Leybold

Dust Filters
Adsorption Traps
Vacuum pump accessories

171.100.02

Dust filters of the new FH line

Safe protection. Easy-to-use.

Dust filters protect the vacuum pumps against inlet particles. They are suited for oil-sealed as well as for dry compressing vacuum pumps.

Filter casing (empty), for optional equipping

Dust Filters

Fields of Application

- Oil-sealed vacuum pumps
- Dry compressing vacuum pumps

The dust filters from the FH line consist of a steel casing with a cover featuring three locking clips for fast and easy opening and closing. Each dust filter casing is equipped with two ISO-KF flanges.

The product line of the FH dust filters has been designed for utmost flexibility. Either the dust filter cartridge or the adsorption filter insert can be accommodated in the filter casing.

The filter housing are supplied without inserts. The filter insert should be selected for the individual requirements.

Benefits

- Easy to fit
- Vacuum tight steel casing
- Easy filter replacement
- High filter capacity

Technical Information

Installing a dust filter in the intake line of the vacuum pump throttles its pumping speed at low intake pressures more than at high intake pressures.

Estimates of the throttling values are stated in the technical data section. These values must be taken into account when planning the vacuum system.

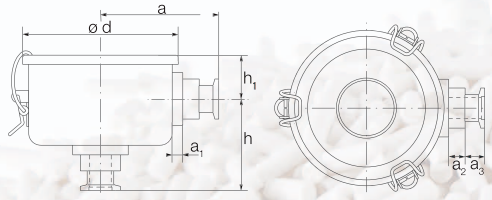
As the collecting capacity of the dust filters is limited we recommend the installation of a two-stage dust separator from the AS line, if large quantities of dust are to be expected.

Dust Filter Inserts

The filter cartridge is equipped with polyester fleece (PET) thereby providing a large surface area.

Approximately 98% of 5 µm particles can be collected.

Owing to the high porosity of the filter material the pumping speed loss at 10 mbar is only 3% and at 1 mbar is only 6%.



Type	DN		a	a_1	a_2	a_3	d	h	h_1
FH 16	16	ISO-KF	96	11	12	15	133	65	46
FH 25	25	ISO-KF	96	11	12	15	133	65	46
FH 40	40	ISO-KF	123	11	12	15	176	106	76

Dimensional drawing for the filter casings

Adsorption Traps, Adsorbents

Adsorb and separate gases and vapours.

**The adsorption traps are containers with a stainless steel insert which can be filled with different kinds of adsorbents.
They provide a high adsorbing capacity for vapors and water vapor in particular.**

Adsorption and filter insert as well as various adsorbents

Adsorption Inserts

With the stainless steel adsorption insert, different adsorbents like active charcoal, Zeolite or aluminium oxide can be utilized.

Additionally, the insert can be removed and baked out in a drying cabinet at up to 300 °C to regenerate the adsorbent.

With the aid of a second adsorption insert, one can be regenerated while the second is in active use.

The adsorption insert is simply inserted into the filter pot and can be used with different substances in order to protect the pump or the vacuum chamber.

Combining oil-sealed pumps with these adsorption traps is a very convenient way to produce a hydrocarbon-free vacuum, saving on maintenance cost as sometimes incurred by dry compressing vacuum pumps.

Adsorption Traps

Benefits

- Stainless steel adsorption inserts
- For regeneration* of the adsorbent, the stainless steel insert can be baked out at up to 300 °C.
- For use with various adsorbents and separating components
- Simple and rapid replacement of insert and adsorbent
- Easy to fit
- Cost-effective production of a hydrocarbon-free vacuum in connection with oil-sealed vacuum pumps. Low maintenance costs compared to many dry compressing pumps are generated at the same time.

* During the regeneration phase we recommend the use of a second adsorption insert.

Pall rings made of stainless steel 1.4301

Technical Data
Ordering information

Dust Filters

Flange size		DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Collection rate for particles > 5 µm	%	98	98	98
Throttling of pumping speed				
at 10 mbar	%	3	3	3
at 1 mbar	%	6	6	6
Weight with dust filter insert	kg	1.3	1.3	2.3
Ordering Information		**Cat. No.**	**Cat. No.**	**Cat. No.**
Filter pot FH*		140 116T	140 125T	140 140T
Dust filter insert, polyester (PET)				
DF 16-25		140 117S	140 117S	–
DF 40-65		–	–	140 141S

Adsorption Traps

Flange size		DN 16 ISO-KF	DN 25 ISO-KF	DN 40 ISO-KF
Conductance at 10 mbar for filling with				
Aluminium oxide	l/s	2	6	14
Zeolite	l/s	2	6	12
Active charcoal	l/s	2	6	16
Pall rings	l/s	2	7	18
Conductance at 1 mbar for filling with				
Aluminium oxide	l/s	1	4	5
Zeolite	l/s	1	4	5
Active charcoal	l/s	2	6	6
Pall rings	l/s	2	6	16
Filling quantities				
Aluminium oxide	kg	0.3	0.3	1.0
Zeolite	kg	0.2	0.2	0.7
Active charcoal	kg	0.1	0.1	0.5
Pall rings	kg	0.1	0.1	0.3
Filling volume	l	0.3	0.3	1.2
Weight with adsorption trap insert	kg	1.3	1.3	2.3
Ordering Information		**Cat. No.**	**Cat. No.**	**Cat. No.**
Filter pot FH*		140 116T	140 125T	140 140T
Adsorption trap insert**, bakeable to 300 °C				
RF 16-25		140 118A	140 118A	–
RF 40-65		–	–	140 142A
Adsorbent				
Active charcoal, undried, 5 kg		178 10	178 10	178 10
Zeolite, 1 kg		854 20	854 20	854 20
Aluminium oxide, 1.2 kg		854 10	854 10	854 10
Pall rings 15 x 15 x 0.3, 1 litre, stainless steel 1.4301		390 26 126	390 26 126	390 26 126

* The filter pot is supplied without insert since it may be equipped alternatively with a dust filter or an adsorption trap insert.

** Adsorption trap insert without any filling. Adsorbents should be ordered separately.

Leybold GmbH
Bonner Str. 498 · D-50968 Köln
T +49 (0) 221-347-0
F +49 (0) 221-347-1250
info@leybold.com
www.leybold.com

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