Data sheet

Filters



KONGSKILDE



DustStorm® filter

The DustStorm® filter is an under- and over-pressure filter, designed for continuous operation.

Constructed as a self-supporting sheet metal construction. The round design ensures great strength combined with low weight.

Surface
Powder coated to corrosion class C3 cf. ISO 12944.

Inlet
Contaminated air passes into the filter through the pressure loss optimised inlet, ensuring optimised separation of the dust particles.

DS-12, 20, 28, 36 and 44 are supplied with side inlet according to the "partial downflow" principle. A diffuser effect which ensures minimum pressure loss with maximum effect. Alternatively, the filters can be fitted with a total separator. DS-7 and 12 are supplied with total separators.

Cleaning system
DS-12, 20, 28, 36, 44 has the PowerPulse® cleaning system with filter control system ECOTROL® or DS total cleaning system. DS-7 EC and DS-12 EC have EC cleaning.

Discharge system
DustStorm® filter is available with conical or scraper bottom. The DS filter is also available as a silo filter. DS-7 is only available with conical bottom.

ATEX
DustStorm® filter is fitted with approved explosion membranes with side relief venting. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673. The DS filter with external compressed air source is supplied ATEX-approved.

Operating range

Pressure:	+/- 5000 Pa (available up to +20 kPa to -10 kPa)
Filter area:	38-534 m²
Max. operating temperature:	70°C
Min. operating temperature:	-20°C (available down to -40°C)

Connection DS-12 – DS-44

Gear motor PowerPulse® cleaning system:
0.12 kW, 15.6 min^{-1}, 3 x 230 V, 50 Hz, 0.7 A

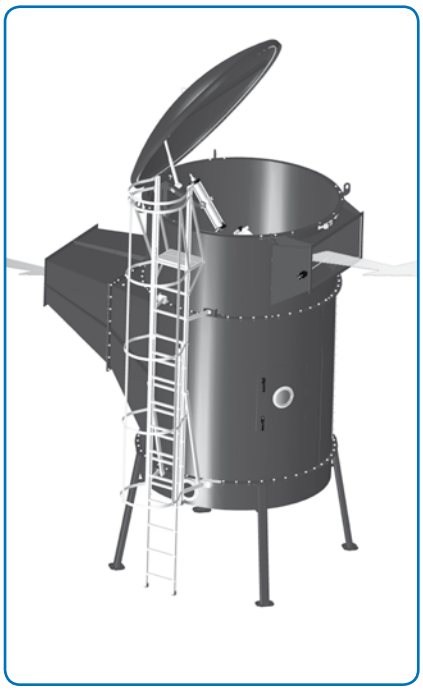
Gear motor scraper bottom:

DS-12-S:	0.37 kW, 15.7 min^{-1}, 3 x 400 V, 50 Hz, 1.1 A
DS-20-S and DS-28-S:	0.55 kW, 15.7 min^{-1}, 3 x 400 V, 50 Hz, 1.6 A
DS-36-S and DS-44-S:	0.75 kW, 11.0 min^{-1}, 3 x 400 V, 50 Hz, 2.2 A

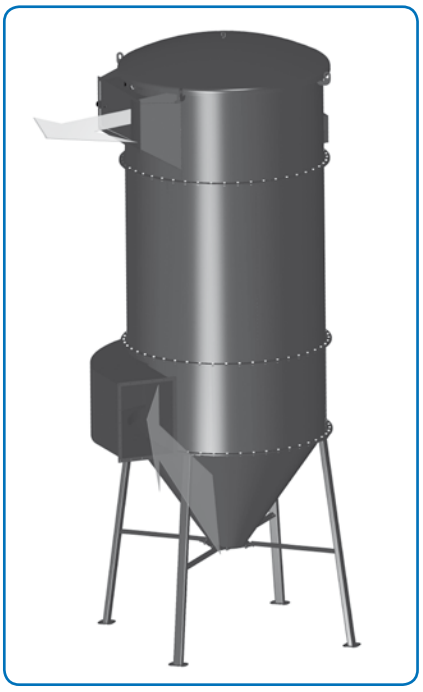
Inductive sensor scraper bottom:
24 VDC.



DustStorm® filter with conical bottom and bucket. With ladder and platform mounted.



DustStorm® filter with scraper bottom.



DustStorm® filter with total separator.



DustStorm® filter

PowerPulse® ECOTROL® filter control system:
0.6 kW, 1 x 230 V, 50 Hz, 1.9 A

PowerPulse® DS total filter control system:
0.7 kW, 1 x 230 V, 50 Hz, 2.1 A

External compressed air - PowerPulse®:
DS-36 and DS-44 (for cleaning system and roof opening):
7.5 bar, min. 350 Nl/min.
DS-12 and DS-28 (for cleaning system):
5.0 bar, min. 350 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Internal compressor - PowerPulse®:
2.2 kW, 3 x 400 V, 50 Hz, 5.9 A
Capacity: 350 Nl/min.

Connection DS-7 EC and DS-12 EC
EC filter control system:
0.2 kW, 1 x 230 V, 50 Hz, 0.8 A

External compressed air – EC cleaning system:
7 bar, min. 400 Nl/min.
Air quality according to ISO 8573-1: Quality class (5. 4. 4)
External connection: ¼" internal thread.

Integrated fan:

DS-7 E EC:	4.0 kW, 3 x 400 V, 50 Hz, 11.0 A (JK-30MTD)
DS-12 E EC:	11.0 kW, 3 x 400 V, 50 Hz, 19.0 A (JK-40MTD)

Accessories
Ladder/gangway:
Ladder/gangway designed according to ISO/EN/DIN 14122.3/4 and available in several configurations.
Monitoring apparatus for explosion membrane.

Door contacts:
2.3 (close-before-switch-contact) in accordance with EN50047, IP67 NC contact.

Noise
Noise level during cleaning measured at 5 m above ground.

DS-7 EC and DS-12 EC:	70.0 dBA
DS-7 EC E:	71.0 dBA
DS-12 EC E:	75.4 dBA
DS-12 ET EX - DS-44 ET EX:	70.0 dBA
DS-12 ET - DS-44 ET:	72.4 dBA


DS-EC-K E R

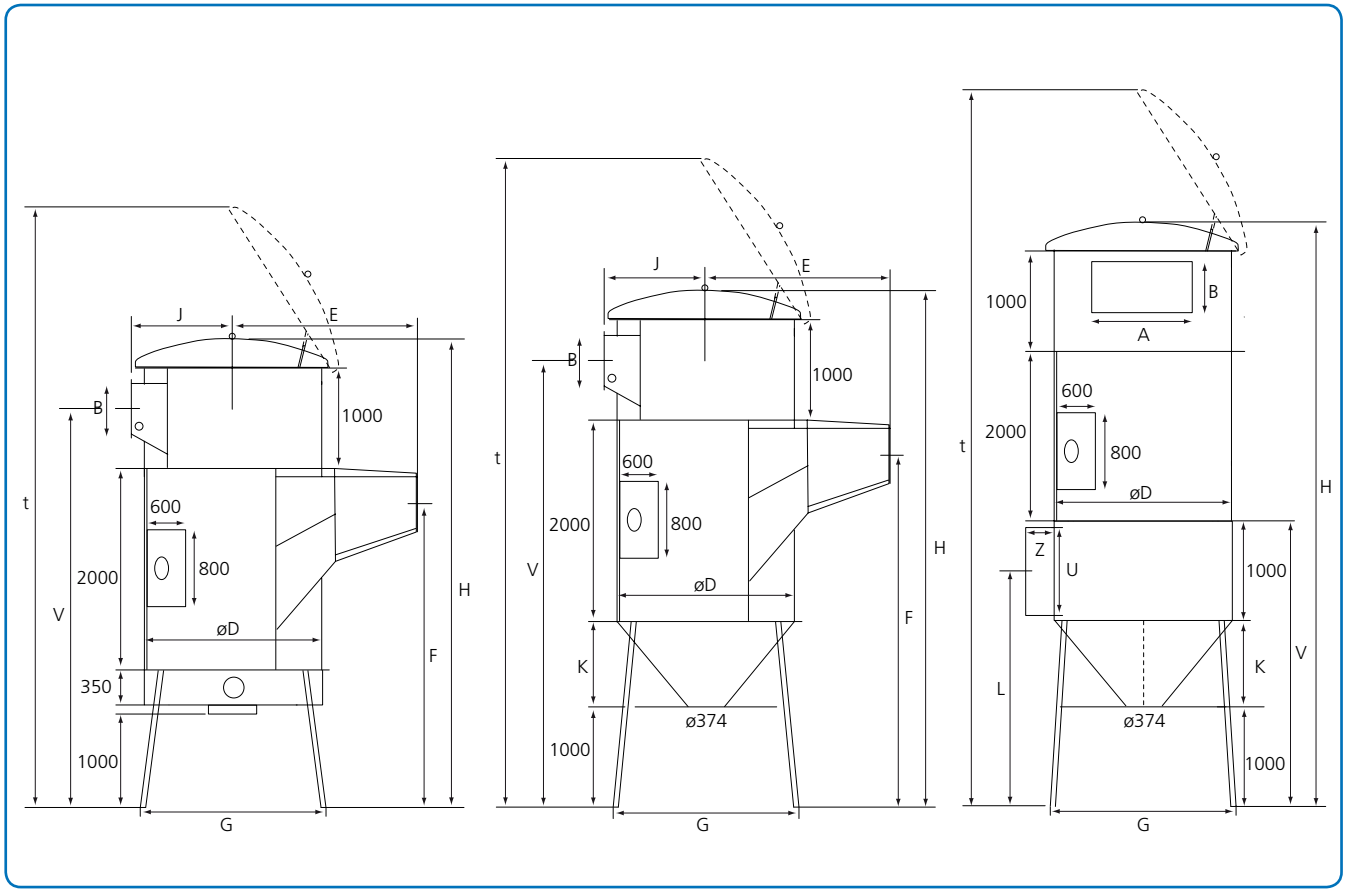

DS-EC-K R


DS-EC-S E R



DustStorm® filter with PowerPulse® cleaning system

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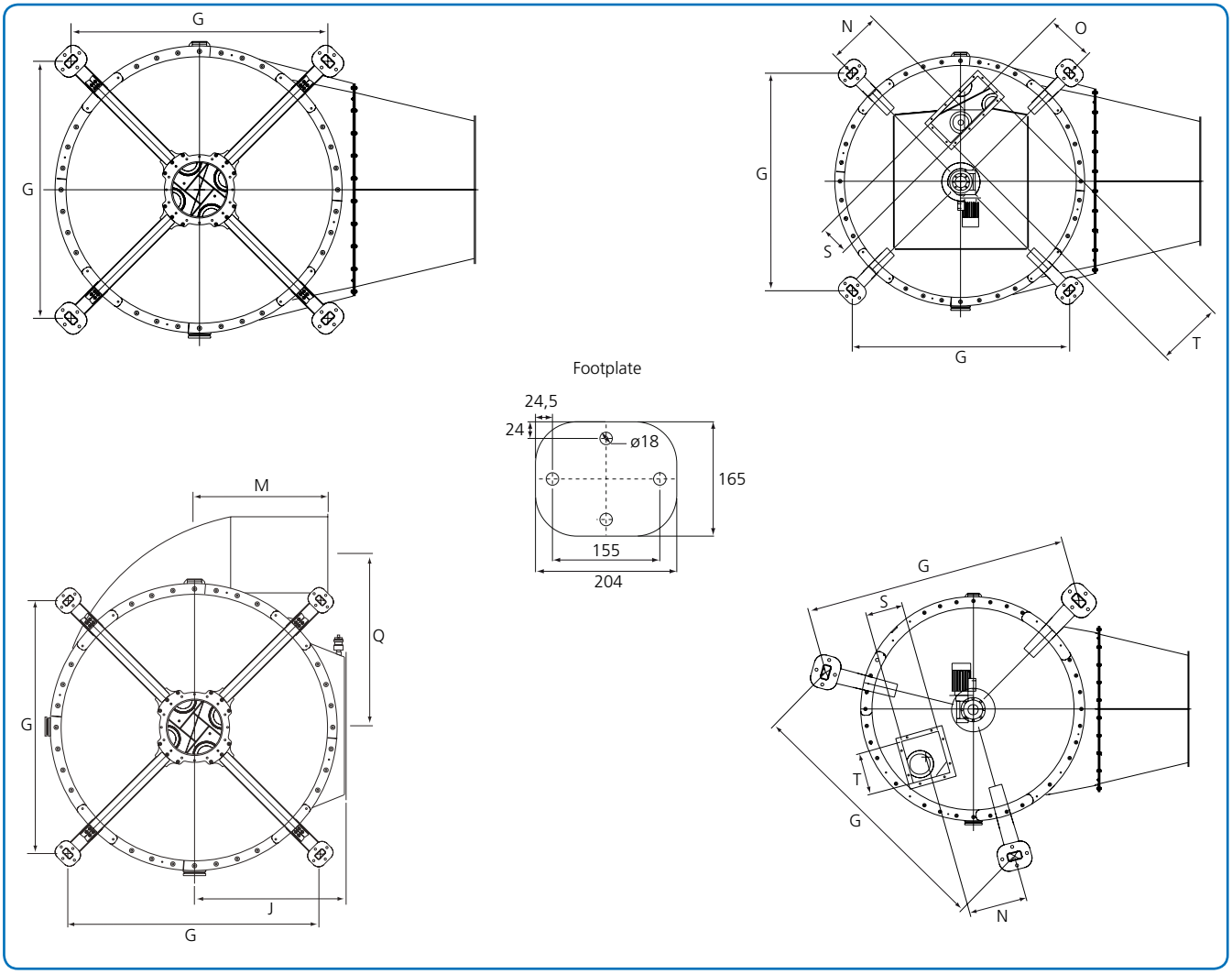
Type	A×B mm	U×Z mm	øD mm	t mm	J mm	E mm	F mm	V mm	H mm	K mm	L mm	G mm	Weight kg
DS-12-K	605×305	-	1200	5695	700	1320	3354	4252	4802	600	-	1486	684
DS-20-K	805×405	-	1570	6293	925	1739	3531	4362	5071	823	-	1868	872
DS-28-K	905×505	-	1770	6651	1024	1831	3662	4594	5280	1007	-	1704	1056
DS-36-K	1105×505	-	2140	7126	1226	2191	3928	4830	5614	1271	-	2019	1376
DS-44-K	1205×605	-	2330	7319	1302	2341	4017	4999	5775	1407	-	2180	1543
DS-12-S	605×305	-	1200	5473	700	1320	3138	4031	4580	-	-	1558	722
DS-20-S	805×405	-	1570	5849	925	1739	3086	3918	4627	-	-	1877	924
DS-28-S	905×505	-	1770	6019	1024	1831	3036	3967	4648	-	-	1648	1126
DS-36-S	1105×505	-	2140	6234	1226	2191	3037	3994	4722	-	-	1911	1431
DS-44-S	1205×605	-	2330	6292	1302	2341	2989	3972	4748	-	-	2045	1628
DS-12-K T	605×305	605×305	1200	6695	700	-	-	5252	5802	600	2100	1486	827
DS-20-K T	805×405	805×405	1570	7293	925	-	-	5362	6071	823	2323	1868	1057
DS-28-K T	905×505	805×605	1770	7651	1024	-	-	5549	6280	1007	2507	1704	1282
DS-36-K T	1105×505	805×605	2140	8126	1226	-	-	5830	6614	1271	2771	2019	1664
DS-44-K T	1205×605	805×605	2330	8319	1302	-	-	5999	6775	1407	2907	2180	1868

Weight excluding filter elements



DustStorm® filter with PowerPulse® cleaning system

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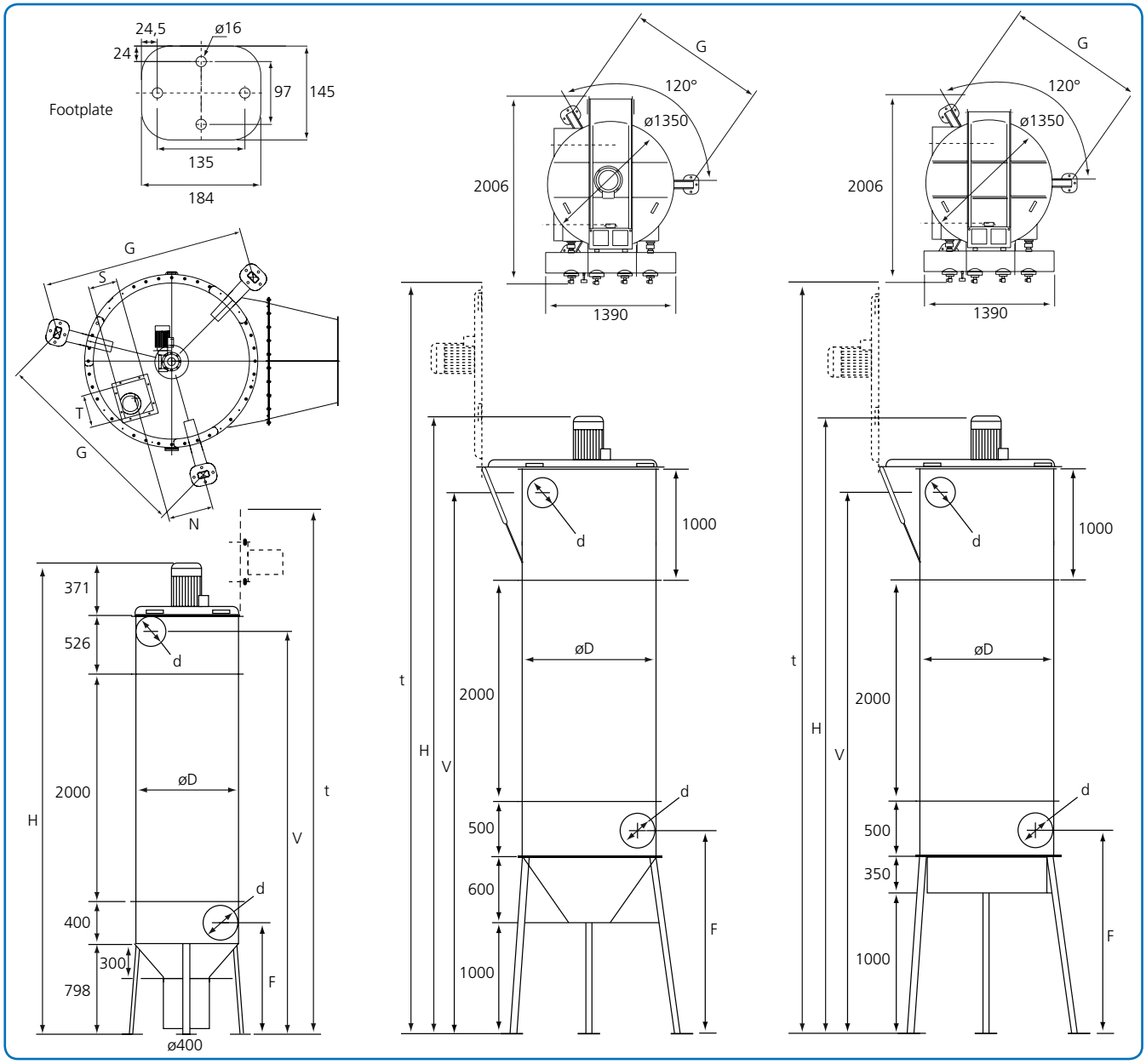
Type	J mm	M mm	Q mm	O mm	N mm	S×T mm	G mm	Weight kg
DS-12-K	700	-	-	-	-	-	1486	684
DS-20-K	925	-	-	-	-	-	1868	872
DS-28-K	1024	-	-	-	-	-	1704	1056
DS-36-K	1226	-	-	-	-	-	2019	1376
DS-44-K	1302	-	-	-	-	-	2180	1543
DS-12-S	700	-	-	346	341	220×250	1558	722
DS-20-S	925	-	-	503	290	220×250	1877	924
DS-28-S	1024	-	-	367	406	220×500	1648	1126
DS-36-S	1226	-	-	367	613	220×500	1911	1431
DS-44-S	1302	-	-	367	728	220×500	2045	1628
DS-12-K T	700	606	664.0	-	-	-	1486	827
DS-20-K T	925	791	982.5	-	-	-	1868	1057
DS-28-K T	1024	893	1041.0	-	-	-	1704	1282
DS-36-K T	1226	1078	1368.0	-	-	-	2019	1664
DS-44-K T	1302	1173	1465.0	-	-	-	2180	1868

Weight excluding filter elements



DustStorm® filter with EC cleaning system

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DS-7 DS-12-K DS-12-S

Type	øD mm	t mm	F mm	V mm	H mm	d mm	d2 mm	N mm	S×T mm	G mm	Weight kg
DS-7 EC-K	900	4693	988	3563	3801	300	250	-	-	951	277
DS-7 EC-K E	900	6105	988	3563	4095	300	250	-	-	951	340
DS-12 EC-K	1200	6387	1850	4905	5193	350	350	-	-	1486	534
DS-12 EC-K E	1200	6817	1850	4905	5551	350	350	-	-	1486	656
DS-12 EC-S	1200	6160	1628	4684	4972	350	350	341	220×250	1558	656
DS-12 EC-S E	1200	6400	1628	4684	5330	350	350	290	220×250	1558	778

Weight excluding filter elements



DustStorm® filter

Type designations

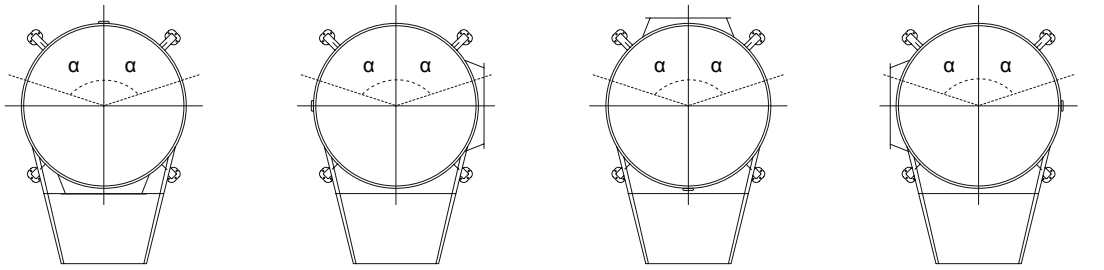
Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces. Designation DS-44-K A2-ET EX T-R thus describes a DustStorm® filter with 44 filter elements, conical bottom, filter door on the left side, outlet to the right, cleaning system ET, external compressed air, right inlet for total separator.

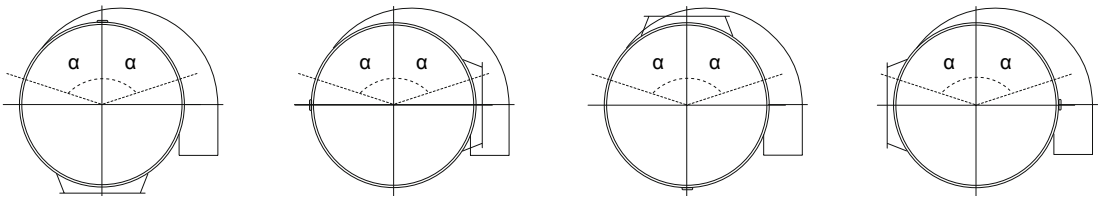
DS-44-K A2-ET EX T-R

- Inlet R/L for total separator
- Total separator
- External compressed air
- Cleaning system ET/DS control system
- Position inlet - outlet 1,2,3,4
- Location of filter door and explosion relief vent A/B according to inlet
- Filter bottom: Scraper/Cone
- No. of filter elements

DS-12 EC-K E-R

- Inlet R/L
- Integrated fan
- Filter bottom: Scraper/Cone
- Cleaning system, EC
- No. of filter elements





Please state location of inlet and discharge when ordering according to illustrations. Angle a indicates the distance from centre line to door and explosion relief venting respectively.

A: Filter door located on left side and explosion relief venting on right in relation to inlet.

B: Explosion relief venting located on left side and filter door on right in relation to inlet.

Roof hinging:

DS-36 and DS-44: Hinged opposite outlet.

DS-12 and DS-28: Hinge on right/left 90SDgr in relation to outlet.

Type	Angle: a
DS-12	57.5
DS-20	72.5
DS-28	39.0
DS-36	32.2
DS-44	29.6

Type	Angle: a
DS-20 T	42.5
DS-28 T	39.0
DS-36 T	32.2
DS-44 T	37.0



MMBF filters

The MMBF filters (Multi Modular Bag Filter) are under- and over-pressure filters designed to run in constant operation. They are modular and can therefore be added to in line with growing capacity requirements and can be adapted to any task. More modules can subsequently be added, or they can be rebuilt to a different height or other material transport system to meet changed extraction needs. The MMBF filter is made of high tensile steel to ensure strength combined with low weight. The filter is self-supporting with adjustable legs, and can be erected outdoors or in.

More efficient operation

The number of filter bags per module is 30. This means large filter area and low riser speed in the filter for a given air volume. The perforated sheet is shaped to avoid chafing the filter bags. The bags are antistatic with a large diameter (220) and fitted with a snap ring fastener, reducing dust particle retention, enabling more efficient bag cleaning. The result is lower pressure loss and reduced risk of blockage. The partition wall between the modules makes continuous cleaning easy during operation.

Fast assembly

MMBF filters are factory-assembled as standard. A top and bottom part are delivered which can quickly be erected and assembled. The filters can also be supplied unassembled. The filter is multi-modular, and can be assembled using bolts in high tension steel with integrated washers, significantly reducing assembly time and the risk of over-tightening bolt assemblies.

Surface

Galvanised sheet, class Z 275 - zinc plating min. 275 g/m² double-sided.

Inlet

The MMBF filter is supplied with the supply air chamber in the conical bottom. Side inlet 300×400 mm is standard, but it can also be supplied with one and two end inlets 400×500 mm. The standard inlet is supplied with contra-flaps, which are open during normal filter operation, but close when the fan is switched off. The flaps prevent the air flow created by the regenerating fan returning into the pipe system.

Outlet

The MMBF filter has a built-in return air conduit. The outlet from the return air conduit is available with an ATEX-approved fire damper. Filter type H outlet is 450×950 mm and filter type E is 600×950 mm.

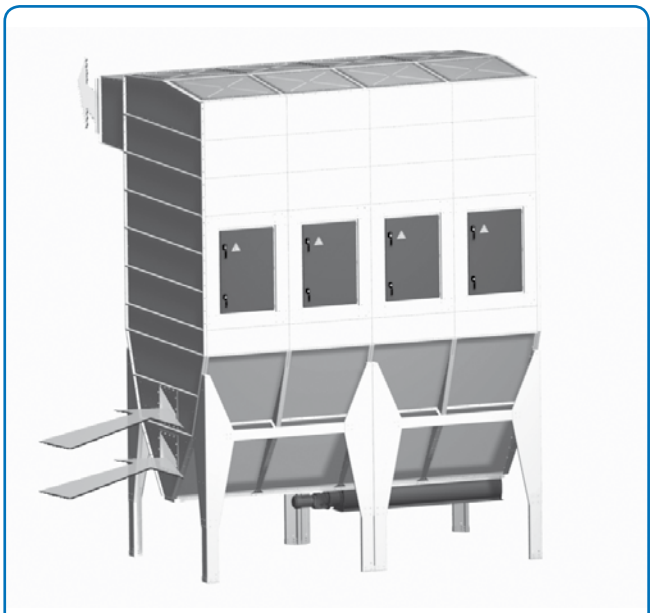
Cleaning system

The regenerating fan ensures easy, effective filter bag cleaning. One module at a time is regenerated, as there are partition walls between the modules.

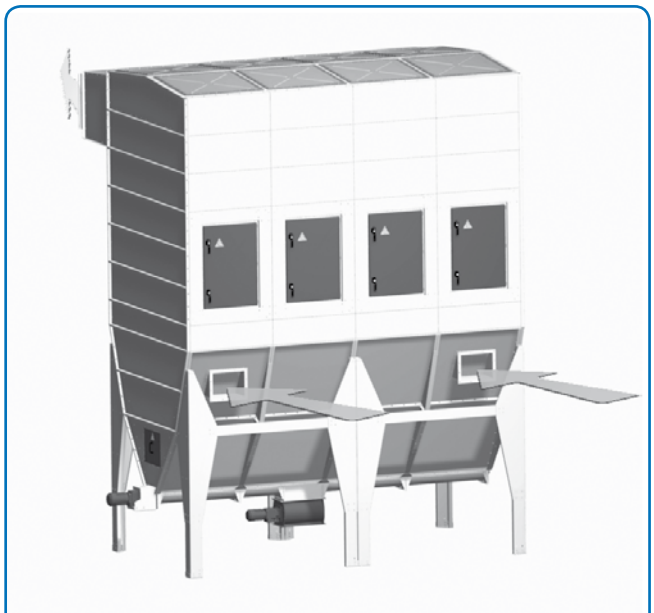
Discharge system

Screw, rotary valve or bucket discharge systems are available.

The MMBF screw is available in 2 to 12 modules. The screw is ø180 mm and made of AISI 304 and supplied as standard with 22 min^{-1} or 43 min^{-1}.



MMBF rotor filter with end inlet



MMBF screw filter with end inlet



MMBF filters

The MMBF rotor filter is available with 1 to 4 modules and with JK-50S, JK-100S, JK-150S or JK-200S.

The MMBF bag emptying filter is available with 1 to 4 modules with a dust bucket under each. Buckets are supplied fully assembled direct from JKF, fitted with inspection glass to give a good indication of fill status. Easily mounted, using a clamp with uniform key code.

The filter is fitted with a pressure-equalisation hose to prevent the bag being sucked up during startup at underpressure. Hose can be easily disconnected using a compressed air coupling.

ATEX

The MMBF filter is ATEX-approved and has approved explosion membranes. Choose between side venting in the cone (ERH) 600×600 KER or JKF's specially developed VFV® explosion venting (ERR) 920×920 KER, which vents vertically through the filter top. The filters fulfil pressure shock-resistance according to VDI 2263. Venting according to VDI 3673.

Operating range

Pressure:	+/- 5000 Pa
Filter area:	41.7-612 m²
Max. operating temperature:	70°C
Min. operating temperature:	-20°C (available for: -40°C)

Connection

Motor:
Regenerating fan
H filter ø450: 1.5 kW, 2900 min^{-1}, 3×400 V, 50 Hz, 3.2 A
E filter ø600: 1.5 kW, 1450 min^{-1}, 3×400 V, 50 Hz, 3.2 A

Screw:

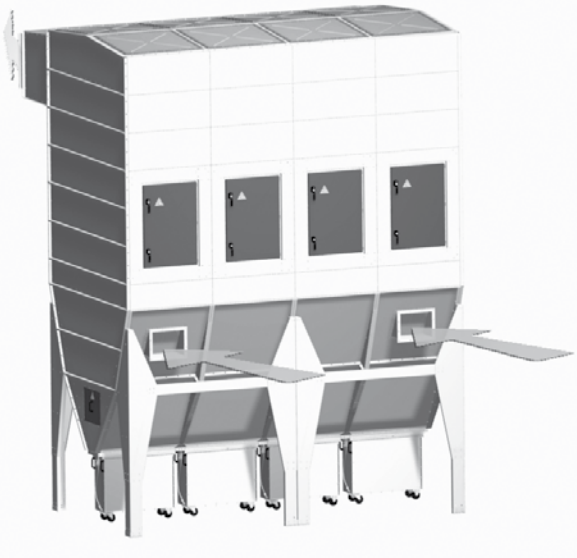
0.55 kW, 22 min^{-1}, 3×400V, 50 Hz, 2.5 A
0.75 kW, 43 min^{-1}, 3×400V, 50 Hz, 3.2 A

Type designations

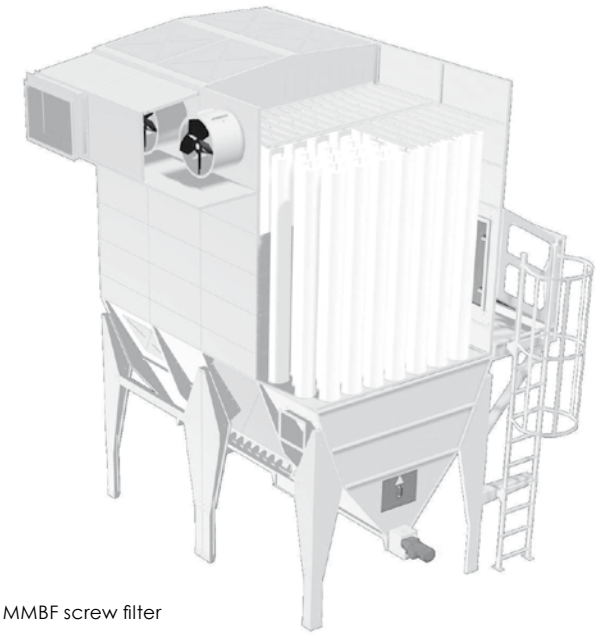
Filters are type-designated using a combination of letters and numbers separated by hyphens and spaces. Designation MMBF-4M E D-ERH-id/4/o/1 thus describes a MMBF filter with 4 modules, height, double filter, explosion relief venting in the cone, inlet in module 4, outlet with fire damper in module 1.

MMBF-4M E D-ERH-id/4/o/1

- Module number
- Outlet with fire damper
- Module number
- i/id: Inlet in cone normally door side.
- H/R: Explosion relief vent in cone/roof
- E/D single/double filter
- E/H: Build height
- No. of modules



MMBF bag emptying filter with side inlet

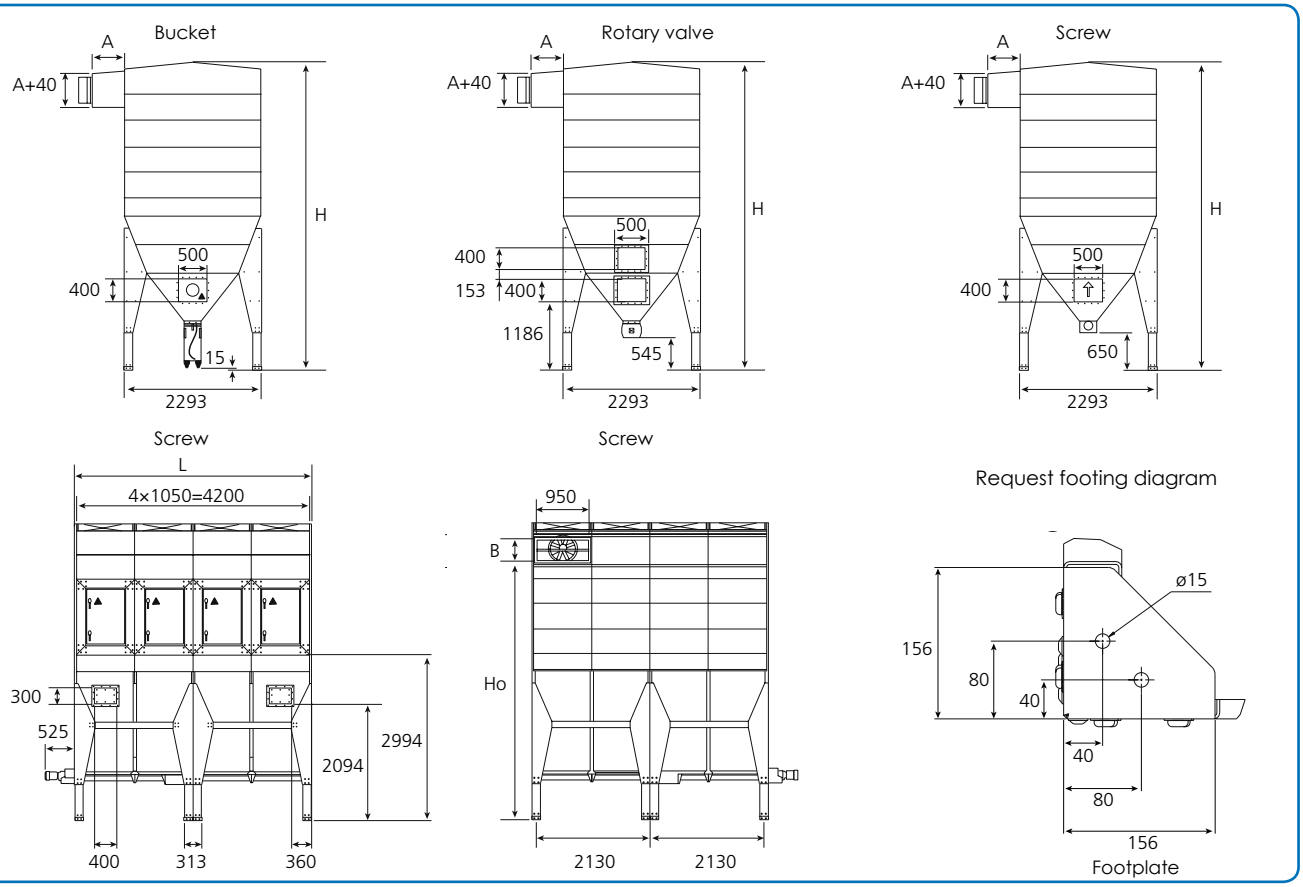


MMBF screw filter



MMBF filters

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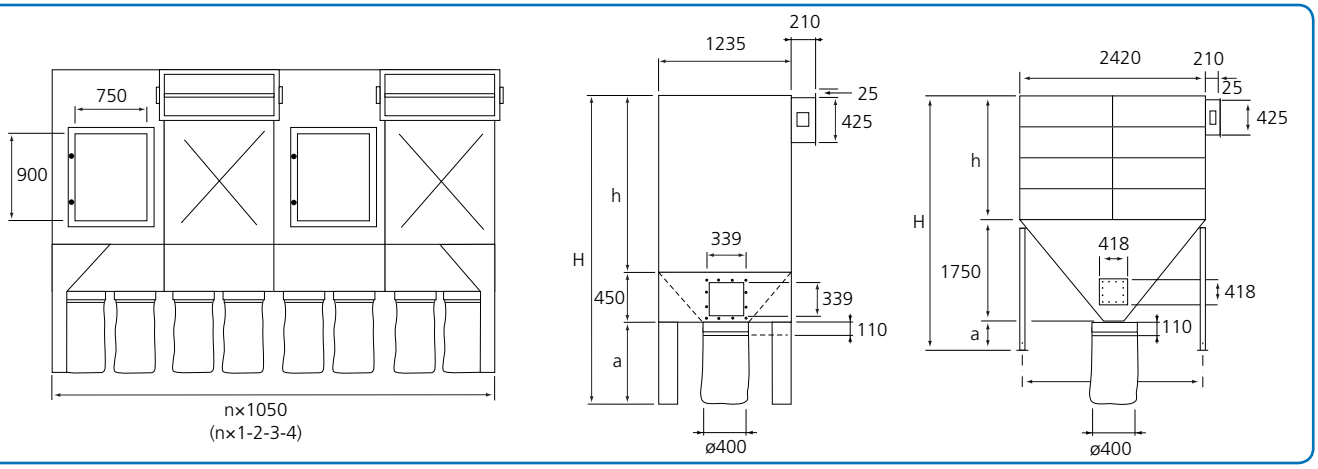


Discharge			Type					Filter area m²	H mm	Ho mm	L mm	A mm	No. of legs	Bucket kg	Rotary valve kg	Screw kg	B
Bucket	Rotary valve	-	MMBF	1	M	HD	ERH/ERR	41.7	5350	4660	1130	550	4	1137	1205	-	400
Bucket	Rotary valve	-	MMBF	1	M	ED	ERH/ERR	51.0	5800	4910	1130	750	4	1220	1289	-	600
Bucket	Rotary valve	Screw	MMBF	2	M	HD	ERH/ERR	83.4	5350	4660	2130	550	4	1656	1655	1770	400
Bucket	Rotary valve	Screw	MMBF	2	M	ED	ERH/ERR	102.0	5800	4910	2130	750	4	1823	1822	1937	600
Bucket	Rotary valve	Screw	MMBF	3	M	HD	ERH/ERR	125.1	5350	4660	3180	550	4	2335	2324	2418	400
Bucket	Rotary valve	Screw	MMBF	3	M	ED	ERH/ERR	153.0	5800	4910	3180	750	4	2588	2557	2681	600
Bucket	Rotary valve	Screw	MMBF	4	M	HD	ERH/ERR	166.8	5350	4660	4280	550	8	3215	3183	3190	400
Bucket	Rotary valve	Screw	MMBF	4	M	ED	ERH/ERR	204.0	5800	4910	4280	750	8	3468	3446	3489	600
-	-	Screw	MMBF	5	M	HD	ERH/ERR	208.5	5350	4660	5330	550	8	-	-	3890	400
-	-	Screw	MMBF	5	M	ED	ERH/ERR	255.0	5800	4910	5330	750	8	-	-	4255	600
-	-	Screw	MMBF	6	M	HD	ERH/ERR	250.2	5350	4660	6380	550	12	-	-	4590	400
-	-	Screw	MMBF	6	M	ED	ERH/ERR	306.0	5800	4910	6380	750	12	-	-	5021	600
-	-	Screw	MMBF	7	M	HD	ERH/ERR	291.9	5350	4660	7430	550	12	-	-	5290	400
-	-	Screw	MMBF	7	M	ED	ERH/ERR	357.0	5800	4910	7430	750	12	-	-	5787	600
-	-	Screw	MMBF	8	M	HD	ERH/ERR	333.6	5350	4660	8480	550	16	-	-	5990	400
-	-	Screw	MMBF	8	M	ED	ERH/ERR	408.0	5800	4910	8480	750	16	-	-	6553	600
-	-	Screw	MMBF	9	M	HD	ERH/ERR	375.3	5350	4660	9530	550	16	-	-	6690	400
-	-	Screw	MMBF	9	M	ED	ERH/ERR	459.0	5800	4910	9530	750	16	-	-	7319	600
-	-	Screw	MMBF	10	M	HD	ERH/ERR	417.0	5350	4660	10580	550	20	-	-	7390	400
-	-	Screw	MMBF	10	M	ED	ERH/ERR	510.0	5800	4910	10580	750	20	-	-	8085	600
-	-	Screw	MMBF	11	M	HD	ERH/ERR	458.7	5350	4660	11630	550	20	-	-	8090	400
-	-	Screw	MMBF	11	M	ED	ERH/ERR	561.0	5800	4910	11630	750	20	-	-	8851	600
-	-	Screw	MMBF	12	M	HD	ERH/ERR	500.4	5350	4660	12680	550	24	-	-	8790	400
-	-	Screw	MMBF	12	M	ED	ERH/ERR	612.0	5800	4910	12680	750	24	-	-	9617	600

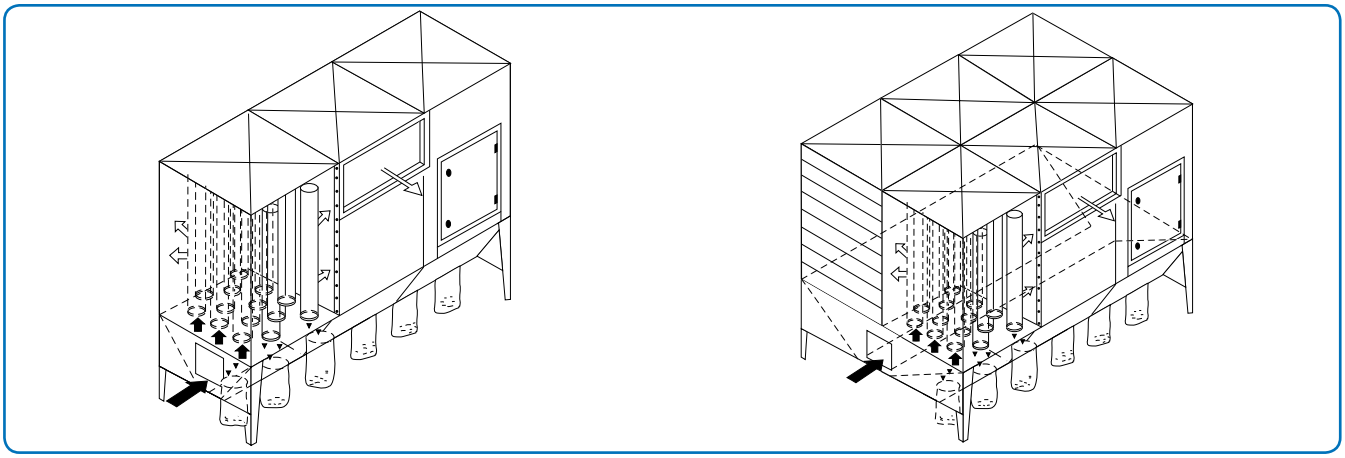


Bag emptying filter type LS-LSD

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The drawing above shows single and double filters. Measurement specifications are stated in the table at the bottom of the page.



Bag emptying filter type LS and double bag emptying filter type LSD.

Bag emptying filter type LS - LSD is used for minor applications and can be fitted indoors and out.

The filter is emptied manually by removing full plastic sacks or buckets. The filter is supplied as standard with sacks.

Standard inlet location is at the end of the filter, but it can be located at the side of the bottom.

Double filters are available with air supply chamber the full width of the chamber, 1050 mm.

Dimensions						
Type mm	**h mm**	**a mm**	**H mm**	**Bag length m² per module**	**Filter area m² per module**	**Weight per module kg**
M - LS	1650	780	2880	1580	15.5	125
EM - LS	1650	1200	3300	2030	15.5	135
H - LS	2100	780	3330	2480	20.0	140
EH - LS	2100	1200	3750	1580	20.0	150
E - LS	2550	780	3780	2030	24.5	155
EE - LS	2550	1200	4200	2480	24.5	165

123001900 EXP/GB/Filters/0416

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