



Translation of the original instructions

Dust removal filter

SFK-01/02/03 KG

Material No. of Instruction Manual
79340811



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2 General safety instructions

2.1 Safety instructions for installation and operating personnel

This Instruction Manual contains important safety instructions 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 system:

- ⇒ Failure of critical functions of the machine or system 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 the Instruction Manual carefully.
- Make sure that installation and operating personnel are adequately trained.
- Make sure that the contents of the Instruction Manual are fully understood by the responsible persons.
- Define areas of responsibility and competence.
- Prepare a maintenance schedule.

During operation of the system:

- Keep the Instruction Manual handy at the place where the system is used.
- Heed the safety instructions. Always operate the machine/system 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 danger!	⇒ Non-observance will result in serious or fatal injury.
	WARNING!
Potentially dangerous situation!	⇒ Non-observance can result in serious or fatal injury.
	CAUTION!
Potentially dangerous situation!	⇒ Non-observance can result in minor or moderate injuries.
CAUTION! (without a symbol)	
Potentially dangerous situation!	⇒ Non-observance can result in property damage.

2.4 Other symbols used

	Danger from high voltage
	Danger information about explosion protection
	Information about environmental protection
	Wear protective clothing!
	Wear goggles!
	Wear a respirator!
	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

System:

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

Pressure difference/differential pressure:

Pressure difference between the untreated and cleaned gas sides of the filter (in [mbar] or [Pa]).

Final surge:

Abrupt increase in the flow 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 volumetric flow to filter surface [m³/m² min].

Residual dust content:

Amount of solid particles on the cleaned gas side [mg/m³].

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, confirmation of order 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

4.2 Information about the Instruction Manual

FG Mat. No.: 79340811
Date: 25.01.18
Version: 12

4.3 ATEX type key



II	3	D	c	T 140°C	X		
1.	2.	3.	4.	5.	6.		
1	II	Valid for use above ground					
2.		Category 1		Category 2		Category 3	
	Use in:	Zone 0	Zone 20	Zone 1	Zone 21	Zone 2	Zone 22
3.	Atmo-sphere G = Gas D = Dust	G	D	G	D	G	D
4.	Types of protection c = Constructional safety d = Flameproof enclosure						
5.	T 140°C = The maximum surface temperature on the dust removal filter is 140°C. A temperature class is specified for gas. T4 = 140°C						
6.	X	A)	Suitable for dusts with a minimum ignition energy greater than 3 mJ				
		B)	Suitable for dusts with a minimum ignition energy greater than 10 mJ and pneumatic conveying				
		C)	A suitable decoupling component must be provided on the pressure, suction and discharge sides prior to starting up the surge pressure-resistant version of the filtration device				

(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!

PROHIBITED:

- 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 adhesive particles.
- Use with highly explosive dusts (e.g. explosives, etc.).
- Temperatures below the dew point.
- Hazardous substances and materials.

⚠ CAUTION!

This FG dust removal filter is only allowed to be used in accordance with the operating conditions specified in the contract documentation and in the Instruction Manual. All forms of use which deviate from or exceed the limits of use described above are considered to be contrary to the intended purpose. The manufacturer shall not be liable for any damage resulting from such use.

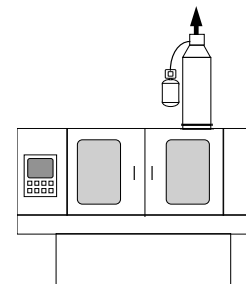
CAUTION!

Conditionally allowed:

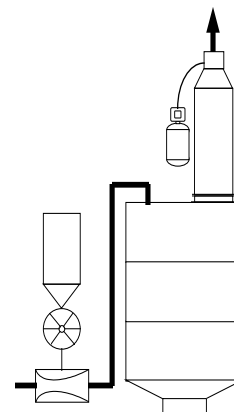
- Use of solvents in consultation with the manufacturer.
- Use as a "vacuum cleaner" in accordance with the specified operating conditions.

FG jet pulse filters are designed for dry dust removal from dust-laden gases. The cartridges should preferably be cleaned during the intervals between filtration cycles.

Possible applications (selection):



Exhausting dust from a machine



Pneumatic conveying

Fig. 1: Applications

6 Functional description

6.1 Principle of the process

1
The dust-laden gas flows into the dirty gas chamber.

2
The dust particles are separated on the cartridges.

3
The cleaned gas enters the cleaned gas chamber.

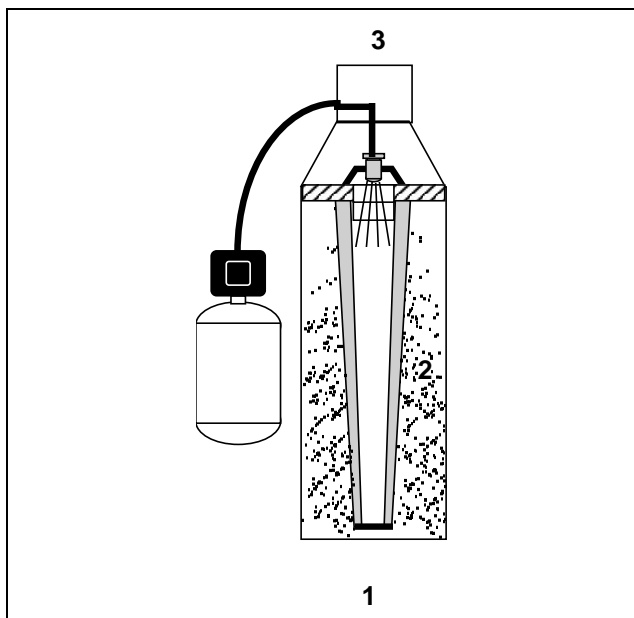


Fig. 2: Filtration principle

4
The cartridge is cleaned periodically by means of a pulsed jet of compressed air.

5
The pulsed air jet causes the filter cake to be detached uniformly.

6
The accumulated dust drops down to the bottom.

The filtration process should preferably be interrupted for cleaning.

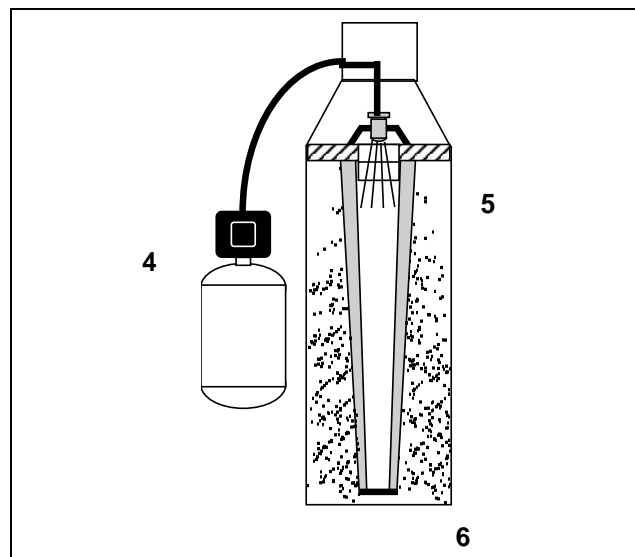



Fig. 3: Cleaning principle


7 Technical data

7.1 General data (excluding options)

7.1.1 Dust filter housing (standard version)


Material:	Stainless steel 1.4301
Seals:	NBR
Clamp rings:	Galvanized sheet steel
Max. operating temperature (without sound absorbing cover):	120°C
Max. operating temperature (with sound absorbing cover):	40°C
Pressure resistance:	+/- 50 mbar

	The values for the standard version apply unless otherwise indicated in the contract documentation.
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	Other materials and temperatures are available as special versions.
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7.1.2 Cartridges

Filter material:	Refer to order-specific list of spare parts
Seal material:	PES needle felt
Metal parts:	Galvanized sheet steel/1.4301 (optional)

	Refer to the contract documentation (offer/order confirmation) and/or the cartridge data sheet for more technical data.
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7.2 Compressed air connection

Compressed air:	6 – 7 bar, dewatered
Consumption per cleaning cycle:	Approx. 10 l _N *

7.3 Noise emission


Continuous sound pressure level:	< 70 dB(A)
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7.4 Ambient conditions

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

8 Transport and storage

Transport

⚠ CAUTION	
	High centre of gravity! ⇒ Risk of injury to persons or damage to property <ul style="list-style-type: none"> Do not transport when assembled!

- Always transport horizontally
- Avoid vibrations
- Do not remove the transport lock until the equipment has reached its installation location

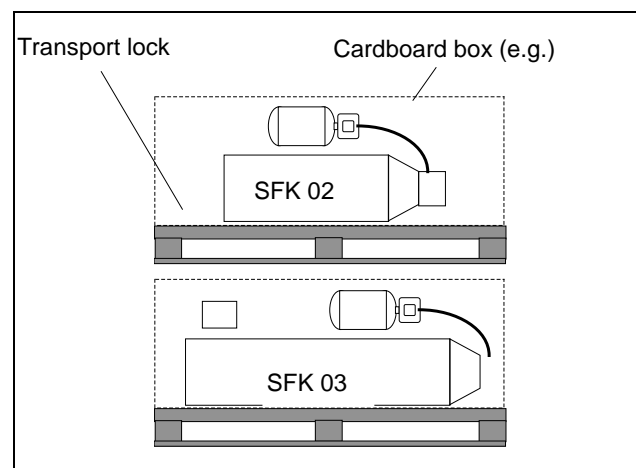


Fig. 4: Delivery condition

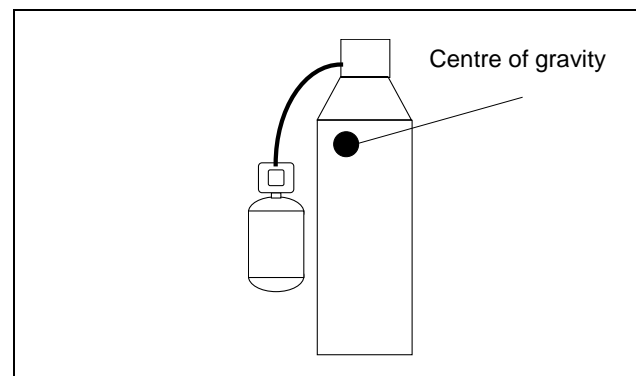



Fig. 5: Centre of gravity

Storage


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




	Seaworthy packaging is specified in the contract documentation as an option.
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* N = Normal conditions (corresponds roughly to the "suction capacity" of a compressor)

9 Installation



⚠ WARNING!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property</p> <ul style="list-style-type: none"> • This FG dust removal filter 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 removal filter in hazardous areas! • The owner is responsible for zoning. • The owner of the plant is solely responsible for implementing the appropriate explosion protection measures! • If in doubt, please consult the responsible authorities.

⚠ WARNING!	
	<p>Explosion hazard!</p> <p>⇒ Risk of injury to persons or damage to property</p> <ul style="list-style-type: none"> • The system is only allowed to be installed, accepted and tested by a suitably qualified person (99/98/EC).

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

⚠ WARNING!	
<p>Danger when pressure is vented</p> <p>⇒ Risk of injury</p> <ul style="list-style-type: none"> • Keep well away from the pressure vent area. • Heed the manufacturer's instructions. 	

9.1 Installation

⚠ WARNING!	
	<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 that earthing is provided by the customer.
	<p>It must be possible to remove the filter insert in order to carry out maintenance work.</p>

- The unit must be installed on a firm surface.

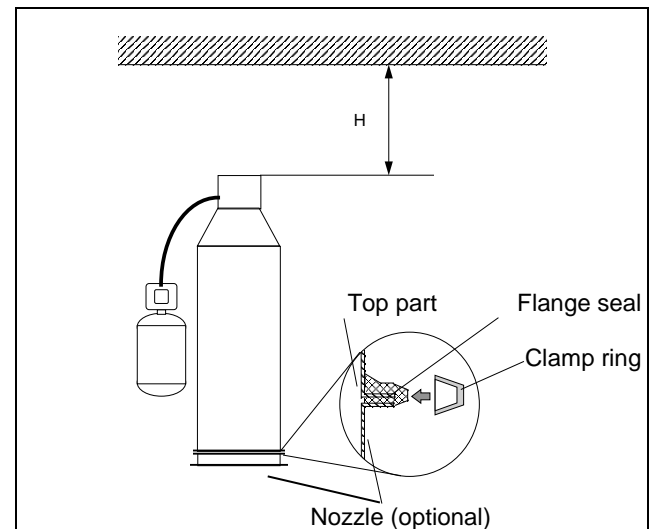


Fig. 6: Installation with clamp ring

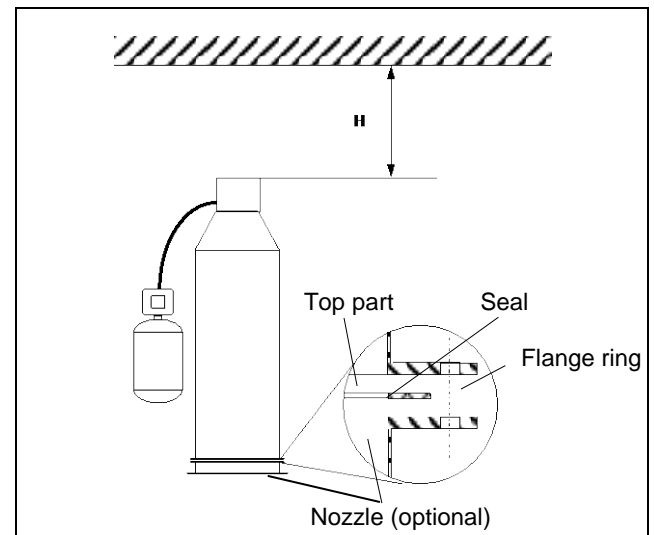


Fig. 7: Installation with flange ring

9.2 Pressure relief devices

⚠ WARNING!

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

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

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

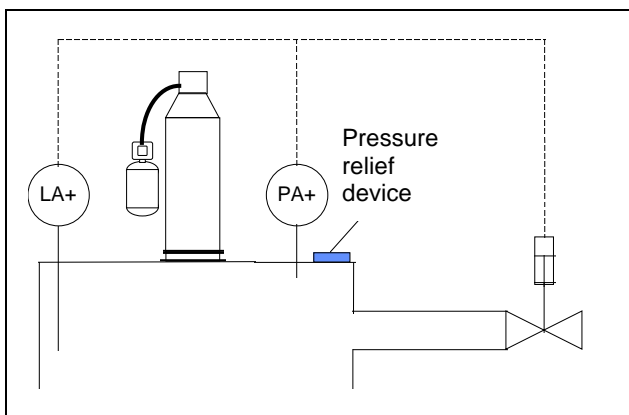


Fig. 8: Example of a pressure relief device

9.3 Pipe connections

CAUTION

Stress relief must be provided for all pipe connections to the dust removal filter!

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

9.4 Compressed air connection

9.4.1 Compressed air quality

- Oil and water-free
- Free of debris
- Pressure for SFK: $p = 6 \text{ bar}$
- Refer to PNEUROP 6611/1984 for quality grades

9.4.2 2/2-way valve connection

A: Jet pulse nozzle
P: Pressure vessel

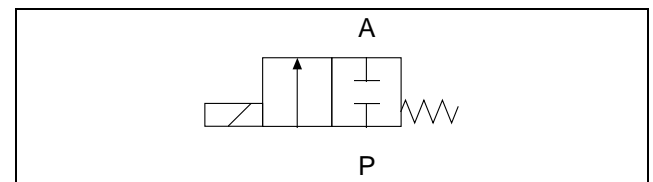


Fig. 9: Connection diagram for the 2/2-way valves

9.4.3 Compressed air connection

- Install a pressure reducing valve and filter near the dust removal filter if necessary.



Install a suitable compressed air shut-off valve at an easily accessible point.

- Connect compressed air (1/2") to the dust removal filter.

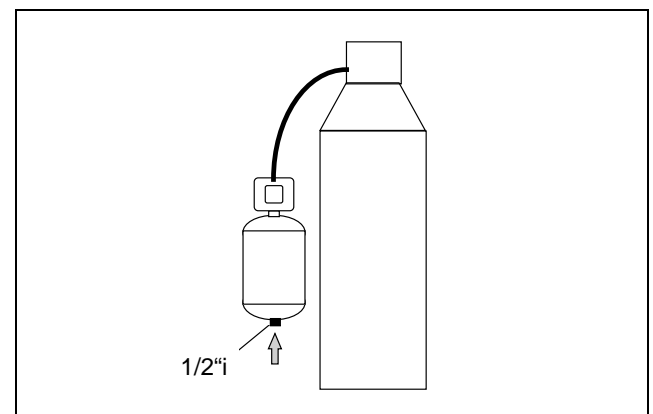





Fig. 10: Compressed air connection

9.5 Electrical connections

⚠ DANGER!	
	Danger of electric shock! ⇒ Risk of serious or fatal injury in case of contact with electrical components. <ul style="list-style-type: none"> • All electrical installation work must be carried out by a suitably qualified electrician.
⚠ WARNING!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property <ul style="list-style-type: none"> • Connect a protective earth conductor. • Comply with the permissible ambient temperature.
⚠ WARNING!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property <ul style="list-style-type: none"> • Check the conductivity between all components! • Maximum permissible resistance: $R < 10 \Omega$. • Make sure that earthing is provided by the customer.

9.5.1 2/2-way valve connection

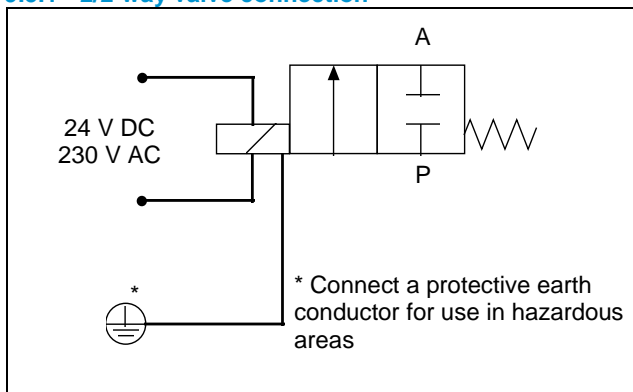


Fig. 11: Electrical connection of the 2/2-way valves

9.6 Cleaning control

The cartridge is cleaned periodically. The pulse and interval times vary according to the process. The times indicated below are recommended standard values.

t_p	Interval time	Approx. 8 min
t_i	Pulse time	Approx. 0.3 s

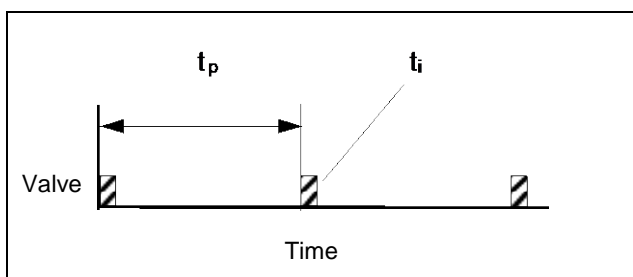



Fig. 12: Periodic cleaning

10 Start-up

⚠ DANGER!	
	This FG dust removal filter is not allowed to be put into operation until it has been established that the machine/system in which it is to be installed complies with the requirements of the applicable EC directives, harmonised standards, European standards or equivalent national standards.
⚠ WARNING!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property <ul style="list-style-type: none"> • Check the conductivity between all components! • Maximum permissible resistance $R < 10 \Omega$. • Make sure that earthing is provided by the customer.

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


- Inspect all system parts.
- Remove all parts that do not belong to the system (such as tools, installation waste, etc.)
- Check the pipe connections (e.g. clamps).
- Tighten all screws and bolts.

10.2 Starting up the dust removal filter


CAUTION
If the maximum permissible volumetric flow is exceeded ⇒ Risk of damage to the cartridges. <ul style="list-style-type: none"> • Be careful not to exceed the maximum permissible volumetric flow when the system is started up.

- Turn on the compressed air supply.
- Switch on the controller.
- Start up the dusty system.
- Throttle the volumetric flow if necessary.



11 Normal operation

⚠ WARNING!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property <ul style="list-style-type: none"> • Check the conductivity between all components! • Maximum permissible resistance: $R < 10 \Omega$. • Make sure that earthing is provided by the customer.

The dust removal filter works automatically during normal operation with a suitable FG filter controller.

	The dust removal filter must be monitored in accordance with the repair and maintenance schedule (refer to section 14.1)!
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11.1 General information about emptying dust

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

- Interrupt the volumetric flow.
- Start a manual cleaning cycle.
- Take steps to prevent the complete plant from being inadvertently switched on again.
- Wear personal protective equipment.

Do not switch!



Work in progress

Location: _____

This plate may only be removed by: _____



12 Shutting down the dust removal filter

12.1 Temporary shut-down

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

12.2 Prolonged shut-down (> 48 h)

- Start a manual cleaning cycle.
- Switch off the fan or shut down the dusty system.
- 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 14.1).

12.3 Emergency shut-down




- Actuate the EMERGENCY STOP button provided by the customer.

13 Troubleshooting

Fault	Possible cause	Remedy
Insufficient fan power on start-up	Direction of rotation incorrect	Reverse the direction of rotation
Reduced suction capacity	Not enough compressed air	Check the compressed air pressure (6 bar for SFK)
	Cartridges clogged	Check the cartridges and if necessary renew them
	Cleaning ineffective	Check the controller
		Check the compressed air pressure (6 bar for SFK)
	Pipe clogged	Open the pipe and if necessary clean it
	Cleaning inadequate	Clean more frequently
	Cartridges unsuitable	Try alternative cartridges (e.g. PTFE coated)
Dust accumulation on cleaned gas side	Cartridge seat not tight	Tighten the cartridges
	Cartridges damaged	Check the cartridges for cracks/holes and if necessary renew them
	Filter plate not tight	Check the filter plate
		Renew the seal

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

14 Maintenance

 DANGER!	
	Explosion hazard! ⇒ Risk of injury to persons or damage to property
	<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!	
If the system is maintained by unauthorised persons	
⇒ Risk of injury ⇒ All warranty claims are rendered invalid	
<ul style="list-style-type: none"> • The system must be maintained by a suitably trained person! 	

Before all maintenance work:



- Shut down the dust removal filter/system.
- Clean the cartridges in a rapid 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/system from being switched on again by unauthorised persons.



- Wear protective clothing and equipment appropriate to the hazard potential of the medium (e.g. goggles, respirator, protective clothing, etc.).
- Carry out the maintenance work.
- Start up the dust removal filter/system again.
- Observe the dust removal filter/system.
Does it operate normally?
- If the filter/system does not operate normally, refer to the troubleshooting table (section 13).


14.1 Inspection and maintenance schedule

Refer also to the contract documentation.

Interval	Component	Activity
Weekly	Dust removal filter	Carry out a visual inspection of the exterior
	Compressed-air maintenance unit	Carry out a visual inspection of the water separator and drain if necessary
	Dust bucket/bag	Carry out a visual inspection and empty if necessary ¹
Monthly	Cartridges	Check the assembly torque (> 6 Nm) Carry out a visual inspection for cracks
	Clamping bands	Carry out a visual inspection for corrosion
	Bolted clamping bands	Carry out a visual inspection for corrosion
	Bolted flanges	Carry out a visual inspection for corrosion
	Dust removal filter	Check the conductivity between all components. Note the maximum permissible resistance: $R < 10 \Omega$
Yearly	Compressed air connections	Check
	Cartridges	Check the conductivity between all components. Note the maximum permissible resistance: $R < 10 \Omega$
	The necessary maintenance work is dependent on the particular application. Please consult the manufacturer if necessary.	

¹ Check more frequently if large amounts of dust accumulate.

14.2 Replacing the cartridges

⚠ DANGER!	
	Explosion hazard!
	<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: $R < 10 \Omega$.• Make sure that earthing is provided by the customer.

- Interrupt the volumetric flow.
- Start a rapid cleaning cycle (clean each cartridge twice).
- Take steps to prevent the complete system from being inadvertently switched on again.
- Wear personal protective equipment.
- After approximately 5 minutes (time required for the dust to settle), bang hard on the maintenance door, so that any accumulated dust drops down to the bottom.
- Open the maintenance door.
- Remove any debris with a hand brush.
- Apply a closed hexagon spanner to the end cap on the bottom of the cartridge (a/f 24, galvanized cartridges only).
- 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 contaminated cartridge in a manner which does not pollute the environment.

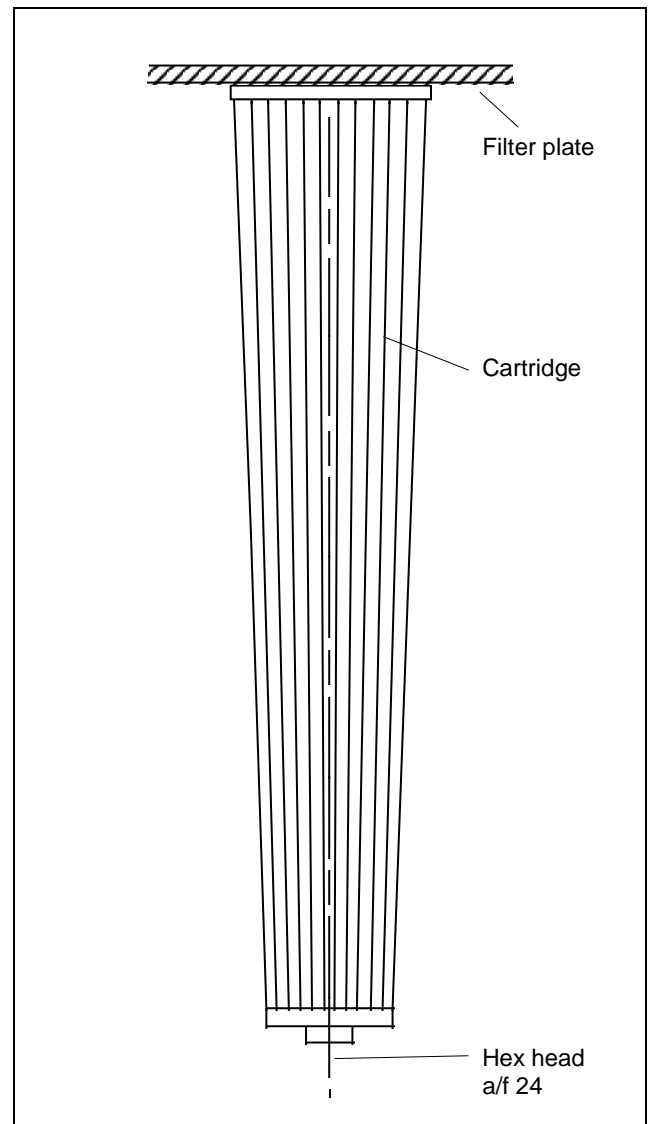


Fig. 13: Replacing an RFK/SFK cartridge

15 Type number key

XXX		- XX	XXX	XXXxXX	XXX	XX	XX	XX	*XXXXXXXXXX	40digits	
1	4	5	8	12	19	23	26	29	31	No.	
1		2	3	4	5	6	7	8	9		
1	Unit type (3 digits)		SF. - Jet pulse filter with pressure cleaning SFI - Portable industrial vacuum cleaner with integrated high-performance fan SFR - Jet pulse filter with rotating wings SFK - Jet pulse filter with conical cartridges RFK - Vibrating filter with conical cartridges RF. - Vibrating filter AF. - Non-cleanable filter ("absolute" filter) AFK - Non-cleanable filter with conical cartridges ("absolute" filter) NFK - Jet pulse filter with conical cartridges and post-filter stage NF. - Jet pulse filter with post-filter stage NFR - Jet pulse filter with rotating wings and post-filter stage								Reserved for FG product designation
-0-2	Cartridge type / installation position (refer to Appendix) (2 digits)										
3	Number of cartridges(3 digits)										
4	Dimensions (6 digits)		Rectangular units e.g. 016x16 →		Length x width in [dm] 1600 x 1600 mm						
			Round units e.g. DN-100 →		Diameter in [cm] Nominal diameter 1000 mm						
5	Type of construction (3 digits)										Provided for customer's designation in case of special custom versions (to be agreed between customer, IISE and IIDE – separate sheet required!)
	1st + 2nd digits: Type				3rd digit: Optional parts						
	S1 - Standard type with bucket				. - No optional parts						
	S2 - Standard type with bag				V - Fan						
	S3 - Standard type with drawer				S - Fan and sound insulation cover or silent fan						
	S5 - Bag dumping unit				W - Weather-proof cap						
	S6 - Product separator with cone										
	S7 - Product separator with prepared cone										
	S. - Standard type with bottom										
	A. - Flanged body-type filter										
	E. - Integrated filter										
6	Housing material (2 digits)		V2 - Stainless steel V2A (1.4301) V4 - Stainless steel V4A (1.4571 or equivalent) VS - Special stainless steel SZ - Galvanized sheet steel SL - Painted or powder coated sheet steel S1 - Painted or powder coated sheet steel RAL 7035 S2 - Painted or powder coated sheet steel RAL 7032 AL - Aluminium SO - Special (refer to basic data and/or drawing)								
7	Fans (2 digits)		00-99 - Standard fans (refer to list of fans) .. - Without fan SO - Special (refer to basic data and/or drawing)								
8	Variants (2 digits)										
	1st digit				2nd digit						
In case of more than one matching criterion, the higher digit takes priority	S - Standard version				D - Flameproof enclosure (p < -0.4 bar, p > 1 bar)						
	K - Custom version (acc. to drawing, differences saved in SAP info text)				B - With rupture disc (pressure burst proof)						
	0 .. 9- Special versions (acc. to drawing, differences saved in SAP info text)				T - Pressure burst proof enclosure						
					A - Basic version acc. to ATEX Directive 94/9/EC						
					E - Earthed/capable of electrostatic discharge						
					Z - With controller						
					. - Without controller/no variants specified						
9	Cartridge (10 digits)		* E + material no. of integrated cartridge If several cartridge types: * E with material no. of cartridge used in first filter stage								FG design.

Keys for the cartridge type and installation position

Key	Cart. type	Cart. diam.	Cart. length	Alternative	Inst. pos.	Installation	Comments
xx	Designation not yet known – device still at project stage!						
00		Other cartridge types			Upright	Untreated gas side	
01	852 902	120	300 852 838		Upright	Untreated gas side	RD 72x5
02	852 903	120	600		Upright	Untreated gas side	RD 72x5
03	852 904	120	1000		Upright	Untreated gas side	RD 72x5
04	852 907	328	300		Upright	Untreated gas side	Tie bolt, RLD
05	852 908	328	600 852 782, 852 844, ...		Upright	Untreated gas side	Tie bolt, RLD
06	852 909	328	1000		Upright	Untreated gas side	Tie bolt, RLD
07	852 030	328	1000 852 958		Upright	Untreated gas side	Bayonet
08	2 x 852 908	328	1200 852 758 + 852 782		Upright	Untreated gas side	Tie bolt, RLD
09	852 032	328	1200		Upright	Untreated gas side	Quick-Lock
10							
11	852 054	160	1000		Upright	Untreated gas side	RD 100x4
20		Other cartridge types			Upright	Cleaned gas side	
21	852 829		300		Upright	Cleaned gas side	
22	852 781		600		Upright	Cleaned gas side	
23	852 943		983		Upright	Cleaned gas side	
24					Upright	Cleaned gas side	
25	852 903	120	600		Upright	Cleaned gas side	With adapter
26	852 904	120	982		Upright	Cleaned gas side	With adapter
27	852 931	160	1000 852 953		Upright	Cleaned gas side	
30	852 931	160	1000 852 953		Upright	Untreated gas side	With adapter
50		Other cartridge types			Horizontal	Untreated gas side	
51	852 902		300 852 838		Horizontal	Untreated gas side	RD 72x5
52	852 903		600		Horizontal	Untreated gas side	RD 72x5
53	852 904		1000		Horizontal	Untreated gas side	RD 72x5
54							
55	852 054		1000		Horizontal	Untreated gas side	RD 100x4
61	852 907		300		Horizontal	Untreated gas side	Tie bolt
62	852 908		600		Horizontal	Untreated gas side	Tie bolt
63	852 909		1000		Horizontal	Untreated gas side	Tie bolt
64					Horizontal	Untreated gas side	
65	2 x 852 908		1200		Horizontal	Untreated gas side	Tripod
70		Other cartridge types			Horizontal	Cleaned gas side	
99		Other variants					

Examples:

SFR-08 018 016x16 S3S S1 76 KE*E79355447	SFR unit with AE-2E, 18 type 852 908 cartridges, rectangular 1600x1600 mm base, dust drawer, sound absorbing cover, powder coated RAL 7035, VR 76 fan, custom version / Ex protection, cartridge material no. 79355447
SFK-27 021 010x16 S3S S1 65 SZ*E78386559	SFR unit with conical cartridges, 21 type 852 931 cartridges, rectangular 1000x1600 mm base, dust drawer, sound absorbing cover, powder coated RAL 7035, VR 65 fan, standard version / time control, cartridge material no. 78386559
SFK-02 015 DN-073 A.W V4 25 SD*E78345811	SFK unit with conical cartridges, 15 type 852 903 cartridges, round DN 730 mm, flanged body-type filter, weather-proof cap, stainless steel 1.4401 or equivalent, VR 25 fan, standard version / flameproof, cartridge material no. 78345811
SFK-03 008 DN-053 S6V V2 .. SB*E79355645	SFK unit with conical cartridges, 8 type 852 904 cartridges, round DN 530 mm, flanged body-type filter, weather-proof cap, stainless steel 1.4301 or equivalent, without fan, standard version / rupture disc, cartridge material no. 79355645

16 Cartridges used

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

No.	Qty.	Designation	FG Mat. No.	Material
1				
2				
3				
4				

Changed cartridges:

Date:			Changed by:	
No.	Qty.	Designation	FG Mat. No.	Material
1				
2				
3				
4				

Changed cartridges:

Date:			Changed by:	
No.	Qty.	Designation	FG Mat. No.	Material
1				
2				
3				
4				

Changed cartridges:

Date:			Changed by:	
No.	Qty.	Designation	FG Mat. No.	Material
1				
2				
3				
4				

17 Manufacturer's declaration

EU – Herstellererklärung
EU declaration of the manufacturer
Déclaration du fabricant 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 :
Typenbezeichnung:
Type designation:
Désignation du type :

Druckluftbehälter
Pressure tank
Récipient air comprimé

DRUCKBE-01 - 08

der einschlägigen Bestimmung der Richtlinie 2014/29/EU einfache Druckbehälter entspricht.
conforms to the relevant provisions of the 2014/29/EU simple pressure tank.
répond les dispositions applicables 2014/29/UE .

Folgende harmonisierten Normen wurden angewandt:
The following harmonised standards have been used:
Les normes harmonisées ci-dessous ont été appliquées :

DIN EN 286-1

Unterzeichner:
Signatory:
Signataire :

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

Öhringen,

14.06.2017

Datum/Date/Date

Unterschrift/Signature/Signataire

18 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
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/SFK/RFK/RF/AFK/NFK/NF/NFR

Funktionsbeschreibung:
Machine description:
Description du fonctionnement :

Filtration von Feststoffen
Filtration of solids
Filtration de solides

allen wesentlichen Schutzanforderungen der Ex- Richtlinie entspricht.
conforms to all the basic requirements of the Ex-directive.
répond à toutes les exigences essentielles de la Ex-directive .

Ex-Richtlinie 2014/34/EU

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

19 Declaration of incorporation

As defined by the EC Machinery Directive.

EU – Einbauerklärung
EU Declaration of incorporation
Déclaration relative au montage 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./SFK/RFK/RF./AFK/NFK/NF./NFR

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/EU entspricht.
conforms to the essential requirements of the Machinery Directive 2006/42/EU pursuant to the Annex.
répond aux exigences fondamentales de la directive 2006/42/UE, 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/EU 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/EU.
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/UE.

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,

Datum/Date/Date

Unterschrift/Signature/Signature

Anlage/Annex/Annexe

3 Seiten/pages/pages

Anlage zur Einbauerklärung gemäß Richtlinie
2006/42/EU für Entstaubungsgeräte
Annex to the Declaration of Incorporation pursuant to
the Machinery Directive 2006/42/EU for dust collectors
Annexe à la déclaration de montage selon la directive
2006/42/UE pour les dépoussiéreurs
Beschreibung der grundlegenden Sicherheits- und Gesundheits-
schutzanforderungen (soweit zutreffend) gemäß 2006/42/EU, An-
hang 1, die zur Anwendung kommen und eingehalten wurden.
List of the essential health and safety requirements (where applicable)
pursuant to 2006/42/EU, 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/UE, 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 Befehlseinrichtungen 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 Electricité 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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