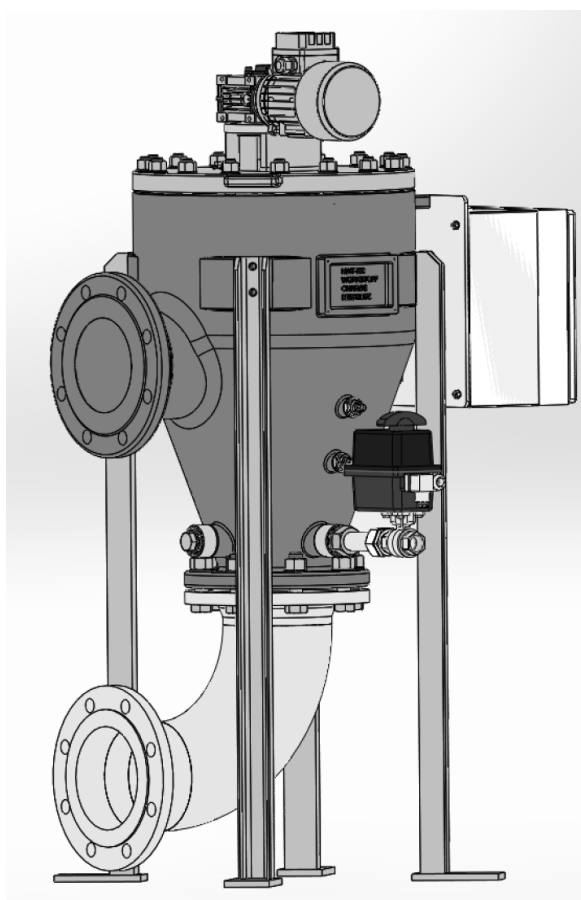
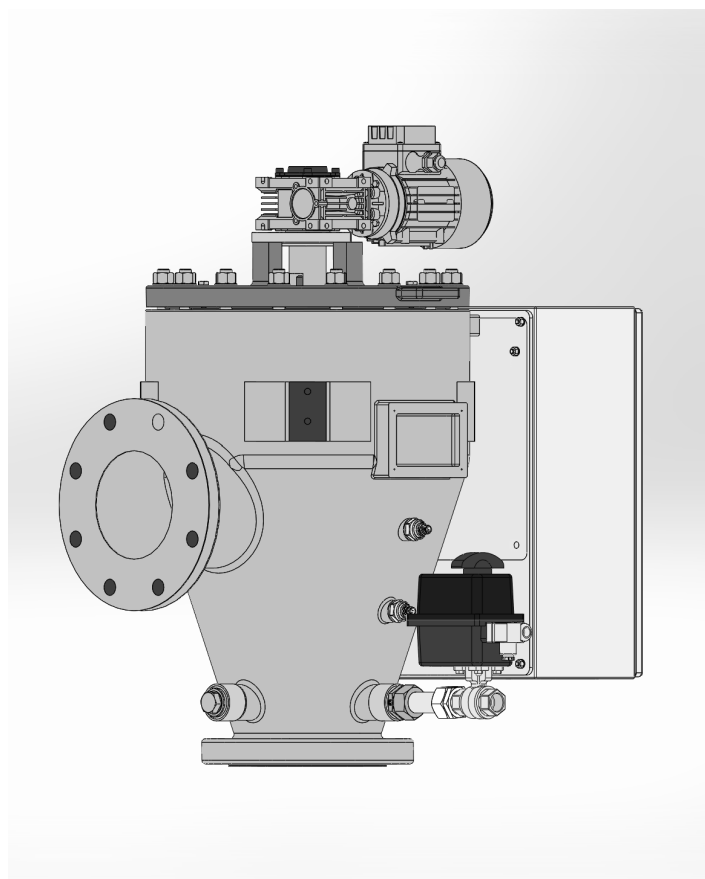


Translation of the original instructions
Automatic backflush filter with process medium
R8-80

Mat. No. of original instructions
72466869



Flange position 1



Flange position 8

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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 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 the Instruction Manual carefully.
- Make sure that installation and operating personnel are adequately trained.
- Make sure 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 plant:

- Keep the Instruction Manual 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 <ul style="list-style-type: none">⇒ 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: High voltage! |
|  | 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

Absolute filter rating:

The diameter of the largest spherical particle that will pass through the filter under defined laboratory conditions.

Aerosol:

This is a mixture of solid and/or liquid suspended particles and air.

Cleaning:

The filter insert is cleaned. The filtered fluid flows through the insert in the opposite direction to the filtration direction, thereby cleaning it successively.

Initial differential pressure:

Differential pressure at the start of the filtration process (when the filter insert is "clean").

Differential pressure (delta p):

Pressure difference between the dirty side and the clean side.

Filter cake:

Layer that is built up by the solids retained on the surface of the filter insert.

Filtered fluid:

Substance that is filtered.

Filtration mode:

The automatic filter operates normally and the valves are closed.

Filter insert:

Cylindrical structure consisting of a profiled body with the corresponding filtration fineness or equipped with wire cloth. The suspension to be filtered flows through this profiled body. Solids are retained on the inner surface of the filter insert.

Nominal filter rating:

A nominated minimum percentage of the particles that are smaller than the specified rating are retained by the filter.

Suspension (raw suspension):

System of substances that must be filtered, generally consisting of solids in a liquid.

Pilot control:

5/2-way magnetic valve actuated by the controller, which switch pneumatic control valve.

4 General information

4.1 Manufacturer

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

4.2 Information about the Instruction Manual

Document No.: 72466869
Date: 12.03.19
Version: 01

5 Intended application

⚠ DANGER!

PROHIBITED:

- Use for purposes other than that described below without prior consultation with the manufacturer.
- Use in potentially explosive atmospheres.
- Use with smouldering, burning or adhesive particles.
- Use with highly explosive dusts (e.g. aluminium dust, explosives, etc.).

⚠ CAUTION!

This automatic 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.

The automatic filter may only be used to filter media that are explicitly mentioned in the technical data (refer to section 7).

Use for other purposes is prohibited without prior consultation with the manufacturer!

6 Functional description

6.1 Main components

| | |
|----|------------------------------|
| 1 | Gear motor |
| 2 | Filter insert |
| 3 | Filter outlet |
| 4 | Filter inlet |
| 5 | Drain plug |
| 6 | Pressure sensor (dirty side) |
| 7 | Flush valve |
| 8 | Pressure sensor (clean side) |
| 9 | Flush nozzle |
| 10 | Switch box |

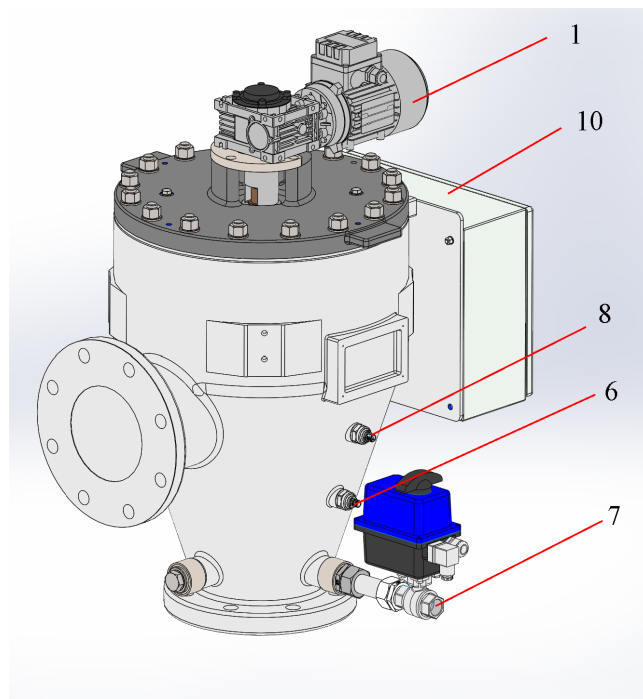


Fig. 1: Diagram of the main components R8-80

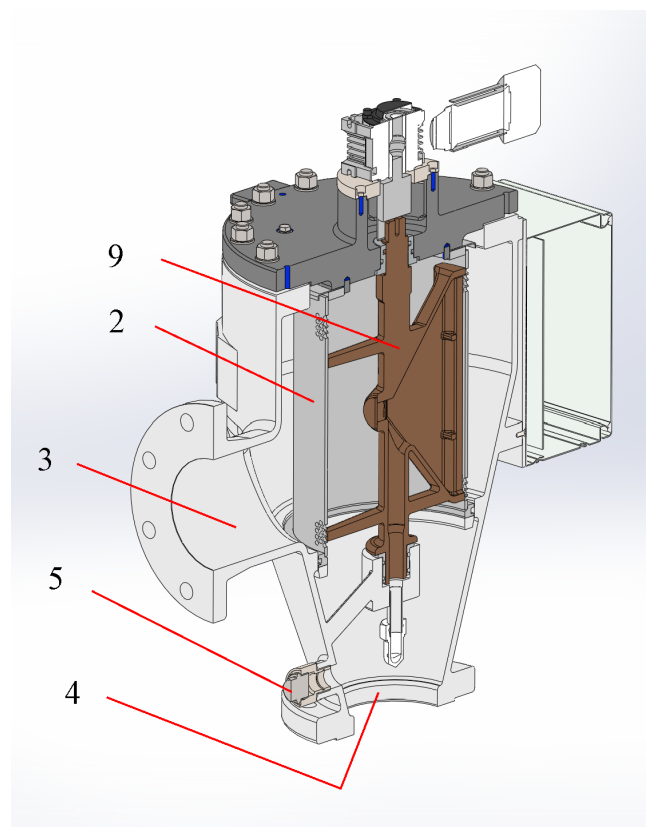


Fig. 2: Diagram of the main components R8-80

6.2 Operating principle

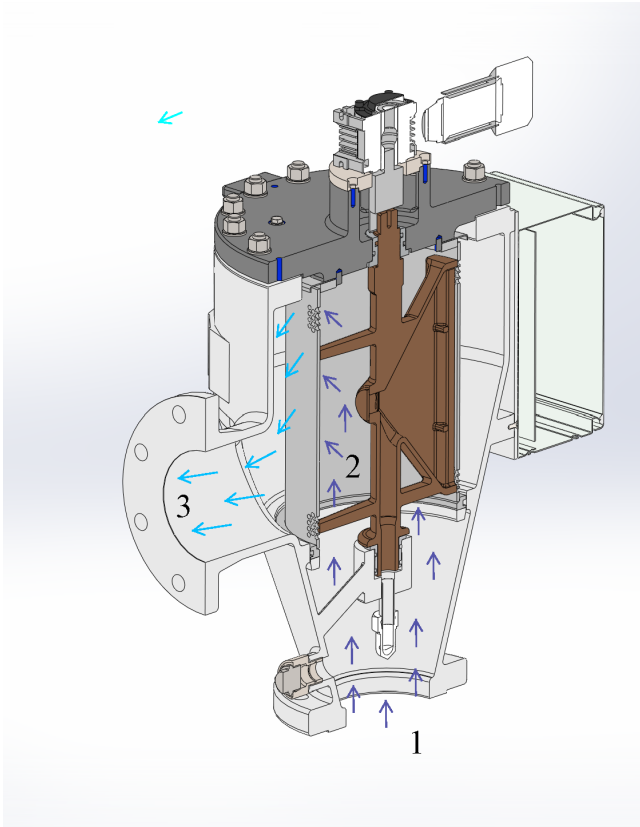


Fig. 3: Filtration principle of the automatic filter

- 1**
The medium flows through the filter inlet into the automatic filter.
- 2**
The medium flows through the interior of the filter insert. The particles contained in the suspension settle on the inside of the filter insert.
- 3**
The filtered fluid enters the clean side and exits the automatic filter via the filter outlet.

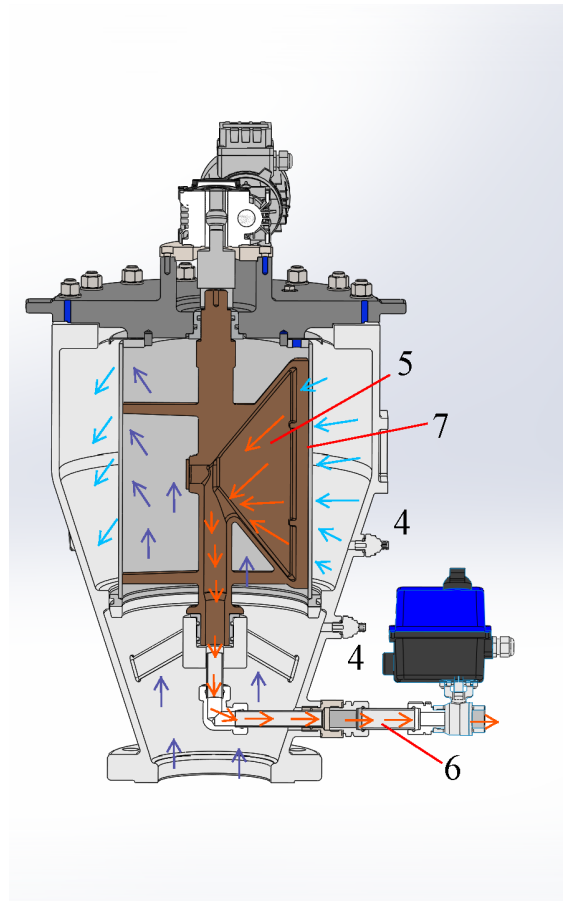


Fig. 4: Cleaning principle of the automatic filter

- 4**
A cleaning cycle is started when the maximum differential pressure is reached (if a pressure transmitter / optional differential pressure switch is installed) or after a preset time.
- 5**
The gear motor begins to turn the nozzle.
- 6**
The depressurised flush pipe is opened by the flush valve. The resulting pressure difference causes the particles to be conveyed out of the automatic filter through the nozzle slot (7) and the flush nozzle (5). After one turn, the flush valve is closed. The filtration process is not interrupted.

7 Technical data

7.1 General data

Filter type Fully automatic backflush filter
..... with self medium backflushing
Nominal diameter For dimensions, refer to section 15
Weight For dimensions, refer to section 15
Series **R8-80**
Filter housing material GGG40 (0.7040)
Coating (inside) Rilsan
Coating (outside) Rilsan
Internals cast bronze GCuSn
Seals NBR / C4400

7.2 Mounting parts

Filter controller Refer to Instruction Manual E950
..... (complete documentation)
Gear motor Standard
Effective installed load See name-plate
Flush pipe / valve Ball valve
..... with pneumatic rotary actuator (4 to 6 bar)
Optional electric rotary actuator Control voltage 24 V/DC
Differential pressure monitoring with pressure transmitter

7.3 Filter insert

Number per vessel 1
Material 0.7040/1.4301
Filter rating acc. to the customer's requirements

7.4 Operating data

Capacity acc. to the design
Medium water
Canister capacity see data sheet
Process temperature max. 80°C
Process overpressure max. 10 bar
Pressure loss Approx. 0.1 bar (clean)
..... Max. 0.7 bar (dirty)
Acceptance Acc. to Pressure Equipment Directive,
..... DGRL 2014/68EU Art. 13 u. Art.4 Abs.3

8 Transport and storage

8.1 Transport

- Always transport upright
- Avoid vibrations
- Always lift up the automatic filter by the eyebolts

8.2 Storage

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



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

9 Installation

⚠ DANGER!



Danger of electric shock!

- ⇒ Risk of serious or fatal injury in case of contact with electrical components.
- All electrical installation work must be carried out by a suitably qualified electrician.

⚠ WARNING!

If the system is installed by unauthorised persons

- ⇒ Risk of injury
- All warranty claims are rendered invalid
- The plant must be installed by a suitably trained person!
- Provide stress relief for all pipe connections.
- Make sure the filter does not run dry via the pipes when the plant is not operating.
- Provide a bypass pipe if necessary.
- Connect the flush pipe to flush valve.
- Make sure the flush pipe is able to run dry.
- Connect the electrical power supply according to the circuit diagram.
- Connect an electrically isolated contact to the visual or audible alarm device.
- Protect the electrical lead with a 3 x 10 A fuse.

10 Start-up

⚠ DANGER!

This automatic filter is not allowed to be put into operation until it has been established that the machine / plant in which it is to be installed complies with the classifications of the acceptance authority.

⚠ DANGER!

Danger due to high pressure in the automatic filter!

- ⇒ Risk of injury to persons or damage to property
- Do not allow the flush volume / concentrate to spatter into the atmosphere!

Make sure that:

- ⇒ All foreign particles are removed from the automatic filter.
- ⇒ All pipe connections are tightened securely.
- ⇒ All screws are tightened.

10.1 Functional test

To test the pressure transmitter / differential pressure switch (optional)

- Refer to the enclosed manufacturer's documentation.

To test the functioning of the flush valve (pneumatic actuator)

- Make sure the flush valve is connected
- Supply compressed air to the pilot valve.
- Press the hand release for the pilot valve.
- ⇒ The flush valve opens.
- Set the hand release for the pilot valve to the OFF position.
- ⇒ The flush valve closes.
- Refer to the enclosed manufacturer's documentation.

To test the functioning of the electric actuators

- Refer to the Instruction Manual for the E950 filter controller.



When an electric ball valve is used as an cleaning valve, harmful interferences may be caused in case of a power outage. It is possible that the filter drains completely.

10.2 Start-up

CAUTION!

High viscosity

⇒ Damage to property

- If high-viscosity media are used, the filter controller should not be switched on until the filter reaches its normal service temperature (refer to the Instruction Manual for the E950 filter controller).

- Switch on the filter controller (refer to the Instruction Manual for the E950 filter controller).
- Slowly open the inlet.
- Vent the automatic filter with the vent screw (1).

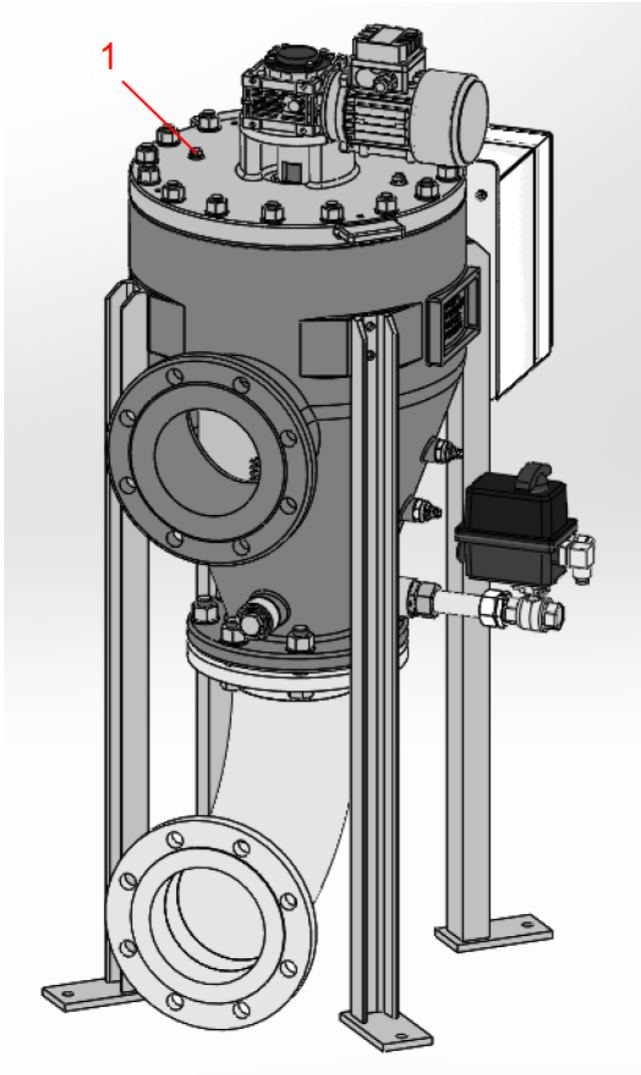


Fig. 5: Venting the filter

- Start a manual cleaning cycle (refer to the Instruction Manual for the E950 filter controller).

Initial differential pressure

- The initial differential pressure varies according to the application.
- General guide:
Installation on discharge side: $\Delta p \leq 0.1$ bar
- On reaching a differential pressure of more than 3 bar the filter must be switched over to a By Pass line or has to be switched off and the insert must be cleaned manually. Refer to sections 14.5.

11 Normal operation

⚠ DANGER!

Danger due to high pressure in the automatic filter!

⇒ Risk of injury to persons or damage to property

- Do not allow concentrate to spatter into the atmosphere!



- Always dispose of the flush volume / concentrate in a manner which does not pollute the environment or process it professionally!
- Consult the responsible authorities before deciding upon the most suitable disposal method.

- The following must be monitored daily during normal operation:

⇒ Differential pressure
⇒ Controller function

12 Shutting down the automatic filter

12.1 Temporary shut-down

- Switch off the main switch on the filter controller (refer to the Instruction Manual for the E950 filter controller).

12.2 Prolonged shut-down (>48 h)


- Start a manual cleaning cycle (refer to the Instruction Manual for the E950 filter controller).
- Make sure the inlet and outlet are closed.
- Switch off the main switch on the filter controller (refer to the Instruction Manual for the E950 filter controller).
- Remove the filter insert (refer to section 14.4).
- Clean the filter insert (refer to section 14.5.1).
- Reinstall the filter insert.
- Fill the automatic filter completely with liquid.

12.3 Emergency shut-down

- Switch off the main switch on the filter controller (refer to the Instruction Manual for the E950 filter controller).

⇒ The power supply is interrupted.

13 Troubleshooting

|  <ul style="list-style-type: none"> Refer to the controller Instruction Manual for all controller faults. | | |
|---|---|---|
| Fault | Possible cause | Remedy |
| Gear motor does not turn | Motor circuit breaker tripped | Reset the motor circuit breaker |
| | Dirt particles too coarse | Test the gear motor Clean the filter insert |
| Valve (pneum. driven) does not open | Not enough compressed air | Increase the pressure |
| | Pilot valve defective | Test the pilot valve and replace it if necessary |
| | Pilot valve incorrectly connected | Check the electrical and pneu. connections and alter them if necessary |
| Valve does not open electrical driven | No control voltage available | Check cable connection |
| | No signal for open and close | Check output 1 at PLC |
| Initial differential pressure no longer reached | Solids concentration too high | Use a suitable prefilter |
| | Cleaning time too short | Increase the cleaning time, refer to instruction Manual for the E950 filter controller |
| | Operating pressure too low, efficient backflushing no longer possible | Check the operating pressure |
| Increased concentration of dirt on clean side | Filter insert defective | Check the filter insert and renew it if necessary |
| | Seals brittle | Check the seals and renew them if necessary |
| Excessive leakage at shaft seal | Shaft seal defective | Renew the shaft seal |
| | Shaft seal incorrectly mounted | Check the seat of the shaft seal |
| Differential pressure too high | Gear motor defective | Test the functioning of the gear motor |
| | Flush valve defective | Test the functioning of the flush valve |
| | Filter controller defective or incorrectly programmed | Test the functioning of the filter controller and reprogram the times if necessary |
| | Back pressure too high or flush pressure too low | Check the flush pressure and back pressure in the flush pipe |

| Fault | Possible cause | Remedy |
|-------|------------------------------|----------------------------|
| | Automatic filter dirty | Clean the automatic filter |
| | Contamination level too high | Use a prefilter |

14 Maintenance

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

Before all maintenance work:


- Shut down the automatic filter (refer to section 12).
- Take steps to prevent contaminated medium from entering the clean side; discharge the filter via the discharge screw if necessary.
- Take steps to prevent the automatic filter 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 automatic filter again (refer to section 10).

14.1 Inspection and maintenance schedule

- Refer also to the contract documentation.

| Interval | Component | Activity |
|--|------------------|--|
| Weekly | Automatic filter | Check for leakage and if necessary replace the seals |
| Every 6 months | Automatic filter | Functional test |
| | Seal kit | Check for leakage and if necessary replace the seals |
| | Filter insert | Check for damage and if necessary replace |
| Yearly | Wire cloth | Replace |
|  <p>The necessary inspection and maintenance work is dependent on the particular application. Please consult the manufacturer if necessary.</p> | | |

14.2 Preliminary maintenance steps

DANGER!

The automatic filter is pressurised!

- ⇒ Risk of injury to persons or damage to property
- Make sure the pipe is depressurised prior to opening the automatic filter.



- Always dispose of the flush volume / concentrate in a manner which does not pollute the environment!
- Consult the responsible authorities before deciding upon the most suitable disposal method.

- 1
 - Switch OFF the main switch.
- 2
 - Make sure the pipe is depressurised prior to opening the automatic filter.
 - Close the filter inlet and outlet.
- 3
 - Open the drain plug.
 - Open the vent screw.

⇒ The automatic filter is discharged.
- 4
 - Turn off the compressed air supply.

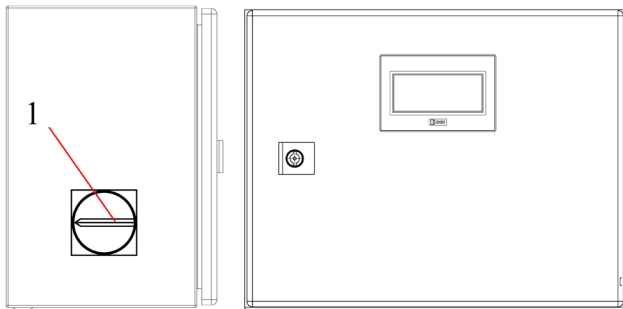


Fig. 6: Preliminary maintenance steps

14.3 Removing the gear motor

DANGER!

Danger of electric shock!

- ⇒ Risk of serious or fatal injury in case of contact with electrical components.
- All electrical installation work must be carried out by a suitably qualified electrician.

- 1
 - Carry out the preliminary maintenance steps (refer to section 14.2).
 - Disconnect the gear motor.
- 2
 - Loosen and remove the 4 hexagon screws on the gear motor flange.
 - Withdraw the gear motor vertically from the shaft.
- 3
 - Remove the push on sleeve.

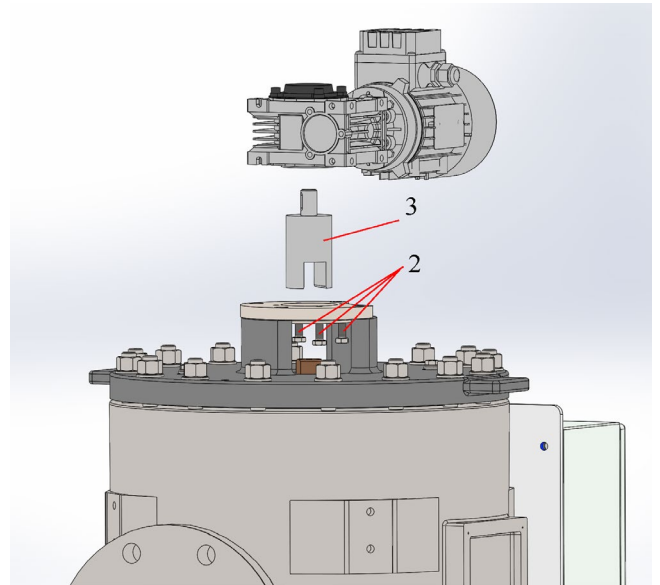


Fig. 7: Removing the gear motor R8-80

- 4
 - Mount in reverse order.
 - Connect the gear motor.

14.4 Removing the filter insert

⚠ DANGER!

The automatic filter is pressurised!

- ⇒ Risk of injury to persons or damage to property
- Make sure the pipe is depressurised prior to opening the automatic filter.

CAUTION!

Danger: Be careful not to drop the nozzle!

- ⇒ Risk of injury to persons or damage to property
- Remove the filter cover together with the filter insert without the nozzle.

- Carry out the preliminary maintenance steps (refer to section 14.2).
- Remove the gear motor (refer to section 14.3).

1

- Loosen the hexagon nuts on the filter cover

2

- Remove the filter cover with insert without canting it.
- Be careful not to lift the cover with the nozzle.

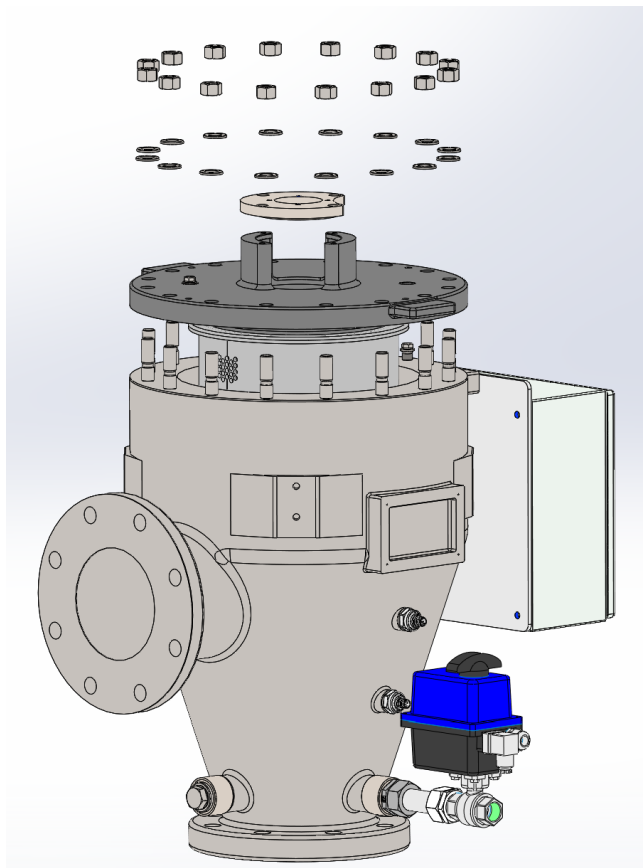


Fig. 8: Removing the insert from the automatic filter

3

- Carefully place the cover with the insert on the surface of the motor flange.
- Undo the insert fixing bolts.
- Remove the insert.

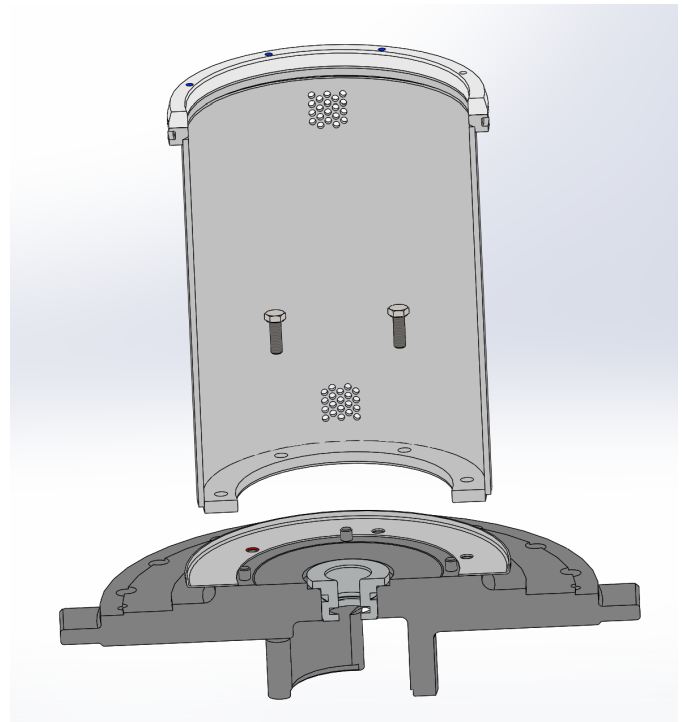


Fig. 9: Separating the filter insert from the cover

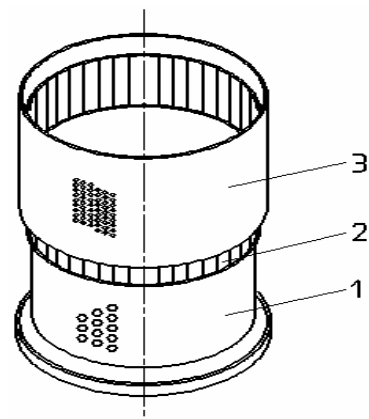


Fig. 10: Removing the wire cloth

Removing the wire cloth (if fitted)

- Pull off the supporting cylinder (3).
- Pull off the wire cloth cylinder (2).
- The wire cloth cylinder can now be serviced or replaced (refer to section 14.5 / 14.6)

Assembly

- Push a new or cleaned wire cloth cylinder (2) over the body (1).
- Pull the support cylinder (3) over the wire cloth cylinder making sure the wire cloth does not get damaged.

Installing the filter insert

- Screw the filter insert onto the cover without canting it.
- Fit the cover and filter insert in the housing.

14.5 Cleaning the automatic filter

- Remove the filter insert (refer to section 14.4).

14.5.1 Cleaning the filter insert

⚠ WARNING!

Danger of aerosol formation!

- All work must be carried out in a room with a suitable extraction system!



- Wear protective clothing and equipment appropriate to the hazard potential of the medium (e.g. goggles, respirator, protective clothing, etc.).
- Remove any coarse impurities by mechanical means.
- Wash out the wire cloth in a suitable cleaning solution.
- Clean the wire cloth from the outside towards the inside.
- Carefully blow out the filter insert with a steam jet or compressed air.
- Clean (or if necessary renew) and oil the seals.

14.5.2 Cleaning the filter housing



- Wear protective clothing and equipment appropriate to the hazard potential of the medium (e.g. goggles, respirator, protective clothing, etc.).
- Remove any coarse impurities by mechanical means.
- Wash out the filter housing in a suitable cleaning solution.

14.6 Replacing the seals and bushes

⚠ WARNING!

If the system is maintained by unauthorised persons:

- ⇒ Risk of injury
- ⇒ All warranty claims are rendered invalid
- The system must be maintained by a suitably trained person!

- Remove the filter insert (refer to section 14.4).
- Clean the automatic filter (refer to section 14.5).
- ⇒ The seals and bushes can now be replaced.

| R8-80 | Part name |
|-------|--|
| 1 | Quad ring |
| 2 | Sealing |
| 3 | O-Ring |
| 4 | O-Ring |
| 5 | O-Ring (only in the case of plastic bush) |
| 6 | Bush |
| 7 | Bush |

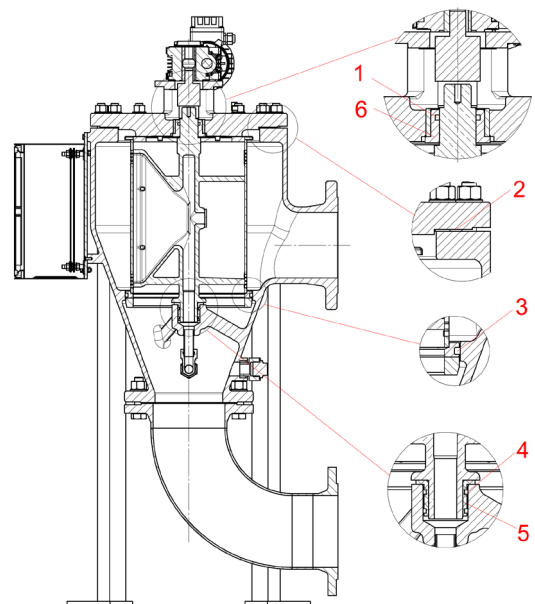


Fig. 11: Replacing the bushes / filter seals

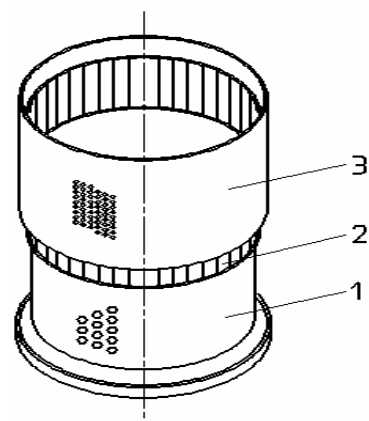
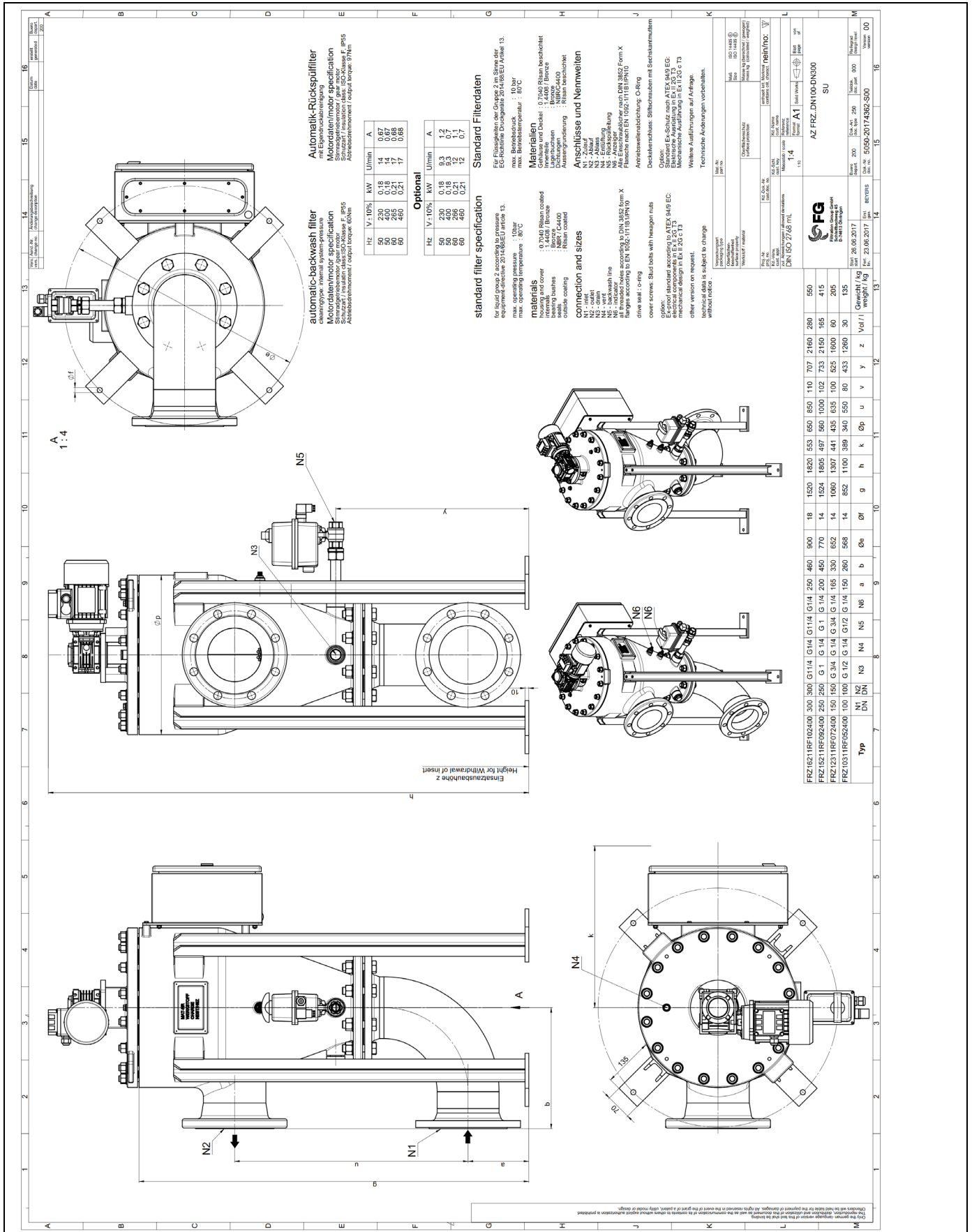
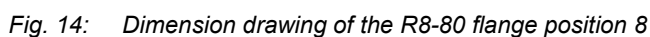


Fig. 12: Removing the wire cloth

15.1 Dimension drawing of the R8-80 flange position 1



15.2 Dimension drawing of the R8-80 flange position 8



16 Spare part drawing R8-80

16.1 Spare part drawing R8-80 Flanschlage 1

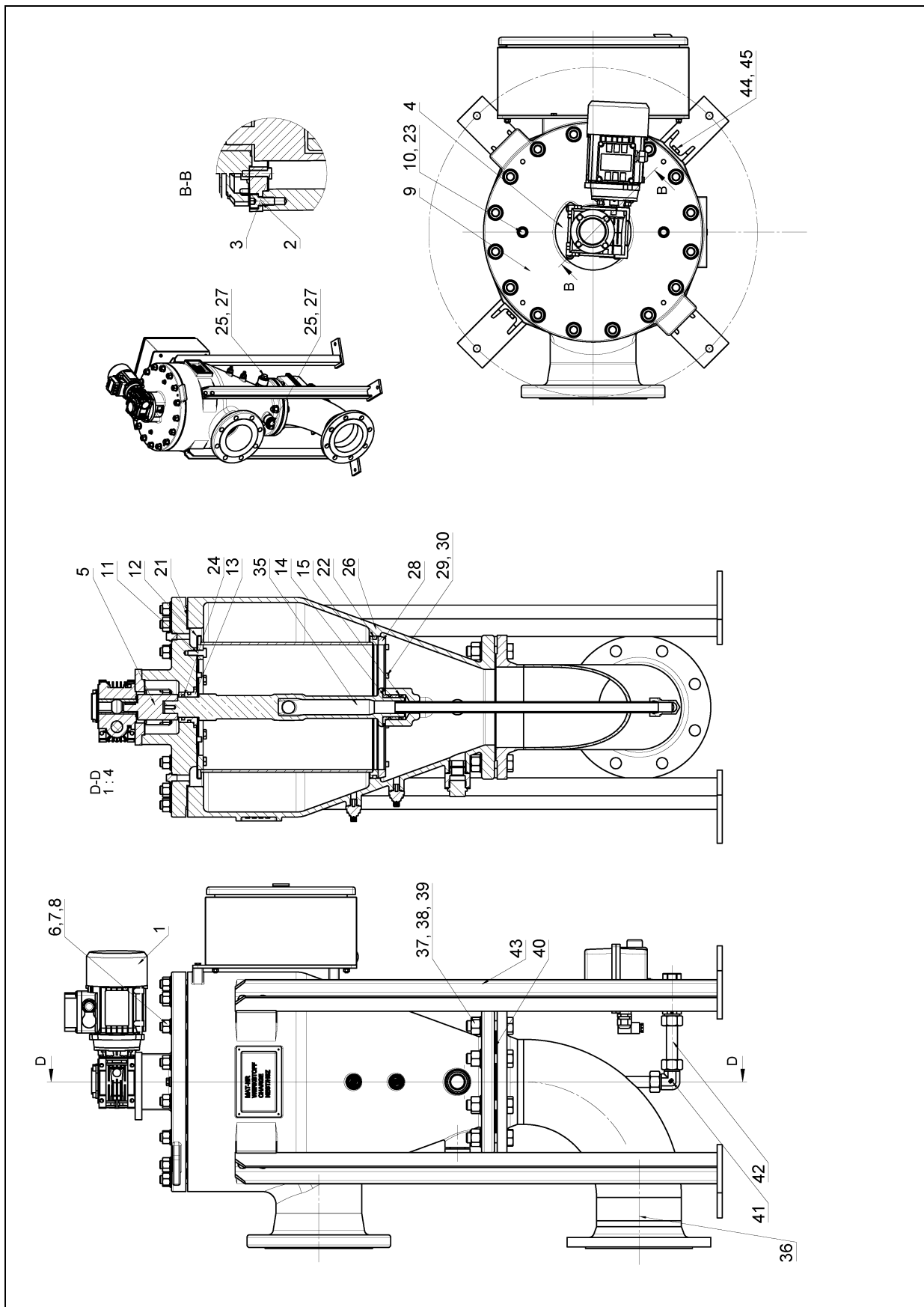


Fig. 15: Spare part drawing R8-80 flange position 1

16.2 Spare part drawing R8-80 flange position 1

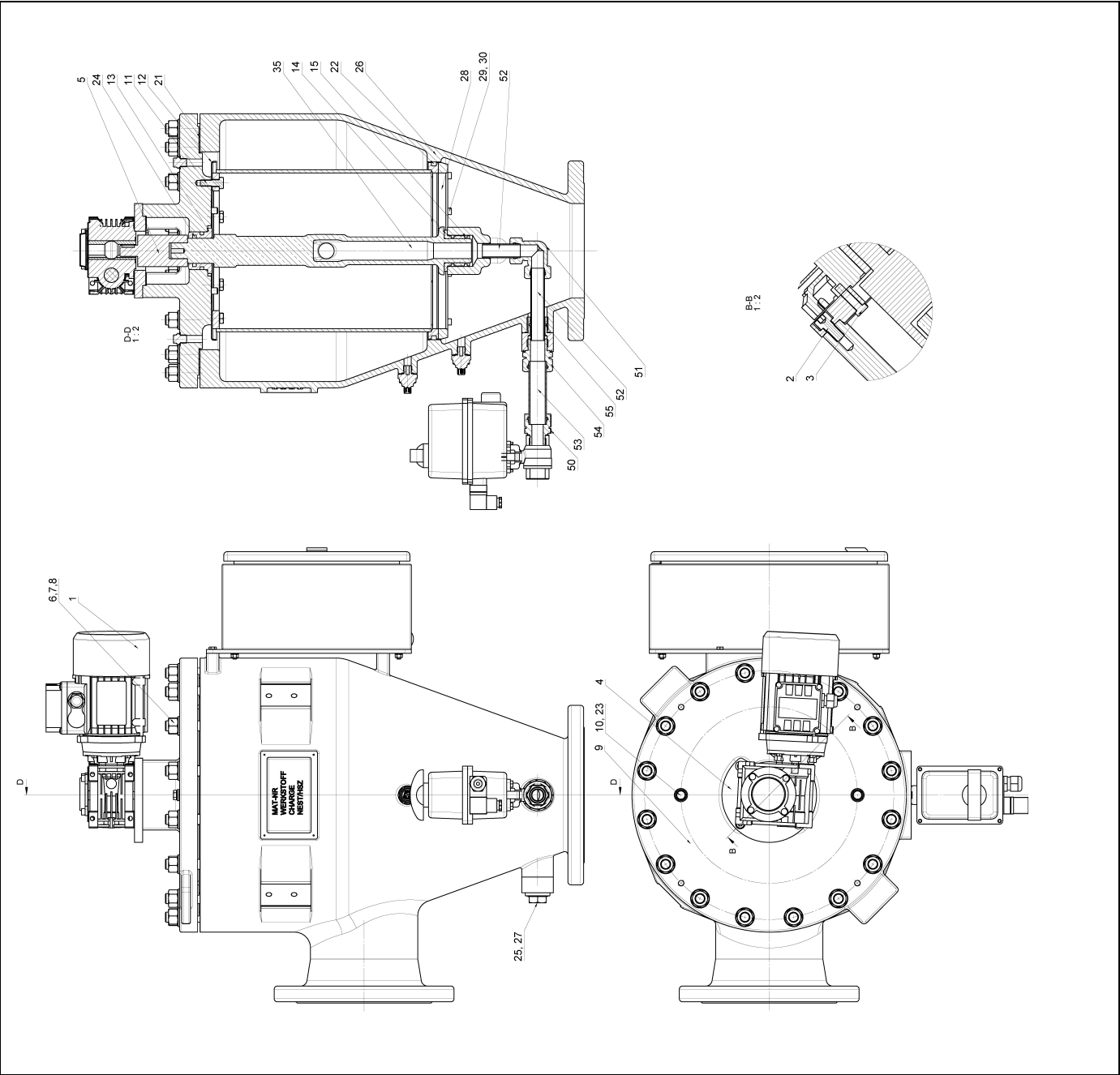


Fig. 16: Spare part drawing R8-80 flange position 8

17 Part lists

17.1 Part list FRZ10...1RF052400

| Pos. | Part name | Qty. | Order No. | Order No. |
|---------|-------------------------------------|------|------------------|--------------------------------|
| | | | FRZ10311RF052400 | FRZ10381RF052400 |
| without | Pressure transmitter | 2 | * | * |
| without | Backwash valve | 1 | * | * |
| | | | | |
| 55 | O-ring | 1 | | Stückliste noch nicht angelegt |
| 54 | EO male straight fitting | 1 | | Stückliste noch nicht angelegt |
| 53 | EO pipe | 1 | | Stückliste noch nicht angelegt |
| 52 | EO pipe | 2 | | Stückliste noch nicht angelegt |
| 51 | EO Elbow fitting | 1 | | Stückliste noch nicht angelegt |
| 50 | EO male straight fitting | 1 | | Stückliste noch nicht angelegt |
| | | | | Stückliste noch nicht angelegt |
| 45 | Washer | 8 | 77772643 | Stückliste noch nicht angelegt |
| 44 | Hexagon screw | 8 | 78334211 | Stückliste noch nicht angelegt |
| 43 | Foot rest R8-80 | 4 | 72459728 | Stückliste noch nicht angelegt |
| 42 | EO pipe | 2 | 76220339 | Stückliste noch nicht angelegt |
| 41 | EO Elbow fitting | 1 | 76232444 | Stückliste noch nicht angelegt |
| 40 | Sealing | 1 | 76233035 | Stückliste noch nicht angelegt |
| 39 | Washer | 16 | 77632854 | Stückliste noch nicht angelegt |
| 38 | Hexagon nut | 8 | 77772049 | Stückliste noch nicht angelegt |
| 37 | Hexagon screw | 8 | 77854540 | Stückliste noch nicht angelegt |
| 36 | Inlet S R8-80 | 1 | 72461070 | Stückliste noch nicht angelegt |
| 35 | Nozzle Z | 1 | 70580876 | Stückliste noch nicht angelegt |
| | | | | Stückliste noch nicht angelegt |
| 30 | Washer | 8 | 70523473 | Stückliste noch nicht angelegt |
| 29 | Cylinder screw | 8 | 79333329 | Stückliste noch nicht angelegt |
| 28 | Coating protection R8-80 | 1 | 72461064 | Stückliste noch nicht angelegt |
| 27 | Screw plug | 2 | 76232318 | Stückliste noch nicht angelegt |
| 26 | Housing N R8-80 | 1 | 72422130 | Stückliste noch nicht angelegt |
| | | | | Stückliste noch nicht angelegt |
| 25 | Sealing ring | 2 | 70563721 | Stückliste noch nicht angelegt |
| 24 | Square seal ring | 1 | 76234502 | Stückliste noch nicht angelegt |
| 23 | Sealing ring A 14,0X 20,0X2,0 | 1 | 76233043 | Stückliste noch nicht angelegt |
| 22 | O-ring | 1 | 76234327 | Stückliste noch nicht angelegt |
| 21 | Sealing | 1 | 72461017 | Stückliste noch nicht angelegt |
| 21 - 25 | Sealing set R8-80 NBR C4400 VP | 1 | 72461423 | Stückliste noch nicht angelegt |
| | | | | |
| 15 | O-ring | 2 | 77564735 | 77564735 |
| 14 | Bush | 1 | 72424429 | 72424429 |
| 13 | Bush | 1 | 76232639 | 76232639 |
| 13 - 15 | Bush set R8-80 2.1182 VP | 1 | 72461429 | 72461429 |
| | | | | |
| 12 | Bottom R8-80 | 1 | 76235778 | 72424118 |
| 11 | Hexagon screw | 4 | 70310623 | 77772585 |
| 10 | Air vent screw G 1/4 | 2 | 78350803 | 78350803 |
| 9 | Cover N | 1 | 70581435 | 72459779 |
| 8 | Hexagon nut | 16 | 77869266 | 77869266 |
| 7 | Washer | 16 | 77632854 | 77632854 |
| 6 | Stud bolt | 16 | 76231954 | 72340661 |
| 5 | Push on sleeve R8-80 | 1 | 72424214 | 72424214 |
| 4 | Motor adapter R8-80 | 1 | 72424020 | 72424020 |
| 3 | ZYLINDSCHR. M 8X 16 ISO4762 | 4 | 77802796 | 77802796 |
| 2 | Cylinder screw M 6X 25 | 4 | 77635337 | 77635337 |
| 1 | Gear motor MB-SP.50HZ 0.18KW 14/MIN | 1 | 79303983 | 79303983 |

17.2 Part list FRZ12...1RF072400 (FRZ12...1RF072405)

| Pos. | Part name | Qty. | Order No. | Order No. |
|---------|--------------------------------|------|---------------------|---------------------|
| | | | FRZ12311RF072400(5) | FRZ12381RF072400(5) |
| | | | | |
| without | Pressure transmitter | 2 | * | * |
| without | Backwash valve | 1 | * | * |
| | | | | |
| 55 | O-ring | 1 | | 77564370 |
| 54 | EO male straight fitting | 1 | | 70364390 |
| 53 | EO pipe | 1 | | 70364399 |
| 52 | EO pipe | 2 | | 76220339 |
| 51 | EO Elbow fitting | 1 | | 76232444 |
| 50 | EO male straight fitting | 1 | | 76231434 |
| | | | | |
| 45 | Washer | 8 | 77772643 | |
| 44 | Hexagon screw | 8 | 78334211 | |
| 43 | Foot rest R8-80 | 4 | 72450464 | |
| 42 | EO pipe | 2 | 76220339 | |
| 41 | EO Elbow fitting | 1 | 76232444 | |
| 40 | Sealing | 1 | 76234043 | |
| 39 | Washer | 8 | 77772015 | |
| 38 | Hexagon nut | 8 | 77771991 | |
| 37 | Hexagon screw | 8 | 77772163 | |
| 36 | Inlet S R8-80 | 1 | 72450449 | |
| 35 | Nozzle Z | 1 | 76244658 | 76244658 |
| | | | | |
| 30 | Washer | 8 | 70523473 | 70523473 |
| 29 | Cylinder screw | 8 | 79333329 | 79333329 |
| 28 | Coating protection R8-80 | 1 | 72424724 | 72424724 |
| 27 | Screw plug | 2 | 79744954 | 79744954 |
| 26 | Housing N R8-80 | 1 | 72423694 | 72423694 |
| | | | | |
| 25 | Sealing ring | 2 | 70575648 | 70575648 |
| 24 | Square seal ring | 1 | 76234498 | 76234498 |
| 23 | Sealing ring A 14,0X 20,0X2,0 | 1 | 76233043 | 76233043 |
| 22 | O-ring | 1 | 76234355 | 76234355 |
| 21 | Sealing | 1 | 76234189 | 76234189 |
| 21 - 25 | Sealing set R8-80 NBR C4400 VP | 1 | 72452460 | 72452460 |
| | | | | |
| 15 | O-ring | 2 | 72466697 | 72466697 |
| 14 | Bush | 1 | 72424429 | 72424429 |
| 13 | Bush | 1 | 76232639 | 76232639 |
| 13 - 15 | Bush set R8-80 2.1182 VP | 1 | 72452456 | 72452456 |
| | | 1 | 72424118 | 72424118 |
| 12 | Bottom R8-80 | 6 | 77772585 | 77772585 |
| 11 | Hexagon screw | 1 | 78350803 | 78350803 |
| 10 | Air vent screw G 1/4 | 1 | 72459779 | 72459779 |
| 9 | Cover N | 16 | 77869266 | 77869266 |
| 8 | Hexagon nut | 16 | 77632854 | 77632854 |
| 7 | Washer | 16 | 72340661 | 72340661 |
| 6 | Stud bolt | 1 | 72424214 | 72424214 |
| 5 | Push on sleeve R8-80 | 1 | 72424214 (72466771) | 72424214 (72466771) |
| 4 | Motor adapter R8-80 | 4 | 72424020 (72466770) | 72424020 (72466770) |
| 3 | ZYLINDSCHR. M 8X 16 ISO4762 | 4 | 77635337 | 77635337 |
| 2 | Cylinder screw M 6X 25 | 1 | 79303983 | 79303983 |
| 1 | Gear motor MB-SP.50HZ 0.18KW | 1 | 79303983 (76121156) | 79303983 (76121156) |

*Order-related or according to the filter fineness , specify plant number (see type plate) and name when ordering

17.3 Part list FRZ15...1RF092400

| Pos. | Part name | Qty | Order No. | Order No. |
|---------|-------------------------------------|-----|------------------|------------------|
| | | | FRZ15211RF092400 | FRZ15281RF092400 |
| without | Pressure transmitter | 2 | * | * |
| Without | Backwash valve | 1 | * | * |
| | | | | |
| 55 | O-ring | 1 | | 72403120 |
| 54 | EO male straight fitting | 1 | | 76244977 |
| 53 | EO pipe | 1 | | 70364399 |
| 52 | EO pipe | 2 | | 70364399 |
| 51 | EO Elbow fitting | 1 | | 76232446 |
| 50 | EO male straight fitting | 1 | | 76244977 |
| | | | | |
| 45 | Washer | 8 | 77772643 | |
| 44 | Hexagon screw | 8 | 78334211 | |
| 43 | Foot rest R8-80 | 4 | 72458725 | |
| 42 | EO pipe | 2 | 76220339 | |
| 41 | EO Elbow fitting | 1 | 76232444 | |
| 40 | Sealing | 1 | 76234043 | |
| 39 | Washer | 8 | 77772015 | |
| 38 | Hexagon nut | 8 | 77771991 | |
| 37 | Hexagon screw | 8 | 77772163 | |
| 36 | Inlet S R8-80 | 1 | 72459336 | |
| 35 | Nozzle Z | 1 | 76226756 | 76244658 |
| | | | | |
| 30 | Washer | 6 | 77632441 | 77632441 |
| 29 | Cylinder screw | 6 | 79157843 | 79157843 |
| 28 | Coating protection R8-80 | 1 | 72459231 | 72459231 |
| 27 | Screw plug | 2 | 79744954 | 79744954 |
| 26 | Housing N R8-80 | 1 | 72459211 | 72459211 |
| | | | | |
| 25 | Sealing ring | 2 | 76233021 | 70575648 |
| 24 | Square seal ring | 1 | 76234498 | 76234498 |
| 23 | Sealing ring A 14,0X 20,0X2,0 | 2 | 76233043 | 76233043 |
| 22 | O-ring | 1 | 76234401 | 76234401 |
| 21 | Sealing | 1 | 72459198 | 72459198 |
| 21 - 25 | Sealing set R8-80 NBR C4400 VP | 1 | 72461437 | 72461437 |
| | | | | |
| 15 | O-ring | 2 | 72403120 | 72403120 |
| 14 | Bush | 1 | 72459171 | 72459171 |
| 13 | Bush | 1 | 76232669 | 76232669 |
| 13 - 15 | Bush set R8-80 2.1182 VP | 1 | 72461438 | 72461438 |
| | | | | |
| 12 | Bottom R8-80 | 1 | entfällt | entfällt |
| 11 | Hexagon screw | 6 | entfällt | entfällt |
| 10 | Air vent screw G 1/4 | 2 | 78350803 | 78350803 |
| 9 | Cover N | 1 | 72459109 | 72459109 |
| 8 | Hexagon nut | 16 | 77771991 | 77771991 |
| 7 | Washer | 16 | 77772015 | 77772015 |
| 6 | Stud bolt | 16 | 76244823 | 76244823 |
| 5 | Push on sleeve R8-80 | 1 | 72459062 | 72459062 |
| 4 | Motor adapter R8-80 | 1 | 72424020 | 72424020 |
| 3 | ZYLINDSCHR. M 8X 16 ISO4762 | 4 | 77802796 | 77802796 |
| 2 | Cylinder screw M 6X 25 | 4 | 77635337 | 77635337 |
| 1 | Gear motor MB-SP.50HZ 0.18KW 14/MIN | 1 | 79303983 | 79303983 |

*Order-related or according to the filter fineness , specify plant number (see type plate) and name when ordering


18 Recommended spare parts R8-80

| Pos. | Part name | Qty | Order No. | Order No. |
|---------|-----------------------|-----|------------------|------------------|
| | | | FRZ10311RF052400 | FRZ10381RF052400 |
| 1 | Gear motor | 1 | 79303983 | 79303983 |
| without | Back wash valve | 1 | * | * |
| without | Pressure transmitter | 2 | 70602250 | 70602250 |
| 13-15 | Bush set R8-80 2.1182 | 1 | 72461429 | 72461429 |
| 21-25 | Sealing set NBR C4400 | 1 | 72461423 | 72461423 |
| without | Wire cloth | 1 | * | * |
| | | | | |

| Pos. | Part name | Qty | Order No. | Order No. |
|---------|-----------------------|-----|---------------------|---------------------|
| | | | FRZ12311RF072400(5) | FRZ12381RF072400(5) |
| 1 | Gear motor | 1 | 79303983 (76121156) | 79303983 (76121156) |
| without | Back wash valve | 1 | * | * |
| without | Pressure transmitter | 2 | 70602250 | 70602250 |
| 13-15 | Bush set R8-80 2.1182 | 1 | 72452456 | 72452456 |
| 21-25 | Sealing set NBR C4400 | 1 | 72452460 | 72452460 |
| without | Wire cloth | 1 | * | * |
| | | | | |

| Pos. | Benennung | Anzahl | Bestell-Nr.: | Bestell-Nr.: |
|---------|-----------------------|--------|------------------|------------------|
| | | | FRZ15211RF092400 | FRZ15281RF092400 |
| 1 | Gear motor | 1 | 79303983 | 79303983 |
| without | Back wash valve | 1 | * | * |
| without | Pressure transmitter | 2 | 70602250 | 70602250 |
| 13-15 | Bush set R8-80 2.1182 | 1 | 72461438 | 72461438 |
| 21-25 | Sealing set NBR C4400 | 1 | 72461437 | 72461437 |
| without | Wire cloth | 1 | * | * |
| | | | | |

*Dependent on the order or on the specificity, specify the item and the name when ordering the order number (see data plate).

| | |
|---|---|
|  | Please request a separate spare parts drawing and list of spare parts for special versions. |
|---|---|

| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | | |
|--|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| <p>Vers. / Aend.-Nr. 17 6000260339 18 6000322171</p> <p>Änderungsbeschreibung change description Neues Layout und neue Benennung Branding</p> <p>Datum date 09.12.2015 19.04.2017</p> <p>erstellt generated STRAUSSN DittichN</p> <p>Buero depart. 200 200</p> | | | | | | | | | | <p>Auftragsnummer job no.</p> <p>Herstelldatum date of manufacture</p> | | | | | | <p>Schriftfelder / signature fields.</p> <p>Linien 0,2 mm dick / lines 0.2 mm thick</p> <p>3,5</p> <p>Schriftgröße / type height 1,8 mm Betriebstemperatur in 1,4 mm</p> | |
| <p>FGC.com</p> <p>Filtration Group GmbH Schleifbachweg 45 D-74613 Öhringen fm.de.service@filtrationgroup.com</p> <p>Made in Germany</p> <p>Mat-Nr. Komplettfilter part-no. complete filter</p> <p>Filterelement-Bezeichnung filter element designation</p> <p>Filtertyp-Bezeichnung inkl. *E... filter type designation incl. *E...</p> | | | | | | | | | | <p>Materialnummer PART NO.</p> <p>MAX. ZUL. BETRIEBSDRUCK MAX. ALLOWABLE PRESS.</p> <p>PROFDRUCK TEST PRESSURE</p> <p>BETR. TEMP. OPER. TEMP.</p> <p>VOLUMEN VOLUME</p> <p>Filterelement FILTER ELEMENT</p> <p>Auftragsnummer JOB NO.</p> <p>BAUJAHR YEAR</p> <p>PROFDATUM TEST DATE</p> <p>HERSTELLERCODE MANUFACTURE CODE</p> <p>HERSTELLER BEHÄLTEN NR. MANUFACTURE VESSEL NO.</p> | | | | | | <p>Verpackungsart packaging type</p> <p>Oberflächen- beschaffenheit surface property</p> <p>Werkstoff / material EN AW-1050A (AL99,5) eloxiert I=0,5</p> <p>Proz.-Nr. proj. no.</p> <p>Kd.-Dok.-Nr. cust. doc. no.</p> <p>Kd.-Verw. cust. appl.</p> <p>zul. Abweichungen / allowed deviations</p> <p>Kd.-Schl. cust. key</p> <p>Massstab / scale 1:1</p> <p>Kd.-Name cust. name</p> <p>Referenz reference</p> <p>Format format</p> <p>A3</p> <p>Solid Works</p> <p>Blatt page</p> <p>von of</p> | |
| <p>FGC.com</p> <p>Schriftart / kind of type: Arial</p> <p>Schrift und Textfeldrahmen: silbergrau glänzend font and framework of the text fields: silver gray glossy</p> <p>Untergrund: schwarz surface: black</p> <p>70346537</p> <p>gefertigt aus Rohteil / manufactured from raw part:</p> <p>ACHTUNG! Schriftfelder parallel zur Außenkante ATTENTION! signature fields parallel to the outer edge</p> <p>Schriftfelder gemäß Angaben in den Klassifikationsdaten ausfüllen signature fields filled with data as listed in the classification</p> | | | | | | | | | | <p>Maß Size ISO 14405 (B) ISO 14405 (C)</p> <p>Masse kg (berechnet / gewogen) mass kg (calculated / weighed)</p> <p>enthält krit. contains crit. charact.</p> <p>nein/no: V</p> <p>TYPENSCHILD FG 80X44 AL</p> <p>Filtration Group GmbH Schleifbachweg 45 D-74613 Öhringen Schutzvermerk DIN ISO 16016 beachten consider protection notice DIN ISO 16016</p> <p>Start start 12.01.2009</p> <p>Buero depart. 200</p> <p>Dok.-Art doc. type 250</p> <p>Teildok. doc. part 000</p> <p>Reifegrad design level</p> <p>Fert. fin. 22.01.2011</p> <p>Erst. gen. RICHTER</p> <p>Dok.-Nr. doc. no. 5050-57545072-S00</p> <p>Version version 18</p> | | | | | | <p>nein/no: V</p> <p>TYPENSCHILD FG 80X44 AL</p> <p>Filtration Group GmbH Schleifbachweg 45 D-74613 Öhringen Schutzvermerk DIN ISO 16016 beachten consider protection notice DIN ISO 16016</p> <p>Start start 12.01.2009</p> <p>Buero depart. 200</p> <p>Dok.-Art doc. type 250</p> <p>Teildok. doc. part 000</p> <p>Reifegrad design level</p> <p>Fert. fin. 22.01.2011</p> <p>Erst. gen. RICHTER</p> <p>Dok.-Nr. doc. no. 5050-57545072-S00</p> <p>Version version 18</p> | |

Fig. 17: Data sheet

20 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 : | Automatik-Kantenspaltfilter Automatic metal edge filter Filtres automatiques à fentes |
| Typenbezeichnung: Type designation: Désignation du type : | AF 8 (R8-80) |
| 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

Anlage/Annex/Annexe

Unterschrift/Signature/Signature

3 Seiten/pages/pages

Anlage zur Einbauerklärung gemäß Richtlinie
2006/42/EU für Automatik-Kantenspaltfilter
Annex to the Declaration of Incorporation pursuant to
the Machinery Directive 2006/42/EU for automatic metal
edge filter



Annexe à la déclaration de montage selon la directive
2006/42/UE pour filtres automatiques à fentes
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 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 Sturzsrisiko 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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