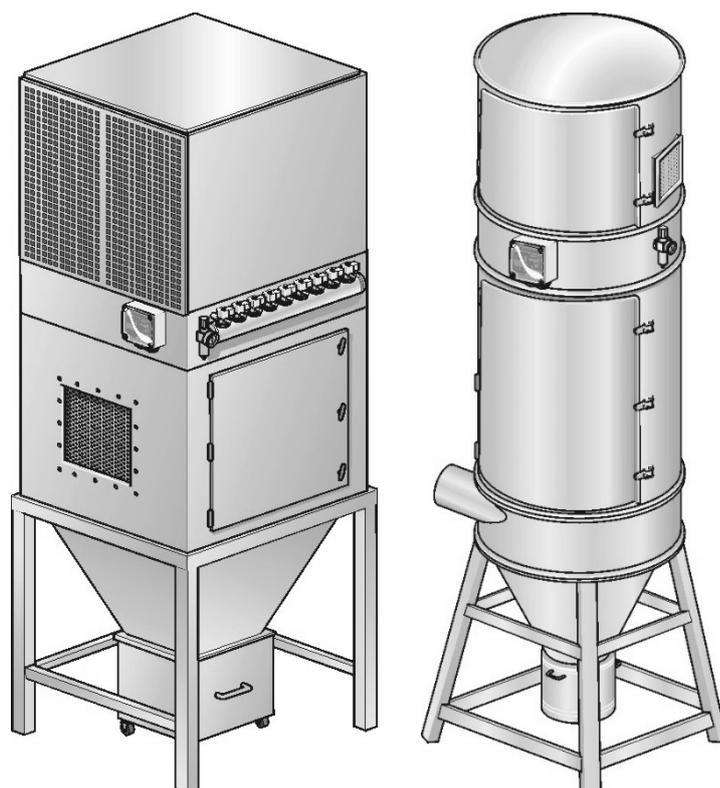


Translation of the original instructions with installation instructions
Dust collector
Type AF/NF/SF

Mat. No. of Original Instructions
76380489



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2 General safety instructions

2.1 Safety instructions for installation and operating personnel

This translation of the Original Instructions contains important safety information which must be heeded at all times during installation, normal operation and maintenance. Non-observance can result in the following risks to persons and the environment as well as in damage to the machine or plant:

- ⇒ Failure of critical functions of the machine or plant or of its component parts.
- ⇒ Danger to persons from electrical or mechanical effects as well as from chemical reactions.
- ⇒ Danger to the environment owing to the leakage of hazardous substances.

Before installation / start-up:

- Read this translation of the Original Instructions carefully.
- Make sure that installation and operating personnel are adequately trained.
- Make sure the contents of the Original Instructions are fully understood by the responsible persons.
- Define areas of responsibility and competence.
- Prepare a maintenance schedule.

During operation of the plant:

- Keep this translation of the Original Instructions handy at the place of use.
- Heed the safety instructions. Always operate the machine / plant in accordance with its ratings.

If in doubt:

- Consult the manufacturer.

2.2 Warning structure

Where possible, warnings are structured according to the following system:

Signal word	
Possibly with symbol	Nature and source of the danger ⇒ Potential consequences of non-observance • Action to avert the danger.

2.3 Warning symbols used

⚠ DANGER!
Immediate hazard! ⇒ Failure to observe will cause serious or even fatal injuries.
⚠ WARNING!
Possible hazardous situation! ⇒ If not observed, there is a risk of serious or even fatal injuries.
⚠ CAUTION!
Possible hazardous situation! ⇒ If not observed, there is a risk of moderate or slight injuries.
IMPORTANT!
Potentially dangerous situation! ⇒ If not observed, there is a risk of material damage.

2.4 Other symbols used

	Danger: High voltage!
	Danger information about explosion protection
	Information about environmental protection
	Protective clothing must be worn!
	Eye protection must be worn!
	Safety helmet must be worn!
	Respirator must be worn!
	Hand symbol: Indicates general information and recommendations
•	Bullet: Indicates the order in which actions are to be carried out
⇒	Arrow: Indicates responses to actions

3 Glossary

Plant:

Customer's complete plant in which the FG dust collector is integrated.

Pressure difference / differential pressure

Pressure difference between the dirty air side and the clean air side of the filter (in [mbar] or [Pa]).

Final surge:

Abrupt increase in the flow rate at the end of a silo filling process.

Filter surface load:

Velocity at which the medium flows through the filter surface. Calculated as the ratio of volume flow to filter surface [$m^3/m^2 \text{ min}$].

Residual dust content:

Amount of solid particles on the clean air side [mg/m^3].

Dew point:

Temperature at which a gas is saturated with moisture. Temperatures below the dew point lead to the formation of fog droplets.

Contract documentation:

Offer, order confirmation and delivery note.

4 General Information

4.1 Manufacturer

Filtration Group GmbH
Schleifbachweg 45
D-74613 Öhringen
Phone +49 7941 6466-0
Fax +49 7941 6466-429
industrial@filtrationgroup.com
industrial.filtrationgroup.com

4.2 Information on these operating instructions

FG Mat. No.:76380489
Date:30.04.21
Version:00

(Space for name-plate)

(Space for ATEX name-plate)

The Ex type of protection is only valid in conjunction with the declaration of conformity.

5 Intended application

⚠ DANGER!

THE FOLLOWING ARE NOT ALLOWED:

- Use for purposes other than that described below without prior consultation with the manufacturer.
- Use in hazardous areas unless explicitly mentioned in the contract documentation.
- Use with smouldering, burning or sticky particles.
- Use with highly explosive dusts (e.g. explosives, etc.).
- Temperatures below the dew point.
- Hazardous substances and materials.
- Food

⚠ DANGER!

THE FOLLOWING ARE NOT ALLOWED:

When retrofitting components for the ATEX zone, only use electrical equipment in accordance with the respective categories.

For example, in the raw gas chamber in the dedusting device, category 1

- (Zone 20 / 0)

⚠ CAUTION!

The FG dedusting device must only be used in accordance with the operating conditions as defined in the contractual documentation and the operating instructions. Any other type of use or use going beyond this use, is regarded as improper use. The manufacturer shall not be liable for any damage caused as a result.

CAUTION!

Conditionally allowed:

- Use of solvents in consultation with the manufacturer.

FG dust collectors are designed for dry separation of the dust particles in dust-laden air.

The cartridges of the SF series and the main filter stage of the NF series can be cleaned by air pressure without interrupting the filtration process.

The cartridges of the PO series and the main filter stage of the NF series cannot be cleaned during filtration operation by surges of compressed air. They must be replaced.

Main applications:

- Sucking off dust from workplaces
- Sucking off dust from machines
- Separating fine dust downstream of a cyclone
- Venting silos
- Emptying bags

6 Limits of the machine

The FG dust collector is supplied in two different versions as defined by the EC Machinery Directive (2006/42/EC):

- Completed machinery
- Partly completed machinery

6.1 Completed machinery

- Dust collection system with a fan and switch box or a fan main switch.
- Declaration of conformity (section 20)

6.2 Partly completed machinery

- Dust collection system with a fan and a cleaning controller.
- Dust collection system without a fan.
- Declaration of incorporation (section 19)

7 Machine description

7.1 Principle of the SFK process

Filtration

1

The dust-laden air flows into the dirty air section.

2

The dust particles are separated on the cartridges.

3

The cleaned air enters the clean air section.

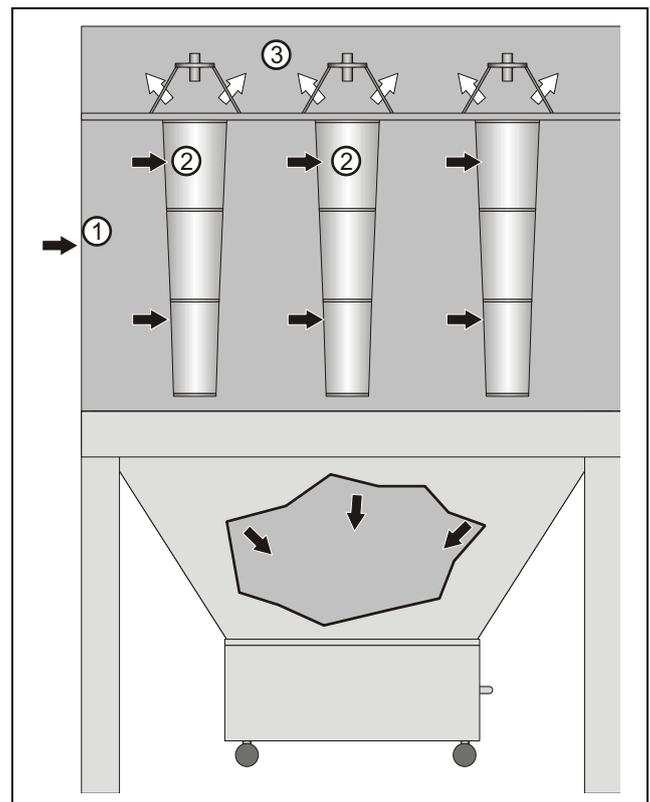


Fig. 1: Filtration principle of the SFK

Cleaning

4

The cartridges are cleaned either individually or in groups by means of a pulsed jet of compressed air. The filtration process does not need to be interrupted for cleaning.

5

The pulsed air jet causes the filter cake to be detached uniformly.

6

The accumulated dust drops down to the bottom.

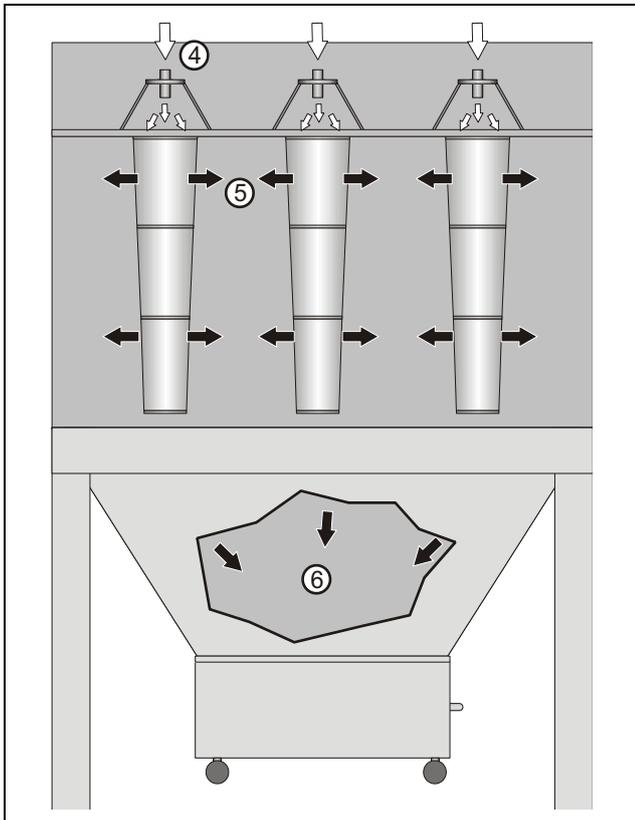


Fig. 2: Cleaning principle of the SFK

7.2 Principle of the SFR process

Filtration

1

The dust-laden air flows into the dirty air section.

2

The dust particles are separated on the cartridges.

3

The cleaned air enters the clean air section.

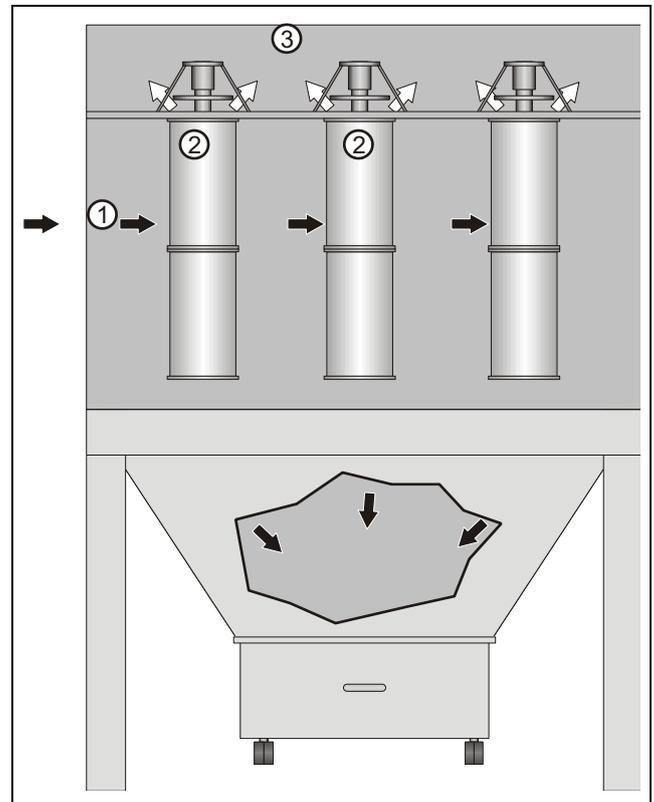


Fig. 3: Filtration principle of the SFR

Cleaning

4
The cartridges are cleaned either individually or in groups by means of rotating wings. The filtration process does not need to be interrupted for cleaning (EXCEPTION: dust collectors with only one cleaning valve).

5
The dam plate is forced downwards and interrupts the volume flow.

6
The cartridge pleats are blown radially outwards by the rotating wing. The rotary movement of the wing (approx. 10 Hz) produces a lateral vibratory movement on the pleats that enhances the cleaning effect.
At the end of the cleaning cycle, the dam plate is forced back up again by the airflow.
In the case of flanged body-type filters (type A), the dam plate is forced back up again by spring force.

The cleaning process causes the filter cake to be detached uniformly.

7
The accumulated dust drops down to the bottom.

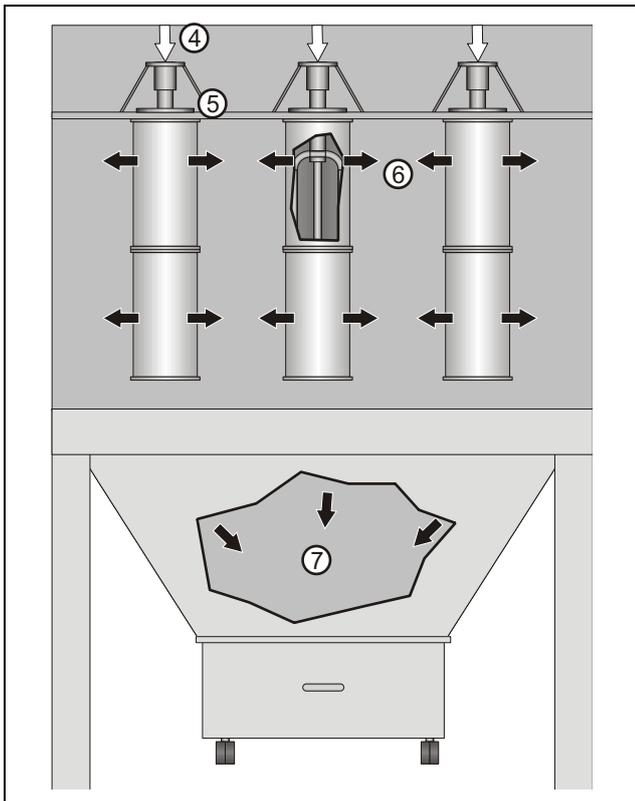


Fig. 4: Cleaning principle of the SFR

7.3 Main components of the dust collector

	All main components shown here are also valid for the round collectors.
---	---

7.3.1 Front view

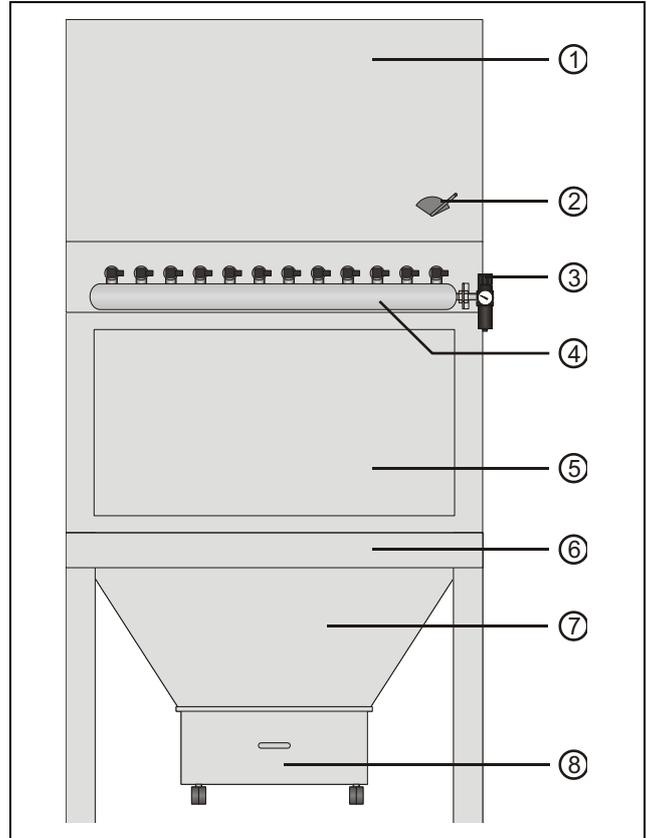


Fig. 5: Diagram of the main components

1	Fan silencer (optional)
2	Lever for damper on fan (optional)
3	Compressed air maintenance unit (optional)
4	Pressure vessel
5	Access door
6	Support frame
7	Hopper
8	Collection bin

7.3.2 Side view

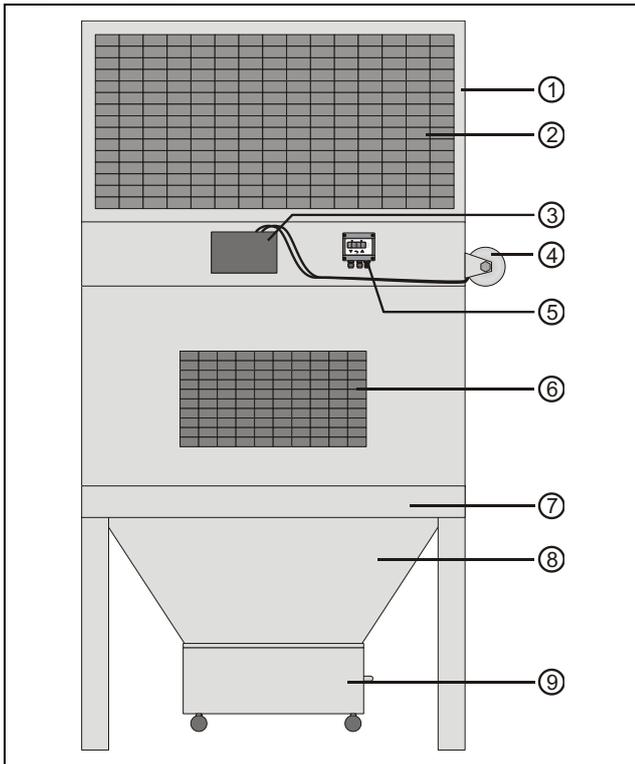


Fig. 6: Diagram of the main components

1	Fan silencer
2	Filter output
3	Cleaning controller or terminal box
4	Pressure vessel
5	Differential pressure indicator (optional)
6	Filter input
7	Support frame
8	Hopper
9	Collection bin

7.4 Designs

- ⇒ The dust collector can be supplied with various optional devices and in different designs.
- Refer to the order confirmation or the contract documentation for details of your dust collector's specific design.
- Note the model code (section 16).



All filter designs can be fitted with a weather protection cover or a fan / silencer. If a silencer is fitted, the customer must provide a cable gland for the fan if there is no external terminal strip.

7.4.1 Flanged body-type filter

- ⇒ Identification in the model code under section 5: A
- ⇒ Applications: e.g. mounting on a silo

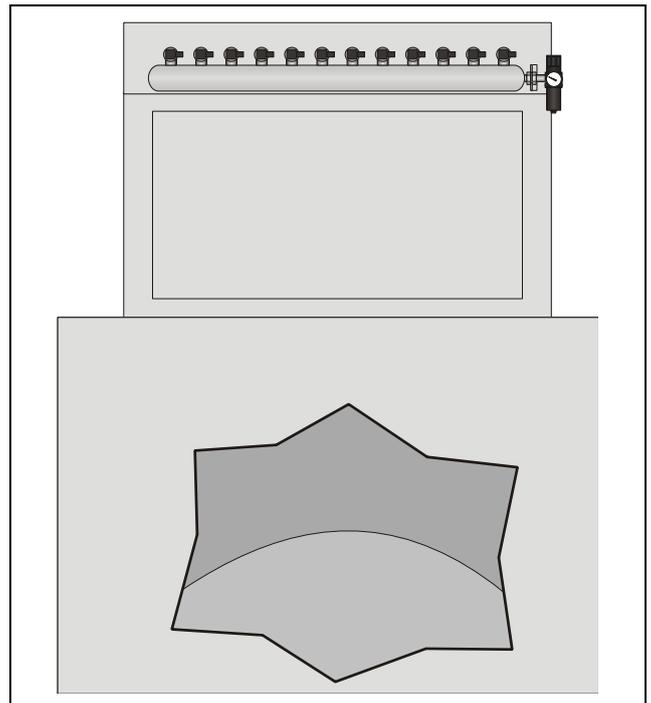


Fig. 7: Flanged body-type filter, type A

7.4.2 Intake filter

- ⇒ Identification in the model code under section 5: E
- ⇒ Applications: e.g. installation in a silo

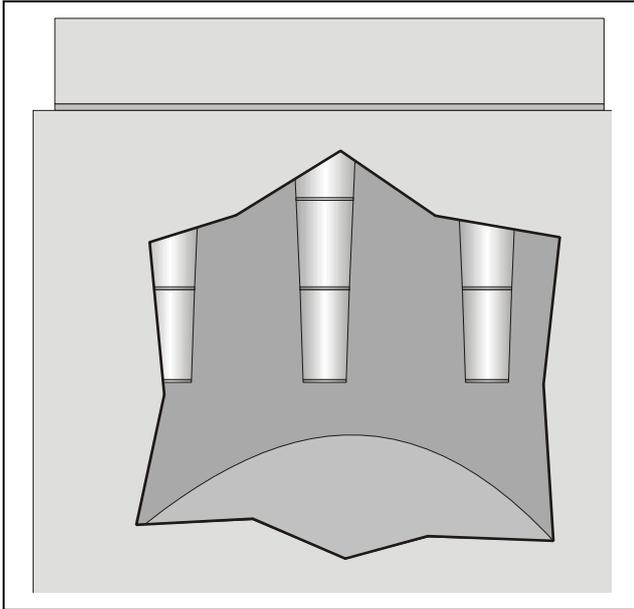


Fig. 8: Intake filter, type E

7.4.3 Collector with bin

- ⇒ Identification in the model code under section 5: S1
- ⇒ Applications: e.g. as a standalone dust collector

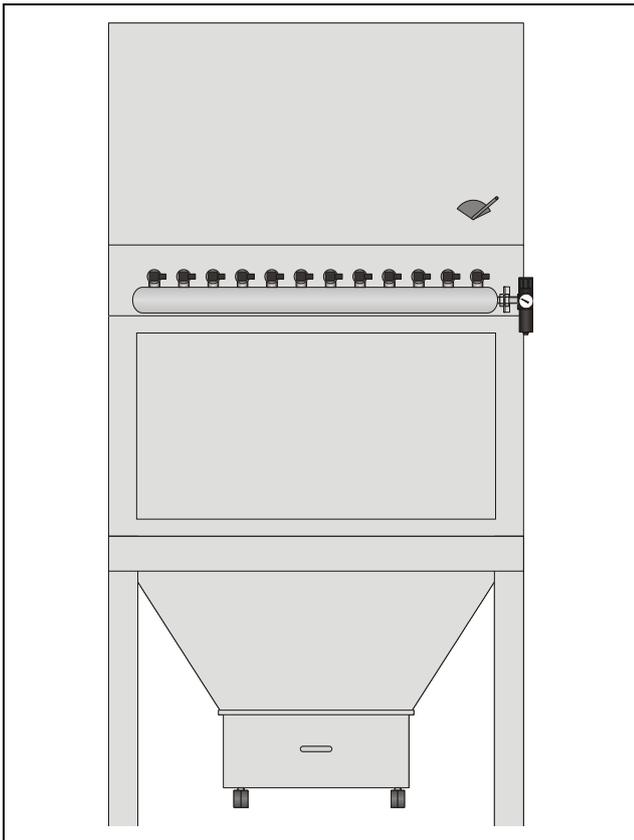


Fig. 9: Dust collector, type S1

7.4.4 Collector with bag

- ⇒ Identification in the model code under section 5: S2
- ⇒ Applications: e.g. as a standalone dust collector

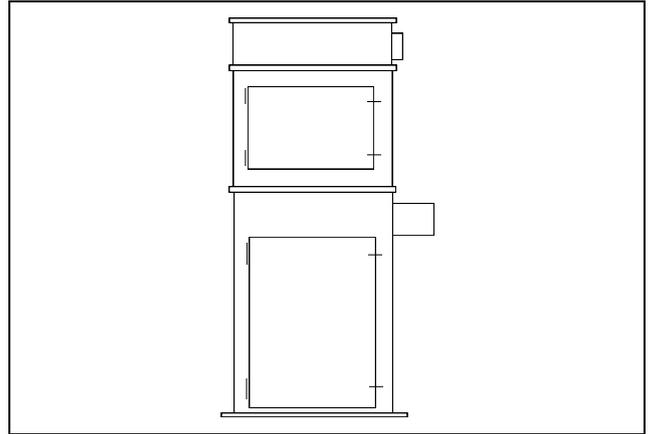


Fig. 10: Dust collector, type S2

7.4.5 Bag emptying device

- ⇒ Identification in the model code under section 5: S5
- ⇒ Applications: e.g. emptying bags

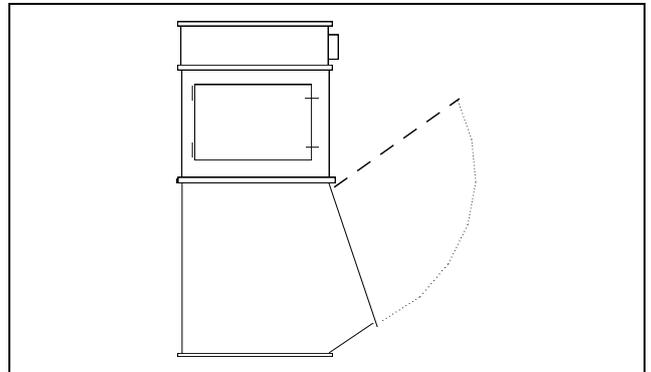


Fig. 11: Dust collector with bag emptying device, type S5

7.4.6 Product filter

- ⇒ Identification in the model code under section 5: S6
- ⇒ Applications: e.g. as a product filter

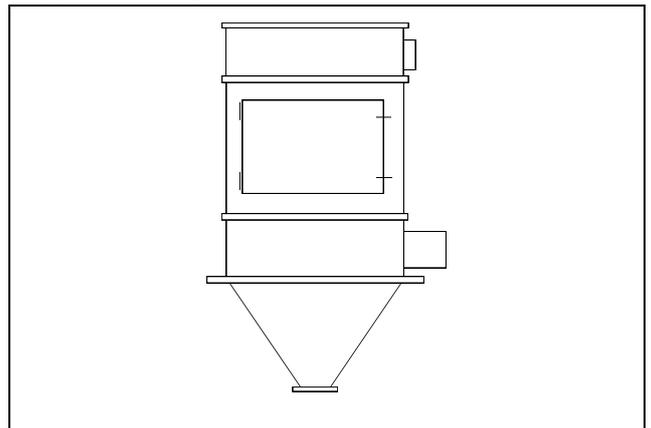


Fig. 12: Product filter, type S6

8 Technical data

8.1 General data (excluding optional equipment)

8.1.1 Dust filter housing for rectangular devices (standard version)

⚠ CAUTION!
Hot surfaces! ⇒ Burns in case of increased surface temperature > 40 °C <ul style="list-style-type: none"> • Provide insulation or guard.

Material:.....	Steel sheet
Surface protection:	EPS plastic coating
Colour:	RAL 9006
Seals:	EPDM
Max. operating temperature (without fan silencer):	max. 70 °C
Max. operating temperature (with fan silencer):	max. 40 °C
Pressure resistance:.....	- 50 to 0 mbar

8.1.2 Dust filter housing for round devices (standard version)

Material:.....	see order-related document
Surface protection:	see order-related document
Colour:	see order-related document
Seals:	Natural rubber
Max. operating temperature (without fan silencer):	max. 70 °C
Max. operating temperature (with fan silencer):	max. 40 °C
Pressure resistance:.....	+/- 50 mbar

	The values apply to the standard design unless otherwise indicated in the contract documentation.
---	---

	Other materials and temperatures are available as special designs.
---	--

8.1.3 Cartridges

Filter material:.....	see order-related document
Seal material:	see order-related document
Metals parts:.....	see order-related document

	Refer to the contract documentation (offer / order confirmation) and / or the cartridge data sheet for supplementary data.
---	--

8.2 Compressed air connection

	Provide compressed air valve.
---	-------------------------------

SFR MODEL

Compressed air:	3 - 4 bar, dewatered
Consumption per cleaning cycle :	approx. 35 l _N *

SFK MODEL

Compressed air:	6 bar, dewatered
Consumption per cleaning cycle :	approx. 35 l _N *

8.3 Electrical power consumption

Fan:.....	Refer to contract documentation
AC power supply:.....	230 V AC, 16 VA
DC power supply (optional):	24 V DC, 12 VA

8.4 Noise emission

SFR and SFK MODELS

Continuous sound pressure level:	< 70 dB(A) ¹
Fan without silencer:.....	Approx. 75 to 90 dB(A) ²
Fan with silencer:.....	Approx. 60 to 78 dB(A) ²

8.5 Ambient conditions

Ambient temperature:	-15 to + 70 °C
Floor:.....	Level, free from vibrations
Atmosphere:	Non-corrosive

Filter units with a rectangular cross-section are not suitable for installation outdoors in the standard version!

Filter units with a round cross-section may be installed outdoors under certain conditions, depending on the version.

Exceptions (special designs or special series) are explicitly mentioned in the contract documentation and the offer drawing.

If in doubt, please consult the manufacturer.

8.6 Order-specific data

This data is order-specific and can be taken from the name-plate.

8.6.1 Name-plate

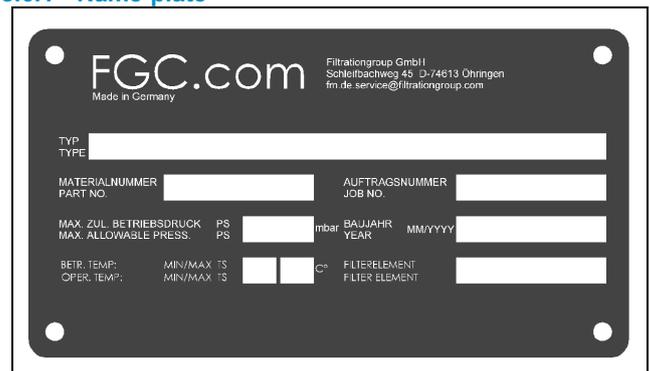


Fig. 13: Name-plate

8.6.2 Name-plate for Ex protection

	If the dust collector is approved for use in hazardous areas, an additional name-plate with details of the type of explosion protection is affixed to the unit.
---	---

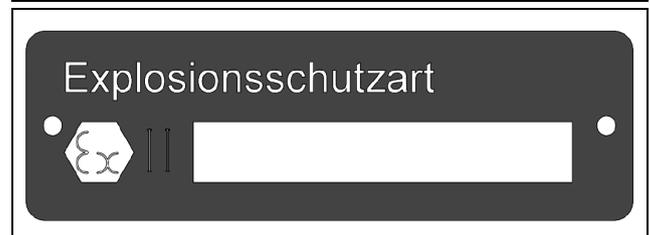


Fig. 14: Name-plate for Ex protection

¹ N = Normal conditions (roughly equivalent to the "suction capacity" of a compressor)

² Standard values

9 Transport and storage

9.1 Transport

- Always transport upright in the original packaging.
- Avoid vibrations.

9.2 Storage

- Always store upright in the original packaging.
- Always store in a dry, frost-free room



9.3 Lifting

- Use hoisting gear with a sufficient load-bearing capacity.
- Always lift each housing part individually.
- Use a cross member for rectangular collectors.

	Seaworthy packaging is specified in the contract documentation as an option.
--	--

10 Installation

⚠ DANGER!	
	<p>Explosion hazard!</p> <ul style="list-style-type: none"> • Risk of injury to persons or damage to property. • Make sure no ignition energy is produced that could be critical for the application. The ignition energy is calculated using the following formula: $5.22 \cdot D^{3.36} \cdot d^{1.462}$ D = Silo diameter in m d = Particle diameter in mm

⚠ DANGER!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property.</p> <ul style="list-style-type: none"> • This FG dust collector is only allowed to be installed and operated in the category specified in the contract documentation (offer / order confirmation). • If no category is specified: Do not operate the FG dust collector in hazardous areas! • The owner is responsible for zone classification. • The owner is solely responsible for implementing the necessary explosion protection measures! • If in doubt, please consult the responsible authorities.

⚠ DANGER!	
	<p>Explosion hazard!</p> <ul style="list-style-type: none"> • Risk of injury to persons or damage to property. • The unit is only allowed to be installed, accepted and tested by a suitably trained person (TRBS 1203).

⚠ WARNING!	
<p>If the unit is installed by unauthorised persons</p> <ul style="list-style-type: none"> • Risk of injury. • All warranty claims are rendered invalid. • The unit must be installed by a suitably trained person. 	

10.1 Installation

⚠ DANGER!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property.</p> <ul style="list-style-type: none"> • Check the conductivity between all components! • Note the maximum permissible resistance: $R < 10 \Omega$. • Make sure earthing is provided on the site.
	It must be possible to remove the inner assembly in order to carry out maintenance work.

10.1.1 Installing the standalone round collectors (S1, S2, S6)

- Lift the bottom part of the unit off the pallet and position it for installation.
- Align the air inlet nozzle with the supply line.
- Align the bottom part so that it is exactly horizontal.
- Bolt the bottom part tightly to a firm surface (use dowels).
- Glue on the seal.
- Lift the filter housing off the pallet using suitable hoisting gear and set it down on the bottom part of the housing.
- Position the filter housing so that the access door is easily accessible.
- Insert the bolts through the bolt holes.
- Tighten the bolts symmetrically using the nuts and washers.
- Align the bolt holes on the site and have them reworked by the customer if necessary.

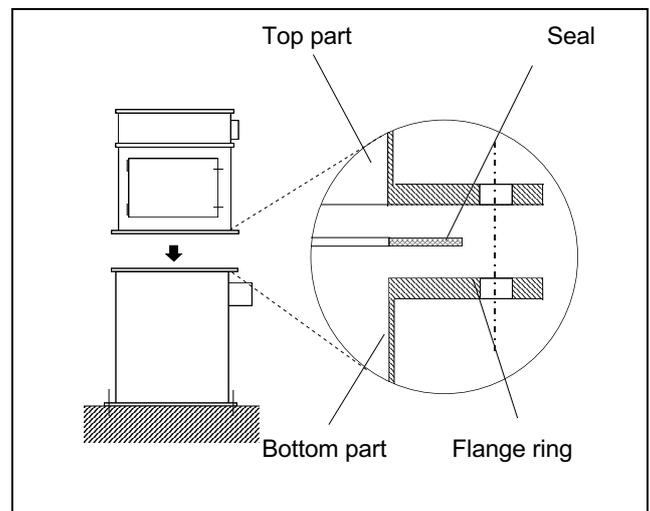


Fig. 15: Installation with flange ring

10.1.2 Installing the standalone rectangular or square collectors

 When selecting the installation location, take into account the extension length of the dust container.

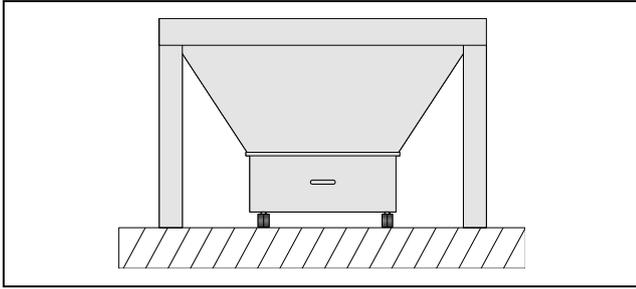


Fig. 16: Installation on a firm surface

- Lift the support frame off the pallet and position it for installation.
- Align the frame so that it is exactly horizontal.
- Bolt the frame tightly to a firm surface (use dowels)

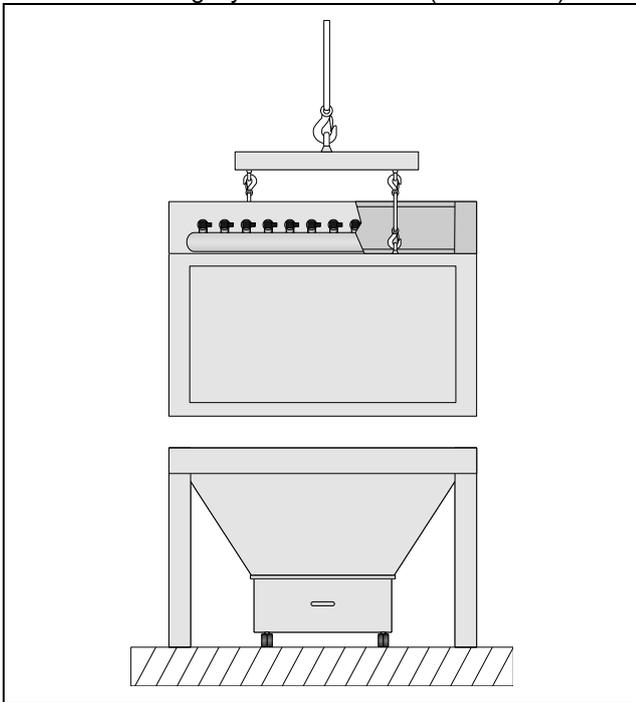


Fig. 17: Mounting the dirty air section

- Pick up the dirty air section with a cross member using the stiffeners on the filter plate.
- Align the dirty air connection and connect the pipe if necessary.
- Insert the bolts through the bolt holes.
- Tighten the bolts symmetrically.
- Align the bolt holes on the site and have them reworked by the customer if necessary.

10.2 Mounting the fan housing

- Dismantle the cover and, if necessary, the discharge grille.

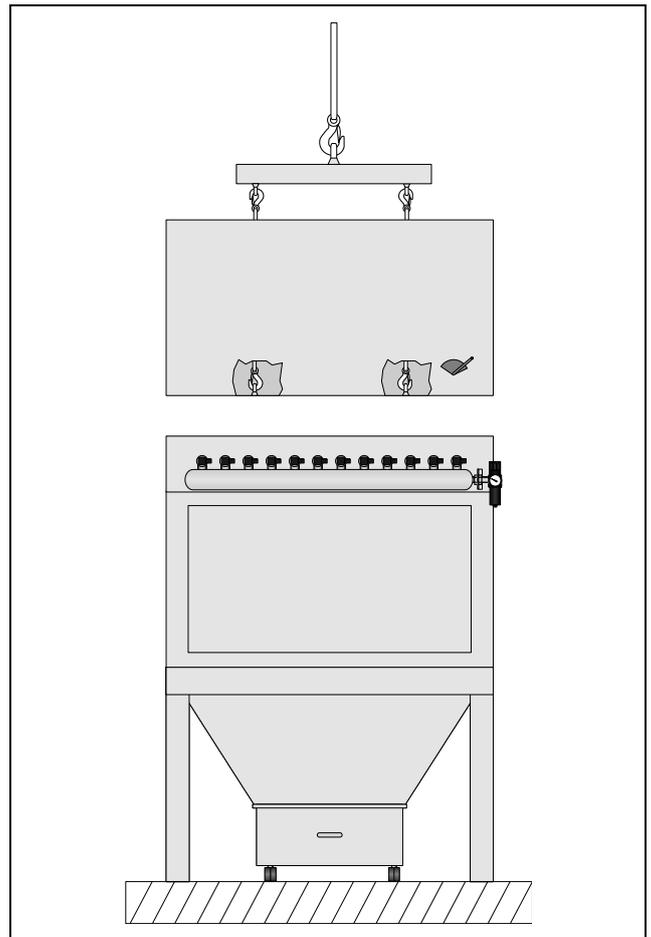


Fig. 18: Mounting the fan

- Pick up the fan housing with a cross member using either the eyebolts inside the housing or the external eyebolts, depending on the housing type.
- Mount the fan housing on the dirty air section using the guide pins (optional) and bolt it down.
- Insert the bolts through the bolt holes.
- Tighten the bolts and washers symmetrically.
- Align the bolt holes on the site and have them reworked by the customer if necessary.
- Fit earthing strips (optional) between all components.
- Mount the cover and, if necessary, the discharge grille.

10.3 Installing the flanged body-type / intake filters (A, E)

- Mount the cartridges (supplied loose).
- Lift the dust collector off the pallet and fit it into the customer's bottom flange.
- Position the filter housing so that the access door is easily accessible (design A).
- Bolt the dust collector tight.
- Insert the bolts through the bolt holes.
- Tighten the bolts symmetrically.
- Align the bolt holes on the site and have them reworked by the customer if necessary.

10.4 Installing other housing parts (optional)

- Glue the seal.
- Lift the filter housing off the pallet using suitable hoisting gear and set it down on the bottom part of the housing.
- Insert the bolts through the bolt holes.
- Tighten the bolts symmetrically using the nuts and washers.

10.5 Pressure relief valves

⚠ WARNING!

If inadmissible excess pressure occurs, the dust collector may be torn loose from its anchor point!

⇒ Risk of serious injury or damage to property if parts fall off the unit.

- Design measures must be incorporated to prevent inadmissible excess pressure on the dirty air side.
- Install pressure relief valves if necessary.

- Design measures must be incorporated to prevent inadmissible excess pressure on the dirty air side.
- Install pressure relief (PA+) and overfill protection (LA+) valves.
- Cordon off the danger area.
- Limit the final surge at the end of a silo filling process.
- If in doubt, consult the manufacturer.

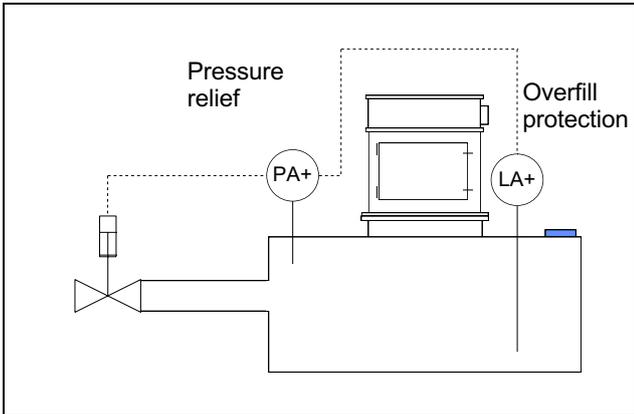


Fig. 19: Pressure relief measures (example)

10.6 Other installation recommendations

⚠ DANGER!

Explosion hazard!

⇒ Risk of injury to persons or damage to property.

- Make sure no ignition energy is produced that could be critical for the application. The ignition energy is calculated using the following formula:
 $5.22 \cdot D^{3.36} \cdot d^{1.462}$
 D = Silo diameter in mm
 d = Particle diameter in mm

- Avoid a direct inflow to the cartridges.
- Be careful not to exceed the maximum level in the silo.
- Provide level sensors and shut-off valves on the silo.

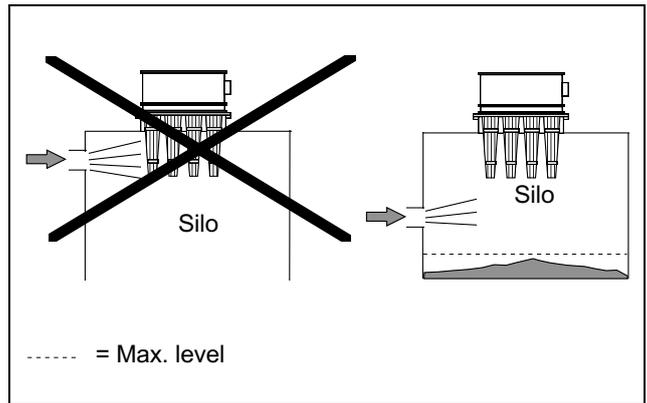


Fig. 20: Position of the air inlet nozzle

- Install a suitable pre-separating element (e.g. with tangential inflow) if there is a high concentration of dust in the dirty air.

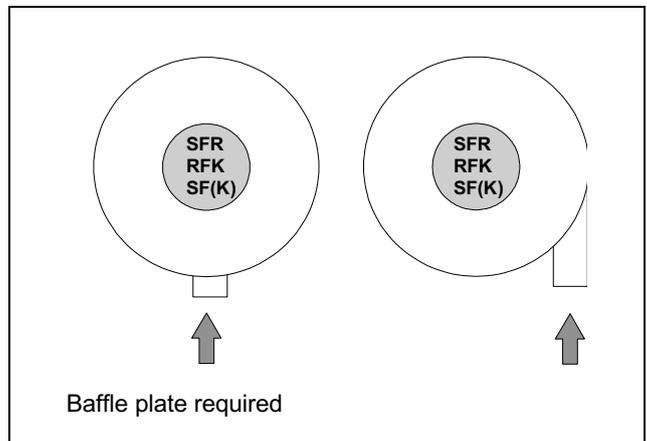


Fig. 21: Position of the air inlet nozzle

10.7 Pipeline connections

CAUTION

Connect the pipes to the dust collector without stress.

- Avoid pipe bends or contractions immediately upstream or downstream of the dust collector.
- All connections must be properly secured (e.g. with pipe clamps, clamp rings, bolted flanges, etc.).
- Make sure all connections are tight.

10.8 Transferring the dirty air connection to the other side (rectangular collectors only)

- ⇒ Some rectangular collectors have two central connections for dirty air.
- ⇒ One of these connections is sealed by a blind cover.
- Loosen the bolts on the blind cover.
- Remove the blind cover.
- Unscrew the baffle plate and remove.
- Mount the baffle plate on the connection side.
- Bolt the blind cover onto the other side.

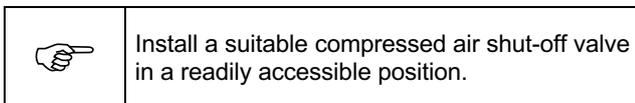
10.9 Compressed air connection (SFR/SFK only)

10.9.1 Compressed air quality

- Oil and water-free
- Free of debris
- Pressure (SFR): $p = 3$ to 4 bar
- Pressure (SFK): $p = 6$ bar

10.9.2 Compressed air connection

- Install an air pressure reducer and possibly a filter close to the dust collector.



- Supply compressed air (G 1/2") to the dust collector.

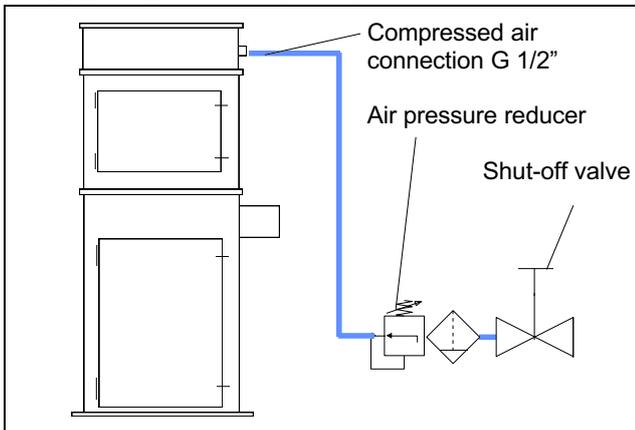


Fig. 22: Compressed air connection on round collectors

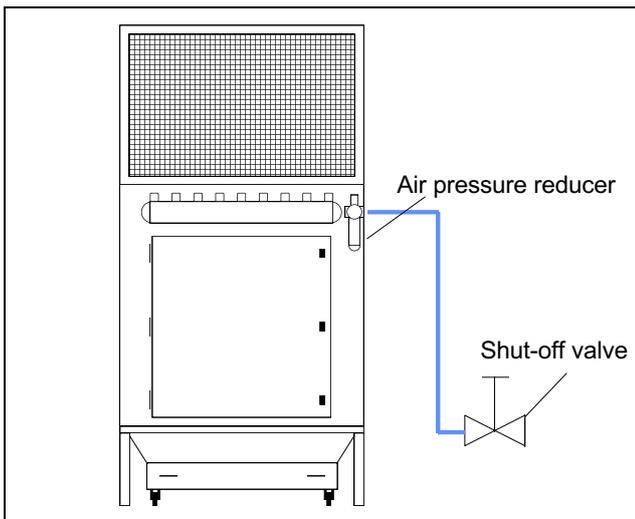


Fig. 23: Compressed air connection on rectangular collectors

10.10 Electrical connections

⚠ DANGER!	
	Danger of electric shock! <ul style="list-style-type: none"> • Risk of serious or fatal injury in case of contact with electrical components. • All electrical installation work must be carried out by a qualified electrician.

⚠ DANGER!	
	Explosion hazard! <ul style="list-style-type: none"> ⇒ Risk of injury to persons or damage to property. • Connect a protective earth conductor. • Comply with the permissible ambient temperature.

⚠ DANGER!	
	Explosion hazard! <ul style="list-style-type: none"> ⇒ Risk of injury to persons or damage to property. • Check the conductivity between all components! • Maximum permissible resistance: $R < 1 \Omega$. • Make sure earthing is provided on the site.

10.10.1 Connection of the 2/2-way valves (SFR/SFK)

- A: Rotating air nozzle/multijet nozzle
- P: Compressed air tank

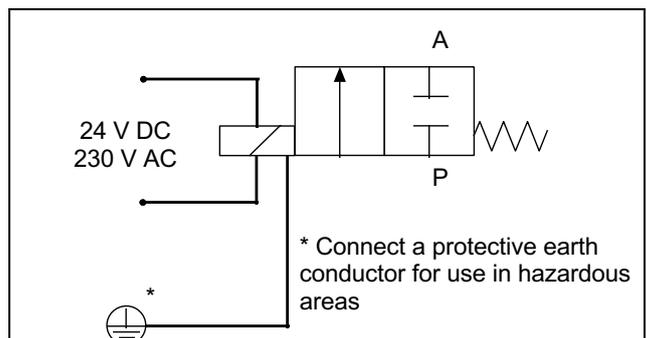


Fig. 24: Electrical connection of the 2/2-way valves

10.10.2 Fan connection (optional)

- Connect the fan to the electrical power supply.

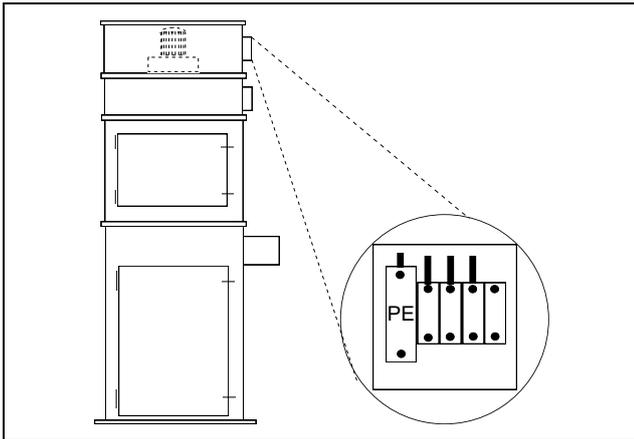


Fig. 25: Fan connection

	To connect the fan, the user may need to drill a hole for the cable gland.
--	--

- Provide an ON / OFF / EMERGENCY STOP button in accordance with DIN EN 60204/1.
- Install a suitable motor circuit breaker (refer to the contract documentation or the offer / order confirmation for the fan ratings).
- Start up the fan briefly, then allow it to coast down again.
- Compare the direction of rotation of the motor's fan wheel with that shown by the arrow.
- Reverse the terminal connections of the motor if necessary.
- We recommend connecting the PTC resistor (if one is available).
- The temperature sensor for the fan motor must be assessed by the user in accordance with the ATEX specifications.
- If necessary, provide a repair/maintenance switch in the vicinity of the fan.
(e.g.: if the filter or fan is not visible from the control cabinet).

10.11 Cleaning controller (SFR/SFK)

10.11.1 Time-controlled cleaning

The cartridges are cleaned individually and cyclically. The pulse and interval times vary according to the process. The times indicated below are recommended standard values.

t_z	Cycle time	Period during which all valves are cleaned once
t_p	Interval time	Time between two pulses
t_i	Pulse time	Valve opening time

The standard cycle time is approximately 8 minutes and is calculated as follows: interval time x no. of valves.

Example: 3 valves x 160 s = 480 s = 8 min

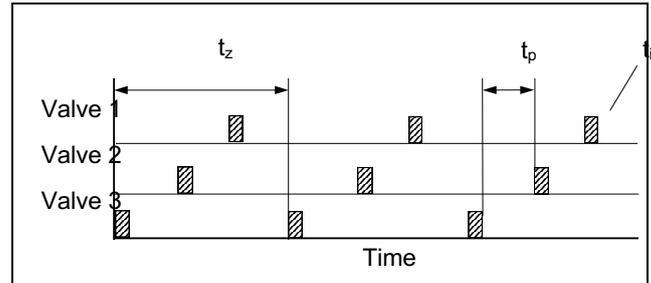


Fig. 26: Cyclic cleaning (example)

10.11.2 Differential pressure-controlled cleaning

	Adhere to the operating instructions for the control unit.
---	--

The cartridges are cleaned cyclically when the maximum differential pressure is reached. The pulse and interval times vary according to the process. The times indicated below are recommended standard values.

t_z	Cycle time	Period during which all valves are cleaned once
t_p	Interval time	Time between two pulses
t_i	Pulse time	Valve opening time
t_N	Lag time	Time until the controller stops cleaning after the differential pressure drops below the threshold again

The standard cycle time is approximately 8 minutes and is calculated as follows: interval time x no. of valves.

Example: 3 valves x 160 s = 480 s = 8 min

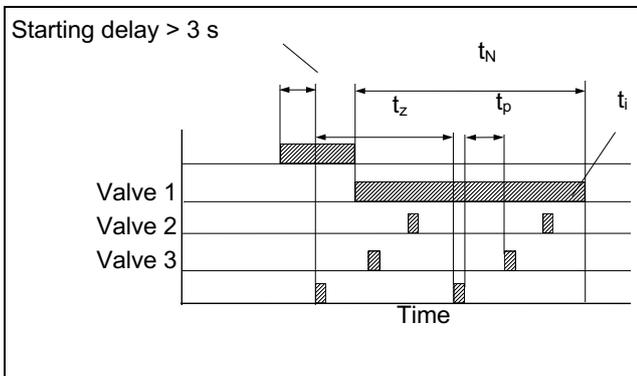


Fig. 27: Cyclic cleaning (example)

No. of valves	Cycle time	Interval time	Pulse time SFK	Pulse time SFR	Lag time
	t_z [min]	t_p [s]	t_i [s]	t_i [s]	t_N [min]
2	6.7	200	0.1	1.5	10
3		160			
4		120			
5		96			
6	8.0	80			
7		68			
8		60			
9		53			
10		48			
12		40			

	Use FG controllers.
---	---------------------

10.11.3 Connecting the differential pressure indicator (optional)

- Install the differential pressure indicator so that it is free from vibrations.
- Connect the measurement lines to the dust collector:
 - ⇒ Dirty air side: "+"
 - ⇒ Clean air side: "-"

If the unit is retrofitted:

- Use FG measurement lines.

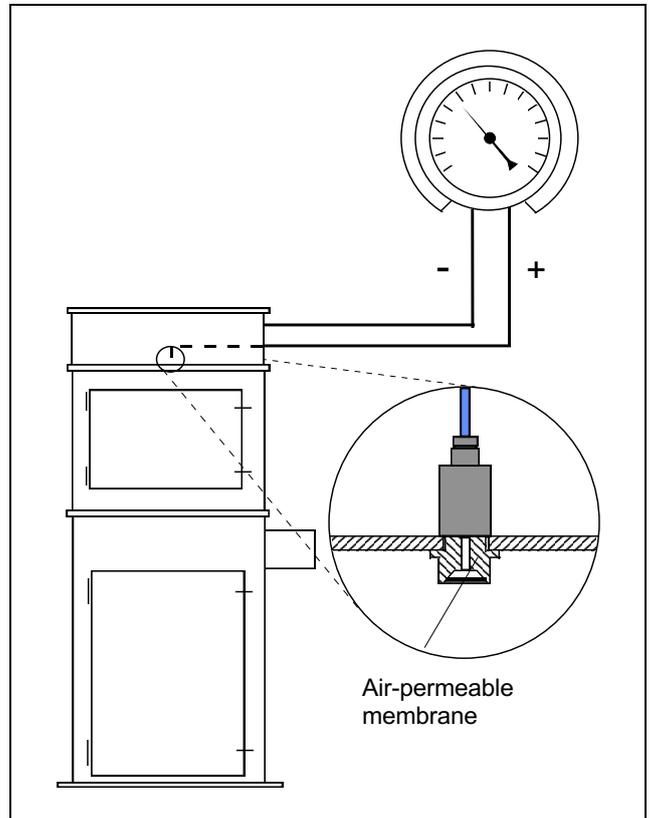


Fig. 28: Connection of the differential pressure indicator

11 Start-up

⚠ DANGER!

This FG dust collector must not be put into service until the relevant machinery into which it is to be incorporated has been declared in conformity with the applicable EC directives, harmonised standards, European standards or equivalent national standards.

⚠ DANGER!

Explosion hazard!

⇒ Risk of injury to persons or damage to property.

- Check the conductivity between all components!
- Maximum permissible resistance: $R < 1 \Omega$.
- Make sure earthing is provided on the site.
- Never open access doors, etc. during cleaning or while the fan is operating.
- Don't throw smouldering or burning objects into the dust collection system.

⚠ WARNING!

Danger of bursting during pressure venting!

- Risk of serious or fatal injury.
- Keep a safe distance while pressure venting is taking place (refer to the manufacturer's documentation for more information about pressure venting).

11.1 Initial start-up or start-up after a prolonged shut-down

- Inspect all plant components.
- Remove all parts that do not belong to the system (such as tools, installation waste, etc.).
- Check the pipe connections (e.g. secureness of clamps).
- Tighten all screws and bolts.
- Insulation or touch protection must be provided by the customer in case of high surface temperatures ($>40^{\circ}\text{C}$).

11.2 Starting up the dust collector

IMPORTANT!

If the maximum permissible volume flow is exceeded

- Risk of damage to the cartridges.
- Be careful not to exceed the maximum permissible volume flow when the unit is started up.

- Turn on the compressed air supply.
- Switch on the controller.
- Switch on the fan and / or start up the dusty plant.
- Throttle the volume flow if necessary.

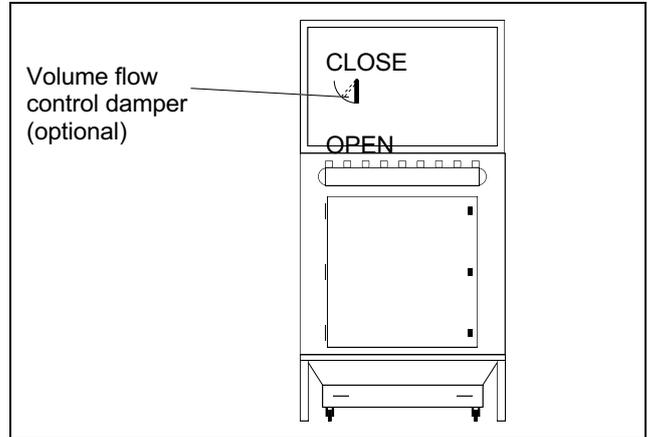


Fig. 29: Volume flow control on a rectangular collector

12 Normal operation

⚠ DANGER!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property.</p> <ul style="list-style-type: none"> • Check the conductivity between all components! • Maximum permissible resistance: $R < 1 \Omega$. • Make sure earthing is provided on the site.

SFR/SFK

The dust collector works automatically during normal operation with a suitable FG cleaning controller.

	The dust collector must be monitored in accordance with the inspection and maintenance schedule (refer to section 15.1).
---	--

12.1 General information about dust discharge

⚠ WARNING!	
	<p>If harmful substances are inhaled</p> <ul style="list-style-type: none"> • Risk of injury. • Suitable protective clothing and equipment should be worn whenever dust is discharged.
	Always dispose of dust in a manner which does not pollute the environment!

- Interrupt the volume flow.
- Start a manual cleaning cycle.
- Take steps to prevent the complete unit from being switched on again by unauthorised persons.
- Wear protective clothing and equipment.

Do not switch!



Work in progress

Location: _____

This plate may only be removed by: _____



12.2 Dust emptying with version S1, S2, S3

- Open the access door (S2 only).
- Remove the full collection bin / bag.
- Dispose of the dust in a manner which does not pollute the environment.
- Insert the empty bin or fit a new bag and make sure it is tight.
- Completely close the access door (S2 only).
- Start up the dust collector.

12.3 Emptying bags with design S5

- Lift up the cover of the bag emptying device (it is then held open by means of gas pressure springs).
- ⇒ The fan starts up automatically. Dust is sucked off.
- Empty the product bag into the bag emptying device and shake it out.
- Close the cover of the bag emptying device.
- ⇒ The fan coasts down again.
- Start a cleaning cycle.

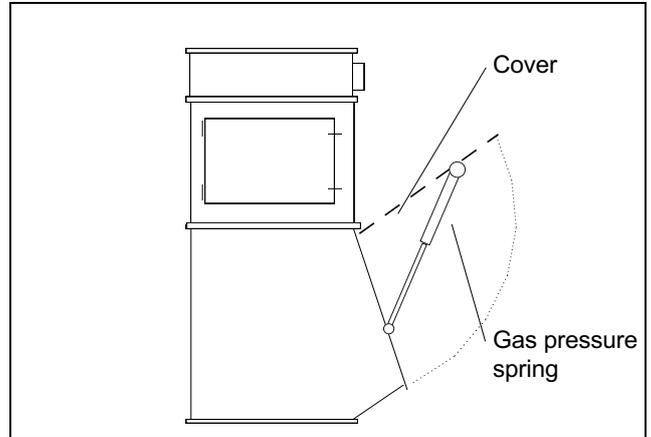


Fig. 30: Emptying bags

12.4 Emptying the dust carriage

⚠ DANGER!	
	<p>Risk of explosion!</p> <p>⇒ Personal injury and material damage</p> <ul style="list-style-type: none"> • Check the conductivity between all components. • Observe the highest permitted resistance value $R < 1 \Omega$. • Make sure that the user has provided earthing.

⚠ DANGER!	
	<p>Risk of explosion!</p> <p>⇒ Personal injury and material damage</p> <ul style="list-style-type: none"> • Connect a grounding strap before and after emptying.

- Unfasten the wing nut on the hook of the grounding strap.
- Pull out the hook of the grounding strap.
- Unfasten the latches on both sides of the dust carriage.
- Pull out the carriage, keeping it straight (DO NOT tilt!).
- Empty the dust (e.g. with suitable industrial vacuum cleaner).
- Push the empty carriage back as far as it will go underneath the dedusting device.
- Fasten the latches on both sides of the dust carriage.
- Place the hook of the grounding strap under the wing nut.
- Tighten the wing nut.

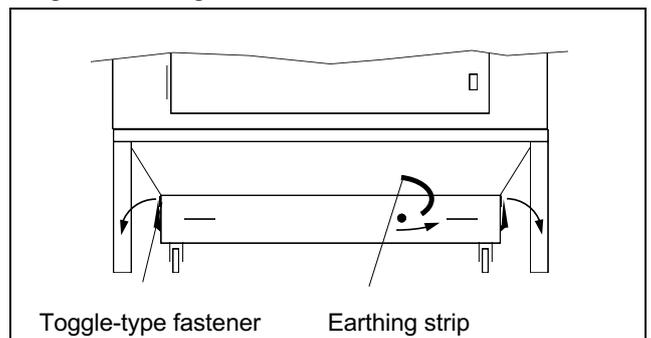


Fig. 31: Emptying the dust drawer

12.5 Discharging the collection bin

⚠ DANGER!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property. <ul style="list-style-type: none"> • Fit an earthing strip before and after discharging.
⚠ CAUTION!	
The handle is energised! ⇒ Risk of injury <ul style="list-style-type: none"> • Don't allow the handle to open in an uncontrolled way! • Grasp the handle firmly before withdrawing the latching bolt. 	

- Loosen the wing nut on the clasp of the earthing strip.
- Pull out the clasp of the earthing strip.
- Grasp the handle firmly.
- Withdraw the latching bolt and turn it.
- Open the handle carefully.
- ⇒ The collection bin is lowered.
- Pull the collection bin out straight (be careful NOT to jam it!)
- Discharge the bin.
- Slide the empty collection bin back underneath the dust collector as far as it will go.
- Push the handle down and hold it in the closed position.
- Turn the latching bolt so that it latches.
- Release the handle.
- Insert the clasp of the earthing strip underneath the wing nut.
- Tighten the wing nut.

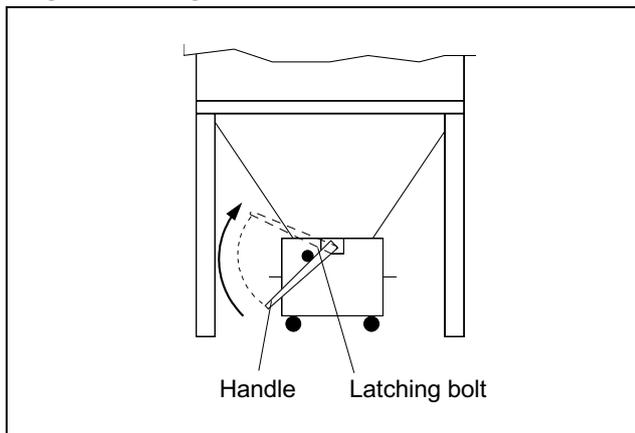


Fig. 32: Discharging the collection bin

13 Shutting down the dust collector

13.1 Temporary shut-down

- Switch off the fan or shut down the dusty plant.
- Turn off the compressed air supply.

13.2 Prolonged shut-down (> 48 h)

- Start a manual cleaning cycle.
- Switch off the fan or shut down the dusty plant.
- Turn off the compressed air supply.
- Decompress the pressure vessel (e.g. by starting a manual cleaning cycle).
- Carry out the maintenance work as described in section 15.1).

13.3 Emergency shut-down

- Actuate the EMERGENCY STOP button provided by the customer.

14 Troubleshooting

14.1 Troubleshooting (SFR and SFK)

Fault	Possible cause	Remedy
Fan power too low at start-up	Fan rotating in wrong direction	Reverse the direction of rotation
Suction capacity too low	Not enough compressed air	Check the compressed air pressure (SFR: 3 to 4 bar) (SFK: 6 bar)
	Cartridges clogged	Check the cartridges and if necessary replace
	Inefficient cleaning	Check the controller
		Check the rotating wing (SFR)
		Check the dam plate (SFR)
	Pipe blocked	Open the pipe and clean it
	Cleaning inadequate	Clean more frequently
Unsuitable cartridge type	Investigate alternative cartridges (e.g. PTFE coated)	
Dust accumulation on clean air side	Dirty air section filled with dust	Discharge the dust
	Cartridge seats not tight	Tighten the cartridges
	Cartridges damaged	Inspect the cartridges for cracks / holes and if necessary replace
Filter plate not tight	Check the filter plate	
	Replace the seal	

- For all other faults, please call FG Customer Service.

15 Maintenance

⚠ DANGER!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property.</p> <ul style="list-style-type: none"> • Work is only allowed to be carried out in hazardous areas if appropriate safety precautions are implemented. • Safety precautions must be implemented by the owner.
⚠ WARNING!	
<p>If the system is maintained by unauthorised persons</p> <ul style="list-style-type: none"> • Risk of injury. • All warranty claims are rendered invalid. • The system must be maintained by a suitably trained person! 	

Before all maintenance work:

- Shut down the dust collector / plant.
- Clean the cartridges in a quick cleaning cycle.
- Turn off the compressed air supply.
- Decompress the pressure vessel (e.g. by starting a manual cleaning cycle).
- Take steps to prevent the machine / plant from being switched on again by unauthorised persons.



- Wear protective clothing and equipment appropriate to the hazard potential of the medium (e.g. eye protection, respirator, protective clothing, safety helmet, etc.).
- Carry out the maintenance work.
- Start up the dust collector / plant again.
- Observe the dust collector / plant:
Does it operate normally?
- If the unit does not operate normally, consult the troubleshooting table (refer to section 14).

15.1 Inspection and maintenance schedule

- Refer also to the contract documentation

15.1.1 SFK

Interval	Component	Activity
Weekly	Dust collector	Visual inspection of the exterior
	Compressed air maintenance unit	Visual inspection of the water separator, discharge if necessary
	Collection bin / bag	Visual inspection, empty if necessary ³
Monthly	Cartridges	Check the assembly torque (6 Nm)
		Visual inspection for cracks.
		Check the conductivity between all components. Note the maximum permissible resistance $R \leq 10^5 \Omega$.
	Clamping bands	Visual inspection for corrosion
Clamping band fittings		
Yearly	Dust collector	Check the conductivity between all components. <ul style="list-style-type: none"> • Note the maximum permissible resistance: $R \leq 10^5 \Omega$.
	Compressed air connections	Check
	The necessary inspection and maintenance work is dependent on the particular application. Please consult the manufacturer if necessary.	
	Check the plant for dust deposits and clean it regularly.	
	Dispose of the components in an environmentally friendly manner when dismantling the plant.	

* Cleaning should preferably take place at the end of a silo filling process, during work breaks or if a differential pressure of 15 to 20 mbar is exceeded

15.1.2 SFR

Interval	Component	Activity
Weekly	Dust collector	Visual inspection of the exterior
	Compressed air maintenance unit	Visual inspection of the water separator, discharge if necessary
	Collection bin / bag	Visual inspection, empty if necessary ⁴
Monthly	Cartridges	Check the assembly torque (6 Nm)
		Visual inspection for cracks.
		Check the conductivity between all components. Note the maximum permissible resistance $R \leq 10^5 \Omega$.
	Clamping bands	Visual inspection for corrosion
	Clamping band fittings	
Dust collector	Check the conductivity between all components. <ul style="list-style-type: none"> Note the maximum permissible resistance: $R < 10^5 \Omega$. 	
Yearly	Compressed air connections	Check
		
	The necessary inspection and maintenance work is dependent on the particular application. Please consult the manufacturer if necessary.	
	Check the plant for dust deposits and clean it regularly.	
	Dispose of the components in an environmentally friendly manner when dismantling the plant.	

15.2 Replacing the SFR filter elements

- Interrupt the volume flow.
- Start a quick cleaning cycle (clean each cartridge twice).
- Take steps to prevent the complete unit from being switched on again by unauthorised persons.
- Wear protective clothing and equipment.
- After approximately 5 minutes (time required for the dust to settle), bang hard on the access door so that any accumulated dust drops down to the bottom.
- Open the access door (rectangular collectors: double-bit key, round collectors: use the key supplied).
- Remove any debris with a hand brush.
- Lay a grating inside the filter system if you need to climb inside the unit in order to replace the filter (the grating can be ordered from FG as an option).

* Cleaning should preferably take place at the end of a silo filling process, during work breaks or if a differential pressure of 15 to 20 mbar is exceeded

- Press the cartridge against the filter plate.
- Unscrew the star handle.
- Pull the cartridge vertically down and remove it.

Dust collector with fixing bolts (optional):

- Press the cartridge against the filter plate.
- Unscrew the star handle.
- Unscrew the cartridge anti-clockwise from the fixed position (approx. 30°), then pull it vertically down and remove it.

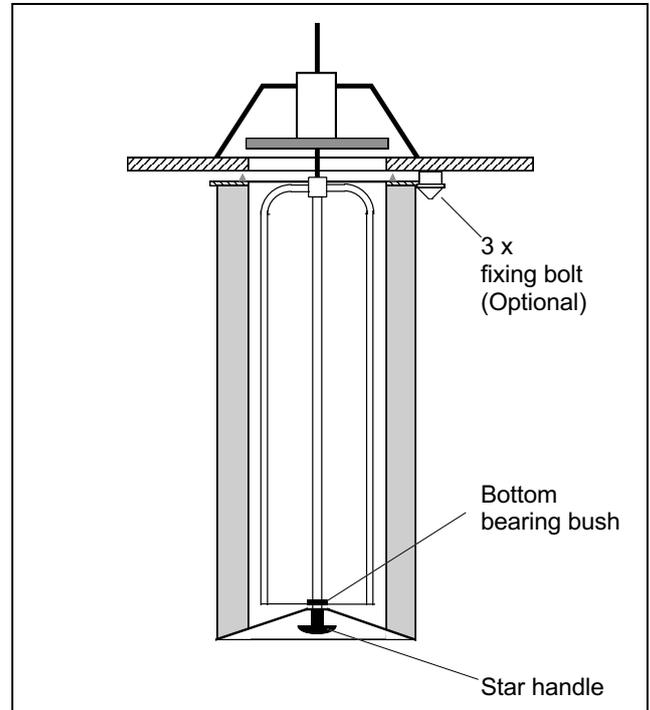


Fig. 33: Replacing the cartridges (SFR)

- Check the freedom of movement of the rotating wing.
- Check the bottom bearing bush of the rotating wing.
- Replace the bearing bush in case of visible wear.
- Fit a new, original cartridge.
- Screw on the star handle moderately tight (approx. 15 Nm) by hand.

Dust collector with fixing bolts (optional):

- Fit a new, original cartridge and screw it clockwise into the fixed position (approx. 30°).
- The cartridge is loosely held by the fixing bolts.
- Screw on the star handle moderately tight (approx. 15 Nm) by hand.
- Dispose of the dirty cartridge in a manner which does not pollute the environment.

15.3 Replacing the cartridges (SFR-08)

- Interrupt the volume flow.
- Start a quick cleaning cycle (clean each cartridge twice).
- Take steps to prevent the complete unit from being switched on again by unauthorised persons.
- Wear protective clothing and equipment.
- After approximately 5 minutes (time required for the dust to settle), bang hard on the access door so that any accumulated dust drops down to the bottom.
- Open the access door (rectangular collectors: double-bit key, round collectors: use the key supplied).
- Remove any debris with a hand brush.
- Lay a grating inside the filter system if you need to climb inside the unit in order to replace the filter (the grating can be ordered from FG as an option).
- Press the cartridges against the filter plate.
- Unscrew the star handle.
- Pull the two cartridges and the double centre ring vertically down and remove them.

Dust collector with fixing bolts (optional):

- Press the cartridge against the filter plate.
- Unscrew the star handle.
- Pull the bottom cartridge and the double centre ring vertically down and remove them.
- Unscrew the top cartridge anti-clockwise from the fixed position (approx. 30°), then pull it vertically down and remove it.

- Check the freedom of movement of the rotating wing.
- Check the bottom bearing bush of the rotating wing.
- Replace the bearing bush in case of visible wear.
- Fit new, original cartridges.
- Screw on the star handle moderately tight (approx. 15 Nm) by hand.

Dust collector with fixing bolts (optional):

- Fit a new, original cartridge and screw it clockwise into the fixed position (approx. 30°).
- The cartridge is loosely held by the fixing bolts.
- Fit the bottom cartridge and the double centre ring.
- Screw on the star handle moderately tight (approx. 15 Nm) by hand.

- Dispose of the dirty cartridge in a manner which does not pollute the environment.

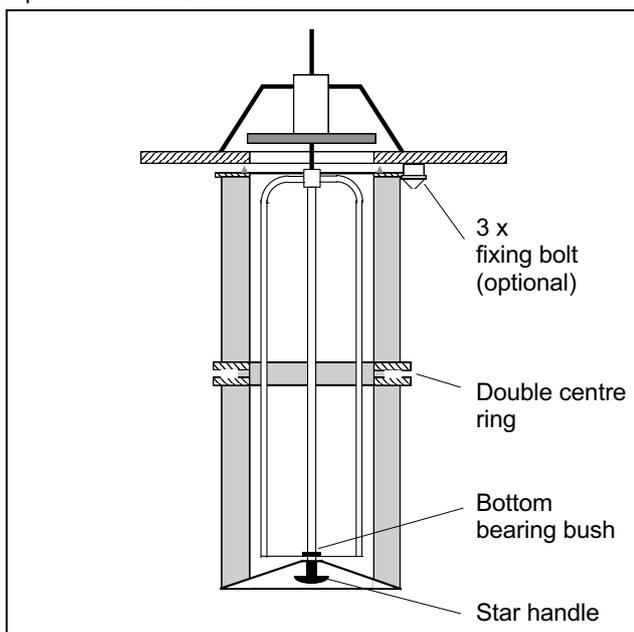


Fig. 34: Replacing the cartridges (SFR-08)

15.4 Replacing the cartridges (SFK)

⚠ DANGER!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property.</p> <ul style="list-style-type: none"> • Check the conductivity between all components! • Maximum permissible resistance: $R < 1 \Omega$. • Make sure earthing is provided on the site.

- Interrupt the volume flow.
- Start a quick cleaning cycle (clean each cartridge twice).
- Take steps to prevent the complete unit from being switched on again by unauthorised persons.
- Wear protective clothing and equipment.
- After approximately 5 minutes (time required for the dust to settle), bang hard on the access door so that any accumulated dust drops down to the bottom.
- Open the access door (rectangular collectors: double-bit key, round collectors: use the key supplied).
- Remove any debris with a hand brush.
- Lay a grating inside the filter system if you need to climb inside the unit in order to replace the filter (the grating can be ordered from FG as an option).
- Apply a hexagonal ring spanner to the bottom end cap of the cartridge (a/f 24).
- Unscrew the cartridge anti-clockwise.
- Fit a new, original cartridge onto the thread and screw it on loosely.
- Tighten with a torque spanner (approx. 6 Nm).
- Dispose of the dirty cartridge in a manner which does not pollute the environment.

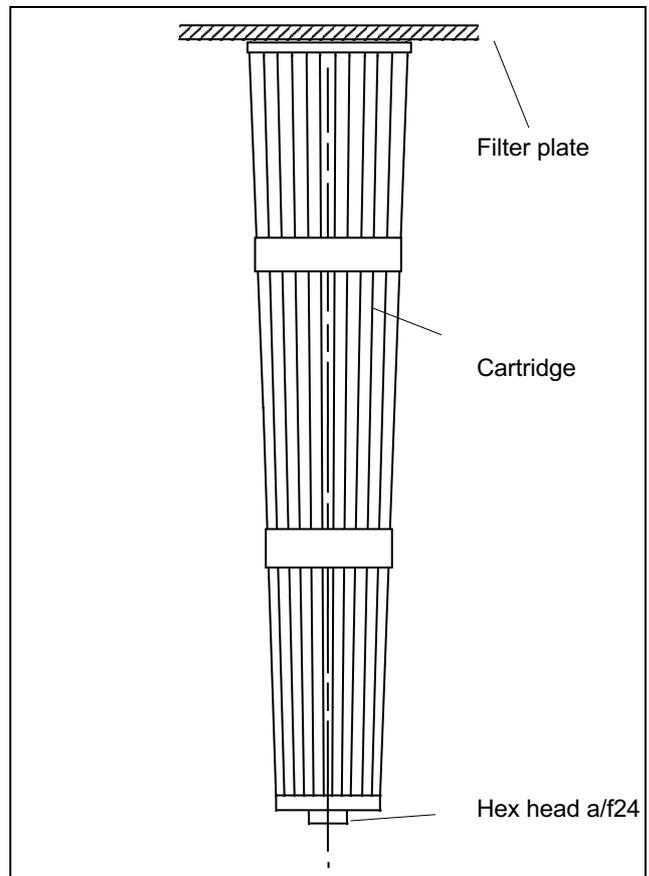


Fig. 35: Replacing the cartridges (SFK)

15.5 Replacing Quick-Lock cartridges

15.5.1 To remove

- Interrupt the volume flow.

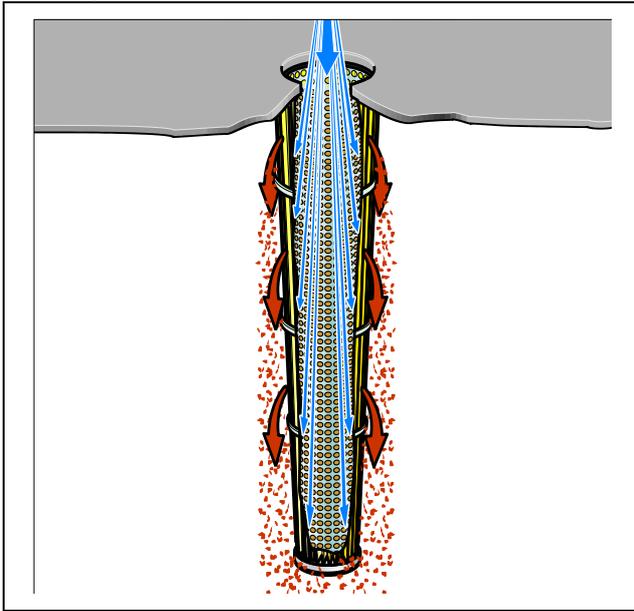


Fig. 36: *Cleaning the cartridge*

- Start a quick cleaning cycle (clean each cartridge twice).
- Take steps to prevent the complete unit from being switched on again by unauthorised persons.
- Wear protective clothing and equipment.

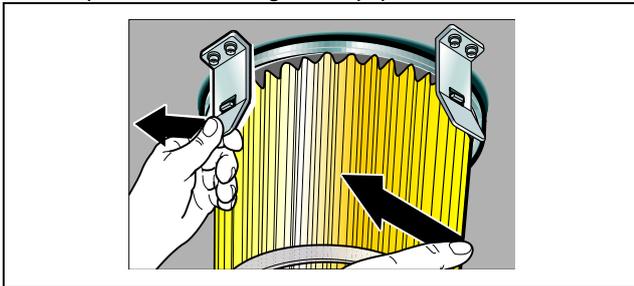


Fig. 37: *Opening the spring clip*

- Press the cartridge gently towards the spring clip.
- Release the cartridge manually.

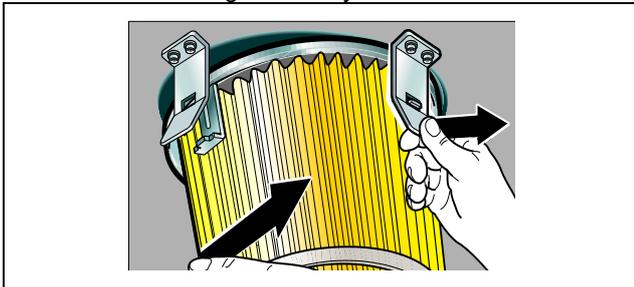


Fig. 38: *Opening the spring clip*

- Release the second spring clip in the same way.

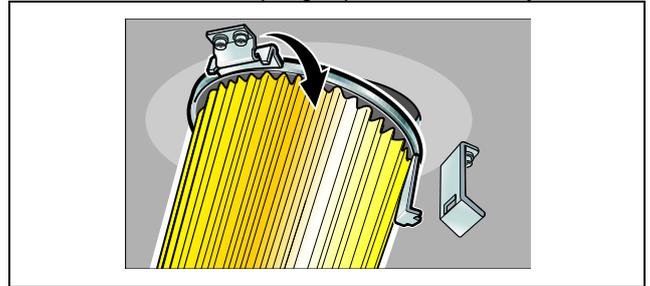


Fig. 39: *Removing the cartridge from the hook*

- Remove any debris with a hand brush.

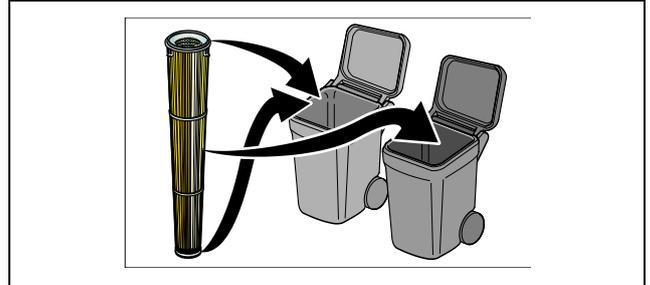


Fig. 40: *Environmentally friendly disposal*

- Dispose of the dirty cartridge in a manner which does not pollute the environment.
- Check the freedom of movement of the rotating wing.
- Check the bottom bearing bush of the rotating wing.
- Replace the bearing bush in case of visible wear.

15.5.2 To install

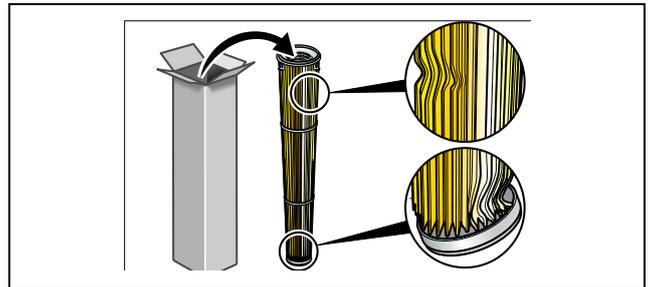


Fig. 41: *Inspecting for damage*

- Inspect the new cartridge for damage.

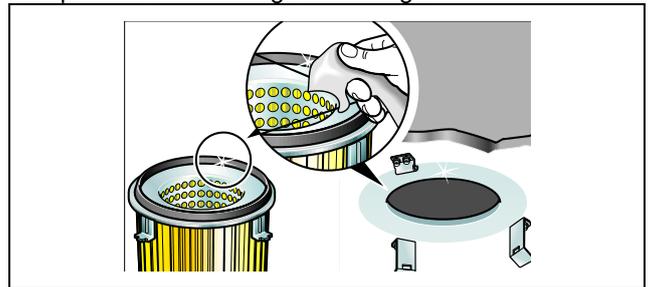


Fig. 42: *Inspecting the sealing face*

- Clean the sealing faces if necessary.

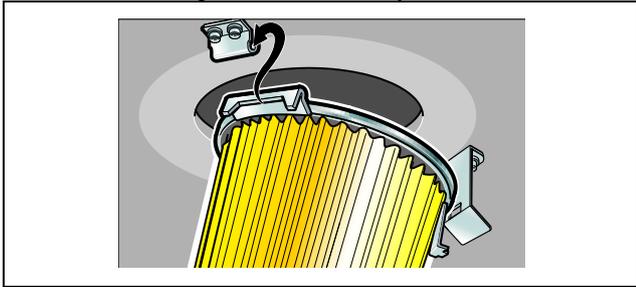


Fig. 43: Securing the cartridge

- Secure the cartridge to the hook.

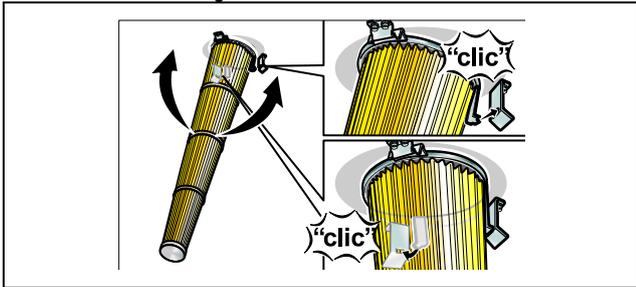


Fig. 44: Fitting the cartridge

- Fit the cartridge so that it latches audibly on both sides.

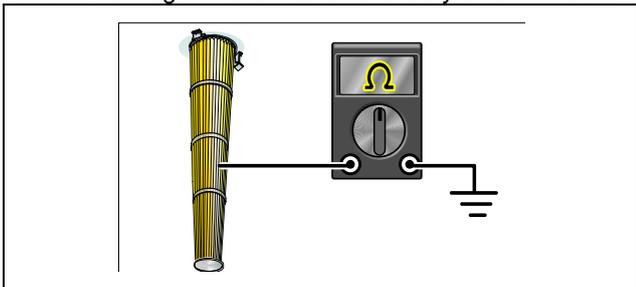


Fig. 45: Checking the cartridge

Check conductive cartridges (...Ti 07.../...Ti 08...) after they have been installed: $R < 10^6$ ohms

16 Model code

Model code for dust collectors with selection examples

Collector, 1st + 2nd digits		Collector, 3rd digit	
SF	Collector with air pressure cleaning	R	With rotating wing
AF	Non-cleanable filter	K	With conical cartridges
NF	Collector with air pressure cleaning and secure filter stage	.	With cylindrical cartridges
		I	Industrial vacuum cleaner with powerful fan
		C	With CFE elements

Cartridge type / mounting position

XX For details, see model code for cartridge types and mounting position

Number of cartridges

XXX Number of cartridges installed

Dimensions

XXXxXX Rectangular devices (length x width in dm)

DN-XXX Round devices (nominal diameter in cm)

Design, 1st + 2nd digits: Type

S1	Collector with bin
S2	Collector with bag
S3	Collector with drawer
S5	Bag emptying device
S6	Product filter with cone
S7	Product filter with wide cone
S.	Filter with bottom
A	Flanged body-type filter
E	Intake filter

Design, 3rd digit: Optional equipment

.	No optional equipment
V	Fan
S	Fan with silencer

Housing material

V2	Stainless steel V2A (1.4301)	S1	Steel sheet RAL 7035
V4	Stainless steel V4A (1.4571)	S2	Steel sheet RAL 7032
SO	Special	S3	Steel sheet RAL 9006
		SL	Steel sheet, special colour

Fans

XX	Standard fans (see fan list, no. 00-99)
..	Without fan
SO	Special

Variations 1st digit

S	Standard design
K	Customer design according to drawing
X	Special design according to drawing (no. 0-9)

Variations 2nd digit

D	Pressure resistant housing (p < -0.4 bar, p > 1 bar)
B	With pressure relief (pressure burst resistant)
T	Pressure burst resistant housing
A	Basic design according to ATEX Directive 94/9/EC
E	With earthing / electrostatic discharging
Z	With cleaning controller
.	Without cleaning controller / without variation type designation

Cartridge

*XXXXXXXXX Cartridge 1st filter stage

SFK	-02	015	DN-071	S1V	V2	41	S	Z	*E78345811 (example of round collector)
SFR	-08	018	016x16	S3S	S1	76	K	E	*E79355447 (example of rectangular collector)

Reserved for FG designation

Available for customer's designation from here

Cartridge type and mounting position

Code	Cartridge type	Cartridge diameter	Cartridge length	Alternative	Mounting position	Mounting	Comments
xx	Designation unknown – product at project stage						
00	Other cartridge types				Vertical	Dirty section	
01	852 902	120	300	852 838	Vertical	Dirty section	RD72x5
02	852 903		600				
03	852 904		1000				
04	852 907	328	300		Vertical	Dirty section	Tie rod, RLD
05	852 908		600	852 782/852 844			
06	852 909		1000				
07	852 030	328	1000	852 958	Vertical	Dirty section	Bayonet
08	2x 852 908	328	1200	852 758/852 782	Vertical	Dirty section	Tie rod, RLD
09	852 032	328		Quick-lock			
10	852 073	160	600		Vertical	Dirty section	RD100x4
11	852 054		1000				
12	852 052	328	600		Vertical	Dirty section	Quick-lock
13	852 062		1000				
20	Other cartridge types				Vertical	Clean section	
21	852 829	328	300		Vertical	Clean section	
22	852 781		600				
23	852 943		1000				
25	852 903	120	600		Vertical	Clean section	With adapter
26	852 904		1000				
27	852 931	160	1000	852 953	Vertical	Clean section	With adapter
30						Dirty section	
50	Other cartridge types				Horizontal	Dirty section	
70	Other cartridge types				Horizontal	Clean section	
80	PAF35 9.18		1500		Vertical	Dirty section	CFE module
81	PAF35 69.18		1500		Horizontal	Clean section	
99	Other variations						

16.1 Additions to variations 1st digit

- No. 1
With filter plate flanged in between
With fan plate flanged in between
Sound hood has the same base area as the device
Exception for devices with 4 elements, in this case the sound hood is larger
Height of the raw gas port is in the middle in the raw gas chamber
Size of the raw gas port is adapted with flat adapter plate
Large sheet metal parts in part with welded-in reinforcements
- No. 2
Resistant to negative pressure to -56 mbar
With filter plate flanged in between
With fan plate flanged in between
Sound hood has the same base area as the device
Exception for devices with 4 elements, in this case the sound hood is larger
Height of the raw gas port is in the middle in the raw gas chamber
Size of the raw gas port is adapted with flat adapter plate
Large sheet metal parts in part with welded-in reinforcements
- No. 3
Resistant to negative pressure to -50 mbar
With filter plate flanged in between
With fan plate flanged in between
Sound hood always has the same base area
Sound hood has the same base area as the device
Height of the raw gas port is in the middle in the raw gas chamber
Raw gas port, round, DIN 24154 Part 2
2 x clean gas inspection openings
Frame without lower reinforcements
Exception for devices with 4 elements, 1 inspection opening, valve plate larger
- No. 4
Resistant to negative pressure to -58 mbar
With filter plate flanged in between
With fan plate flanged in between
Sound hood always has the same base area
Sound hood has the same base area as the device
Height of the raw gas port is in the middle in the raw gas chamber
Raw gas port, round, DIN 24154 Part 2
2 x clean gas inspection openings
Frame without lower reinforcements
Exception for devices with 4 elements, 1 inspection opening, valve plate larger

Examples:

- SFR-08 018 016x16 S3S S1 76 KZ*E79355447 - SFR device with rotating air nozzle
- 18 elements 852 908
- Rectangular base area 1600x1600 mm
- With dust drawer and sound hood
- Powder coated RAL 7035
- With fan VR 76
- Custom version with control unit
- Filter element mat. no.:79355447
- SFK-03 008 DN-050 S1S V2 65 SA*E78386559 - SFK device with conical filter elements
- 8 elements 852 904
- Round device with diameter 500 mm
- With dust bucket and sound hood
- Housing in stainless steel 1.4301
- With fan VR 65
- ATEX standard version
- Filter element mat. no.:78386559

17 ATEX type code



II	3D	Ex	h	IIIB	T135°C	Dc	X
1.	2.		3.	4.	5.	6.	7.

1.	Device group	I	Devices for proper use in underground operations in mines and their underground plants which can be at risk from mine gas and/or combustible dusts		
		II	Devices which are designed for use in other areas which can be at risk from an explosive atmosphere		
2. 6.		Device category	Zone concept	Device protection level (EPL)	
		1G	Zone 0	Ga	Gases, mist, vapours
		2G	Zone 1	Gb	
		3G	Zone 2	Gc	
		1D	Zone 20	Da	Dust
		2D	Zone 21	Db	
3D	Zone 22	Dc			
3.	Ignition protection class	h	Non-electrical device		
4.	Explosion group	IIA	e.g. propane		Gases, mist, vapours
		IIB	e.g. ethylene		
		IIC	e.g. hydrogen		
	Dust group	IIIA	Combustible lint		Dust
		IIIB	Non-conductive dust		
	IIIC	Conductive dust			
5.	Temperature class (Gases, mist, vapours)	T1	Max. surface temperature 450 °C		
		T2	Max. surface temperature 300 °C		
		T3	Max. surface temperature 200 °C		
		T4	Max. surface temperature 135 °C		
		T5	Max. surface temperature 100 °C		
		T6	Max. surface temperature 85 °C		
	Max. surface temperature (Dust)	T135°C	Max. surface temperature on dedusting device 135 °C		
7.	Special conditions (see also information sheet "Dedusting devices for combustible dusts")	X	Dusts with a minimum ignition energy > 10 mJ	Type A	
			Dusts with a minimum ignition energy > 3 mJ	Type A or type B	
			Selection of type A or type B depends on the dust properties, in particular the electrical chargeability. Particular focus should be on applications, such as pneumatic conveyance, separation of self-igniting powders, on high dust concentrations paired with high entry speeds into the filter and much more.		
			Dusts with a minimum ignition energy < 3 mJ	Type B	
			With pressurised filter devices, explosion decoupling into the raw gas line and clean gas line must be performed on the dedusting device before commissioning. The dust is removed either into a pressurised dust bucket or via a flameproof removal organ.		

Device category - assignment as per Directive 2014/34/EU for manufacturers
 Zone concept – assignment as per Directive 1999/92/EC for operating companies
 Device protection level – assignment as per standard EN 60079-0 / EN ISO 80079-36

18 Cartridges used

Enter the ordering data in the table (refer to the contract documentation, offer / order confirmation).

Item	Quantity	Designation	FG mat. no.	Material
1				
2				
3				
4				

Cartridges changed:

Date:			Changed by:	
Item	Quantity	Designation	FG mat. no.	Material
1				
2				
3				
4				

Cartridges changed:

Date:			Changed by:	
Item	Quantity	Designation	FG mat. no.	Material
1				
2				
3				
4				

Cartridges changed:

Date:			Changed by:	
Item	Quantity	Designation	FG mat. no.	Material
1				
2				
3				
4				

19 Declaration of incorporation

As per the EC Machinery Directive.

EG-/EU – Einbauerklärung
EC-/EU Declaration of incorporation
Déclaration relative au montage CE-/UE



Der Hersteller
The manufacturer
Le producteur

Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen
Tel.: +49 7941 6466-0
Industrial.filtrationgroup.com

erklärt hiermit, dass das folgende Produkt
hereby declares that the following product
déclare par la présente que le produit suivant

Produktbezeichnung: Product designation: Désignation du produit:	Entstaubungsgerät Dust collector Dépoussiéreur
Typenbezeichnung: Type designation: Désignation du type:	AF/NF/SF
Funktionsbeschreibung: Machine description: Description du fonctionnement:	Filtration von Feststoffen Filtration of solids Filtration de solides

den in der Anlage dargestellten grundlegenden Anforderungen der Richtlinie 2006/42/EG entspricht.
conforms to the essential requirements of the Machinery Directive 2006/42/EC pursuant to the Annex.
répond aux exigences fondamentales de la directive 2006/42/CE, décrites en annexe.

Die unvollständige Maschine darf erst dann in Betrieb genommen werden, wenn festgestellt wurde, dass die Maschine, in die die unvollständige Maschine eingebaut werden soll, den Bestimmungen der Richtlinie 2006/42/EG über Maschinen entspricht.
The partly completed machinery must not be put into service until the relevant machinery into which this partly completed machinery is to be incorporated has been declared in conformity with the Machinery Directive 2006/42/EC.
La machine incomplète ne doit être mise en service qu'après avoir déterminé que la machine, dans laquelle la machine incomplète doit être montée, correspond aux dispositions de la directive machines 2006/42/CE.

Folgende harmonisierten Normen wurden angewandt:
The following harmonised standards have been used: DIN EN ISO 12100:2011-03, DIN EN ISO 4414:2011-04
Les normes harmonisées ci-dessous ont été appliquées:

Der Hersteller verpflichtet sich, die speziellen Unterlagen zur unvollständigen Maschine, einzelstaatlichen Stellen auf Verlangen schriftlich zu übermitteln. Die zur Maschine gehörenden speziellen technischen Unterlagen nach Anhang VII Teil B wurden erstellt.
The manufacturer undertakes to transmit any specific documentation on the partly completed machinery to the appropriate national authorities in writing on request. All specific technical documentation belonging to the machinery has been compiled pursuant to Annex VII Section B.

Le fabricant s'engage à transmettre les documents spécifiques à la machine incomplète par écrit aux administrations nationales respectives sur leur demande. Les documents techniques spécifiques selon Annexe VII partie B faisant partie de la machine ont été établis.

Dokumentationsverantwortlicher/Abteilung: Responsible for documentation/department: Responsable de la documentation/Service:	Filtration Group GmbH Schleifbachweg 45 74613 Öhringen
--	--

Unterzeichner: Signatory: Signataire:	Wolfram Zuck Dipl.-Ing. (FH) Industrial Engineering Managing Director, Plant Manager Öhringen
---	---

Öhringen,

14.04.2021
Datum/Date/Date


Unterschrift/Signature/Signature

Anlage/Annex/Annexe 3 Seiten/pages/pages

EU – Konformitätserklärung
EU declaration of conformity
Déclaration de conformité UE



Der Hersteller
The manufacturer
Le producteur

Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen
Telefon 07941 6466-0
Telefax 07941 6466-429

erklärt hiermit, dass das folgende Produkt
hereby declares that the following product
déclare par la présente que le produit suivant

Produktbezeichnung:
Product designation:
Désignation du produit :

Entstaubungsgerät
Dust collector
Dépoussiéreur

Typenbezeichnung:
Type designation:
Désignation du type :

SFR/SF/JSFK/RFK/RF./AFK/NFK/NF./NFR

Funktionsbeschreibung:
Machine description:

Filtration von Feststoffen
Filtration of solids
Filtration de solides

Description du fonctionnement :

allen einschlägigen Bestimmungen der Richtlinie 2006/42/EU über Maschinen entspricht. Die Maschine entspricht allen Bestimmungen der Richtlinie 2014/35/EU über elektrische Betriebsmittel und der Richtlinie 2014/30/EU über elektromagnetische Verträglichkeit.
conforms to all relevant provisions of the Machinery Directive 2006/42/EU. The machinery conforms to all provisions of the Low Voltage Directive 2014/35/EU and of the Electromagnetic Compatibility Directive 2014/30/EU.
répond à toutes les dispositions applicables de la directive machines 2006/42/UE. La machine répond à toutes les dispositions de la directive 2014/35/UE relative au matériel électrique et de la directive 2014/30/UE relative à la compatibilité électromagnétique.

Folgende harmonisierten Normen wurden angewandt:

DIN EN ISO 12100:2011-03, DIN EN ISO 4414:2011-04

The following harmonised standards have been used:

Les normes harmonisées ci-dessous ont été appliquées :

Dokumentationsverantwortlicher/Abteilung:
Responsible for documentation/department:
Responsable de la documentation/Service :

Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen

Unterzeichner:
Signatory:
Signataire :

Wolfram Zuck
Dipl.-Ing. (FH) Industrial Engineering
Managing Director, Plant Manager Öhringen

Öhringen,

19.06.2017

Datum/Date/Date

Unterschrift/Signature/Signataire

21 Declaration of conformity

EU – Konformitätserklärung
EU declaration of conformity
Déclaration de conformité UE



Der Hersteller
The manufacturer
Le producteur

Filtration Group GmbH
Schleifbachweg 45
74613 Öhringen
Tel.: +49 7941 6466-0
Industrial.filtrationgroup.com

erklärt hiermit, dass das folgende Produkt
hereby declares that the following product
déclare par la présente que le produit suivant

Produktbezeichnung:
Product designation:
désignation du produit:

Druckluftbehälter
Pressure tank
Récipient air comprimé

Typenbezeichnung:
Type designation:
désignation du type:

DRUCKBEH-12-32

allen einschlägigen Bestimmungen der Druckgeräterichtlinie 2014/68/EU, Anhang 1 entspricht.
conforms to all relevant provisions of the pressure equipment directive 2014/68/EU, annex I.
répond à toutes les dispositions applicables de la directive équipements sous pression 2014/68/UE, annexe I.

Angewendete nationale Normen und technische Spezifikationen, insbesondere AD 2000
Applied national norms and techn. specifications, especially
Normes et spécifications nationales utilisées, notamment

CE- Beauftragter:
CE representative:
Représentant de CE:

Michael Bordt 

Unterzeichner:
Signatory:
Signataire:

Wolfram Zuck
Dipl.-Ing. (FH) Industrial Engineering
Managing Director, Plant Manager

Öhringen,

22.05.21
Datum/Date/Date


Unterschrift/Signature/Signataire

Anlage zur Einbauerklärung gemäß Richtlinie
2006/42/EG für Entstaubungsgeräte
Annex to the Declaration of Incorporation pursuant to
the Machinery Directive 2006/42/EC for dust collectors
Annexe à la déclaration de montage selon la directive
2006/42/CE pour les dépoussiéreurs



Beschreibung der grundlegenden Sicherheits- und Gesundheits-
schutzanforderungen (soweit zutreffend) gemäß 2006/42/EG, An-
hang 1, die zur Anwendung kommen und eingehalten wurden.
List of the essential health and safety requirements (where applicable)
pursuant to 2006/42/EC, Annex 1, applied and fulfilled.
Description des exigences fondamentales relatives à la sécurité et à
la protection de la santé (si applicables) selon 2006/42/CE, annexe 1,
appliquées et respectées.

Grundlegende Anforderung Essential requirements Exigence fondamentale	Erfüllt Fulfilled Remplie
Grundsätze für die Integration der Sicherheit Principles of safety integration Principes d'intégration de la sécurité	ja yes oui
Materialien und Produkte Materials and products Matériaux et produits	ja yes oui
Konstruktion der Maschine im Hinblick auf die Handhabung Design of machinery to facilitate its handling Construction de la machine au regard de sa manipulation	ja yes oui
Steuerungen und Befehleinrichtungen Control systems Commandes et dispositifs de commande	nein no non
Risiko des Verlusts der Standsicherheit Risk of loss of stability Risque de perte de la stabilité statique	ja yes oui
Bruchrisiko beim Betrieb Risk of break-up during operation Risque de rupture en fonctionnement	ja yes oui
Risiken durch herabfallende oder herausgeschleuderte Gegenstände Risks due to falling or ejected objects Risques dus à la chute ou à l'éjection d'objets	ja yes oui
Risiken durch Oberflächen, Kanten und Ecken Risks due to surfaces, edges or angles Risques dus aux surfaces, arêtes et angles	ja yes oui
Risiken durch Änderung der Verwendungsbedingungen Risks related to variations in operating conditions Risques dus à la modification des conditions d'utilisation	ja yes oui
Risiken durch bewegliche Teile Risks related to moving parts Risques dus à des parties mobiles	ja yes oui
Wahl der Schutzeinrichtung gegen Risiken durch bewegliche Teile Choice of protection against risks arising from moving parts Choix du dispositif de protection contre les risques dus à des parties mobiles	ja yes oui
Risiko unkontrollierter Bewegungen Risks of uncontrolled movements Risque de mouvements incontrôlés	ja yes oui
Anforderungen an Schutzeinrichtungen Required characteristics of guards and protective devices Exigences relatives aux dispositifs de protection	nein no non
Elektrische Energieversorgung Electricity supply Alimentation électrique	ja yes oui
Statische Elektrizität Static electricity Électricité statique	ja yes oui

Nichtelektrische Energieversorgung Energy supply other than electricity Alimentation en énergie non-électrique	ja yes oui
Montagefehler Errors of fitting Erreurs de montage	ja yes oui
Extreme Temperaturen Extreme temperatures Températures extrêmes	ja yes oui
Brand Fire Incendie	ja yes oui
Explosion Explosion Explosion	ja yes oui
Lärm Noise Bruit	ja yes oui
Vibrationen Vibrations Vibrations	ja yes oui
Strahlung Radiation Rayonnement	ja yes oui
Strahlung von außen External radiation Rayonnement depuis l'extérieur	ja yes oui
Emission gefährlicher Werkstoffe und Substanzen Emissions of hazardous materials and substances Emission de substances et matériaux dangereux	ja yes oui
Risiko, in eine Maschine eingeschlossen zu werden Risk of being trapped in a machine Risque de se faire enfermer dans une machine	nein no non
Ausrutsch-, Stolper- und Sturzrisiko Risk of slipping, tripping or falling Risque de dérapage, de trébuchement et de chute	nein no non
Blitzschlag Lightning Foudre	nein no non
Wartung der Maschine Machinery maintenance Entretien de la machine	nein no non
Zugang zu den Bedienungsständen und den Eingriffspunkten für die Instandhaltung Access to operating positions and servicing points Accès aux postes de commande et aux points d'intervention pour la maintenance	nein no non
Trennung von den Energiequellen Isolation of energy sources Séparation des sources d'énergie	nein no non
Eingriffe des Bedienungspersonals Operator intervention Interventions des opérateurs	ja yes oui
Reinigung innen liegender Maschinenteile Cleaning of internal parts Nettoyage de parties internes de la machine	nein no non
Informationen und Warnhinweise an der Maschine Information and warnings on the machinery Informations et avertissements sur la machine	ja yes oui
Warnung vor Restrisiken Warning of residual risks Avertissement quant aux risques résiduels	ja yes oui
Kennzeichnung der Maschinen Marking of machinery Marquage des machines	nein no non

Betriebsanleitung Instructions Mode d'emploi	ja yes oui
Nahrungsmittelmaschinen und Maschinen für kosmetische oder pharmazeutische Erzeugnisse Foodstuffs machinery and machinery for cosmetics or pharmaceutical products Machines pour denrées alimentaires et machines pour produits cosmétiques ou pharmaceutiques	nein no non
Handgehaltene und/oder handgeführte tragbare Maschinen Portable hand-held and/or hand-guided machinery Machines tenues à la main et/ou portables guidées à la main	ja yes oui

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