

Cyclo-f™



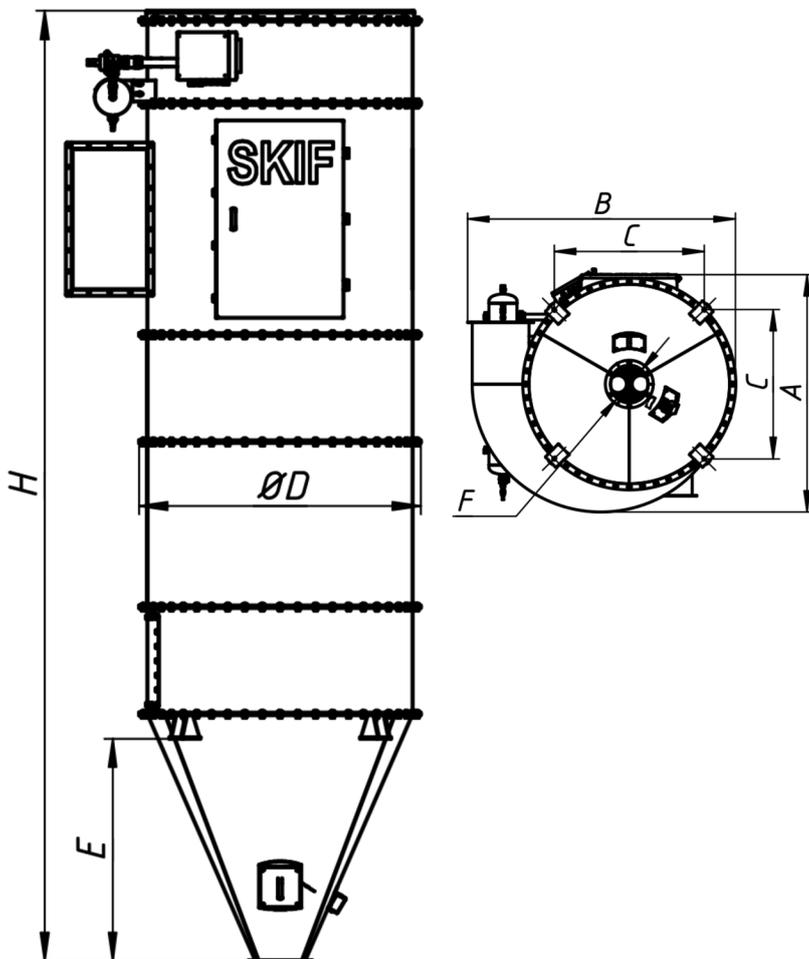
- SKIF Cyclo-f™ is a cyclone filter designed for centralized aspiration systems operating under high dust loads and continuous industrial processes.
- The inlet airflow is set into a controlled swirl, enabling efficient pre-separation of solid particles by centrifugal force. Coarse particles are separated in the cyclone section, while the remaining fine dust is directed to the filtration stage.
- The design ensures stable operation at high air volumes and extreme dust concentrations, significantly reducing the dust load on downstream filtration equipment.
- Optimized cyclone aerodynamics provide low pressure losses and reduced energy consumption, especially in extended duct networks.
- The purified gas flow minimizes wear on downstream equipment, extending service life and reducing overall maintenance costs.
- The system is fully compliant with current EU directives on machinery safety, explosion protection and industrial emissions, including IED 2.0.

Typical configuration and dimensional layout of SKIF Cyclo-f™ for centralized aspiration systems.

Compliance with EU directives:

- 2006/42/EC – Machinery Directive
- 2014/35/EU – Low Voltage Directive
- EN ISO 13849 – Functional Safety
- 2014/34/EU (ATEX) – Explosion Protection
- Active and passive explosion suppression systems
- IED 2.0 – Directive (EU) 2024/1785

Parameter	Standard value	Optional / on request	Notes
Airflow capacity	1000–10,000 m³/h	—	Model-dependent (Cyclo-f 900\20 - 2500\35)
Residual dust level at outlet	≤ 5 mg/m³	10 / 15 / 20 mg/m³	Depending on dust characteristics
Dust type / material	Grain, wood, mineral dusts	—	Specified per project
Execution	Standard	ATEX Category	Directive 2014/34/EU



Engineering notes:

- Designed for continuous industrial operation
- Suitable for high dust concentrations
- Reduced load on downstream filtration stages
- Optimized for integration into centralized duct networks

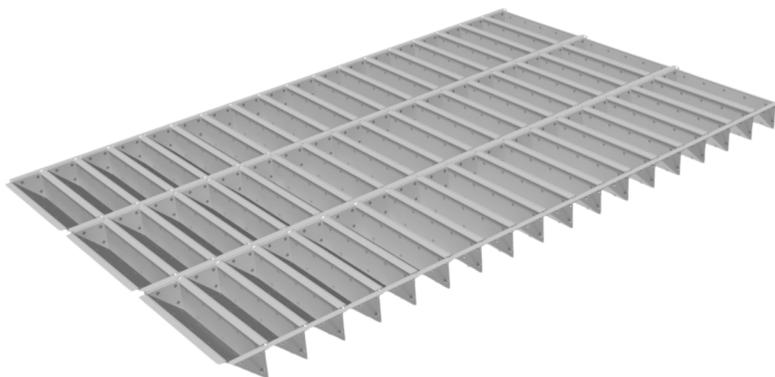
Centrifugal fans tailored for SKIF Cyclo-f™ cyclone filters

Depending on the required airflow rate, pressure, and dust characteristics, the selection of the centrifugal fan is adapted to the specific needs of your application.



Parameter	Value	Notes
Fan type	Centrifugal	For centralized aspiration systems
Typical airflow range	400–200,000 m³/h	For Cyclo-f™ integration
Pressure class	Low to medium	Depending on system resistance
Execution	Standard / ATEX	Project-specific configuration
Application	Grain, wood, mineral dust	According to dust characteristics

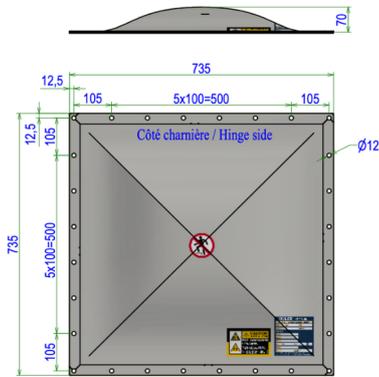
To further increase aspiration efficiency and reduce uncontrolled air ingress, SKIF systems can be equipped with localized dust suppression elements.



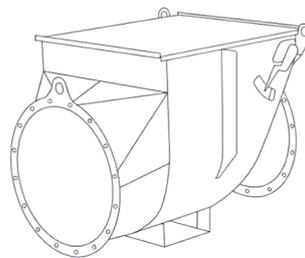
SKIF Flex-Flap

- Reduces uncontrolled air ingress
- Stabilizes aspiration performance
- Decreases required airflow volume
- Lowers fan load and energy consumption

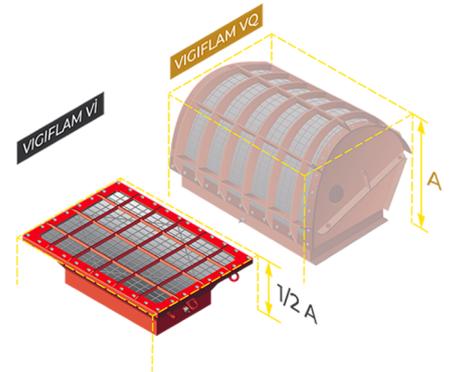
Explosion Safety Solutions Integrated into SKIF Aspiration Systems
 Integrated explosion protection solutions for enhanced safety and ATEX compliance.



Explosion Vent Panels



Explosion Isolation Valves



Flameless Venting Device

- Designed for controlled explosion pressure relief in accordance with EN 14491, suitable for dust applications up to St 3.
- Provides mechanical isolation of explosion propagation in duct systems for dust explosions up to Kst 250 bar·m/s.
- Enables indoor explosion venting with integrated flame arresting technology for safe pressure release without external flame discharge.

