

Low-Pressure Airjet-Filter.

MVRT



Dust-free operation. High reliability.

Application

The Low-Pressure Airjet-Filter MVRT with the two design versions of Side Removal and Top Removal is applied with advantage for achieving efficient separation of dust particles from a dust-and-air mixture. The different sizes allow the filters to be optimally operated with air volumes in the range of 54 to 624 m³/min.

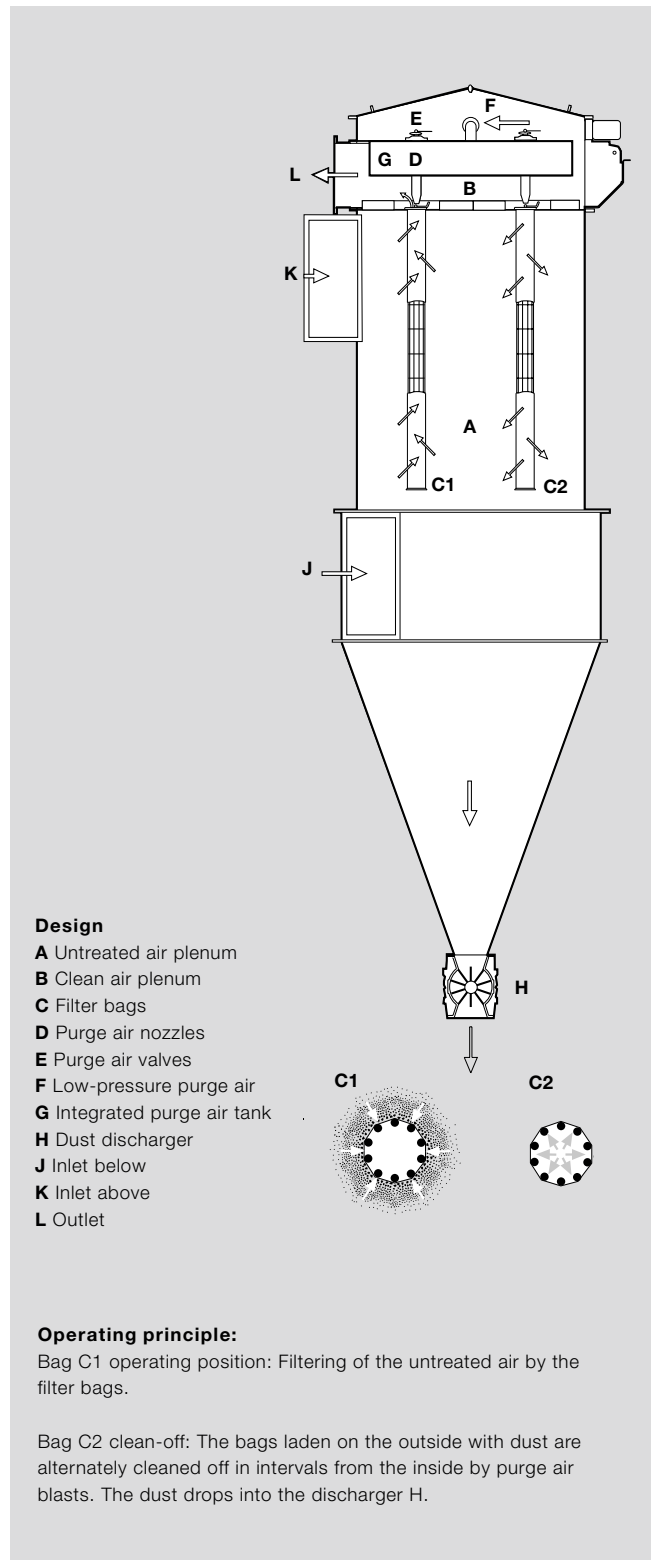
With the two design versions of Side Removal and Top Removal, the possibility has been created of optimally utilizing the available space inside buildings. Thanks to the selectable placement of the air inlet in the lower or upper filter housing section, a longer service life of the filter bags is achieved. This in conjunction with the easier filter bag removal in the case of the Top Removal design version substantially improves the economy of the filter.

Features

- Operating pressure: ± 0.2 bar
- Bag cleaning by oil- and condensate-free low-pressure purge air of 0.5 bar
- Electronic-pneumatic purging system with high-efficiency counter-current purging; purge air consumption 20–40 Ndm³/bag × pulse
- Optimized streamlining of the purge air paths
- Simple generation of purge air by rotary piston or peripheral blowers
- Filters can be used as aspiration, insertable or bin-top filters

Some possible applications

- Food processing industry:
 - grain milling
 - biscuit factories
 - pasta factories
 - maltings, breweries
 - chocolate factories
- Animal feed industries
- Wood-working industry
- Plastics industry
- Chemical industry
- Cement industry
- General pollution control



Efficient dust separation. Trouble-free operation.

Filter loading capacity



Decision-making criteria for filter loadings

In addition to the influencing factors listed below, the filter loading also depends on the upstream processes such as chemical reactions, drying, etc. The maximum loading is $6 \text{ m}^3/\text{m}^2/\text{min}$ (for example: aspiration of wheat cleaning system).

Materials of construction

Standard design version: mild steel throughout. Other versions upon request. To ensure optimal explosion control, the filter can be equipped with a pneumatic controller in compliance with ATEX Zone 22. Additionally, for pressure relief either rupture disks, rupture disks with blow-off vent or rupture disks with flame filter can be supplied.

Influencing factors

Particle size, e.g. ink pigments, pneumatic mill stock conveying system, cleaning, aspiration	fine medium coarse		
Physical dust characteristics	caking moist dry		
Dust concentrations in the untreated air (total separator, aspiration)	high low		
Electrostatic charging	substantial none		

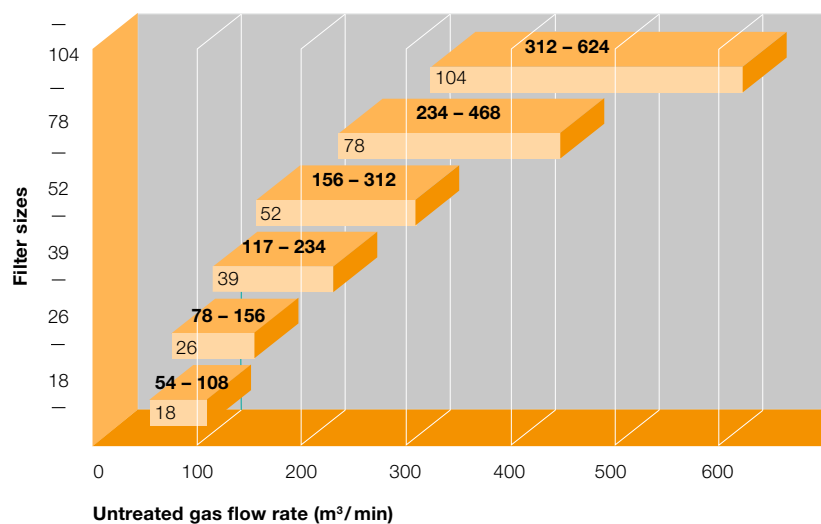
- Clean air
- Dust-free operation
- Maximum safety
- Low building volume

Easy maintenance.
Fast filter sleeve changing.



Low-Pressure Airjet-Filter MVRT.

Top Removal.



Untreated gas flow rate m³/min with a loading of 3 to 6 m³/m²/min, based on a sleeve length of 3 m.

High sanitation.
Safe environment.



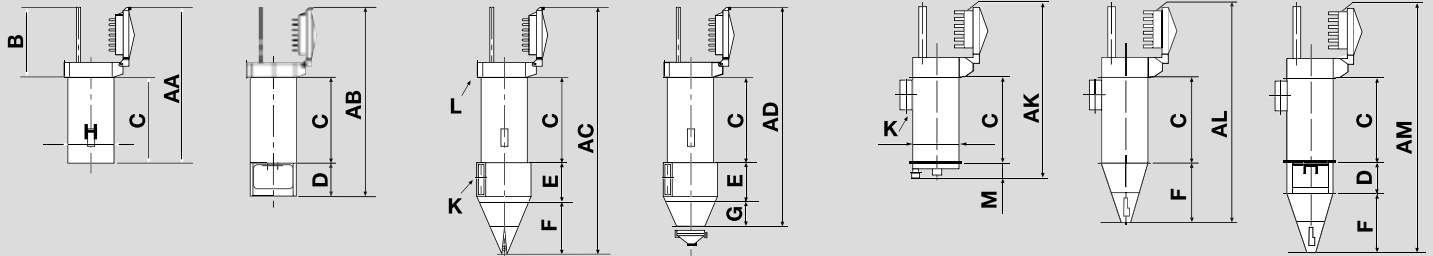
Low-Pressure Airjet-Filter MVRT.
Top Removal.



Low-Pressure Airjet-Filter MVRT.
Top Removal.

Top Removal.

Service-friendly solution.



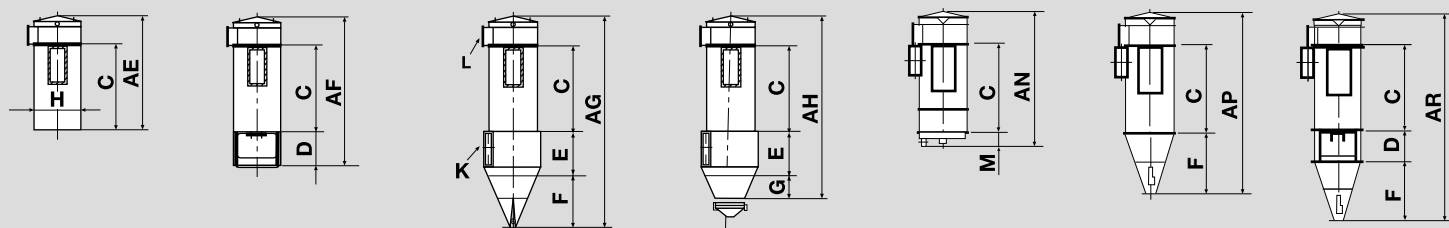
Technical data

Type	*Number of bags	MVRT-18*			MVRT-26*			MVRT-39*			MVRT-52*			MVRT-78*			MVRT-104*		
Nominal length of filter bags		1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000
Filter area m²		11.5	15.5	18	16.6	22.4	26	25	33.5	39	33.3	44.7	52	50	67	78	66	89	104
Top-mounted filter	AA	3750	4290	4890	3890	4430	5030	4080	4620	5220	4250	4790	5390	4560	5100	5700	4770	5320	5920
Aspiration filter with explosion vent	AB	4450	4990	5590	4590	5130	5730	4780	5320	5920	4950	5490	6090	5260	5800	6400	5470	6010	6610
Aspiration filter to airlock	AC	5730	6270	6870	6060	6600	7200	6675	7215	7815	6935	7475	8075	7995	8535	9135	8305	8855	9455
Aspiration filter to vibro	AD	5035	5575	6175	5365	5905	6505	5980	6520	7120	6245	6785	7385	7300	7840	8440	7760	8310	8910
Aspiration filter with vibro discharger	AK	4370	4910	5510	4510	5050	5650	4700	5240	5840	4870	5410	6010	5180	5720	6320	5390	5940	6540
Aspiration filter with hopper	AL	4940	5480	6080	5270	5810	6410	5740	6280	6880	6110	6650	7250	6990	7530	8130	7305	7855	8445
Aspiration filter with hopper w. Ex.	AM	5640	6180	6780	5970	6510	7110	6440	6980	7580	6810	7350	7950	7690	8230	8830	8005	8555	9155
Height for bag changes	B	1860	2400	3000	1860	2400	3000	1860	2400	3000	1860	2400	3000	1860	2400	3000	1860	2400	3000
Height of bag chamber	C	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130
Height interm. section w/o inlet to Ex.	D	750			750			1000			1000			1000			1000		
Height interm. section with inlet	E	985			985			1135			1135			1285			1285		
Hopper to airlock	F	1190			1380			1660			1860			2430			2535		
Hopper to vibro MFVH-80	G	305			495			765			885			1450			1715		
Ø bag chamber	H	1000			1140			1340			1500			1840			2020		
Air inlet height × width	K	590 × 215			590 × 270			740 × 300			740 × 360			890 × 500			890 × 550		
Air outlet height × width	L	424 × 450			424 × 600			424 × 750			424 × 950			424 × 1400			424 × 1900		
Vibro discharger	M	620			620			620			620			620 ¹⁾			620 ¹⁾		
Turning increments of components		15°			15°			11.25°			11.25°			9°			9°		
Approx. weights in kg																			
Top-mounted filter	net	540	590	650	630	690	760	880	970	1090	1060	1170	1300	1480	1660	1860	1710	1920	2150
Aspiration filter to airlock	net	770	820	880	910	970	1040	1280	1370	1490	1510	1620	1750	2170	2350	2550	2550	2760	2990
Aspiration filter to vibro	net	750	800	860	880	940	1010	1240	1330	1450	1480	1590	1720	2150	2330	2530	2500	2710	2950
Intermediate section	net	170			190			240			260			340			380		

1) Attention: Additional hopper to be considered for type 78 = 390 mm; for type 104 = 558 mm

Side Removal.

Space-saving solution.



Technical data

Type	*Number of bags	MVRT-18*			MVRT-26*			MVRT-39*			MVRT-52*			MVRT-78*			MVRT-104*		
Nominal length of filter bags		1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000	1800	2400	3000
Filter area m²		11.5	15.5	18	16.6	22.4	26	25	33.5	39	33.3	44.7	52	50	67	78	66	89	104
Top-mounted filter	AE	2750	3290	3890	2755	3295	3895	2785	3225	3825	2810	3350	3950	2830	3370	3970	2850	3390	3990
Aspiration filter with explosion vent	AF	3450	3990	4590	3455	3995	4595	3485	3925	4525	3510	4050	4650	3530	4070	4670	3550	4090	4690
Aspiration filter to airlock	AG	4730	5270	5870	4925	5465	6065	5380	5820	6420	5495	6035	6635	6265	6805	7405	6385	6925	7525
Aspiration filter to vibro	AH	4035	4575	5175	4230	4770	5370	4685	5125	5725	4805	5345	5945	5570	6110	6710	5840	6380	6980
Aspiration filter with vibro discharger	AN	3370	3910	4510	3375	3915	4515	3405	3845	4445	3430	3970	4570	3450	3990	4590	3470	4010	4610
Aspiration filter with hopper	AP	3940	4480	5080	4135	4675	5275	4445	4885	5485	4670	5210	5810	5260	5800	6400	5385	5925	6525
Aspiration filter with hopper w. Ex.	AR	4640	5180	5780	4835	5375	5975	5145	5585	6185	5370	5910	6510	5960	6500	7100	6085	6625	7225
Height of bag chamber	C	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130	1990	2530	3130
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Aspiration filter to airlock	net	770	820	880	910	970	1040	1280	1370	1490	1510	1620	1750	2170	2350	2550	2550	2760	2990
Aspiration filter to vibro	net	750	800	860	880	940	1010	1240	1330	1450	1480	1590	1720	2150	2330	2530	2500	2710	2950
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