

CHFU Compact HV cyclo-filters with cartridge



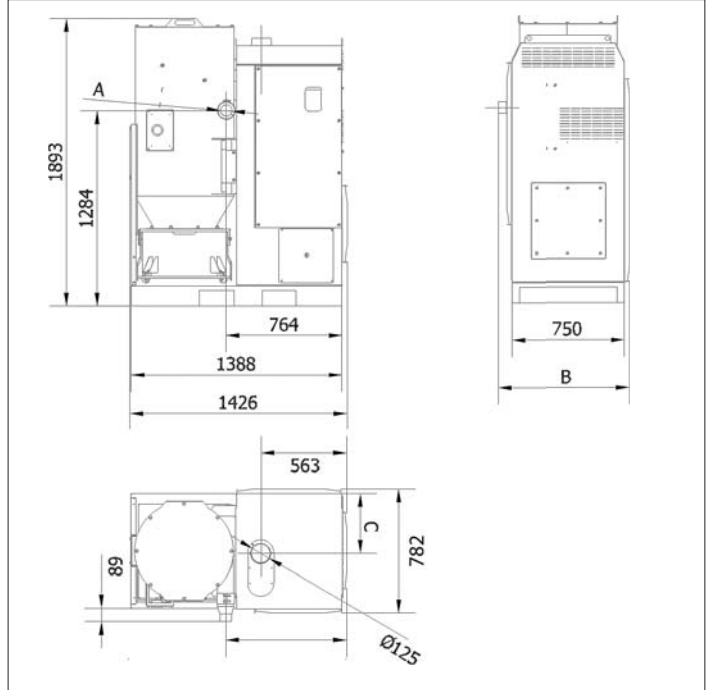
Compact high vacuum unit that can be used as central vacuum cleaner for cleaning or hand tool connection. Compressed-air cleaned filter unit with timer control built together with side channel blower in sound enclosed cabinet and mounted on strong transport platform.

Plug & Play model CHFU-F is with built-in frequency converter and motor with thermal fuse.

Air volume : Up to 1275 m³/h
Vacuum : Up to 38000 Pa
Filter surface: 13 m²

Optimized movable vacuum cleaner solution with long operation times

Side channel blower as vacuum pump and automatic filter cleaning by compressed-air enable continually operation. The compact construction on strong transport platform ensures that the vacuum cleaner unit can be moved from one production place to another and do not occupy much space.



Functioning :

- 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.
- Timer-controlled filter cleaning by integrated compressed-air system with pressure tank and jet valve.
- The clean air is led out through ø125mm connection (muff measurement) in cabinet top. Sound is damped by channel silencers on outlet integrated in unit.
- Dust is collected in dust container in unit bottom. Quick-lock adjustable dust container system suspended in ø400mm system flange.

Description side channel blower type KMS

- Side channel blower is placed on vibration absorbers in sound enclosed cabinet.
- Vacuum limiter mounted on inlet.
- Guided cooling air by cooling ribs in cabinet.



Moveable unit

Built on a strong transport platform to move easily by hand pallet truck or fork lifts.



Easy connection

230V-electrical cable with plug and ø8mm compressed-air hose located on unit front.



Plug & Play-unit CHFU-F

CEE-plug & start/stop switch for side channel operation by frequency converter are placed on unit front (except CHFU-F 20000).



Easy emptying of dust bucket

Quick-lock adjustable dust bucket on 4 wheels ensures user-friendly handling.

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Dimensions :

Type	Ø A (mm)	B (mm)	C (mm)	Weight (kg)
CHFU 5500	76	821	385	360
CHFU 7500	76	821	584	370
CHFU 9000	108	666	427	375
CHFU 13000	108	666	427	380
CHFU 20000	108	666	427	395
CHFU-F 5500	76	821	385	380
CHFU-F 7500	76	821	584	390
CHFU-F 9000	108	666	427	395
CHFU-F 13000	108	666	427	400
CHFU-F 20000	108	666	427	415

Standard filter cartridge change from clean air chamber top

Filter media :

Filter cartridge ø325 mm. Length: 660 mm

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

Supply :

- Type TC1-timer control without automatic after-cleaning. 230V AC. Should be connected with delayed disconnection in relation to fan stop to obtain after-cleaning.
- Compressed-air: 5.5 - 6.0 bar dry compressed-air. Unit equipped with ø8 mm pneumatic hose.
- Differential pressure displayed in integrated manometer.
- 1"-jet valve connected to central compressed-air tank in clean air chamber.

Surface :

The filter cabinet is made in 2 mm black steel plate.
 Surface powder enamelled RAL 5007/7011.

Construction :

Filter unit type CHFU is constructed according to :

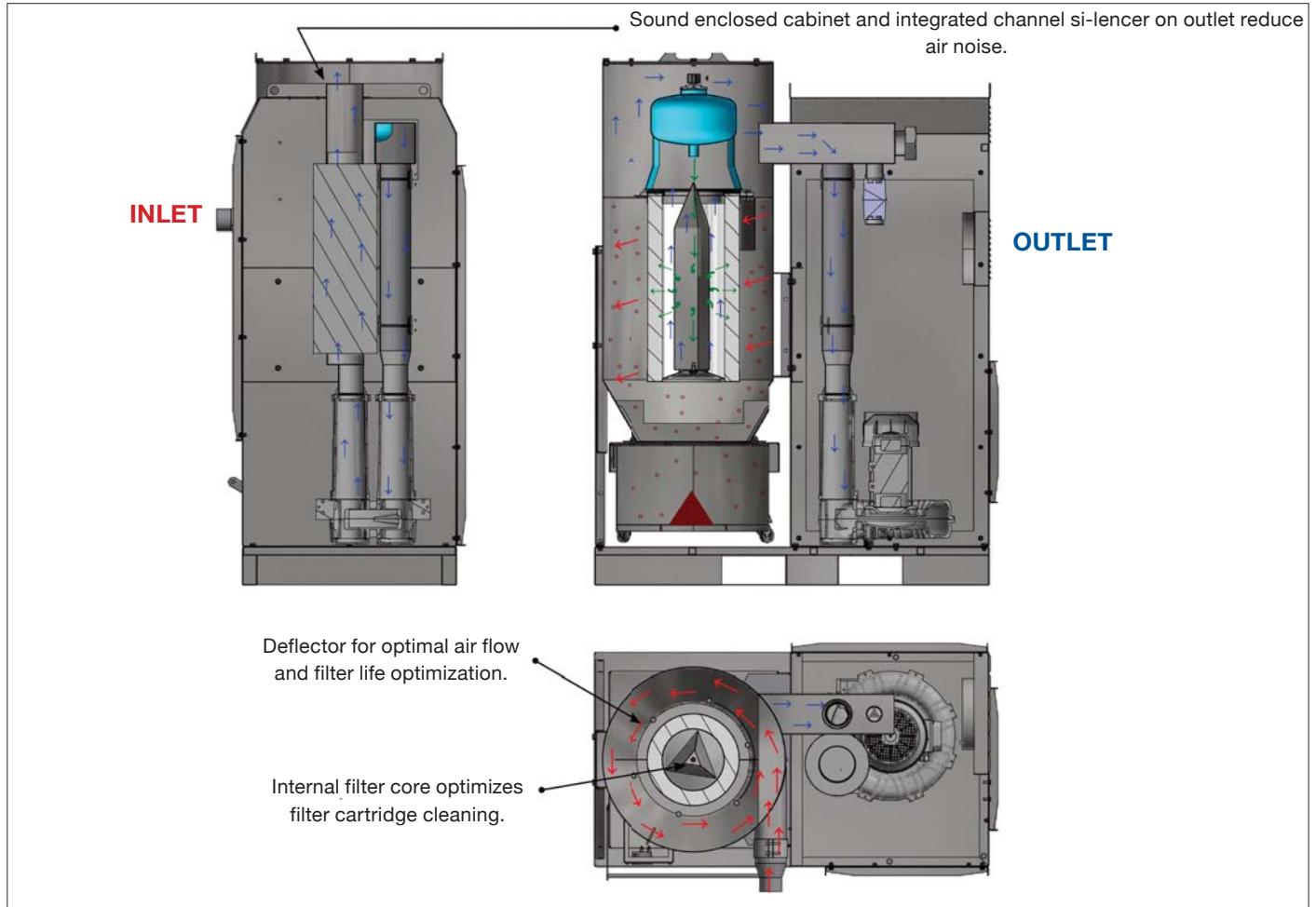
- Machine directive 2006/42/EU
- EMC-directive 2014/30/EU
- Directive 2014/68/EU about pressure equipment
- Low voltage directive 2014/35/EU
- Harmonized standards :
 EN 349, EN 4414, EN 12100, EN 60204-1, EN ISO 13857
- Further standards: ISO 3746

Options:

- Hot-galvanized, enamelled steel plates for outdoor mounting
- Filter replacement from unit side
- Filter control type ECO-S, Delta P with automatic after-cleaning
- Sack holder for 67 L dust container
- ½"-water separator with manometer and pressure reducing valve
- Various high-pressure piping, fittings and coupling for fixed unit assembly
- Various sliding dampers and flap valves that possibly can be equipped with micro-switch for extraction start
- Various controls and system surveillances
- Various pin-point extractions, hoods, slot nozzles, plastic adapters for valves, hoses and cleaning equipment
- Explosion-protected/-relieved version for installation in ATEX-zones

CHFUF Compact HV cyclo-filters with cartridge

Working principle of flow through CHFUF / CHFUF-F filter unit:



Filter unit CHFUF :

Type	Delta P ²⁾ Start/stop	Power at 50 Hz (kW/Amp) ³⁾	# of cartridges	G102 Filter area (m ²)	G105 Filter area (m ²)	Comp. air volume (l/min.)*	Dust bucket (L)
CHFUF 5500	200/2000	5.5/11.1	1 ¹⁾	13	21	3	1 x 67
CHFUF 7500	200/2000	7.5/15.7	1 ¹⁾	13	21	3	1 x 67
CHFUF 9000	200/2000	9.2/17.8	1 ¹⁾	13	21	3	1 x 67
CHFUF 13000	200/2000	11.0/21.7	1 ¹⁾	13	21	3	1 x 67
CHFUF 20000	200/2000	18.5/35.9	1 ¹⁾	13	21	3	1 x 67

* with integrated timer control at 5.5 Bar

Filter unit CHFUF-F :

Type	Delta P ²⁾ Start/stop	Power at 60 Hz (kW/Amp) ³⁾	freq. inv. (kW)	# of cartr.	G102 Filter area (m ²)	G105 Filter area (m ²)	Comp. air volume (l/min.)	Dust bucket (L)
CHFUF-F 5500	200/2000	5.5/11.1	7.5	1 ¹⁾	13	21	30	1 x 67
CHFUF-F 7500	200/2000	7.5/15.7	11.0	1 ¹⁾	13	21	30	1 x 67
CHFUF-F 9000	200/2000	9.2/17.8	11.0	1 ¹⁾	13	21	30	1 x 67
CHFUF-F 13000	200/2000	11.0/21.7	15.0	1 ¹⁾	13	21	30	1 x 67
CHFUF-F 20000	200/2000	18.5/35.9	22.0	1 ¹⁾	13	21	30	1 x 67

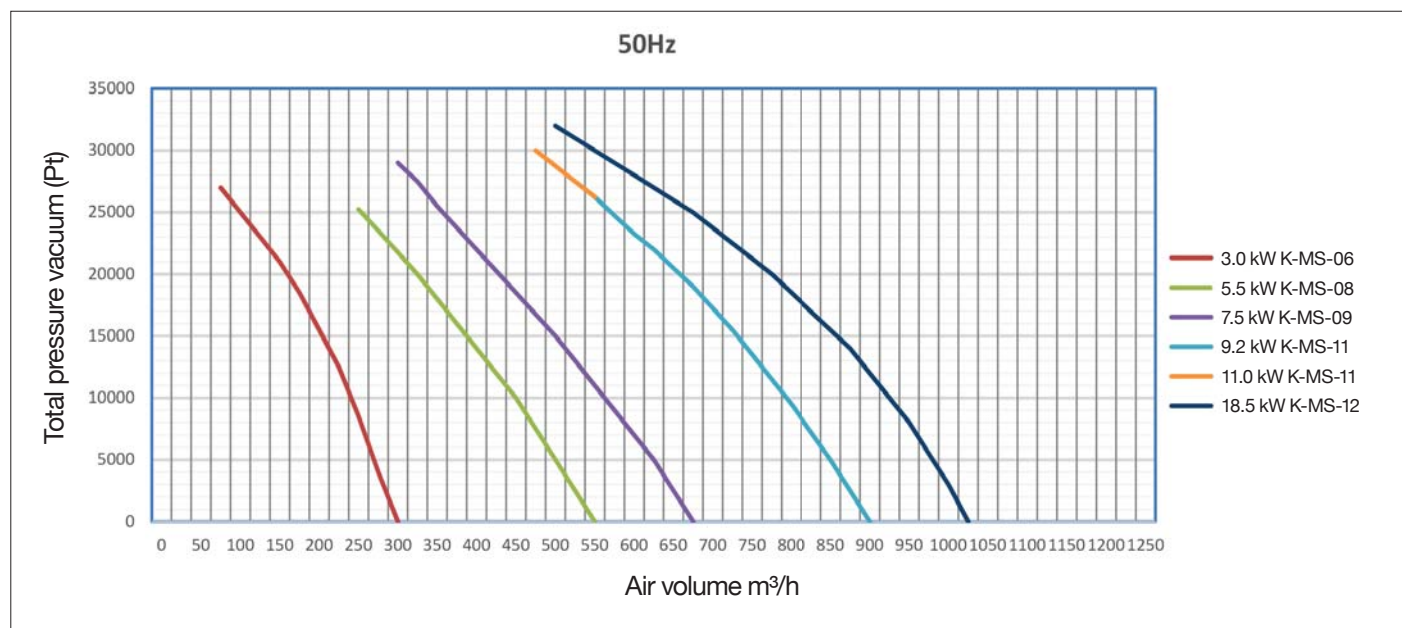
¹⁾ Filter cartridge ø325 x 660mm/ø13.5mm, 13m², G102

²⁾ Pressure drop stated over filter cartridge

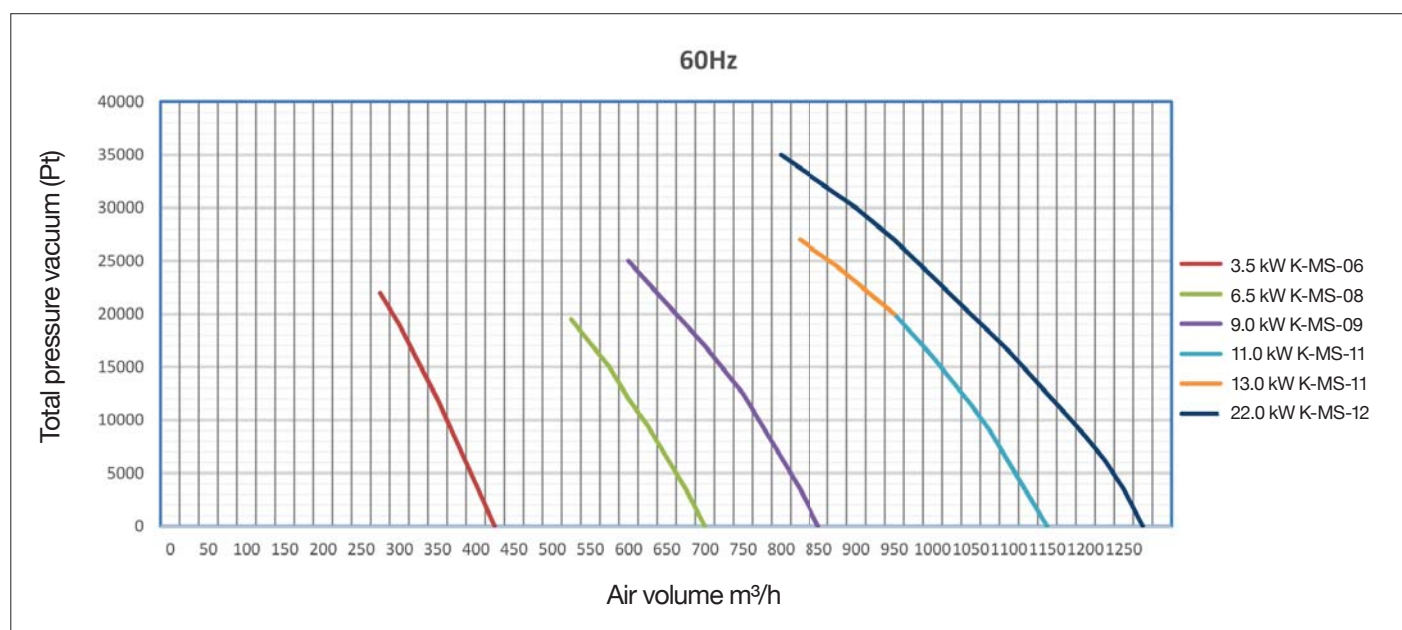
³⁾ Motor voltage: 3 x 400/690V

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Side channel blower for high vacuum unit type CHFU (50Hz):



Side channel blower for high vacuum unit type CHFU-F (60Hz):



Accessories : Various high-vacuum components



Accessories : ABB-frequency converters



Accessories : Flap valve



Accessories : slot nozzle type VSPL with magnet