and ceilings.

Application

Suitable for all systems where small quantities of air are to be effectively filtered, especially inlet- and outlet air of laboratories, water reservoirs, various containers, working places and as bleed filter.

Material specifications¹⁾

g = casing: plastic (welded)

h = gasket: synthetic elastomer

i = connection for condensate extraction pipe



Extent of supply

Case equipped with gasket, condensate drain and brackets for installation on wall or ceiling.

Limits

Temperature: T (max.) = 50 °C

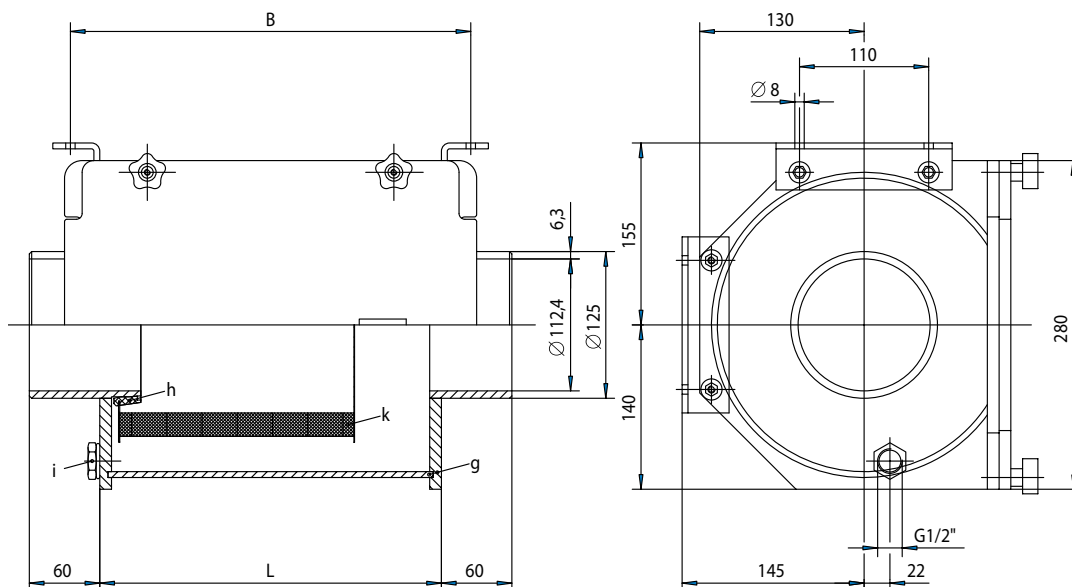
Differential pressure:

PB (max.) = ± 14 000 Pa } at 20 °C

PB (Max.) = ± 0.14 bar

Dimensional sketch

Dimensions in mm



Combinations/dimensions/part number

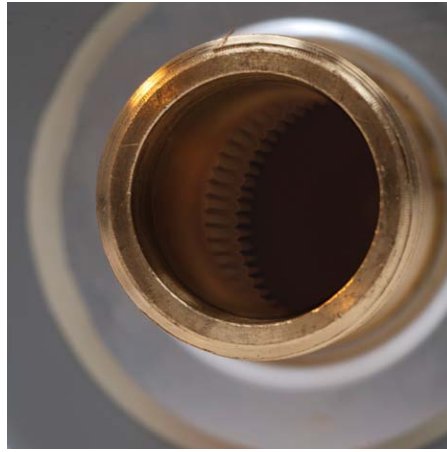
Casing type	Matching filter type	Dimensions		Weight of casing [kg]
		L (mm)	B (mm)	
JKG-W 19/20	JK 19/20	291	341	5.2
JKG-W 19/30	JK 19/30	391	341	7.0
JKG-W 19/40	JK 19/40	491	341	9.4

2 sleeves (B 125mm) with 4 clips

Remarks

1) For guide specifications see on page 2.

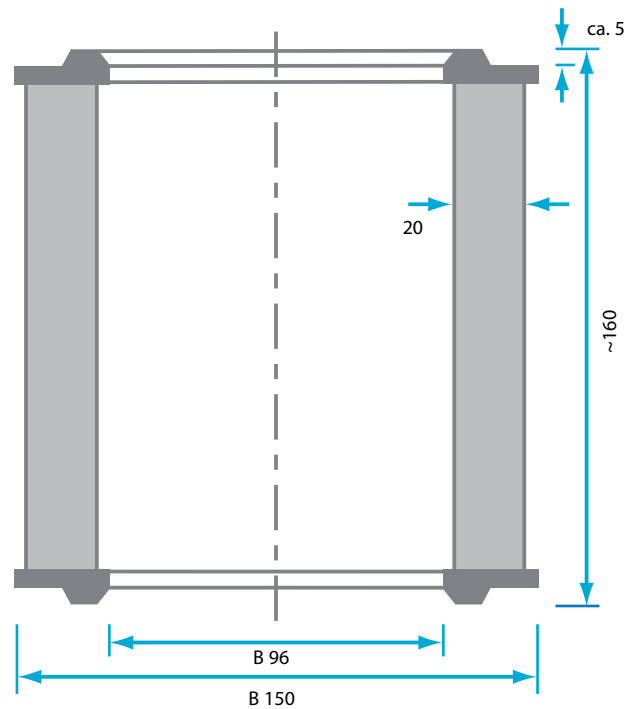
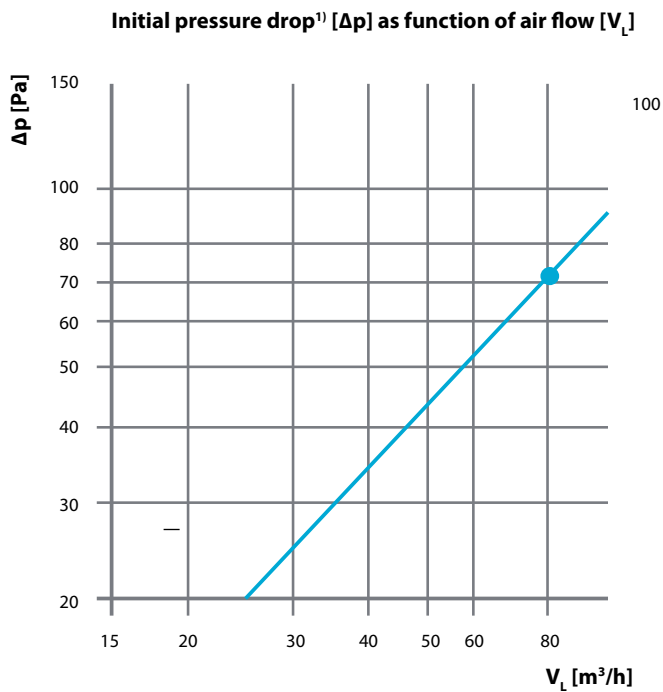
2) Reversed air flow permitted (see to remark 1 on page 5).



JP

Dimensional sketch

Dimensions in mm



JP are cylindrical fine dust filters with elastic, pliable flanges, serving simultaneously as a gasket.

Material specifications²⁾

Filter media: cellulose paper

Flanges: Elastomer (elastic and pliable)

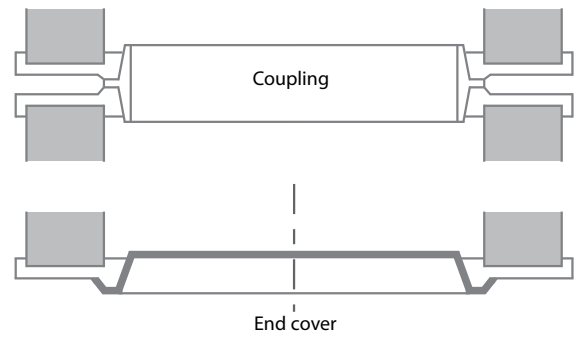
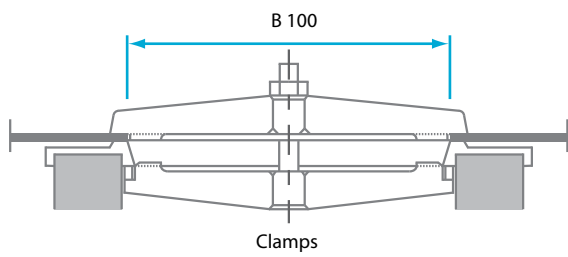
Clamp: Aluminium

Coupling/End cover: galvanized steel

Technical data Part number	Air flow rating V_N [m³/h]	$\Delta p^{1)}$ at V_N [Pa]	Active filter surface [m²]	Weight [kg]
Filter type JP-Blue	80	70	1.3	0.30

Accessories

Clamp, End cover, Coupling.



Clamps

consisting of clamping cross for 96 mm diameter hole and spacing ring.
Suitable for assembly of JP filter in a cut-out of 100 mm diameter.

Coupling

for the joining of two filter cells (series connection).

End cover

suitable for bottom aperture of 96 mm diameter.

Remarks

- 1) Recommended final pressure drop approx. 3 times the initial pressure drop, however max. 500 Pa.
- 2) For guide specifications see on page 2.



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