

LOW-PRESSURE-FILTER

The low-pressure bag filter „HNFK” is used to filter dust out of a volume flow of air. It can be used both as an aspiration filter for applications with low dust loads and as a total separator, e.g. in pneumatic conveying systems.



FUNCTION

The dust-air mixture enters the filter tangentially and is sucked through the filter bags by an external fan. The dust adheres to the outside of the hoses and is loosened by the automatic hose cleaning system and discharged via a rotary valve. The filter hoses can be changed through the side door or from above via a hinged lid. The purge air is generated by an external blower.

OPTIONS

- > Product touching parts in stainless steel
- > Flat bottom discharge with scraper (not for food applications)
- > Different filter materials or coatings (e.g. Teflon)
- > Design as a total separator for large quantities of material with tangential pipe inlet below the filter bags
- > Filter Controller 24V or 230V
- > Differential pressure monitoring
- > Purge air pressure monitoring
- > Different product sensors in the outlet (rotary paddle, vibro, capacitive)
- > Arrangement of door, dust air inlet, explosion relief, support feet, etc. according to customer requirements
- > Weatherproof cover for burst channel
- > Suitable high- and low-pressure fans
- > Purge air blowers

FEATURES

Filter Bags:

- › Antistatic polyester needle felt
- › Bag-Ø120mm
- › Support baskets made of stainless steel or galvanized mild steel
- › Food safe
- › Filter bags can be changed through the front door (raw gas side) or from above (clean air side)

Bag Cleaning System:

- › Cleaning of the filter bags using purge air (from an external blower)
- › Purge air pressure 0,5 – 0,6bar
- › Filter controller HNFK-FS
- › Integrated, adjustable pressure relief valve

Housing:

- › Cylindrical housing
- › Tangential dust air inlet, optionally on the right or left
- › Axial clean air outlet
- › Front inspection door
- › Made of mild steel, painted (food-safe)
- › Transition hoppers (dust air, clean air) to the desired pipe diameter included in the scope of supply
- › Support feet (position according to customer requirements)

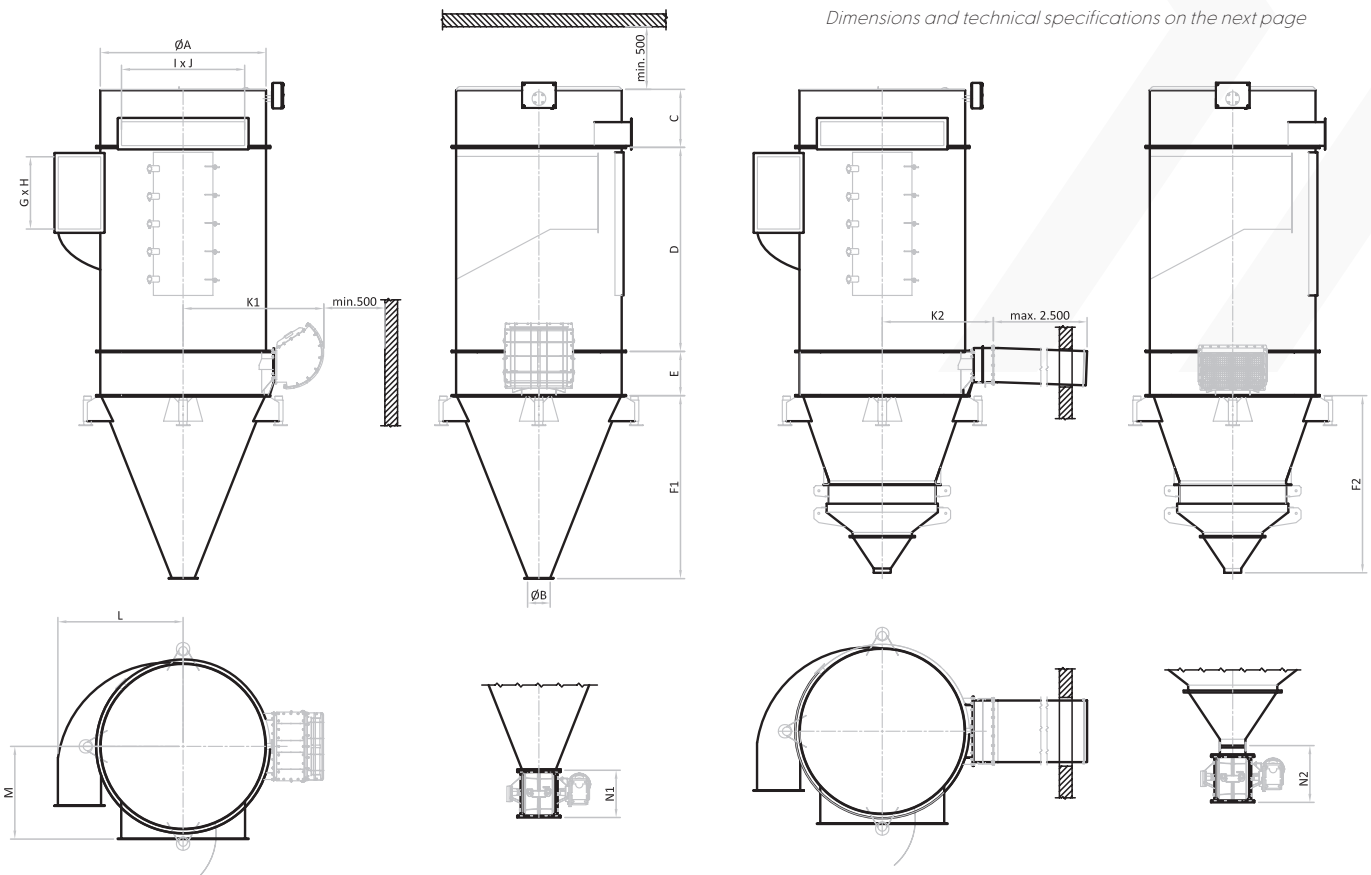
Explosion relief:

- › Housing extension with rupture disc (vacuum resistant down to -200mbar)
- › Low-dead-space design
- › Flameless venting (flame filter) or explosions channel (max. 2.5m)
- › Inductive burst sensor
- › Pressure shock resistance 0,48bar
- › Alternative equipment with explosion suppression systems possible

Product discharge:

- › Conical discharge hopper with pneumatic knocker or vibro discharger
- › Control of the knocker directly from the filter controller
- › Outlet with DIN flange, suitable for air lock „ExR“

Dimensions and technical specifications on the next page



EXAMPLE ILLUSTRATION:
HNFK WITH FLAMELESS EXPLOSION VENTING
AND CONICAL DISCHARGE HOPPER

EXAMPLE ILLUSTRATION:
HNFK WITH RUPTURE DUCT AND VIBRO DISCHARGER

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TECHNICAL DATA													
Type	Filter-surface [m ²]	Hose Length [mm]	N° Hoses	Hose-Ø [mm]	Purge Air Requirement [m ³ /min] ¹	Purge Air Pressure [mbar]	Burst Disk [mm] ²	Pressure Resistance [bar]	Standard-Airlock ³	Standard-Vibrodis-charger	Weight [kg]		
											Net	Gros	
HNFK-16/	12	6,5	1.200	16	120	0,35	500-600	170 x 470	0,48	ExR150	HVKK-60	640	950
	18	10	1.800									730	1.090
	24	13,5	2.400									820	1.230
	30	17	3.000									910	1.375
HNFK-24/	12	10	1.200	24	120	0,5	500-600	270 x 458	0,48	ExR150	HVKK-60	750	1.110
	18	15	1.800									860	1.270
	24	20	2.400									960	1.440
	30	25	3.000									1.070	1.600
HNFK-39/	12	16	1.200	39	120	0,7	500-600	270 x 458	0,48	ExR150	HVKK-100	890	1.070
	18	24,5	1.800									995	1.190
	24	33	2.400									1.100	1.320
	30	41,5	3.000									1.205	1.445
HNFK-44/	12	18	1.200	44	120	0,8	500-600	270 x 458	0,48	ExR150	HVKK-100	1.140	1.560
	18	28	1.800									1.295	1.788
	24	37	2.400									1.450	2.010
	30	47	3.000									1.610	2.240
HNFK-52/	12	21,5	1.200	52	120	0,95	500-600	300 x 500	0,48	ExR200	HVKK-100	1.375	1.870
	18	33	1.800									1.560	2.130
	24	44	2.400									1.750	2.395
	30	55	3.000									1.960	2.680
HNFK-80/	18	50,5	1.800	80	120	1,4	500-600	305 x 610	0,48	ExR200	HVKK-130	2.300	3.030
	24	68	2.400									2.575	3.390
	30	85	3.000									2.845	3.755
HNFK-104/	18	65,5	1.800	104	120	1,9	500-600	490 x 590	0,48	ExR200	HVKK-130	3.000	3.795
	24	88	2.400									3.380	4.270
	30	111	3.000									4.690	5.670
HNFK-112/	18	70,5	1.800	112	120	2,1	500-600	490 x 590	0,48	ExR250	HVKK-130	3.210	4.060
	24	95	2.400									3.615	4.565
	30	119	3.000									5.020	6.070

1 Average value at approx. 250ms valve time and 5 sec step time; consumption can vary significantly with other parameter settings!

2 Design based on rye flour dust; other products may vary!

3 pressure shock resistant, flameproof, type-tested

DIMENSIONS [MM]															
Type	ØA	ØB	C	D	E ¹	F1	F2	G x H	I x J	K1	K2 ²	L	M	N1	N2
HNFK-16/	1.000	DN150	670	1.200	430	1.030	1.800	215 x 400	280 x 520	1.070	835	715	620	260	335
				1.800											
				2.400											
				3.000											
HNFK-24/	1.150	DN150		1.200	480	1.200	1.800	270 x 500	280 x 520	1.260	950	845	695	260	335
				1.800											
				2.400											
				3.000											
HNFK-39/	1.340	DN150		1.200	480	1.570	1.900	270 x 650	280 x 800	1.325	1.005	965	785	260	335
				1.800											
				2.400											
				3.000											
HNFK-44/	1.450	DN150		1.200	480	1.570	1.900	300 x 650	280 x 800	1.380	1.060	1.025	845	260	335
				1.800											
				2.400											
				3.000											
HNFK-52/	1.600	DN200	1.200	500	1.750	1.900	360 x 750	280 x 1.150	1.495	1.135	1.160	920	370	445	
			1.800												
			2.400												
			3.000												
HNFK-80/	1.950	DN200	1.800	520	2.150	2.080	500 x 850	280 x 1.450	1.650	1.300	1.475	1.090	370	445	
			2.400												
			3.000												
HNFK-104/	2.020	DN200	1.800	700	2.550	2.080	500 x 1.250	280 x 1.750	1.850	1.345	1.510	1.125	370	445	
			2.400												
			3.000												
HNFK-112/	2.200	DN250	1.800	700	2.550	2.080	500 x 1.250	280 x 2.050	1.940	1.435	1.600	1.215	425	500	
			2.400												
			3.000												

1 burst disk design based on rye flour dust; other products may require different dimensions

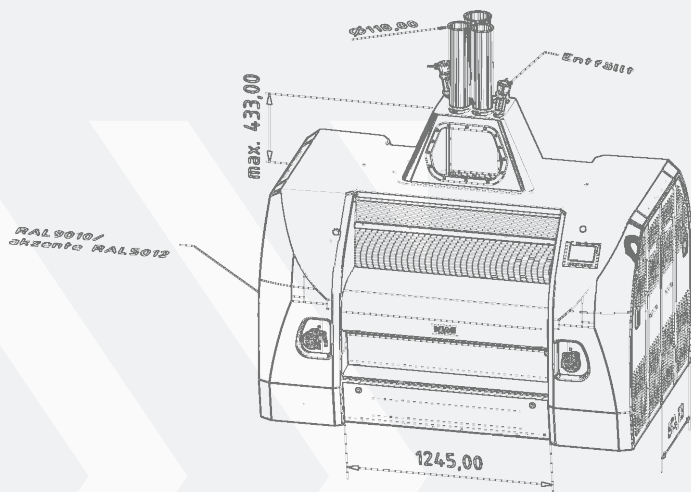
2 plus explosion channel, max. 2.500 mm

For special requirements

CUSTOMIZING

Can't find the right machine for your application in our standard catalogue?
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We carry out application-related modifications of our machines and special solutions in close cooperation with the customer and on the base of a precise target specification.



SPECIAL SOLUTIONS

- > Special wear protection
- > Special materials (e.g. stainless steel, synthetic material)
- > Special machine connections (e.g. inlet and outlet)
- > Drives and sensors according to customers wish
- > CIP-application
- > Special temperature requirements (e.g. high temperature)
- > Special painting

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- › Conveyor fan
- › High pressure fans
- › Pipe construction
- › Alphorns/injectors

SUCTION

- › Bag filter
- › Punktfilter
- › Gutter aspiration
- › Low and medium pressure fans
- › Muffler
- › Pipe construction

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