



Compact compressed-air cleaned filter unit for smaller filtering tasks, where there is a dust explosion risk, e.g. at filtration of metal dust, wood dust or dust from various powder mix handlings. Unit is constructed for application at ATEX-zones 20-22 and is standard equipped with relief membrane, designed to break at an explosion, whereby the unit is relieved and explosions controlled.

Variants	1	2
Inlet and raw air chamber:	Zone 20	Zone 20
Clean air chamber and outlet:	Zone 22	Zone 21
Surroundings:	Zone 22	Zone 21

Unit is standard dimensioned for KST 300bar m/sec. and Pmax 10bar (similar to ST2).

CJF-A: Air volume: Up to 4,400m³/h
 Vacuum: Up to 5,000Pa
 Filter area: 13 - 52m²

CJF-V-A: Air volume: Up to 4,400m³/h
 Vacuum: Up to 40,000Pa
 Filter area: 13 - 52m²

Description

- Polluted air is led into unit through tangential inlet in raw air chamber top. Hereby downflow and pre-separation 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 filter cartridge regeneration.
- Clean air is led out through connection at the top of unit side.
- Dust is collected in dust container in unit bottom. Quicklock-adjustable dust container system suspended in ø400mm system flange.
- Explosion membrane is placed on unit back, where it is subject to minimum wear.

Efficient and competitive filtration

Complete and simple unit. Inlet with downflow, pre-separation by cyclone effect as well as optimized filter cleaning ensure lower differential pressure above the filter cartridge. Hereby longer operating times with fewer shutdowns are obtained.

Simple mounting, connection and operation

Filter unit is delivered fully assembled and is then raised and connected. Drawn cable with plug and compressed-air supply hose make installation and connection easy. Filters are easily replaced from unit top. Quicklock-adjustable dust container on 4 turnable wheels ensures user-friendly dust container service.



Supply and operation
 Supply hoses are drawn out of unit. Differential pressure is read in digital display of filter control on unit front.



Dust container
 Cone bottom is finished with ø400mm system flange. Standard 72L/67L 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.



Relief membrane
 Relief membrane is placed on the back. Be aware of pressure wave and flame spread through it at relief of a possible dust explosion.



- Filters:**
- Filter cartridge \varnothing 325mm. Length: 660/1320mm
- Filter control:**
- Differential pressure control type ECO-S with automatic after-cleaning. 230V AC (constant)
 - Compressed-air: 5.5 - 6.0 bar dry compressed-air by cejn-coupling incl. \varnothing 10mm hose nipple
 - Differential pressure can be seen in digital display on front
 - 1"-jet valves integrated in pressure tank above filter

Filter change: Standard from clean air chamber top

Filter material:

Standard	Material	Used for
G113	Polyester flake with PFPT-coating, antistatic	Static-loaded or hygroscopic particles
Alternative		
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%).

Relief membrane incl. mating flange:

Material:

Membrane: AISI 304
Mating flange: Galvanized



Relief pressure: +0.2bar

Relief area is calculated for the individual unit for $K_{st} = 300 \text{ bar m/sec}$ and $P_{max} = 10 \text{ bar}$

Relief membrane is designed as a single unit, which provides a light construction and thus fast opening. The membrane is especially developed for dust explosion relief and gives a reliable ensurance, since it relieves at an early stage, already in the start of an explosion.

NOTE

At installation of units with relief membrane you must be aware of the heavy pressure wave and the flame spread that will occur in areas outside of the relief membrane and mount the unit so that the explosion is led away from people and building components.

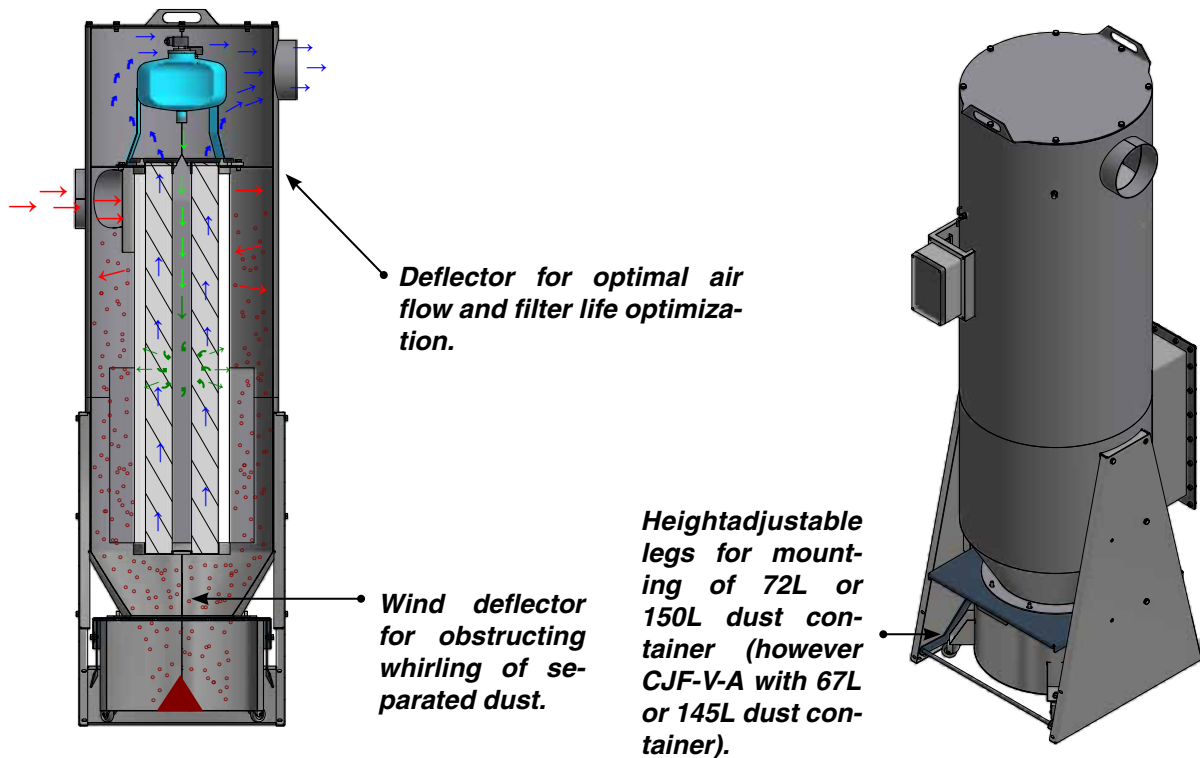


Foto:
Cyklonfilter type CJF-A 13

Data is subject to alterations
Rev. 01,20



Principle sketch for flow through cyclone filter CJF-A / CJF-V-A:



Construction/surface:

Cyclone filter type CJF-A / CJF-V-A is constructed according to:

- Machine directive 2006/42/EC
- ATEX directive 2014/34/EU
- EMC directive 2014/30/EU
- Pressure Equipment directive 2014/68/EU
- 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, fully-welded filter cabinet
Surface powder enamelled RAL 5007/7011 structure

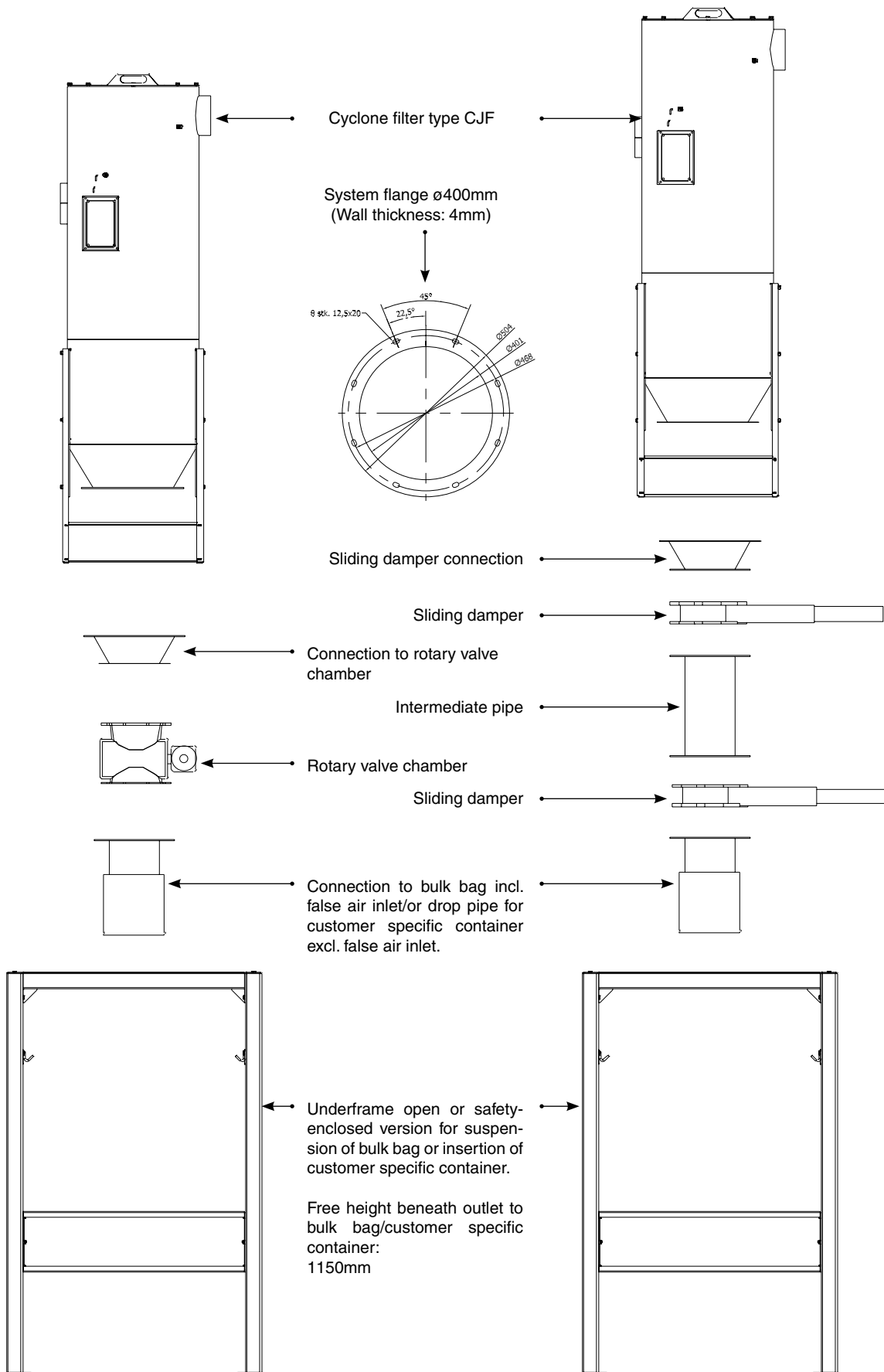
Further is available:

- Version in hot-galvanized, enamelled steel plates for outdoor mounting
- Mirrored connections on inlet/outlet
- Outlet in top lid
- Filter replacement from unit side
- Sack holder for 72L/67 dust container
- 150L/145L dust container with sack holder*
- ATEX rotary valve chamber
- ATEX-approved material outlet for bulkbag or tipping container
- ½"-water separator with manometer and pressure reducing valve
- Closed bulkbag cabinet for bulkbag or sliding damper, incl. explosion relief and suspension for bulkbag inside in cabinet for handling with fork lift.
- Rupture sensor for relief membrane
- If need for indoor relief we refer to cyclone filter type ACF-A-HO

* Note: Unit height is increased by 330mm



Principle sketch for equipment for cyclone filter type CJF-A / CJF-V-A:



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

Rev. 01.20 Data is subject to alterations





Cyclon filter type CJF-A / CJF-V-A 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.

Cyclone filter type CJF-A (max. 5,000Pa):
ATEX zone: 20/22 / 20/21

Type	ATEX zone 20/22 Order no.	ATEX zone 20/21 Order no.	Δ P start/end ³⁾ [Pa]	Number filter car- tridge	Number jet valve	G113 filter area [m ²]	Com- pressed air [L/min.]	Number dust con- tainer (stand.) [L]	Number dust con- tainer (option ⁴⁾) [L]	Weight [kg]
CJF-A 13	10 430 000	10 430 500	200/2000	1 ¹⁾	1	13	30	1x72	1x150	140
CJF-A 26	10 431 000	10 431 500	200/2000	1 ²⁾	1	26	30	1x72	1x150	170
CJF-A 52	10 432 000	10 432 500	200/2000	2 ²⁾	2	52	30	1x72	1x150	210

Cyclone filter type CJF-V-A (max. 40,000Pa):
ATEX zone: 20/22 / 20/21

Type	ATEX zone 20/22 Order no.	ATEX zone 20/21 Order no.	Δ P start/end ³⁾ [Pa]	Number filter car- tridge	Number jet valve	G113 filter area [m ²]	Com- pressed air [L/min.]	Number dust con- tainer (stand.) [L]	Number dust con- tainer (option ⁴⁾) [L]	Weight [kg]
CJF-A 13	10 430 200	10 430 700	200/2000	1 ¹⁾	1	13	30	1x67	1x145	140
CJF-A 26	10 431 200	10 431 700	200/2000	1 ²⁾	1	26	30	1x67	1x145	170
CJF-A 52	10 432 200	10 432 700	200/2000	2 ²⁾	2	52	30	1x67	1x145	210

¹⁾ Filter cartridge $\varnothing 325 \times 660\text{mm}/\varnothing 13,5\text{mm}$, 13m², G113 (08 128 900)

²⁾ Filter cartridge $\varnothing 325 \times 1320\text{mm}/\varnothing 13,5\text{mm}$, 26m², G113 (08 129 400)

³⁾ Pressure drop stated over filter cartridge

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

Type	Relief membrane +0.2 bar [mm]	Numer Relief membrane Max. 5,000Pa [pc.]	Numer Relief membrane Max. 50,000Pa [pc.]	Placement relief membrane on
CJF-A / CJF-V-A 13	490 x 590	1	1	backside
CJF-A / CJF-V-A 26	490 x 590	1	1	backside
CJF-A / CJF-V-A 52	653 x 653	1	1	backside

For further information see price list group 10