



CYCLONE FILTER

TYPE ACF/ACF-T/ACF-V



Photo:
Cyclone filter type ACF 234H with mirrored connections

Energy-optimized unit for larger filtration tasks. Is used for filtration of welding smoke, grinding dust, cutting smoke and dusty air containing metal, rocks, plastic etc. or from handling various powder mix

ACF/ACF-T: Air volume: Up to 40,000m³/h
Vacuum: Up to 5,000Pa
Filter area: 39 - 756m²

ACF-V: Air volume: Up to 11,000m³/h
Vacuum: Up to 40,000Pa
Filter area: 39 - 210m²

Description

- Polluted air is led into unit through tangential inlet in raw air chamber top. Hereby downflow and preseparation by cyclone effect are ensured, which contributes to load reduction on the filter media itself.
- Air is filtered through vertical-placed filter cartridge with internal filter core, which optimizes cleaning effect.
- Differential pressure controlled cleaning of filter cartridges through integrated compressed-air system incl. automatic after-cleaning for optimized regeneration of filter cartridges.
- Clean air is led out through connection in the side (ACF/ACF-V)/the top (ACF-T) of unit.
- Dust is collected in dust container in unit bottom. Quick-lock-adjustable dust container system suspended in ø400mm system flange.

Lower operation costs

Inlet with downflow, preseparation by cyclone effect as well as optimized filter cleaning ensure lower differential pressure above the filter cartridge. Hereby longer operating times with fewer shutdowns as well as lower operation costs (filter materials, power and compressed-air consumption) are obtained.

Simple mounting, connection and operation

Filter unit is delivered fully assembled, is raised and connected. Compressed-air connection made easy on unit front. Easily accessible differential pressure reading in digital display of filter control placed countersunk on unit front. Filters are easily replaced through front doors on unit side. Quicklock-adjustable dust container on 4 turnable wheels ensures user-friendly dust container service.



Service

Compressed-air tank and all automatic control are countersunk in top/front of unit.



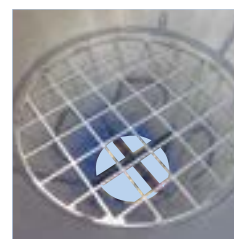
Dust container

Cone bottom is finished with ø400mm system flange. Standard 72L dust container (excl. sack holder) with 4 turnable wheels.



Easy filter replacement with limited dust generation

Cartridge replacement is performed by bayonet suspension, which is loosened from clean air chamber and inserted into sack. Access by front door.



Service bar grating

For the largest units (from and with ACF 78H) a bar grating is welded in cone als tread plate. At larger material volumes unit can be delivered without bar grating and wind deflector.



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- Filters:**
- Filter cartridge ø325mm. Length: 660/1320mm
- Filter control:**
- Differential pressure control type BA with automatic after-cleaning. 230V AC (constant)
 - Compressed-air: 5.5 - 6.0 bar dry compressed-air by cejn-coupling incl. ø10mm hose nipple
 - Differential pressure can be seen in digital display, placed countersunk on front
 - 1"-jet valves connected to central compressed-air tank in clean air chamber
- Filter change:** Cartridge replacement made easily and dust-reduced by filter bayonet suspension that is loosened from clean air chambr and inserted into sack. Access by front door.

Filter material:

Standard	Material	Used for
G102	Polyester flake	Dry not-static loaded or hygroscopic dust particles > 0.2µm
Alternative		
G105	Cellulose/Polyester	Welding/soldering
G107	Cellulose/Polyester Nano	Smoke and soot particles
G113	Polyester flake with PFPT-coating, antistatic	Static-loaded or hygroscopic particles
G115A	Polyester flake with teflon membrane	Finer dust sorts, e.g. cutting smoke from plasma, flame and laser cutting
G116A	Polyester flake with teflon membrane, antistatic	Finer static-loaded dust sorts



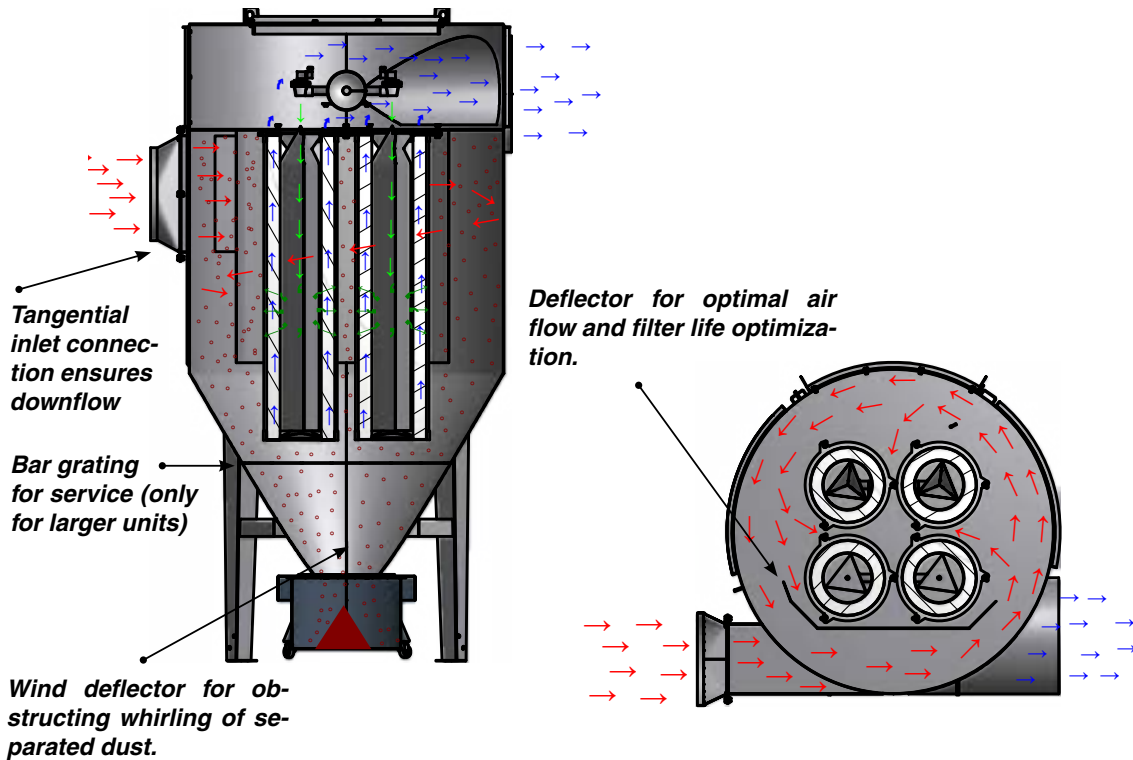
The filters meet demands for extraction degree for dust class M according to DIN EN 60335-2-69 Appendix AA (extraction degree > 99.9%).



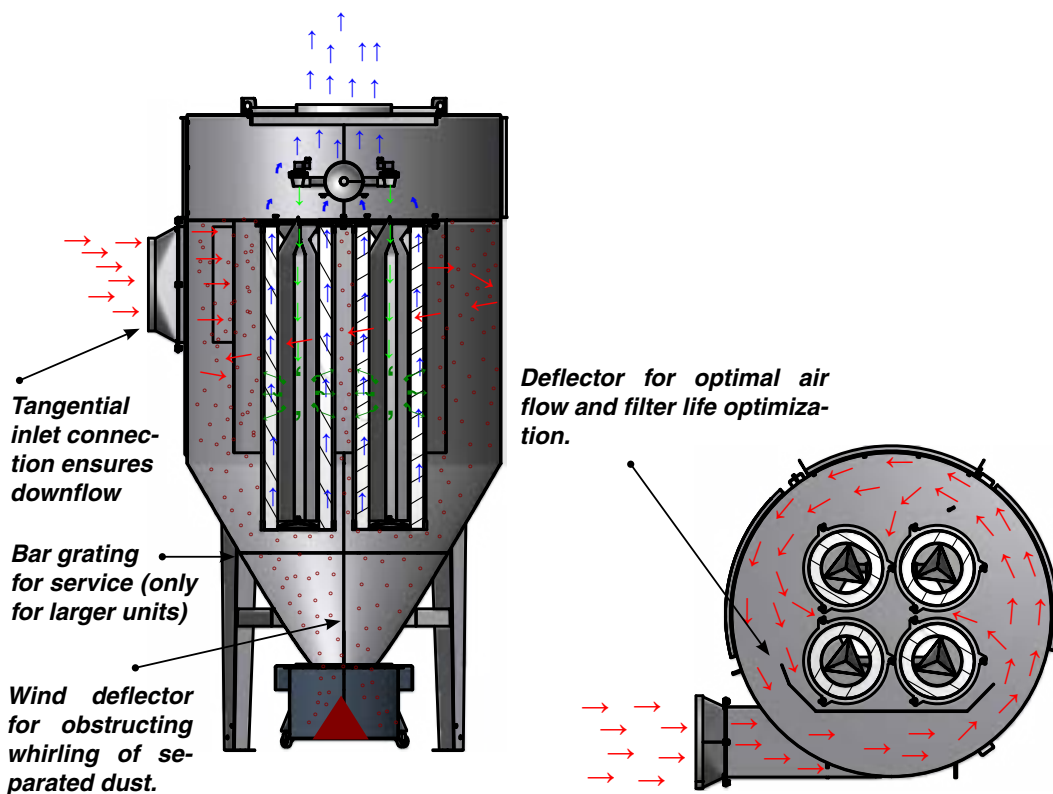
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Principle sketch for flow through cyclone filter type ACF/ACF-V:



Principle sketch for flow through cyclone filter type ACF-T:





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Construction/surface:

Cyclone filter type ACF/ACF-T/ACF-V is constructed according to:

- Machine Directive 2006/42/EU
- EMC Directive 2014/30/EU
- Directive 2014/68/EU about pressure equipment
- Low Voltage Directive 2014/35/EU
- Harmonized standards: EN 349, EN 4414, EN 12100, EN 60204-1, EN ISO 13857
- Further standards: ISO 3746

Filter cabinet is made in 2mm black steel plate

Surface powder enamelled RAL 5007/7011 structure

Further is available:

- Version in hot-galvanized, enamelled steel plates for outdoor mounting
- Mirrored connections on inlet/outlet
- Outlet in top lid (for ACF-T)
- Gram fans for ACF-T or top for building-on other fan (no Gram product)
- Backdraft damper type KTR for piping placement
- Sack holder for 72L/67L dust container
- 150L/145L dust container with sack holder*
- Underframe and connections for bulk bag and drop pipe for customer specific containers (see sketch next page)
- ½"-water separator with manometer and pressure reducing valve
- Temperature sensor type RT101 as well as alarm devices
- Leak detector type DTC/TC 30
- Precoat unit type PCA
- Precoat 11.5kg in sack
- Explosion-protected/-relieved version for installation in ATEX-zones (see ATEX data sheet)
- Unit designed for filtration of welding smoke class W3 (see data sheet for W3-version)

* Note: Unit height is increased by 330mm

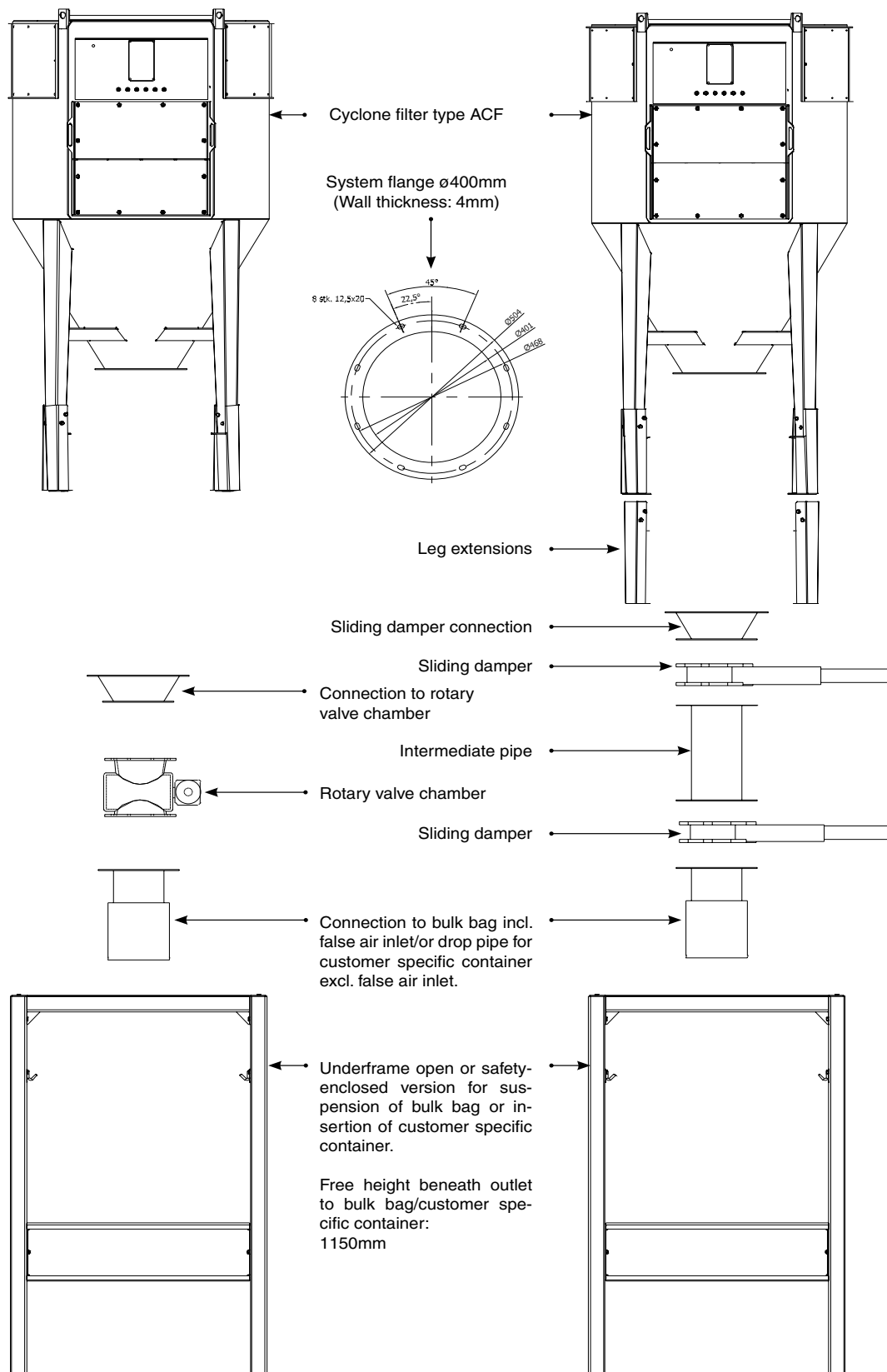




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Principle sketch for accessories for cyclone filter type ACF/ACF-T/ACF-V:





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TYPE ACF/ACF-T/ACF-V

Cyclone filter type ACF/ACF-T/ACF-V is available in the sizes as stated in the forms below.

Please, contact us for assistance in selecting the optimal unit taking into consideration air volume, dust type and volume, operation times etc.

- **ACF/ACF-V** has as standard side mounted inlet and outlet
- **ACF-T** has side mounted inlet and outlet in top (prepared for built-on fan)
- **ACF-V** is for high vacuum application

Cyclone filter type ACF (max. 5,000Pa):

Type	Order no.	ΔP start/end ³⁾ [Pa]	Number filter car- tridges	Number jet valves	G102 filter area [m ²]	G105 filter area [m ²]	Com- pressed- air [L/min.]	Number dust con- tainer (stand.) [L]	Number dust con- tainer (option ⁴⁾) [L]	Weight [kg]
ACF 39 ⁵⁾	04 033 750	200/2000	3 ¹⁾	3	39	63	30	1x72	1x150	332
ACF 52 ⁵⁾	04 034 000	200/2000	4 ¹⁾	4	52	84	30	1x72	1x150	352
ACF 52 H ⁵⁾	04 032 500	200/2000	2 ²⁾	2	52	84	30	1x72	1x150	308
ACF 78 H	04 033 500	200/2000	3 ²⁾	3	78	126	30	1x72	1x150	400
ACF 104 H	04 034 500	200/2000	4 ²⁾	4	104	168	30	1x72	1x150	474
ACF 130 H	04 037 500	200/2000	5 ²⁾	5	130	210	30	1x72	1x150	561
ACF 182 H	04 040 500	200/2000	7 ²⁾	7	182	294	30	1x72	1x150	746
ACF 234 H	04 043 500	200/2000	9 ²⁾	9	234	378	30	1x72	1x150	859
ACF 260 DH	04 046 500	200/2000	10 ²⁾	10	260	420	60	2x72	2x150	1150
ACF 364 DH	04 049 500	200/2000	14 ²⁾	14	364	588	60	2x72	2x150	1498
ACF 468 DH	04 052 500	200/2000	18 ²⁾	18	468	756	60	2x72	2x150	1720

Cyclone filter type ACF-T (max. 5,000Pa):

Type	Order no.	ΔP start/end ³⁾ [Pa]	Number filter car- tridges	Number jet valves	G102 filter area [m ²]	G105 filter area [m ²]	Com- pressed- air [L/min.]	Number dust con- tainer (stand.) [L]	Number dust con- tainer (option ⁴⁾) [L]	Weight [kg]
ACF-T 39 ⁵⁾	04 033 770	200/2000	3 ¹⁾	3	39	63	30	1x72	1x150	323
ACF-T 52 ⁵⁾	04 034 770	200/2000	4 ¹⁾	4	52	84	30	1x72	1x150	356
ACF-T 52 H ⁵⁾	04 032 780	200/2000	2 ²⁾	2	52	84	30	1x72	1x150	312
ACF-T 78 H	04 033 780	200/2000	3 ²⁾	3	78	126	30	1x72	1x150	406
ACF-T 104 H	04 034 780	200/2000	4 ²⁾	4	104	168	30	1x72	1x150	474
ACF-T 130 H	04 037 780	200/2000	5 ²⁾	5	130	210	30	1x72	1x150	541
ACF-T 182 H	04 040 780	200/2000	7 ²⁾	7	182	294	30	1x72	1x150	722
ACF-T 234 H	04 043 780	200/2000	9 ²⁾	9	234	378	30	1x72	1x150	936
ACF-T 260 DH	04 046 780	200/2000	10 ²⁾	10	260	420	60	2x72	2x150	1087
ACF-T 364 DH	04 049 780	200/2000	14 ²⁾	14	364	588	60	2x72	2x150	1440
ACF-T 468 DH	04 052 780	200/2000	18 ²⁾	18	468	756	60	2x72	2x150	1668

¹⁾ Filter cartridge $\varnothing 325 \times 660\text{mm}/\varnothing 13.5\text{mm}$, 13m², G102 (08 128 100)

²⁾ Filter cartridge $\varnothing 325 \times 1320\text{mm}/\varnothing 13.5\text{mm}$, 26m², G102 (08 129 000)

³⁾ Pressure drop stated over filter cartridge

⁴⁾ Please, note that unit height is increased by 330mm.

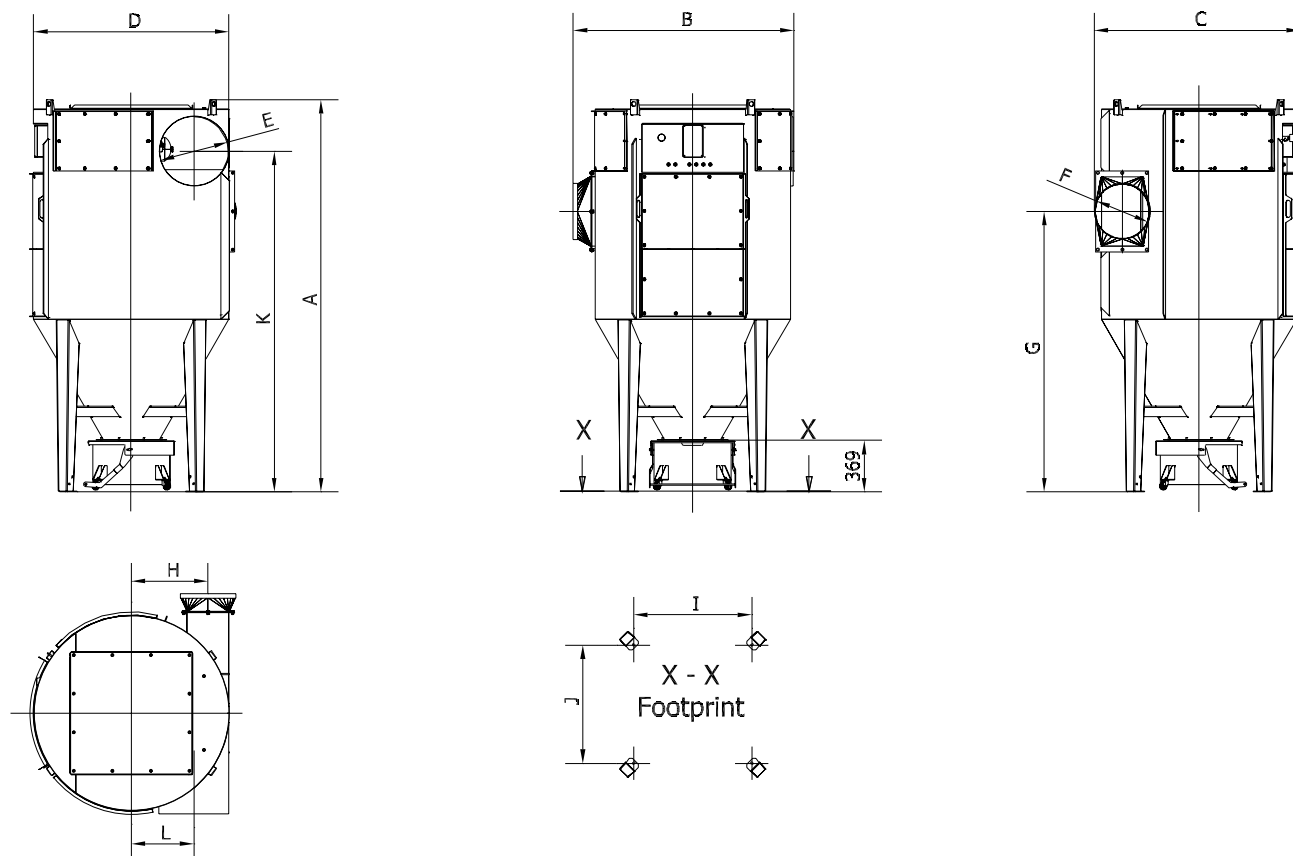
⁵⁾ Unit delivered without bar grating/with wind deflector



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Cyclone filter type ACF 39 - 234 H:



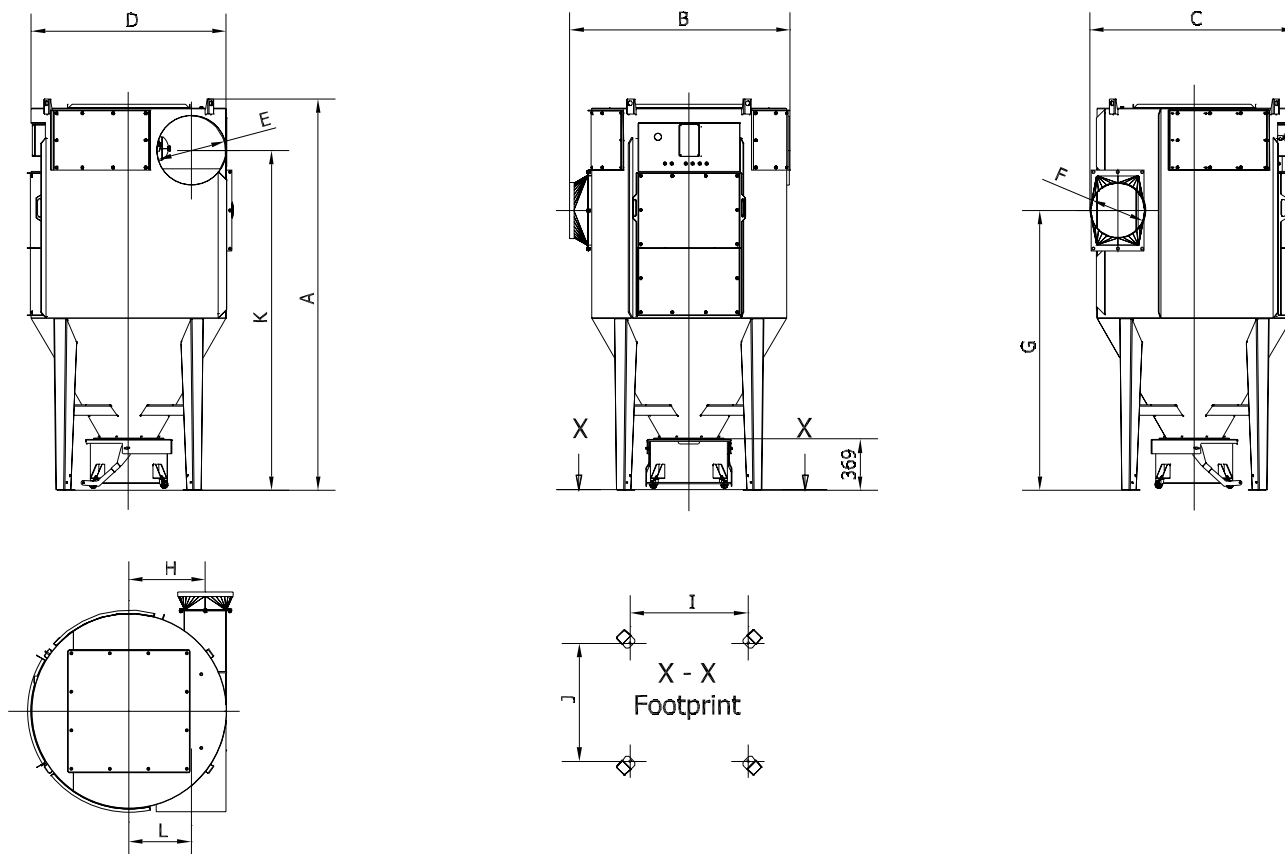
Type	Order no.	A	B	C	D	E	F	G	H	I	J	K	L
ACF 39	04 033 750	2270	1158	1251	ø1200	ø200	ø200	1622	500	704	704	2052	500
ACF 52	04 034 000	2449	1454	1441	ø1400	ø250	ø250	1776	575	849	849	2156	575
ACF 52 H	04 032 500	2551	1158	1143	ø1100	ø315	ø315	1845	392	566	699	2275	392
ACF 78 H	04 033 500	2632	1258	1253	ø1200	ø400	ø400	1888	400	707	708	2318	400
ACF 104 H	04 034 500	2813	1583	1479	ø1400	ø500	ø400	2010	550	847	847	2441	449
ACF 130 H	04 037 500	2941	1768	1690	ø1550	ø500	ø500	2090	625	958	958	2475	524
ACF 182 H	04 040 500	3217	2560	2006	ø1850	ø630	ø630	2294	726	1167	1167	2902	551
ACF 234 H	04 043 500	3352	2635	2156	ø2000	ø630	ø630	2429	801	1277	1277	3037	626



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Cyclone filter type ACF 39 - 234 H:



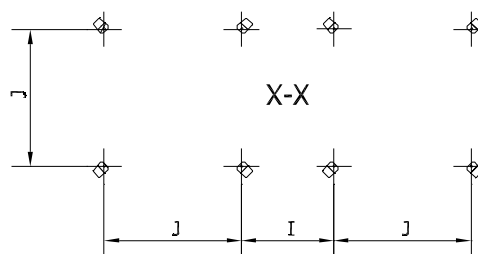
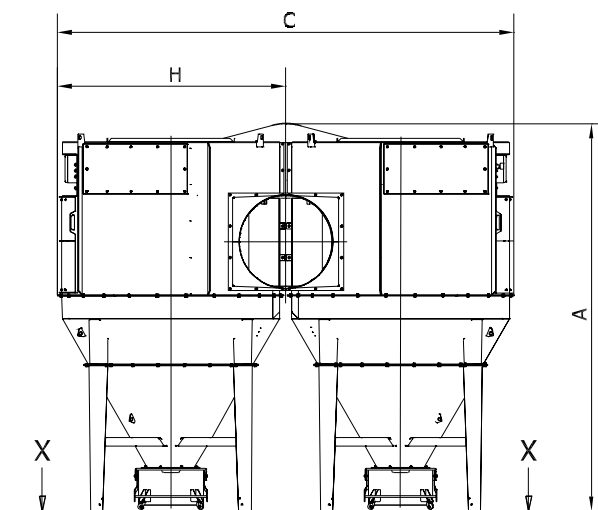
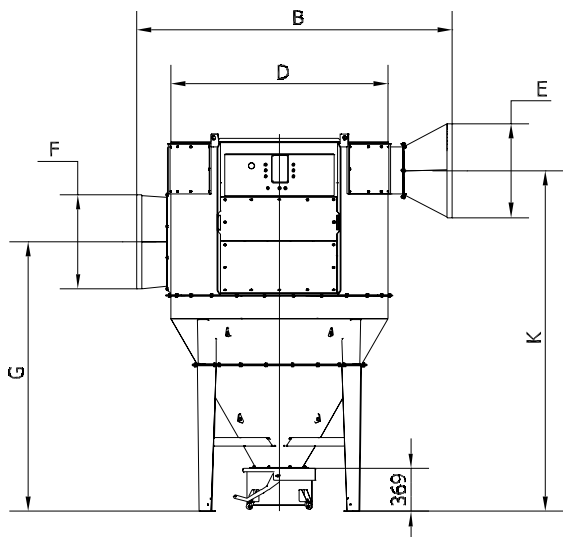
Type	Order no.	A	B	C	D	E	F	G	H	I	J	K	L
ACF 39	04 033 750	2270	1158	1251	ø1200	ø200	ø200	1622	500	704	704	2052	500
ACF 52	04 034 000	2449	1454	1441	ø1400	ø250	ø250	1776	575	849	849	2156	575
ACF 52 H	04 032 500	2551	1158	1143	ø1100	ø315	ø315	1845	392	566	699	2275	392
ACF 78 H	04 033 500	2632	1258	1253	ø1200	ø400	ø400	1888	400	707	708	2318	400
ACF 104 H	04 034 500	2813	1583	1479	ø1400	ø500	ø400	2010	550	847	847	2441	449
ACF 130 H	04 037 500	2941	1768	1690	ø1550	ø500	ø500	2090	625	958	958	2475	524
ACF 182 H	04 040 500	3217	2560	2006	ø1850	ø630	ø630	2294	726	1167	1167	2902	551
ACF 234 H	04 043 500	3352	2635	2156	ø2000	ø630	ø630	2429	801	1277	1277	3037	626



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Cyclone filter type ACF 260 DH - 468 DH:



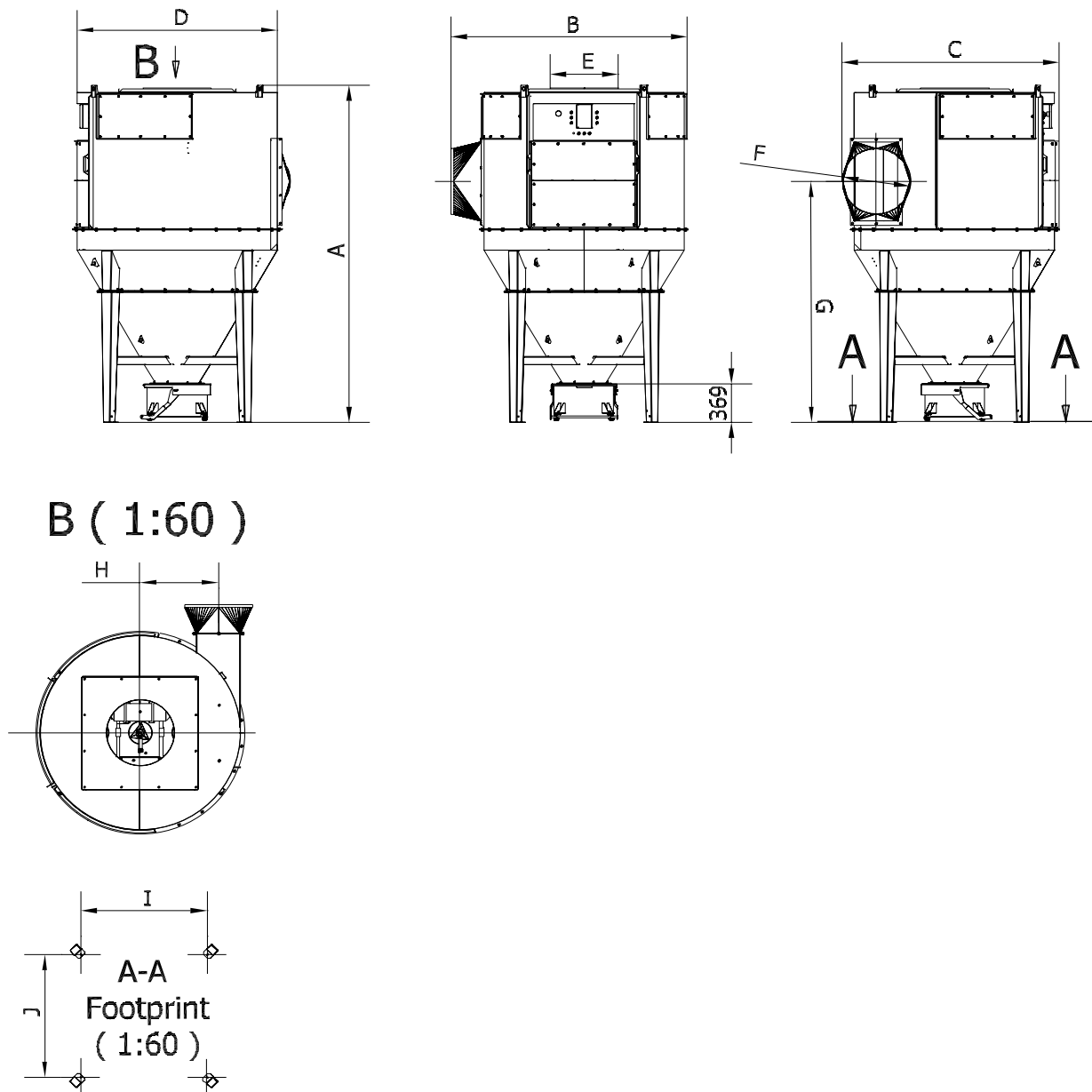
Type	Order no.	A	B	C	D	E	F	G	H	I	J	K
ACF 260 DH	04 046 500	2974	2231	3280	ø1550	ø800	ø630	2090	1639	690	958	2574
ACF 364 DH	04 049 500	3300	2681	3885	ø1850	ø800	ø800	2294	1943	787	1167	2900
ACF 468 DH	04 052 500	3535	2762	4184	ø2000	ø1000	ø800	2429	2091	826	1277	3035



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Cyclone filter type ACF-T 39 - 234 H:



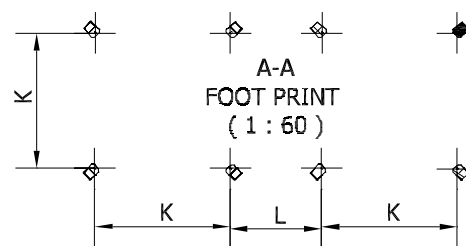
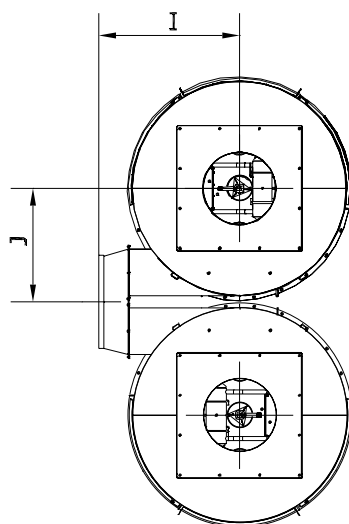
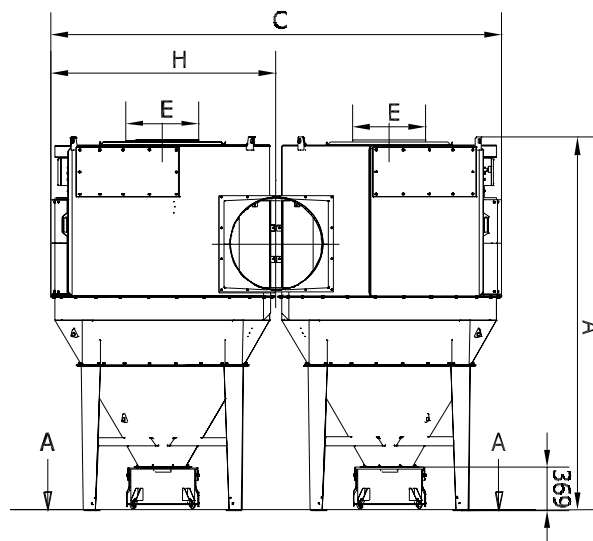
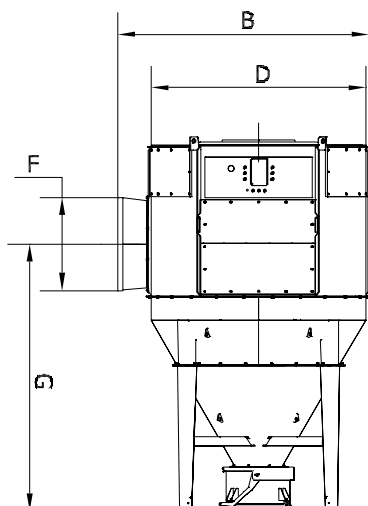
Type	Order no.	A	B	C	D	E	F	G	H	I	J
ACF-T 39	04 033 770	2275	1258	1251	ø1200	ø200	ø200	1627	501	704	704
ACF-T 52	04 034 770	2449	1454	1441	ø1400	ø250	ø250	1776	575	851	851
ACF-T 52 H	04 032 780	2552	1158	1143	ø1100	ø315	315	1845	392	566	699
ACF-T 78 H	04 033 780	2632	1258	1253	ø1200	ø400	ø400	1888	400	707	707
ACF-T 104 H	04 034 780	2813	1583	1474	ø1400	ø400	ø400	2010	550	850	850
ACF-T 130 H	04 037 780	2940	1768	1690	ø1550	ø500	ø500	2090	625	958	958
ACF-T 182 H	04 040 780	3214	2182	2006	ø1850	ø630	ø630	2294	726	1167	1167
ACF-T 234 H	04 043 780	3342	2332	2145	ø2000	ø630	ø630	2429	801	1272	1272



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Cyclone filter type ACF-T 260 DH - 468 DH:



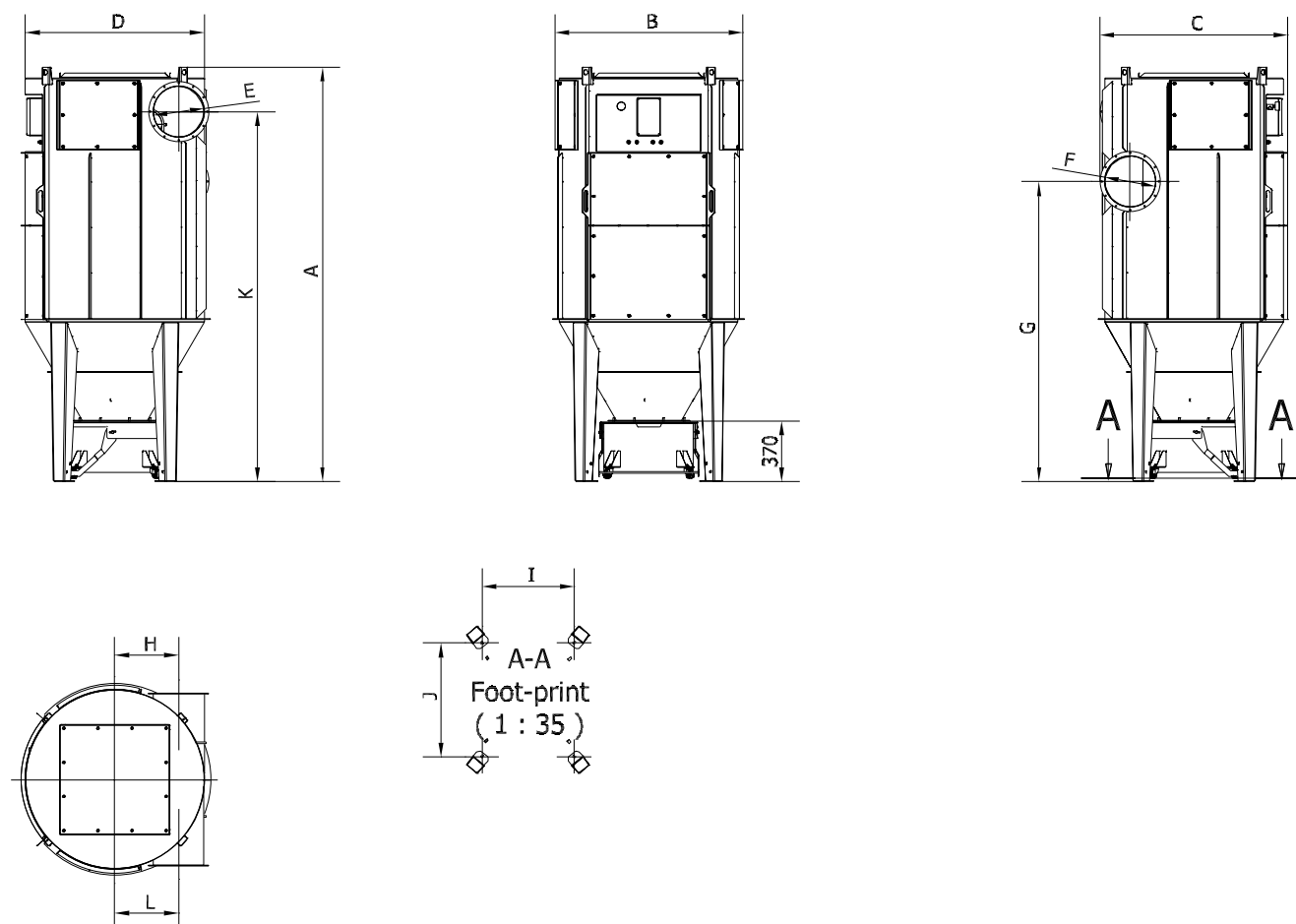
Type	Order no.	A	B	C	D	E	F	G	H	I	J	K	L
ACF-T 260 DH	04 046 780	2941	1858	3282	ø1550	ø500	ø630	2090	1641	1043	826	958	694
ACF-T 364 DH	04 049 780	3213	2165	3885	ø1850	ø630	ø800	2294	1943	1211	978	1167	788
ACF-T 468 DH	04 052 780	3342	2322	4185	ø2000	ø630	ø800	2429	2093	1282	1053	1277	827



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Cyclone filter type ACF-V 52 H - 130 H:



Type	Order no.	A	B	C	D	E	F	G	H	I	J	K	L
ACF-V 52 H	04 032 650	2552	1158	1157	ø1100	ø315	ø315	1845	392	566	699	2275	392
ACF-V 78 H	04 033 660	2632	1258	1269	ø1200	ø400	ø400	1882	401	707	707	2312	401
ACF-V 104 H	04 034 650	2813	1585	1513	ø1400	ø500	ø400	2010	550	847	847	2441	449
ACF-V 130 H	04 037 650	2947	1772	1723	ø1550	ø500	ø500	2090	625	958	958	2574	524