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. Quicklock-adjustable dust container system suspended in ø400mm system flange.

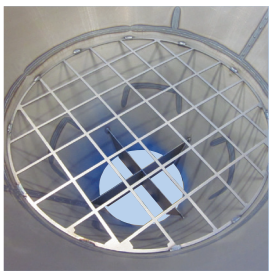
Lower operation costs
Inlet with downflow, preseparation by cyclone effect as well as optimized filter cleaning ensure lower differential pressure above the filter cartridge. Hereby longer operating times with fewer shutdowns as well as lower operation costs (filter materials, power and compressed-air 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 70L 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.

Filters:
- Filter cartridge ø325mm. Length: 660/1320mm

Filter control:
- Differential pressure control type BA with auftomatic 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
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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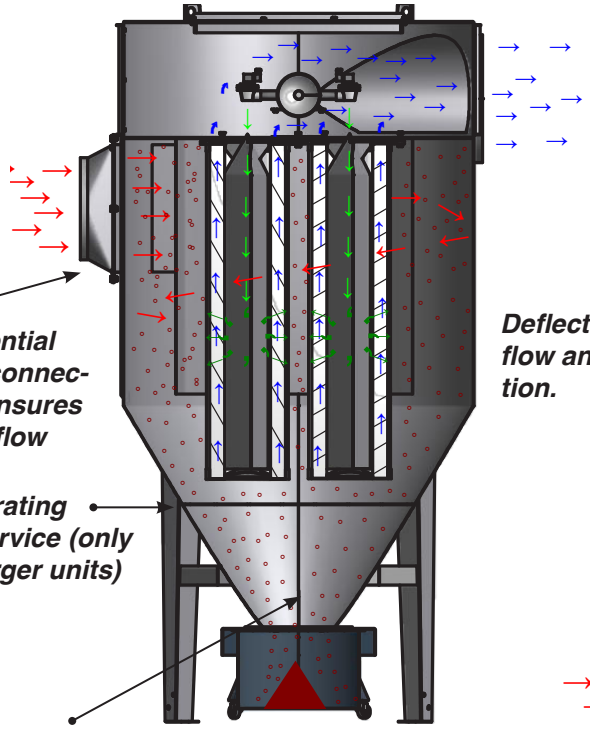
Principle sketch for flow through cyclone filter type ACF/ACF-V:

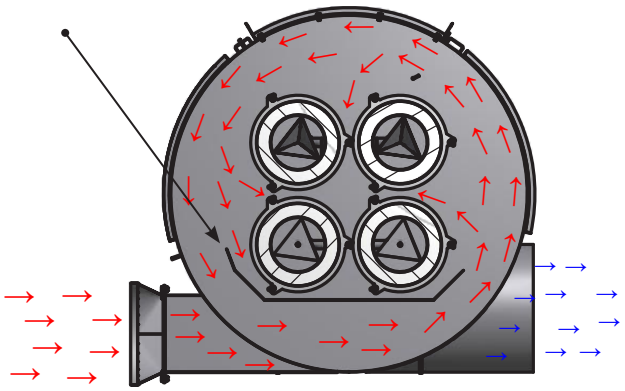


Tangential inlet connection ensures downflow

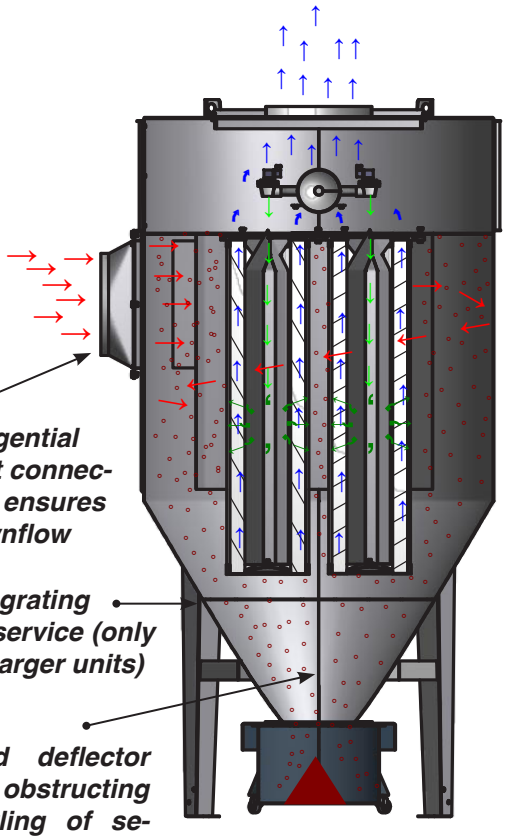
Bar grating for service (only for larger units)

Wind deflector for obstructing whirling of separated dust.

Deflector for optimal air flow and filter life optimization.



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

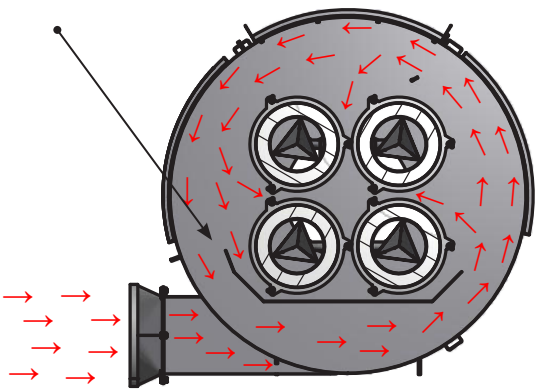


Tangential inlet connection ensures downflow

Bar grating for service (only for larger units)

Wind deflector for obstructing whirling of separated dust.

Deflector for optimal air flow and filter life optimization.



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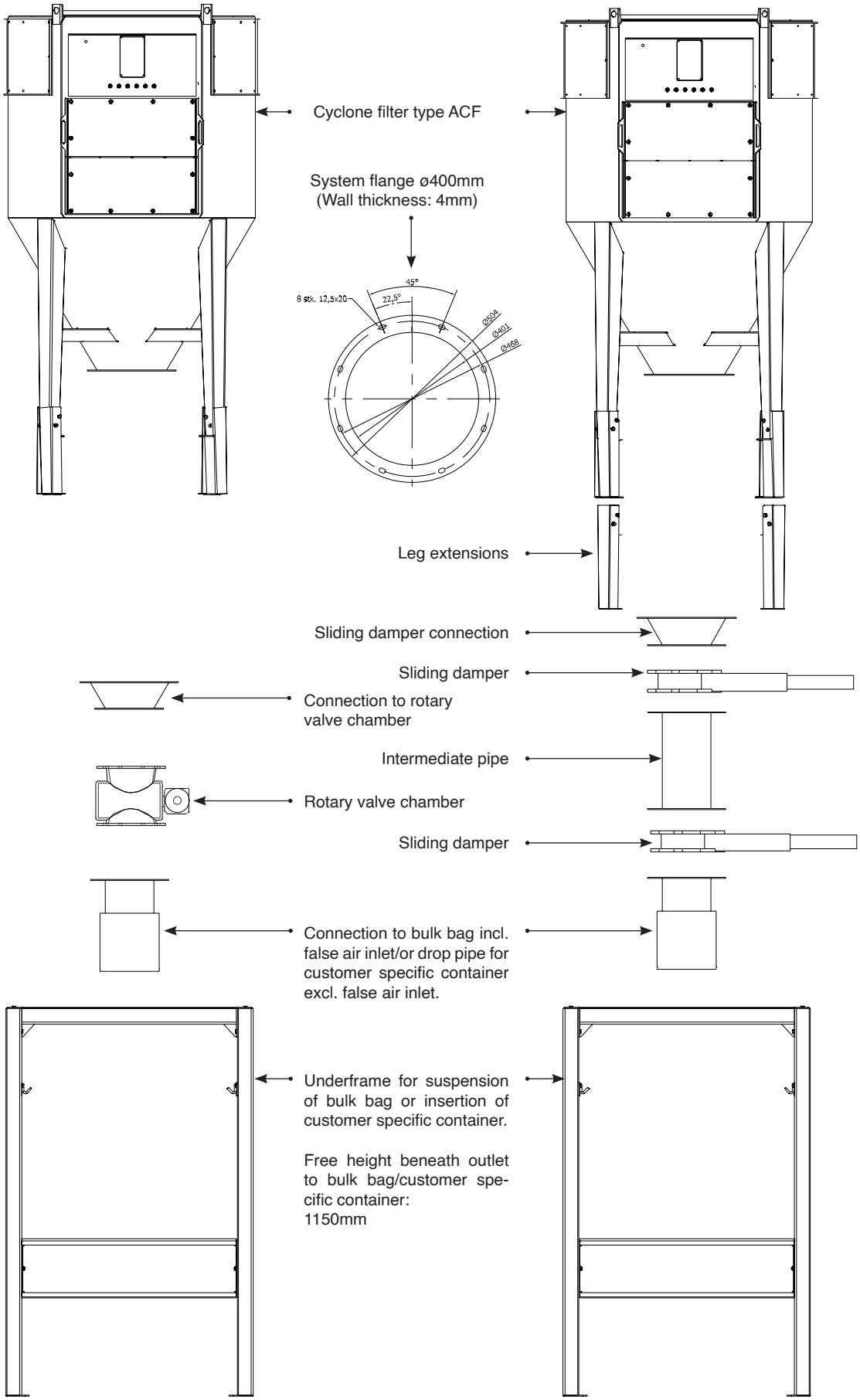
Construction/surface:
Cyclone filter type ACF/ACF-T/ACF-V is constructed according to:
- Machine Directive 2006/42/EU
- EMC Directive 2014/30/EU
- Directive 2014/68/EU about pressure equipment
- Low Voltage Directive 2014/35/EU
- Harmonized standards: EN 13854, EN 4414, EN 12100, EN 60204-1, EN ISO 13857
- 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 othter fan (no Gram product)
- Backdraft damper type KTR for piping placement
- Sack holder for 70L dust container
- 148L 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/-reliefed 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*

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



We refer to the Gram price list for the complete program!

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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.	△ P start/end [3] [Pa]	Number filter cartridges	Number jet valves	G102 filter area [m²]	G105 filter area [m²]	Compressed-air [L/min.]	Number dust container (stand.) [L]	Number dust container (option [4]) [L]	Weight [kg]
ACF 39 [5]	04 033 750	200/2000	3 [1]	3	39	63	30	1x70	1x148	332
ACF 52 [5]	04 034 000	200/2000	4 [1]	4	52	84	30	1x70	1x148	352
ACF 52 H [5]	04 032 500	200/2000	2 [2]	2	52	84	30	1x70	1x148	308
ACF 78 H	04 033 500	200/2000	3 [2]	3	78	126	30	1x70	1x148	400
ACF 104 H	04 034 500	200/2000	4 [2]	4	104	168	30	1x70	1x148	474
ACF 130 H	04 037 500	200/2000	5 [2]	5	130	210	30	1x70	1x148	561
ACF 182 H	04 040 500	200/2000	7 [2]	7	182	294	30	1x70	1x148	746
ACF 234 H	04 043 500	200/2000	9 [2]	9	234	378	30	1x70	1x148	859
ACF 260 DH	04 046 500	200/2000	10 [2]	10	260	420	60	2x70	2x148	1150
ACF 364 DH	04 049 500	200/2000	14 [2]	14	364	588	60	2x70	2x148	1498
ACF 468 DH	04 052 500	200/2000	18 [2]	18	468	756	60	2x70	2x148	1720

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

Type	Order no.	△ P start/end [3] [Pa]	Number filter cartridges	Number jet valves	G102 filter area [m²]	G105 filter area [m²]	Compressed-air [L/min.]	Number dust container (stand.) [L]	Number dust container (option [4]) [L]	Weight [kg]
ACF-T 39 [5]	04 033 770	200/2000	3 [1]	3	39	63	30	1x70	1x148	323
ACF-T 52 [5]	04 034 770	200/2000	4 [1]	4	52	84	30	1x70	1x148	356
ACF-T 52 H [5]	04 032 780	200/2000	2 [2]	2	52	84	30	1x70	1x148	312
ACF-T 78 H	04 033 780	200/2000	3 [2]	3	78	126	30	1x70	1x148	406
ACF-T 104 H	04 034 780	200/2000	4 [2]	4	104	168	30	1x70	1x148	474
ACF-T 130 H	04 037 780	200/2000	5 [2]	5	130	210	30	1x70	1x148	541
ACF-T 182 H	04 040 780	200/2000	7 [2]	7	182	294	30	1x70	1x148	722
ACF-T 234 H	04 043 780	200/2000	9 [2]	9	234	378	30	1x70	1x148	936
ACF-T 260 DH	04 046 780	200/2000	10 [2]	10	260	420	60	2x70	2x148	1087
ACF-T 364 DH	04 049 780	200/2000	14 [2]	14	364	588	60	2x70	2x148	1440
ACF-T 468 DH	04 052 780	200/2000	18 [2]	18	468	756	60	2x70	2x148	1668

[1] Filter cartridge ø325 x 660mm/ø13.5mm, 13m², G102 (08 128 100)
[2] Filter cartridge ø325 x 1320mm/ø13.5mm, 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-V (max. 40,000Pa):

Type	Order no.	△ P start/end [3] [Pa]	Number filter cartridges	Number jet valves	G102 filter area [m²]	G105 filter area [m²]	Compressed-air [L/min.]	Number dust container (stand.) [L]	Number dust container (option [4]) [L]	Weight [kg]
ACF-V 52 H [5]	04 032 650	200/2000	2 [2]	2	52	84	30	1x70	1x148	324
ACF-V 78 H	04 033 660	200/2000	3 [2]	3	78	126	30	1x70	1x148	422
ACF-V 104 H	04 034 650	200/2000	4 [2]	4	104	168	30	1x70	1x148	494
ACF-V 130 H	04 037 650	200/2000	5 [2]	5	130	210	30	1x70	1x148	582

[1] Filter cartridge ø325 x 660mm/ø13.5mm, 13m², G102 (08 128 100)
[2] Filter cartridge ø325 x 1320mm/ø13.5mm, 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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