

Silo-f™



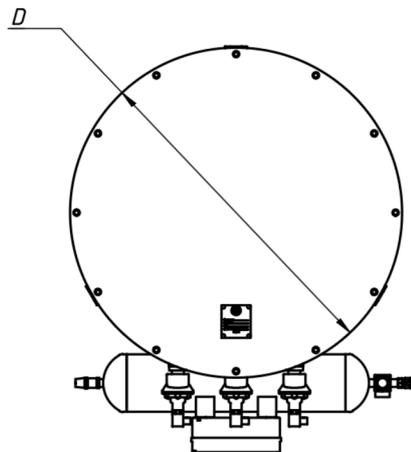
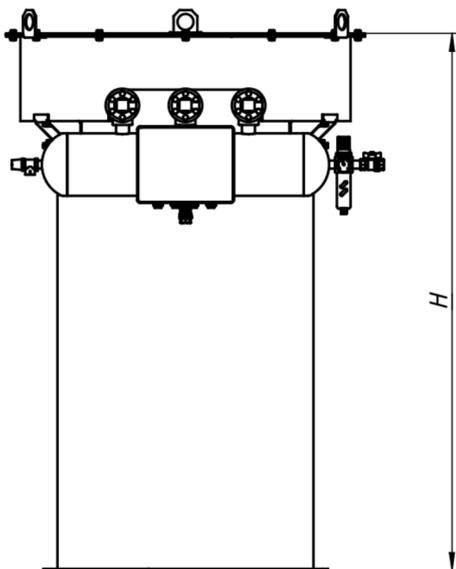
- SKIF SILO-F™ is a pulse-jet silo top filtration system designed for dust control during pneumatic and mechanical filling of silos, bins, and storage vessels operating under variable loading conditions.
- Dust-laden air generated during silo filling enters the filtration chamber, where solid particles are captured on high-efficiency filter sleeves. The separated dust is returned directly into the silo, ensuring product recovery without material loss.
- The system maintains stable internal pressure within the storage vessel, preventing uncontrolled dust emissions and ensuring compliance with environmental requirements, including IED 2.0 standards.
- Optimized filtration velocity and automatic pulse-jet regeneration provide stable pressure drop, reduced energy consumption, and reliable long-term operation during repeated loading cycles.
- The compact vertical design enables installation directly on the silo roof, minimizing footprint while ensuring easy maintenance access and operational safety.
- The purified air is discharged into the atmosphere with minimal residual dust content, reducing environmental impact and maintaining clean operating conditions.
- The system is engineered in accordance with current EU directives on machinery safety, explosion protection and industrial emissions, including ATEX and IED 2.0 requirements.

Typical configuration and dimensional layout of SKIF Silo-f™ silo top filtration 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
Filtration area	4–25 m <sup>2</sup>	—	Depends on configuration (sleeves or cartridges)
Residual dust level at outlet	≤ 5 mg/m <sup>3</sup>	10 / 15 / 20 mg/m <sup>3</sup>	Depending on dust characteristics
Dust type / material	Dry bulk materials (grain, flour, feed, cement, mineral powders)	Food-grade execution	Specified per project
Execution	Standard	ATEX Category	Directive 2014/34/EU



Engineering notes:

- Designed for silo pressure stabilization during filling
- Suitable for pneumatic and mechanical loading
- Automatic pulse-jet regeneration
- Compact roof-mounted configuration
- Configurable for ATEX classified zones

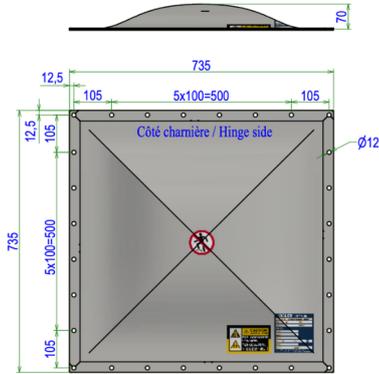
Centrifugal fan integration for SKIF SILO-F™ silo top filtration systems

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.

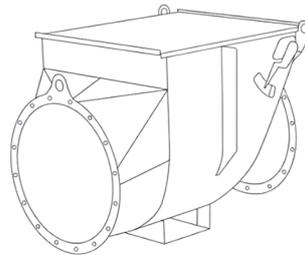


Parameter	Value	Notes
Fan type	Centrifugal	Integrated or optional
Typical airflow range	Model-dependent	Based on filling rate
Pressure class	Low to medium	Designed for silo pressure stabilization
Execution	Standard / ATEX	Directive 2014/34/EU
Application	Dry bulk materials (grain, flour, feed, cement, mineral powders)	Specified per project

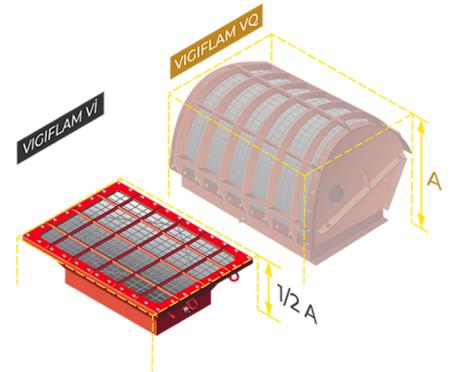
Explosion Safety Solutions Integrated into SKIF Aspiration Systems  
 Integrated explosion protection solutions for enhanced safety and ATEX compliance.



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.

