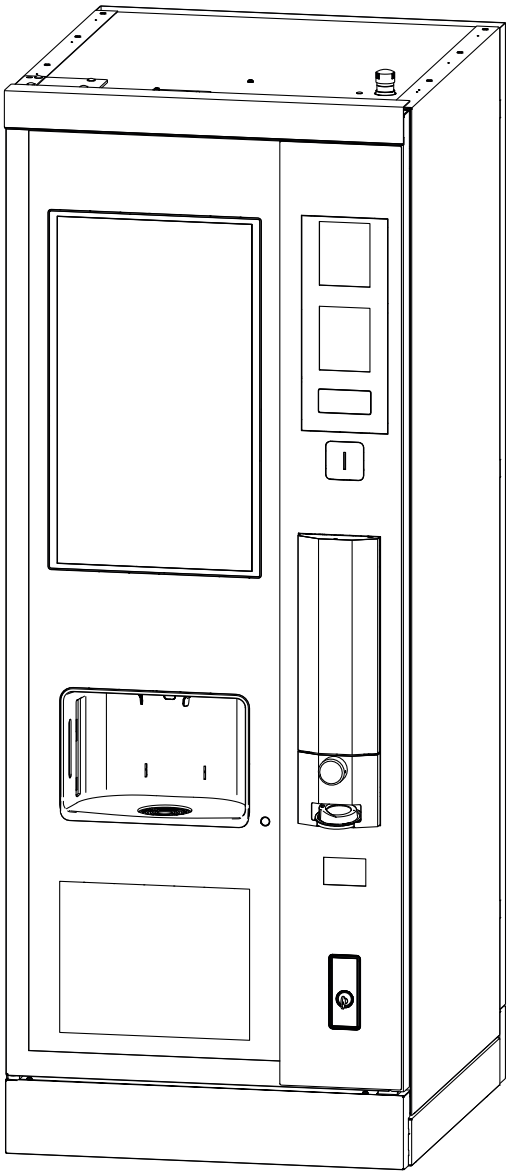
Technical handbook

HG SiLine TS 27 ES



EN

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Contents

1. General

Modifications

The texts, pictures and data in this manual reflect the technical status of the machine at the time of printing. We reserve the right to make changes in order to make further developments.

Complete document

This document consists of 64 pages. If all the pages are in consecutive order, your document is complete.

Manufacturer

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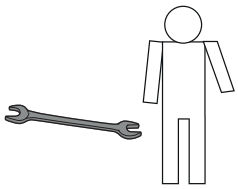
export@sielaff.de; www.sielaff.com



Intended users

This manual is designed for use by trained personnel and service technicians. It is assumed that target users have received training on the machine.

Identification

1	Manufacturer
2	Machine type
3	Electrical supply ratings

Copyright

2. Useful information

2.1 Safety information

- When transporting, setting up, servicing and repairing the vending machine, strict adherence to the following rules and guidelines - in their latest version - is essential: Standards set by the appropriate electricity company, UW-accident prevention regulations, trade association guidelines, industrial code, EC guidelines, VDE regulations, observance of the current hygiene regulations, country-specific regulations, Industrial Safety Regulation -BetrSichV, Workplace regulations - ArbstättV
- Machine installation and repairs should only be carried out by trained service engineers.
- The liquids dispensed by the machine are hot. To prevent scalding during the vending process refrain from putting hands under the drinks outlet.
- Never put hands into the brewing chamber. There is crushing risk.
- The machine dispenses food products. For the prevention of health hazards for the consumer the machine must be cleaned regularly.
  In addition to the weekly and monthly cleaning procedures, maintenance work should also be carried out on the machine.
- Only use authorized food-safe, cleaning agents.
- Do not clean the machine with a water hose or a high-pressure cleaner.
- For automatic cleaning of the brewing group only the product with part number 998 00 119 93 should be used. Other liquid cleaners may result in customers incurring food poisoning.
- The use of the service key is reserved exclusively for trained service technicians. By inserting the service key, a protection device is de-activated! Risk of injury!
- Even if the mains switch is off, there is still voltage to the main switch, service socket and interior lighting. Always pull the plug out when working in this area.
- Use original spare parts only.

2.2 Explanation of signs and symbols

This vending machine was manufactured in accordance with state-of-the-art technology standards. Nevertheless, even the most expertly designed machine, cannot be without risks.

In order to ensure the machine operator a sufficient level of safety, additional safety tips are detailed below.

Adequate safety during operation is ensured only when these safety precautions are observed.

Text highlighted below symbolises the following:

Danger

Immediate danger which could result in death or severe injury.

WARNING

Possible dangerous situation which could result in death or severe injury.

CAUTION

Comments that refer to a dangerous situation with the possible consequences of minor injuries.

NOTE

Comments relating to machine damage prevention.

Tip

Care when handling facilitates working on the machine.

The following danger symbols may also be used in certain instances:

WARNING electricity! Danger to life!

This symbol warns that electrically live components are installed in this area. Covers marked with these symbols should only be removed by authorised electricians.

CAUTION! Hot surfaces!

This symbol is found on surfaces that become hot.

There is a risk of scalding or serious burns.

The surfaces can also still be hot even after the vending machine is shut down. Only carry out work in the vicinity of these surfaces once they have cooled down.

Observe handling regulations when dealing with electrostatically sensitive components and modules (ESD)

Behind covers marked with this symbol are parts and components that are susceptible to electrical discharge.

It is imperative that plug connections, electrical leads and component pins are not touched.

Only specialist personnel with ESD knowledge are authorised to work on the machine!

CAUTION! Danger of crushing!

This symbol warns about crushing risks. Areas marked with this symbol contain moving parts. In normal operation there is a crushing risk in these areas.

A product displaying this symbol must not be put into house waste at the end of life, but disposed of separately. The regulations may vary depending on the country.

2.3 Cleanliness and hygiene

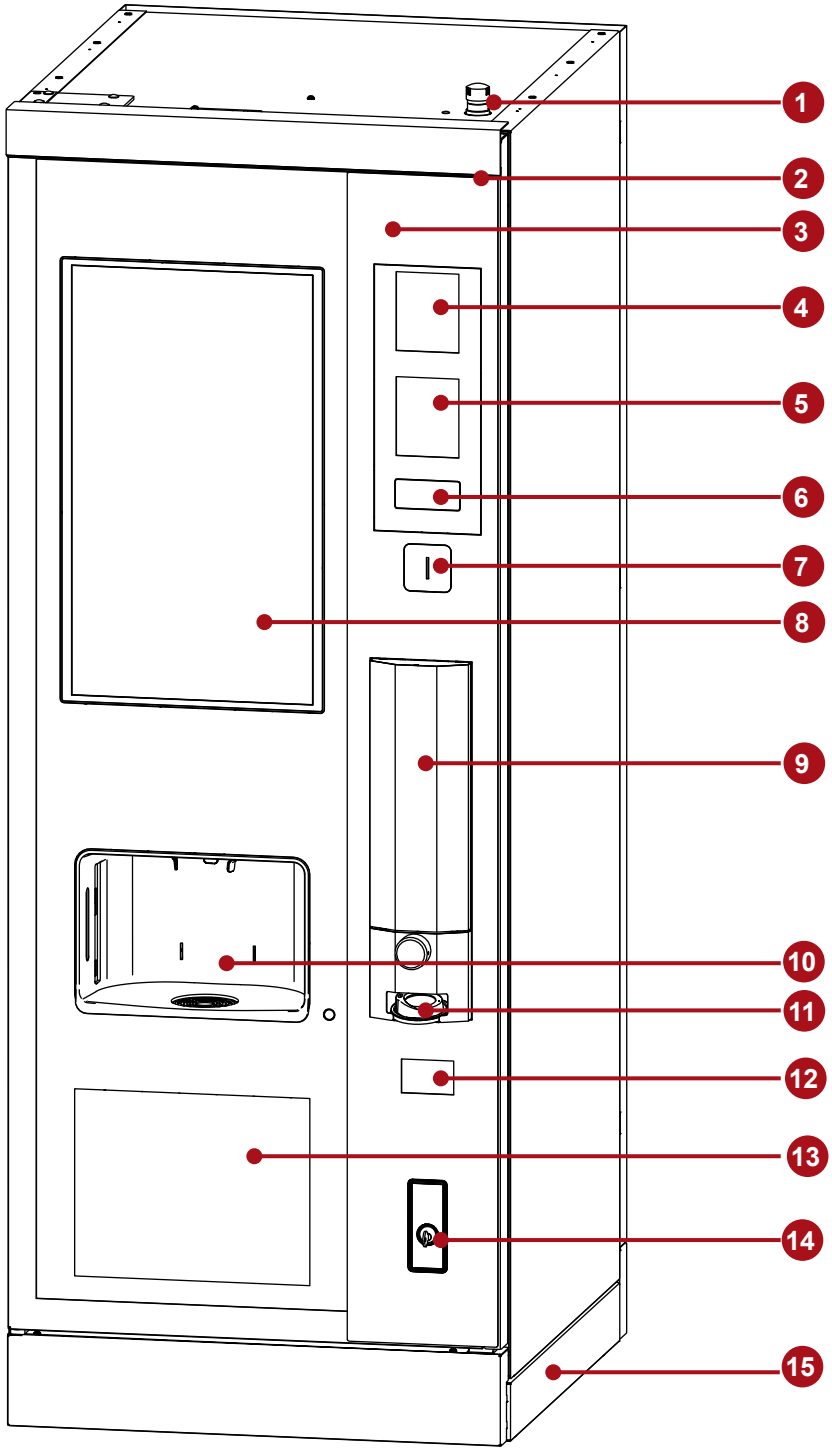
Machine cleanliness is the responsibility of the operator and should be monitored by filling staff. When working on the vending machine general hygiene requirements must be adhered to.

- Wash hands well and disinfect them before handling foods
- For cleaning the vending machine only use cleaning agents that are food-safe.
- After cleaning, do not touch parts that come in contact with foods.
- Avoid sneezing and coughing when handling open food products.
- Products that have been opened must be properly closed and stored safely.
- Product residue must be removed
- Store products separately in a cool and dry area.
- Direct contact with the product should be avoided
- In order to provide a drink quality which meets the most stringent hygiene standards, it is essential that the prescribed cleaning intervals are followed. Thorough and regular cleaning and/or maintenance can be carried out in a relatively short amount of time and at little expense.

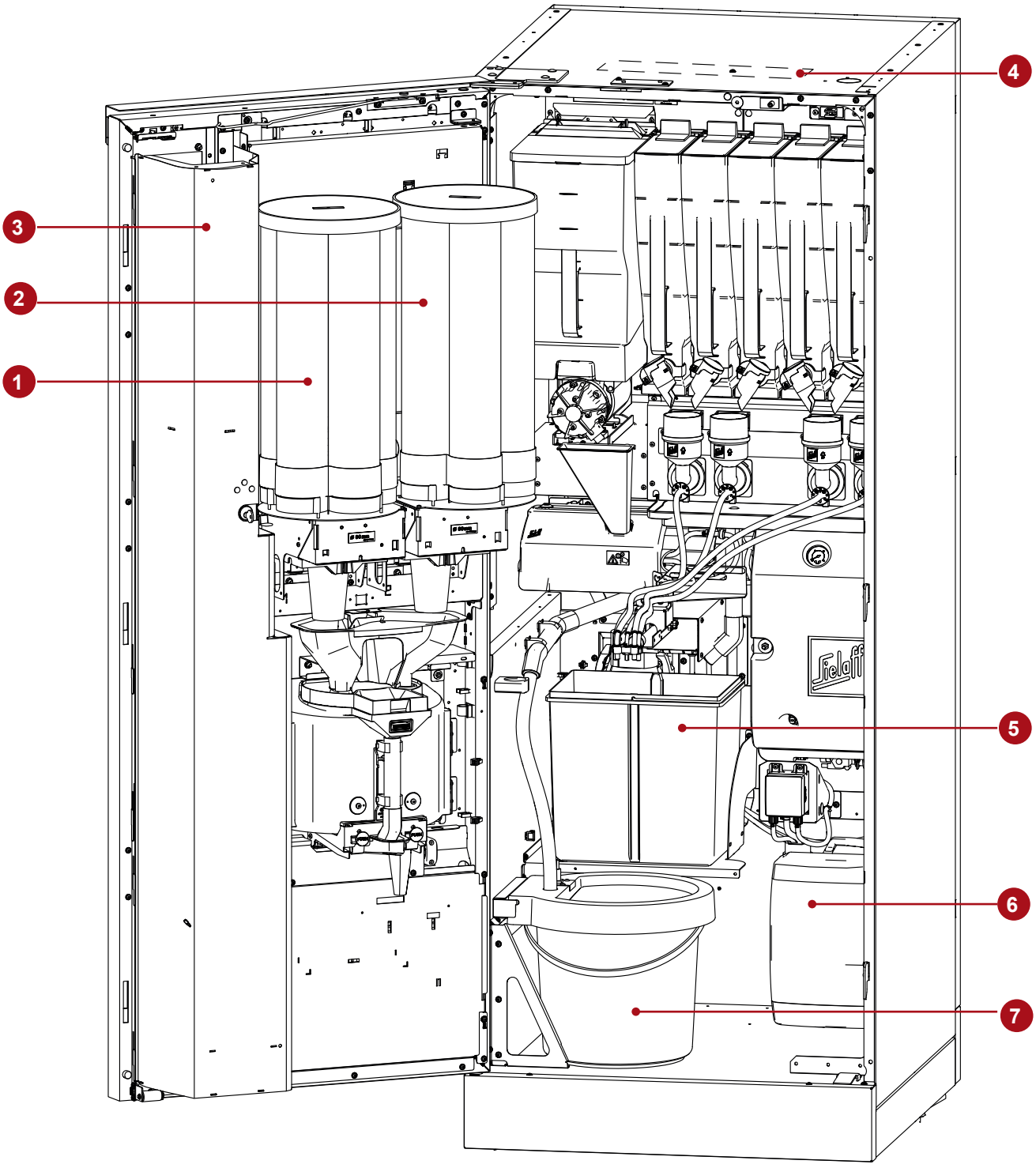
2.4 Requirements for maintenance and repairs

- Before carrying out any repairs on the machine the mains plug must always be removed from the mains power supply. The mains plug must be so positioned that it can be monitored during the repair to ensure that no one inadvertently puts it back into the socket.

3. Machine diagrams



1 Emergency shut-off (optional)
2 LED-Illumination
3 Door
4 EVA-cut out
5 EVA-cut out
6 Barcode reader (optional)
7 Coin insert
8 27" for touch display
9 Dispenser for cup lids
10 Products delivery unit
11 Cup lids dispenser
12 Cup return box illuminated
13 Advertising panel/advertising screen (optional)
14 Lock
15 Kickplate



1 Cup dispense mechanism no. 1
2 Cup dispense mechanism no. 2
3 Cashbox
4 Illumination inside
5 Grounds container
6 Cleaner for brewing unit, partno. 998 00 119 93
7 Waste water bucket

4. Maintenance list and maintenance kit
Part. no. 419 50 000 03

Housing (see 5.1 on page 14)

Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Water supply pipe 3/8 inch (2 m)	402 00 082 00	4	1	4	1	4	1	
Water supply pipe (polyethylene pipe Ø 8,0 x Ø 6,0)	980 50 508 08 (0,3 m)	4	1	4	1	4	1	
Water supply pipe (polyethylene pipe Ø 8,0 x Ø 6,0)	981 50 508 08 (2x 0,75 m)	4	1	4	1	4	1	
Water filter (optional)		3.4	3.4	3.4	3.4	3.4	3.4	
Fine filter dirt trap	404 00 963 01	2.4	2.4	2.4	2.4	2.4	2.4	
Non-return valve	404 00 995 29	4	1	4	1	4	1	
Water circulation	Check for leakages	4	4	4	4	4	4	
Support for runout pipe	412 00 184 00	4	4	4	4	4	4	
Outlet pipe (instant)	412 00 185 00	4	4	4	4	4	4	
Outlet pipe (coffee and hot water)	412 00 200 00	4	4	4	4	4	4	
Locks	006 00 024 00	3.4	3.4	3.4	3.4	3.4	3.4	
Is the machine standing safely, no tilting, firmly secured?	Check	4	4	4	4	4	4	
Hinge bolts on door	Special grease Microlube GL 261 part. no. 998 90 037 01	4	4	4	4	4	4	
Locking hook		4	4	4	4	4	4	

Brewer unit (only espresso variant) (see 5.2 on page 16)

Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Brewer filter	407 00 608 00 407 00 644 00	4	1	4	1	4	1	
Clamping ring (replace if damaged)	407 00 609 00	4	1	4	1	4	1	
Silicone tube brewer → reducer	985 13 420 45 (4x2 mm brown)	4	1	4	1	4	1	
Outlet reducer	412 00 146 00	4	1	4	1	4	1	
Silicone hose reduction → outlet	985 13 420 45 (4x2 mm brown)	4	1	4	1	4	1	
Silicone tube brewer → non return valve	985 13 420 16 (4x2 mm black)	4	1	4	1	4	1	
Non-return valve	412 00 322 00	4	1	4	1	4	1	
Silicon tube non-return valve → brewer	985 13 420 16 (4x2 mm black)	4	1	4	1	4	1	
Grinder (if necessary with grinder cleaner)	998 00 119 55	2.3	2.3	2.3	2.3	2.3	2.3	
Silicone flow regulating disc	406 00 348 01	4.1	4.1	4.1	4.1	4.1	4.1	
Grinding disks for EK21	407 00 011 01	4	4	4	4	4	4	
Espresso boiler pressure relief valve	414 00 942 00	4	4	4	4	4	4	
Instant section: Reducer	408 00 380 00	4	1	4	1	4	1	
Transparent Teflon tubes	985 13 430 10	4	4	4	4	4	4	
Teflon tubes red	985 13 434 04	4	4	4	4	4	4	
Tube in peristaltic pump (liquid cleaner)	415 50 932 00	4	1	4	1	4	1	
Non-return valve	403 00 164 35	4	1	4	1	4	1	

Instant zone (refer to chapter 5.3 on page 22)

Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Fan	Service code 33M	2.4	2.4	2.4	2.4	2.4	2.4	
Mixer paddle	404 00 309 00	1	1	1	1	1	1	
Flange: V-Ring	404.00.331.01	1	1	1	1	1	1	
Flange: O-ring	952 40 040 25	4	1	4	1	4	1	
Mixer water couplings	402 00 326 00	4	1	4	1	4	1	
Silicone hose mixer housing → outlet	985 13 420 31 (Ø 6 x 2 mm black)	4	1	4	1	4	1	
Mixer housing	405 00 038 00	4	4	4	4	4	4	
Mixer motor	404 00 330 00	4	4	4	4	4	4	
Instant product containers including worms and wheels		4	4	4	4	4	4	

Door (see 5.4 on page 24)

Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Electronic lock (machine door)	Service code 700112M	3.4	3.4	3.4	3.4	3.4	3.4	
Electronic lock (cashbox door)	Service code 700111M	3.4	3.4	3.4	3.4	3.4	3.4	

Electronics (refer to chapter 5.5 on page 25)

Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Door contact switch	985 14 065 27	4	4	4	4	4	4	
Water supply valve	Service code 32M	4	4	4	4	4	4	
Waste bucket sensor	Service code 150L	4	4	4	4	4	4	
Software version control board	Service code 900L	4	4	4	4	4	4	
Touchscreen		4	4	4	4	4	4	
Online module (optional)		4	4	4	4	4	4	
LED illumination advertising panel illumination		4	4	4	4	4	4	
LED-illumination (optional) delivery outlet illumination		4	4	4	4	4	4	
Internal illumination	Check circuit breaker	4	4	4	4	4	4	
Flowmeter	402 40 404 00	4	4	4	4	4	4	
Capacitor grinder	MONO 1x 407 00 011 03 DUO 2x 407 00 011 03	4	4	4	1	4	4	
Capacitor pump	985 53 300 24	4	4	4	1	4	4	

Settings (refer to chapter 5.6 on page 27)

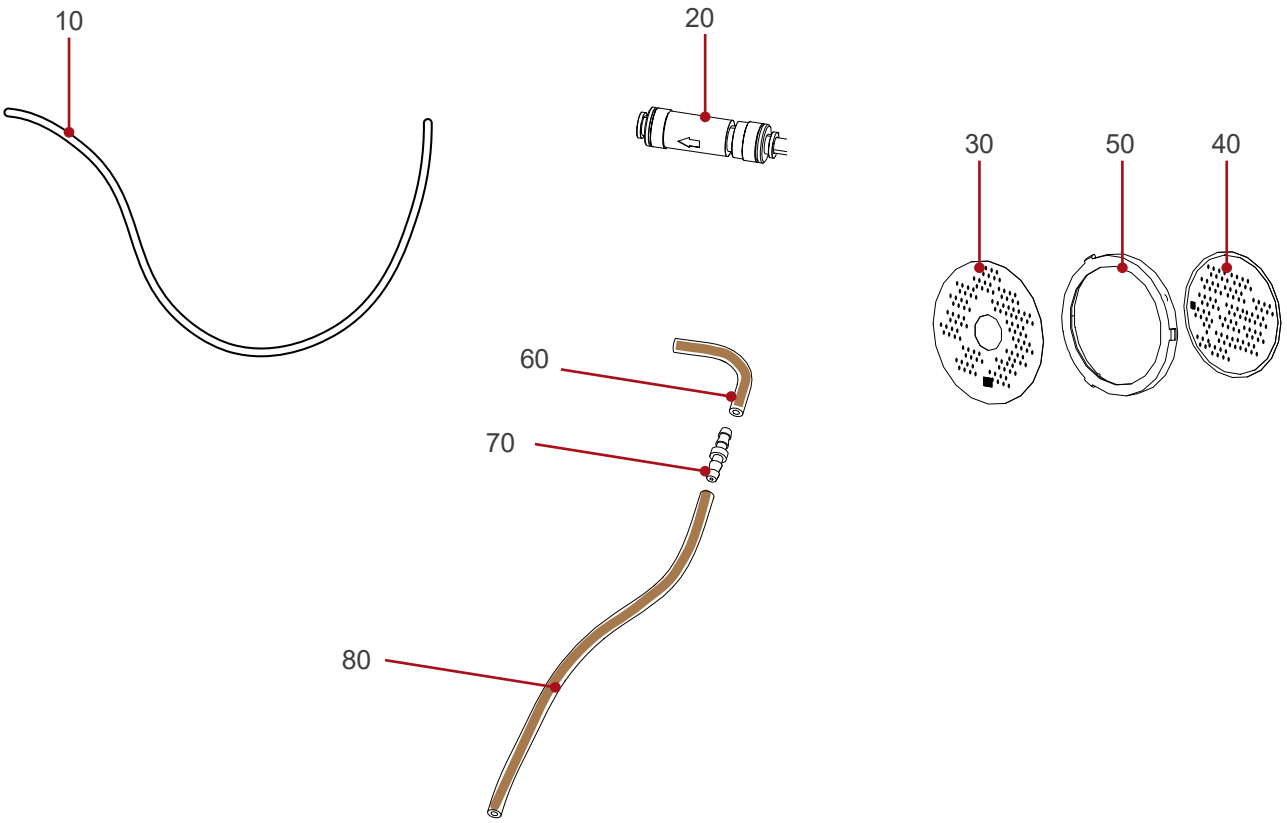
Component	Resources Spare part no.	Action 1= exchange 2= clean 3= align 4=check						OK
	Months or Vends	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000	
Water quantities	Measuring jug, scales	3	3	3	3	3	3	
Dosages, calibration, grind	Measuring cup, scales to 0.1g accuracy	3	3	3	3	3	3	
Brewing temperature	Thermometer	3	3	3	3	3	3	

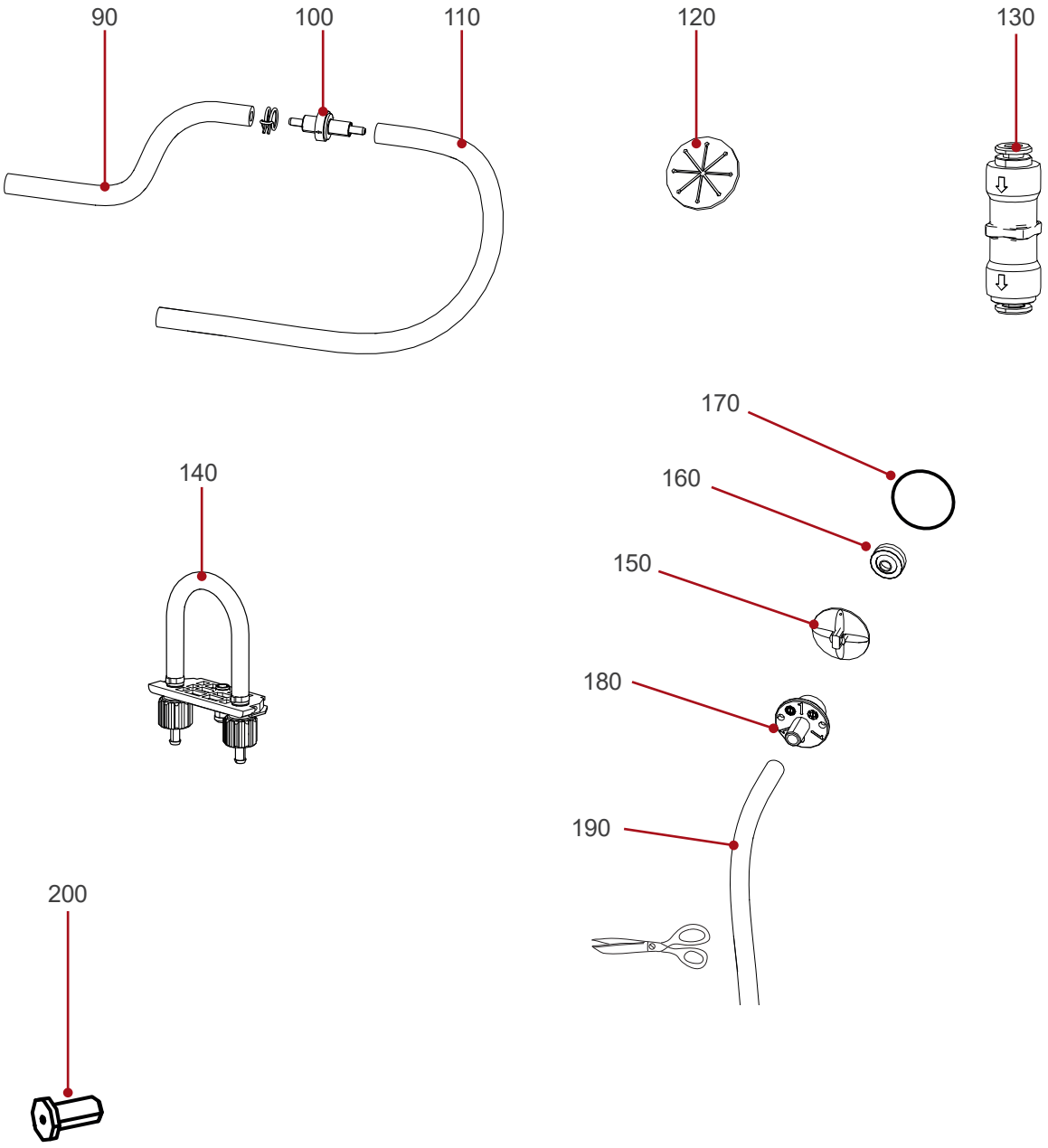
Maintenance kit part. no. 419 50 000 03

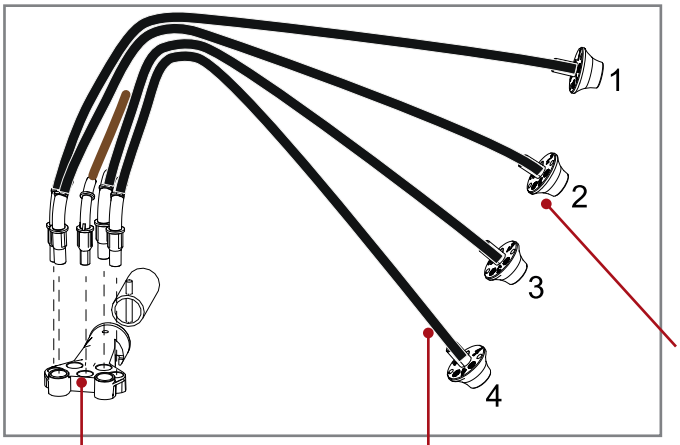
(12 months or 40,000 servings)

The composition of the maintenance kit corresponds to the document at time of printing. On account of further development work and technical changes to the machine the composition may change.

Item	Quantity	Part	Designation
10	2	980 50 508 08	Polyethylene tube Ø 8.0 x Ø 6.0 mm
20	1	404 00 995 29	Non-return valve
30	1	407 00 644 00	Filter compl. Espresso in HTP brewer
40	1	407 00 608 00	Filter Ø 35
50	1	407 00 609 00	Clamping ring
60	0.08 m	985 13 420 45	Silicone hose, black, Ø 4 x 2 mm
70	1	412 00 146 00	Outlet reducer Ø 2 mm
80	0.34 m	985 13 420 45	Silicone hose, black, Ø 4 x 2 mm
90	0.12 m	985 13 420 16	Silicone hose, black, Ø 4 x 2 mm
100	1	412 00 322 00	Non-return valve 12 mm x 31 mm
110	0.235 m	985 13 420 16	Silicone hose, black, Ø 4 x 2 mm
120	2	406 00 348 01	Silicone flow regulating disc EK21
130	1	403 00 164 35	Non-return valve
140	1	415 50 932 00	Tube for peristaltic pump kit (DSP 9911 Saier)
150	4	404 00 309 00	Mixer paddle
160	4	404.00.331.01	Seal for mixer flange, silicone, red
170	4	952 40 040 25	O-ring for flange Ø 37.6 x 2.6 mm, silicone, red
180	4	402 00 326 00	Mixer - Water coupling, black
190	2.5 m	985 13 420 31	Silicone hose, black, Ø 6 x 2 mm
200	1	408 00 380 00	Reducer







no.	Pipe length approx.
1	45 cm
2	48 cm
3	54 cm
4	60 cm

5. Maintenance procedures

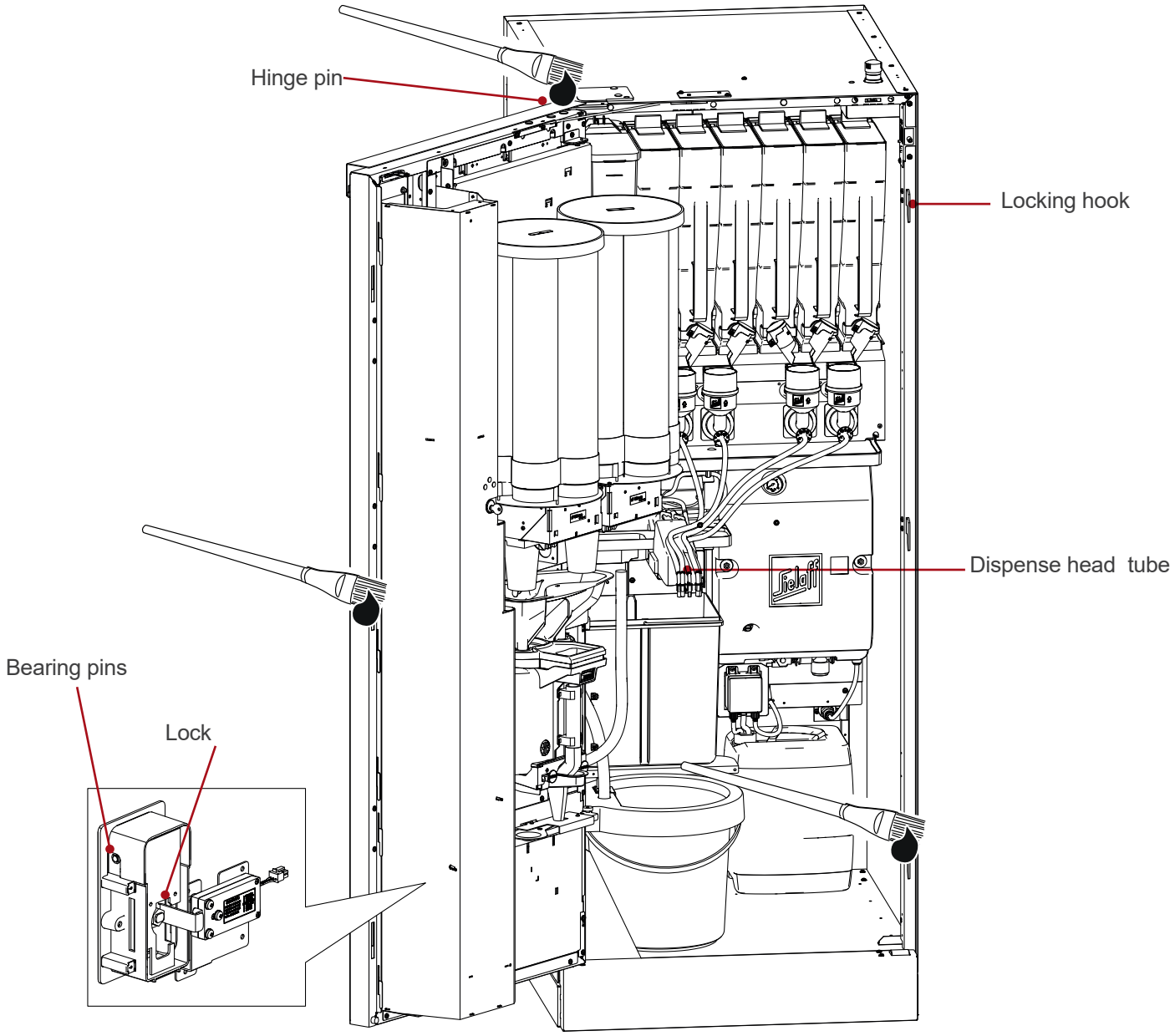
5.1 Housing

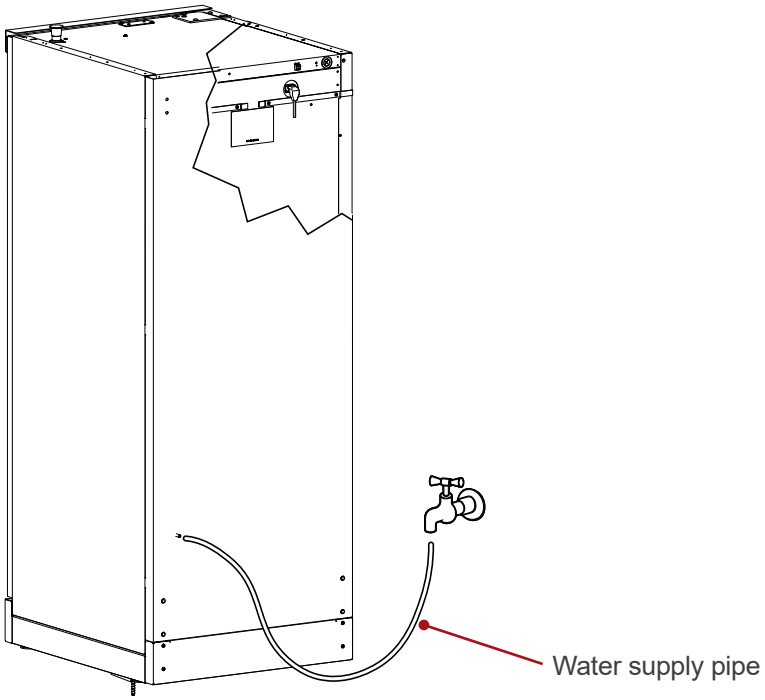
Resources

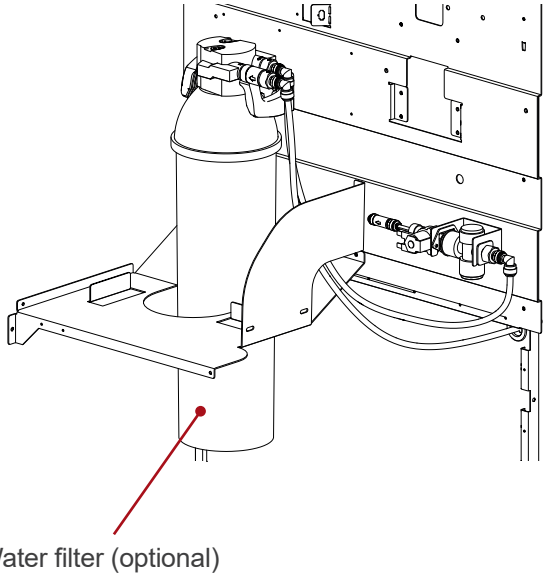
- Special grease e.g. Microlube GL 261 Part no. 998 90 037 01

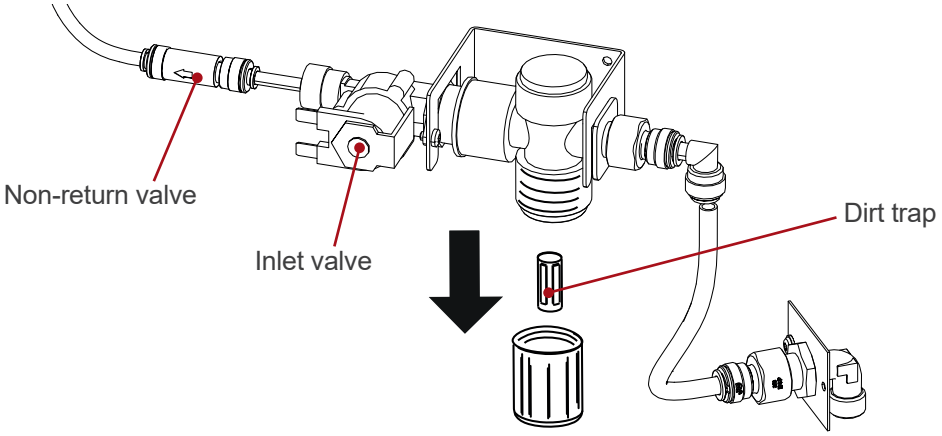
Procedure

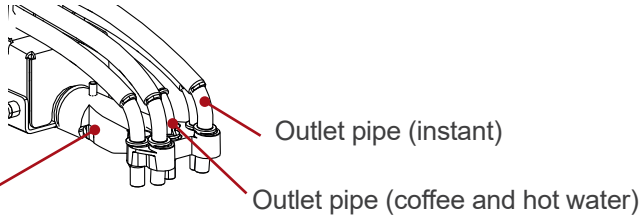
- Check machine fixing to the wall or floor
- Check the operation and position of the closed machine door.
- Lubricate the bearing on the machine door to make sure it is intact and lubricate with Tunfluid DAB .
- Lubricate the locking hook with Microlube GL 261 on the contact surfaces.
- Check locking, bearing pins work correctly and lubricate with Microlube GL 261.
- Maintain the door lock as per manufacturer's instructions.

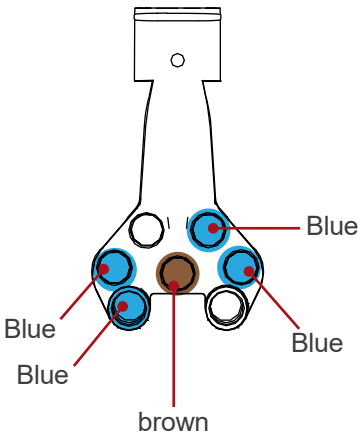












Outlet pipe blue: Standard, ø5mm
Outlet pipe brown: ø4mm
The brown pipe with the smaller diameter feeds to the brewer.

5.2 Brewer unit

CAUTION! Danger of crushing!
By inserting the service key, a protection device is de-activated. When the brewer closes, there is a crushing risk. Therefore fingers should always be kept well away from the brewer when the service key is inserted.

Checking brewer filter / brewer seal

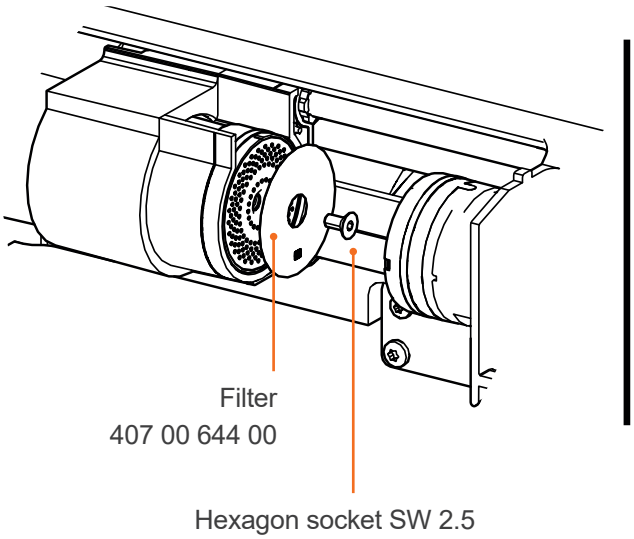
- The brewer seals are not subjected to any significant wear and tear.
- The parts can be visually checked. Changes to the colour of the parts are completely normal and no reason for complaint.

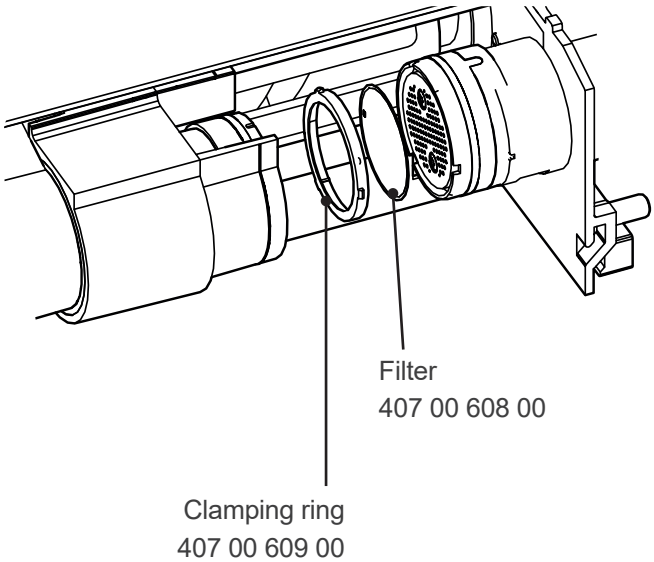
Changing the brewer filter

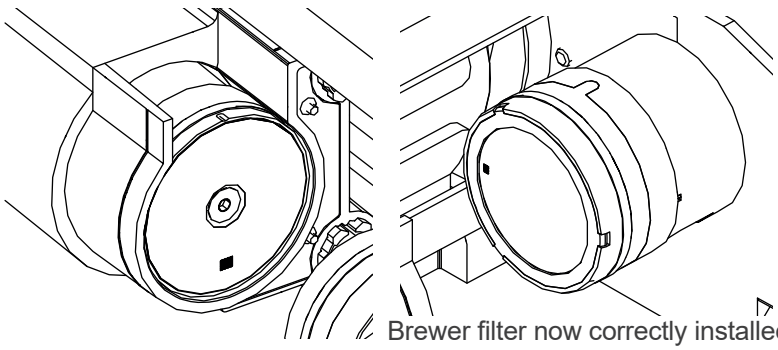
Procedure

1. *Insert service key*
2. *Initiate service function 58M, until the brewer is in service position (open)*
3. *Remove service key*
4. *Change the left hand brewer filter using an Allen key (tighten securing screw by hand)*
5. *Remove any contamination behind the brewer filters (coffee grease) using a damp cloth.*
6. *Using a flat screwdriver carefully free the clamping ring on the right hand brew filter.*
7. *Exchange the brew filter (old for new)*
8. *Fit the clamping ring so that the 3 locking catches engage with the slots on the piston*
9. *Insert service key*
10. *Initiate Service function 57M (close brewer)*
11. *Remove service key*

✓ The brew filter has now been changed



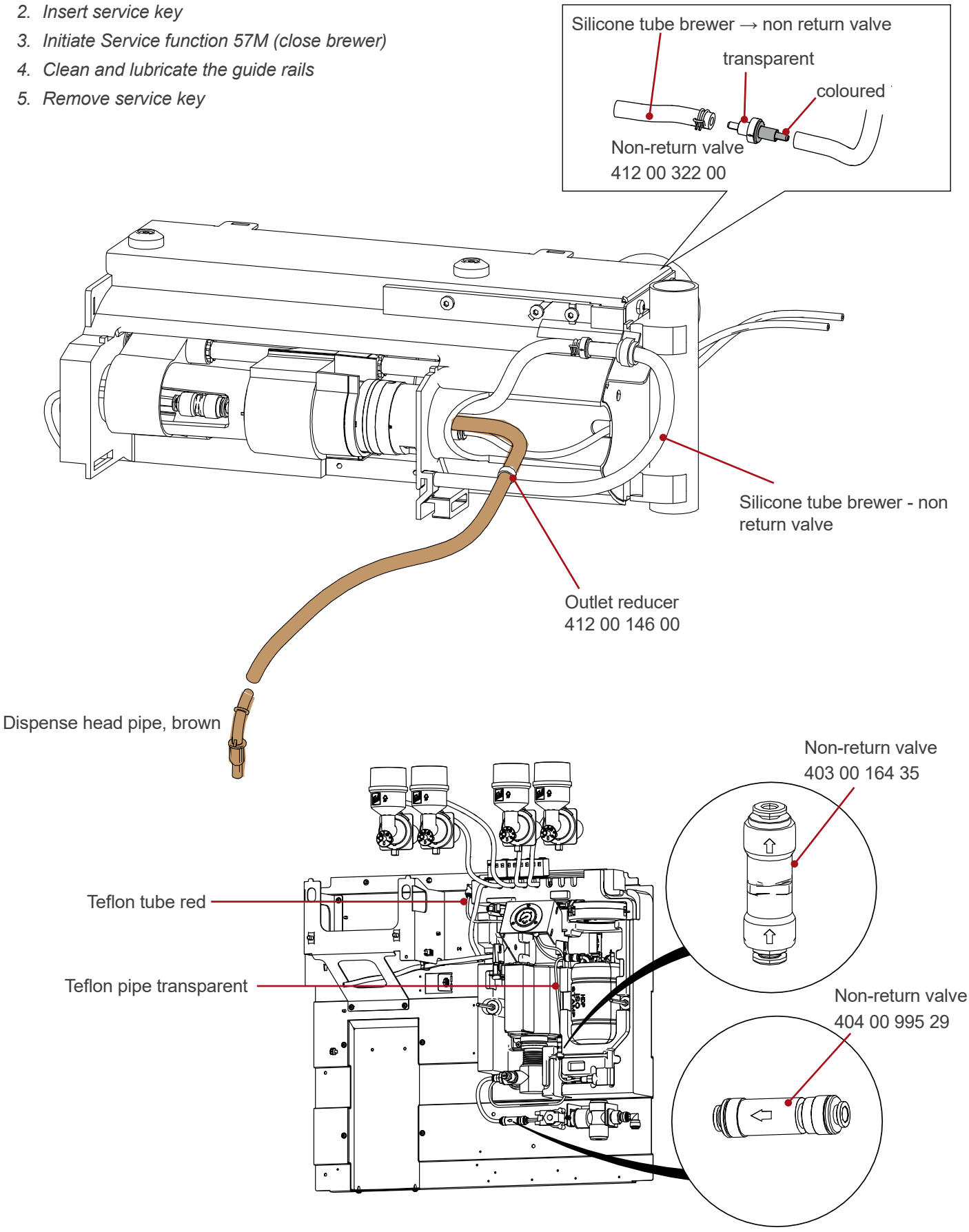




Silicone hoses, outlet reducer, non-return valve

Procedure

1. *Initiate Service function 58M (open brewer)*
2. *Insert service key*
3. *Initiate Service function 57M (close brewer)*
4. *Clean and lubricate the guide rails*
5. *Remove service key*



Clean grinder with grinder cleaner

The inside of the grinder as well as the grinding discs can be cleaned by using grinder cleaner part no. 998 00 119 55 The grinder discs should be cleaned periodically as oil residue from the coffee can be deposited on the inside of the grinder.

The grinder cleaner comprises tablets which are made from corn and cereal fibre materials.

How to proceed:

1. *Open the machine door.*
2. *Pull the locking slider out to its limit ("click").*
3. *Lift the bean container up.*
4. *Empty the bean container.*
5. *Insert service key*
6. *Use service function 9M (coffee grinder) or 19M (espresso grinder) to completely empty the grinder. There should be no more coffee grounds on the coffee ground slide.*
7. *Tip approx. 40 grammes of grinder cleaner into the bean container*
8. *To run the grinder use service function 9M or 19M; cleaning starts*

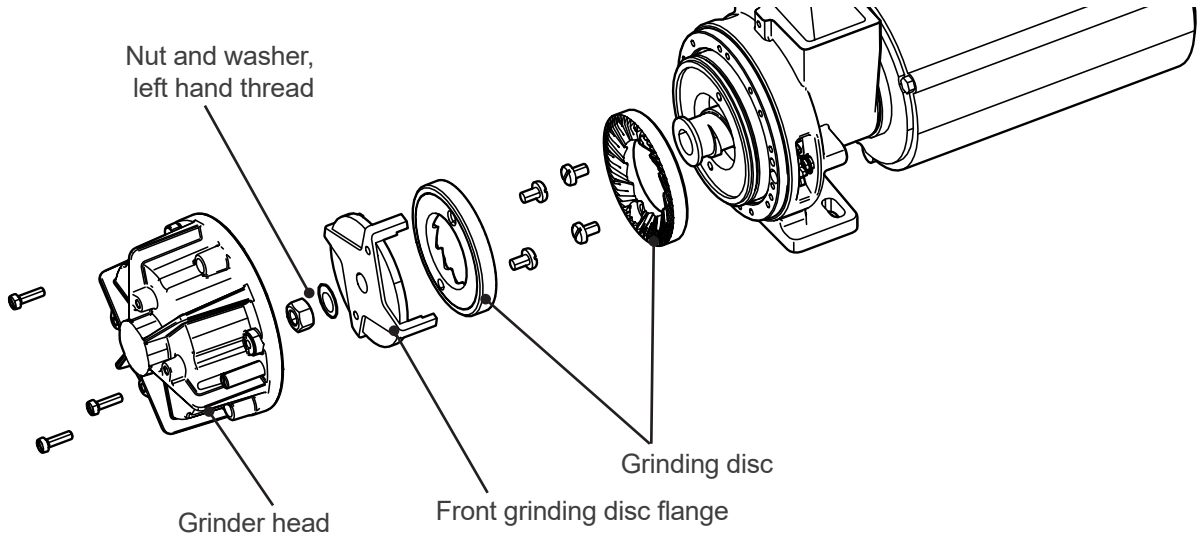
✓ The ground-down cleaning tablets move the coffee oil residue to the outside during the grinding process

Completion

- Fill with fresh beans
- Grind approx. 40 grammes of coffee beans to remove the grinder cleaner residue

Grinder discs replacement for integrated grinder EK 21

- Disassemble the head grinder as illustrated
- With the new grinding discs, make sure that the surface areas are clean and flat.
- After the grinder has been correctly reassembled, the grind level has to be re-adjusted.
- Calibration is also required.



Home position

1. *Rotate both the grinding discs (close)*
2. *Rotate by approx. 12 notches*

✓ Home position has been calibrated

Moving the grinder discs to home position

Requirement

- Ensure there is nothing remaining in the grinder.

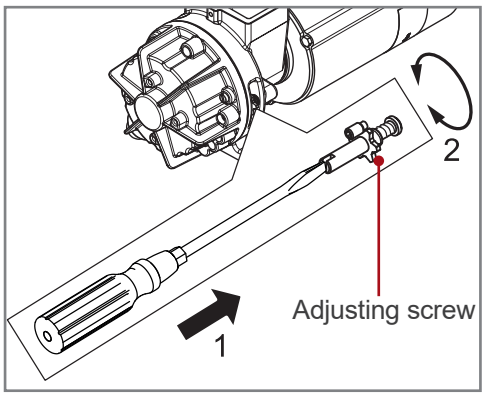
Procedure

1. *Tab 6 [Machine configuration] - [Service function] - [Service codes] [9M] Coffee grinder or [19M] Espresso grinder*
2. *Press [Send]*

→ The grinder works

3. *Using a flat screwdriver press on the adjusting screw and turn carefully clockwise until the grinding discs touch and a "singing" noise can be heard.*
4. *Press [Send] to stop the grinder.*
5. *Move 5 increments anti-clockwise.*

✓ Home position has been calibrated



Adjusting the grind

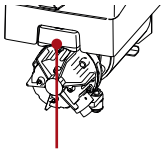
Requirement

- Beans are available
- Locking slider closed, to prevent beans escaping

Procedure

To set the grind level, push in the adjusting screw on the grinder using a screwdriver and turn gradually.

Turn to the right (grinder must run)	Powder finer	Brew time longer
Turn to the left	powder coarser	Brew time shorter

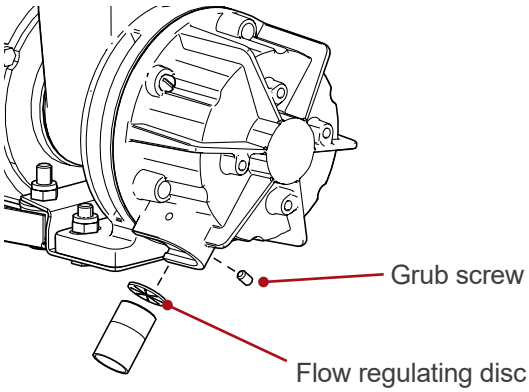


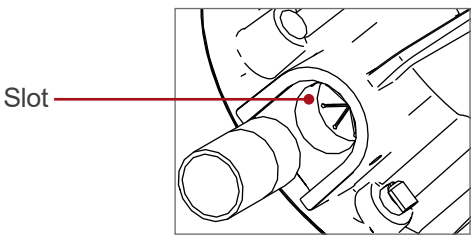
Open the locking slider to release the beans

Flow regulating disc (silicone flow regulating disc)

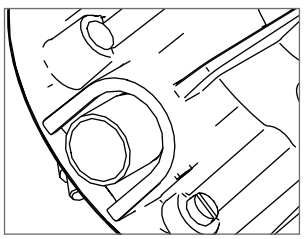
The silicone flow regulating disc is fitted in the grinder head outlet pipe to regulate powder flow.

Silicone flow regulating disc EK21
406 00 348 01
2 supplied in maintenance kit for two grinders





The flow regulating disc must be correctly positioned in the slot. otherwise it will be pressed out.



Outlet pipe and grub screw correctly fitted

Check pressure control valve

The pressure control valve opens automatically once a specified pressure is reached. The pressure control valve ensures the safety of the brewer and boiler.

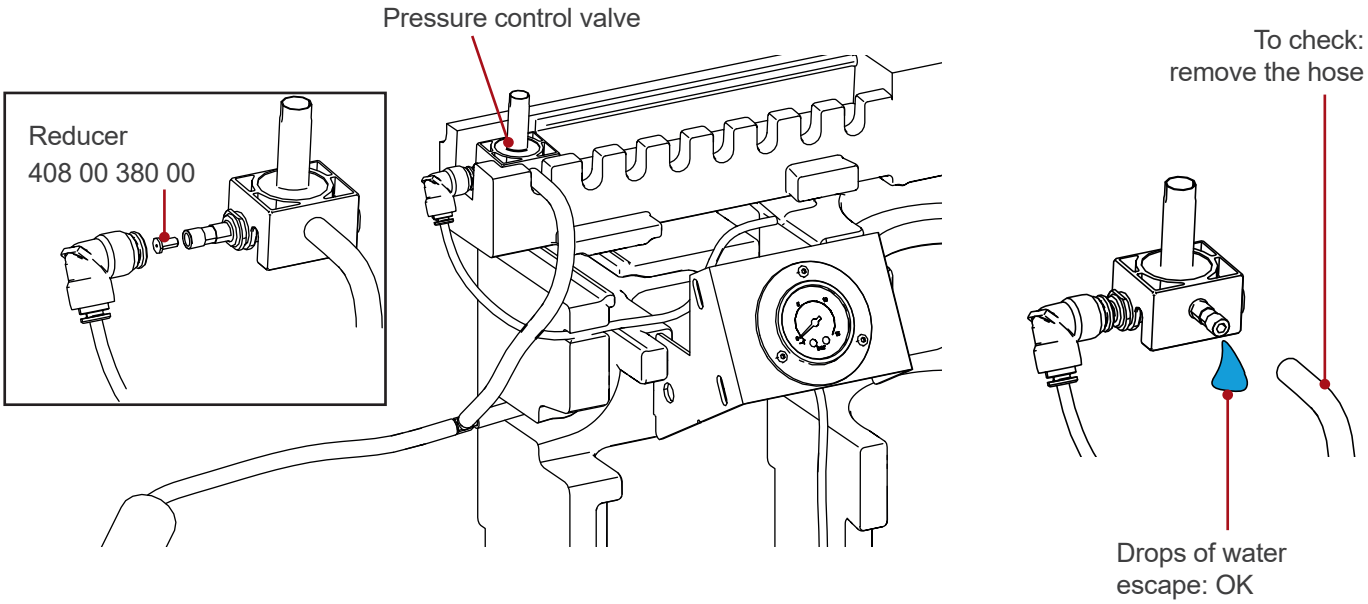
Procedure

1. *Disconnect the tube from the pressure relief valve*
2. *Service function 87M (empty the boiler)*
3. *Run the service function 88M (fill the boiler) several times.*

✓ There is excess pressure in the closed system and drops of water must be released.

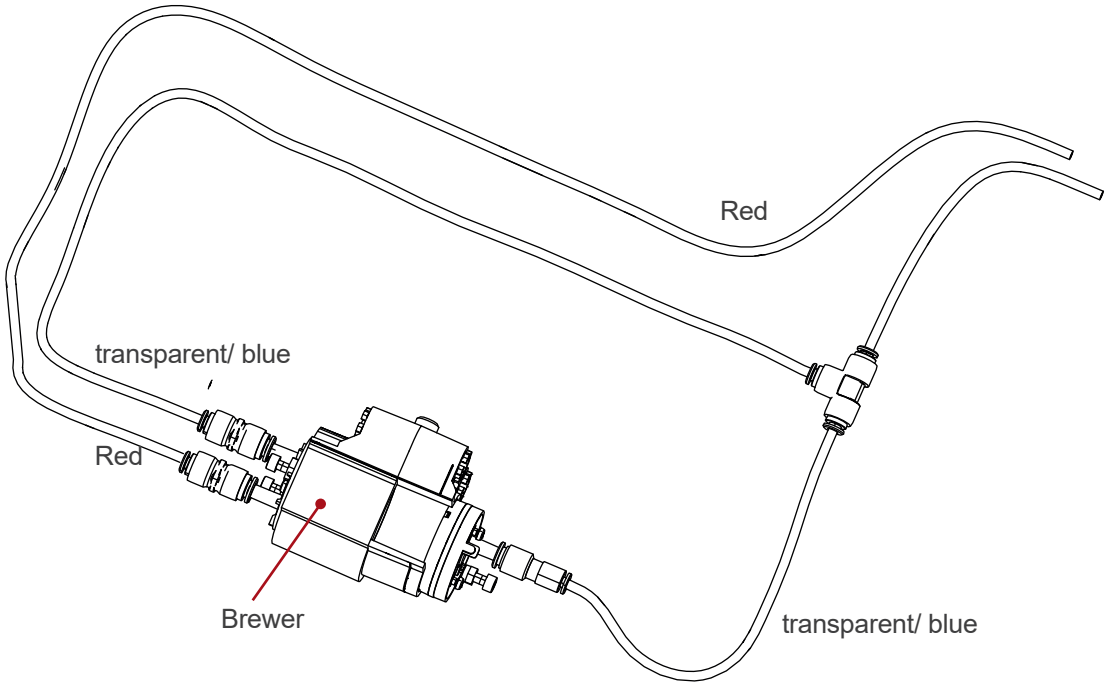
✓ The pressure relief valve is working because it has opened.

The reducer must be regularly replaced as it is easily clogged by scale or other impurities.



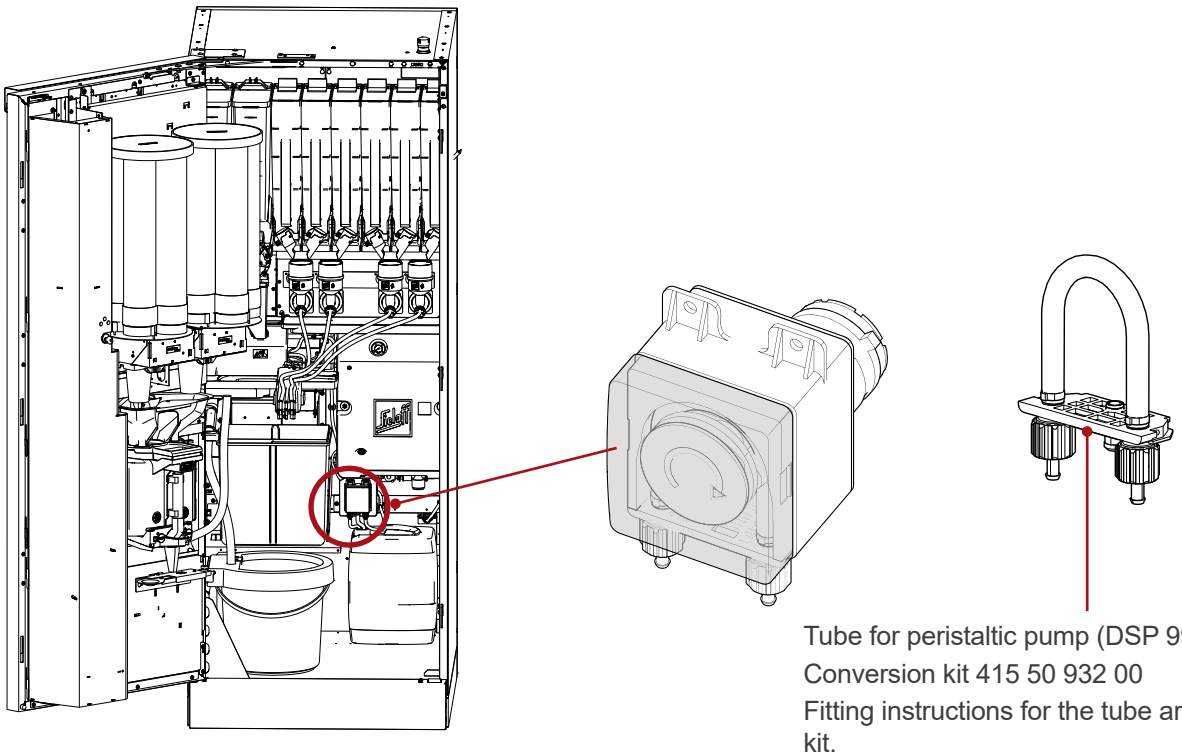
Teflon tubes

- Check tubes for leaks
- Red Teflon tube : Hot water for brewing process
- Transparent Teflon tube : Cold water for inflatable seals



DANGER Electric shock risk!
Live electrical components. Severe or fatal injuries. Always switch the machine off before starting work e.g. by pulling out the plug.

Tube for peristaltic pump



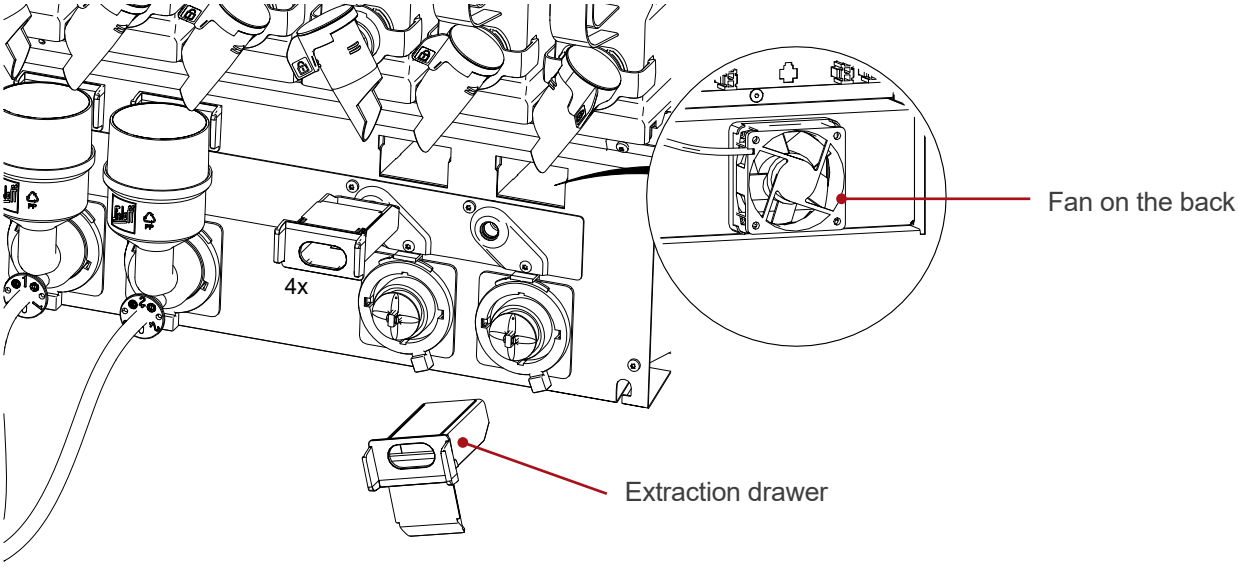
Tube for peristaltic pump (DSP 9911 Saier)
Conversion kit 415 50 932 00
Fitting instructions for the tube are included in the kit.

5.3 Instant section

Fan

The fan and the air duct must be cleaned periodically.

- Remove mixer housing and extraction trays.
- Open and clean the extraction trays.
- Only fit dry extraction trays.
- Clean any residue from the back of the fan ventilation duct with a vacuum cleaner or remove by blowing compressed air.

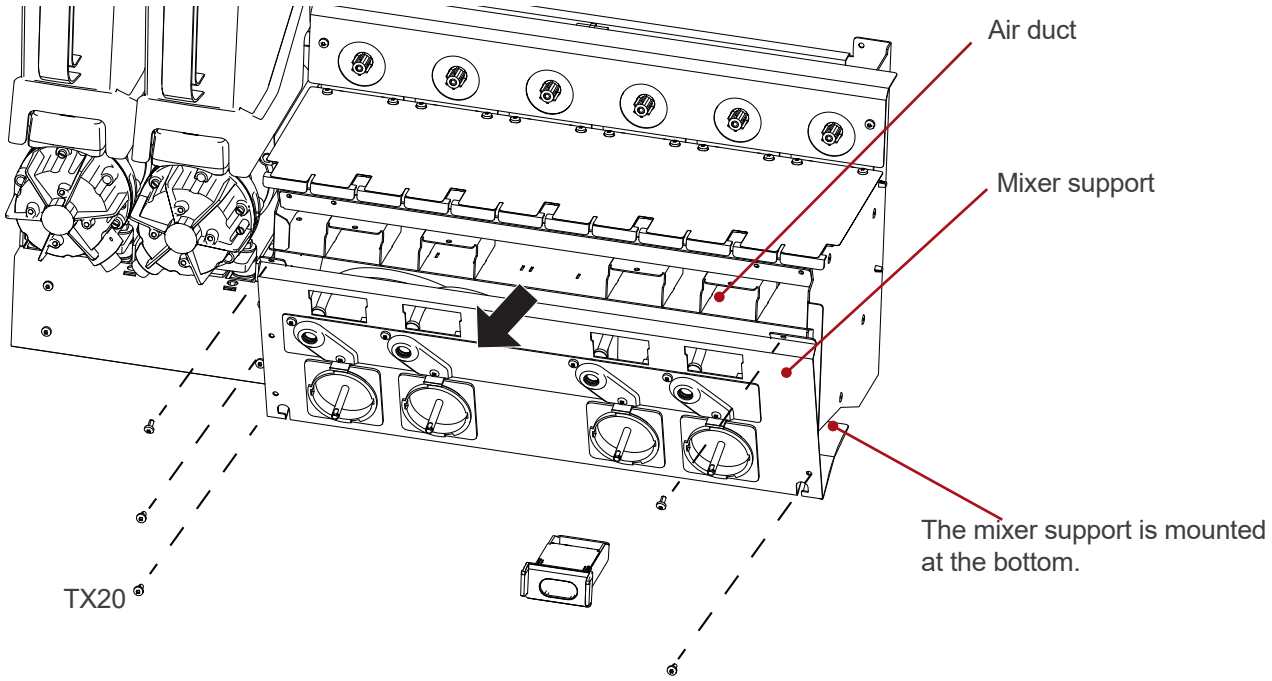


For heavily used machines it is recommended that the mixer support is open so that the inside can be thoroughly cleaned.

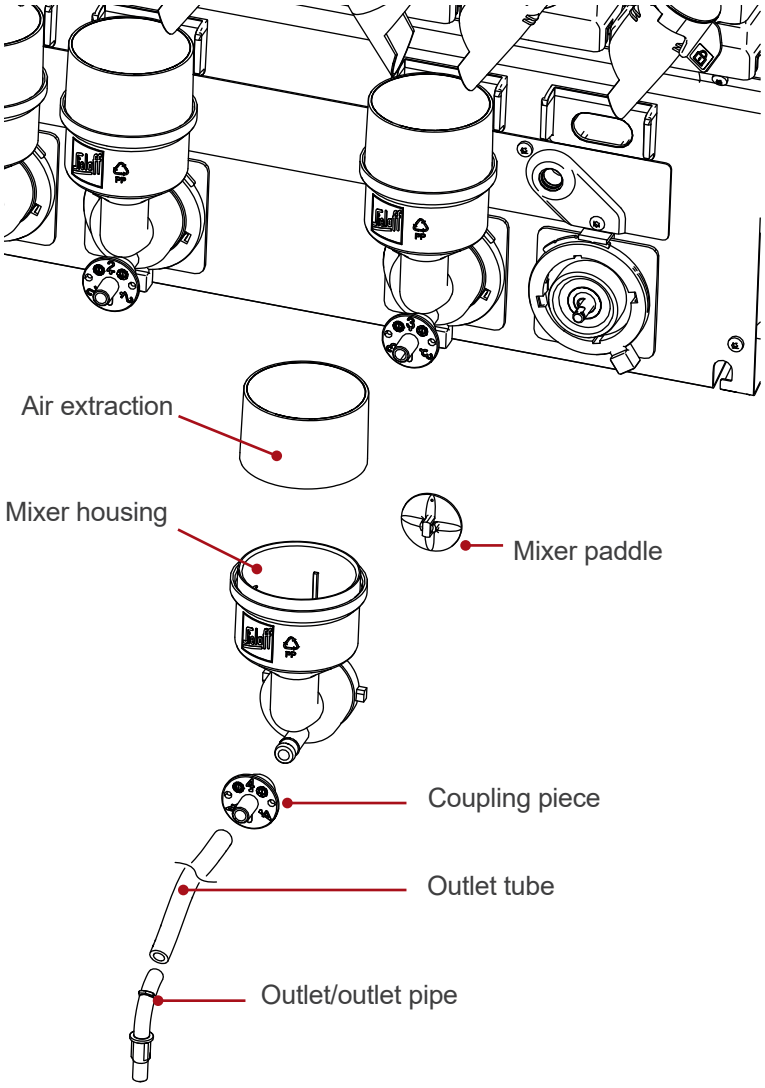
Procedure

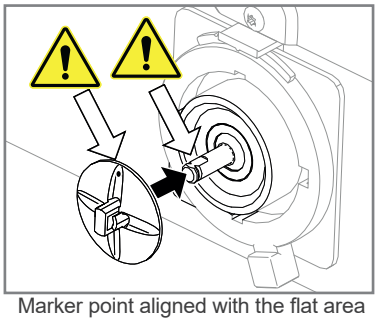
1. *Remove the screws (TX20)*
2. *Swivel the mixer support slightly (the tubes remain connected)*

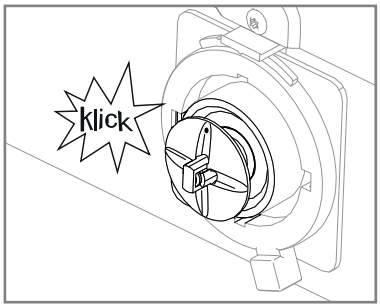
✓ The exposed ventilation duct can be vacuumed

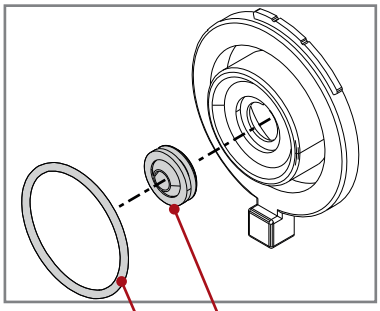


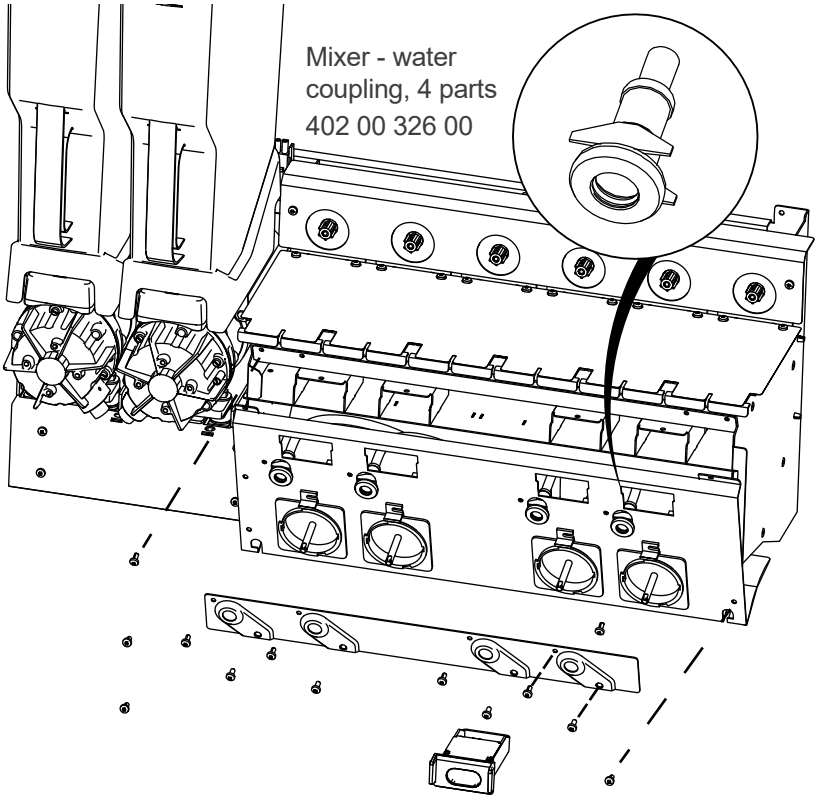
Mixer wing, flange, seals, mixer water coupling...




Marker point aligned with the flat area





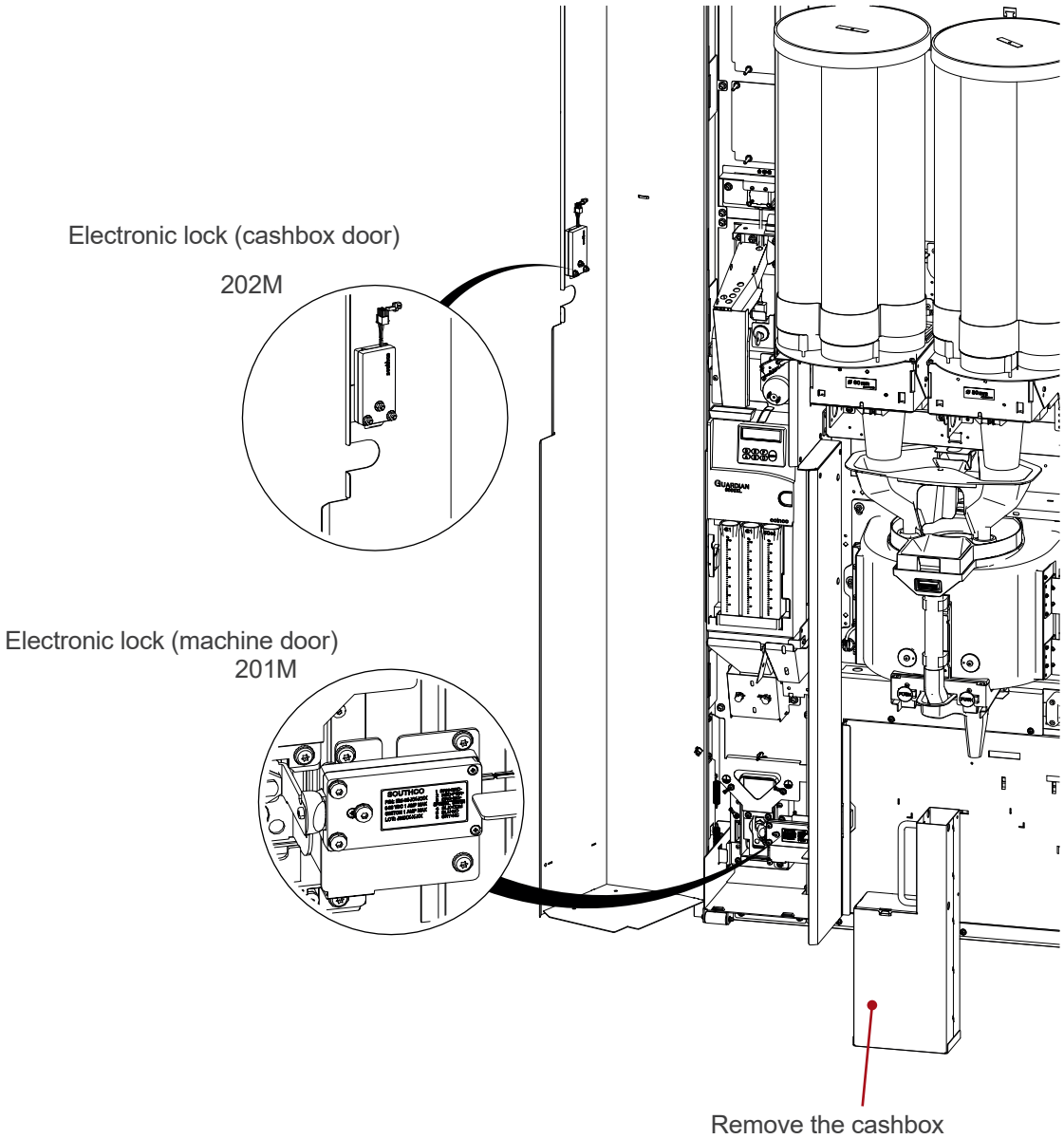


5.4 Door

Electronic lock

Check that the electronic lock in the machine door is working. Close the locking lever.

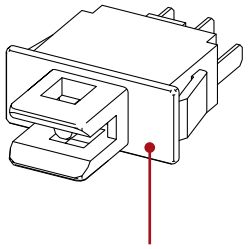
Run service function 201M. After running the service function, the motor on the electronic lock can be heard working and the locking lever springs open.



5.5 Electronics

Door contact switch

Open the door; the message [Door open, please close] must be displayed. Service code 2L questions the status of the door contact switch.



Door contact switch
985 14 065 27
fitted in the housing above

Water supply valve

The water inlet valve can be checked using service function 32M. By pressing this service function the valve can be heard clicking.

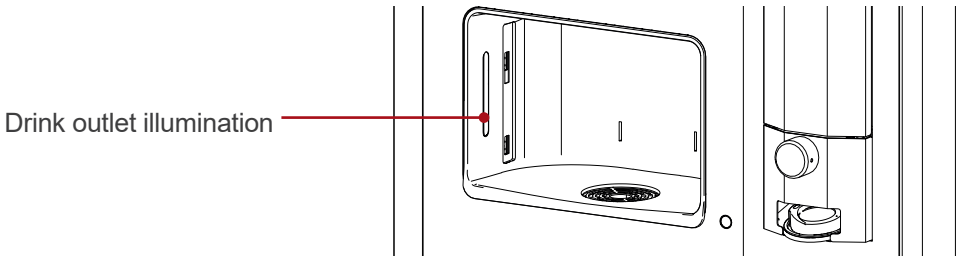
Waste bucket sensor

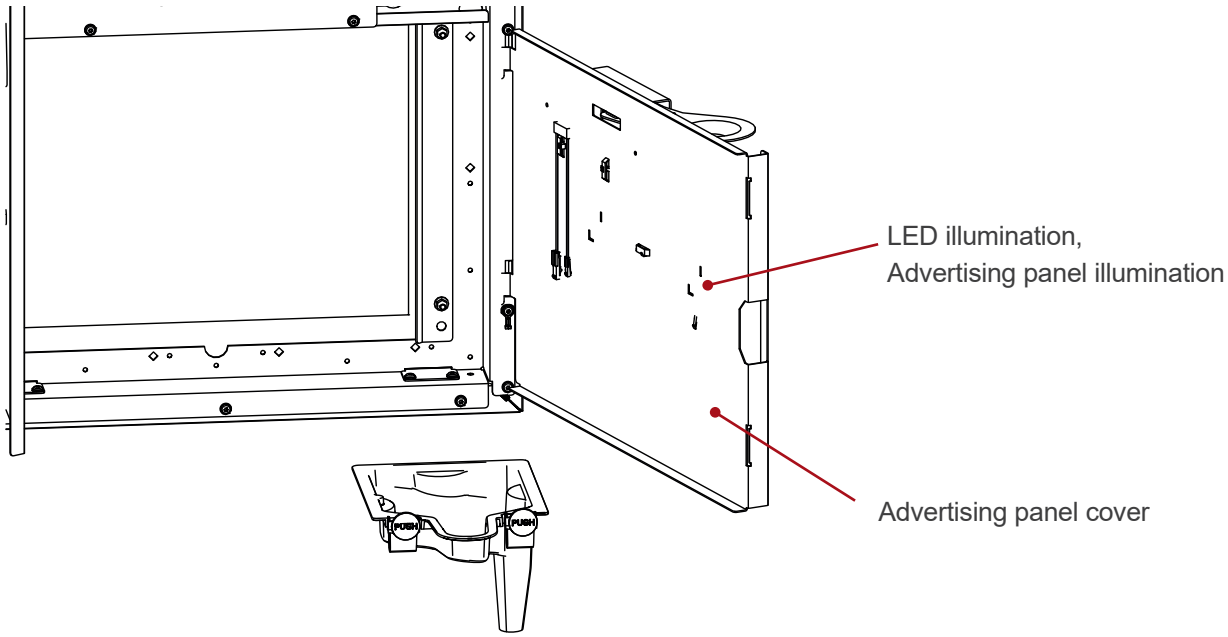
The sensors can be checked by using service number 150L.

Software version

Service code 900L
Check the software version.
The software version should be the most recent (http://www.sielaff.com/download-center/).

Advertising panel illumination, drink outlet illumination





Flowmeter

The flow meter is a flow rate sensor that measures the water quantity.

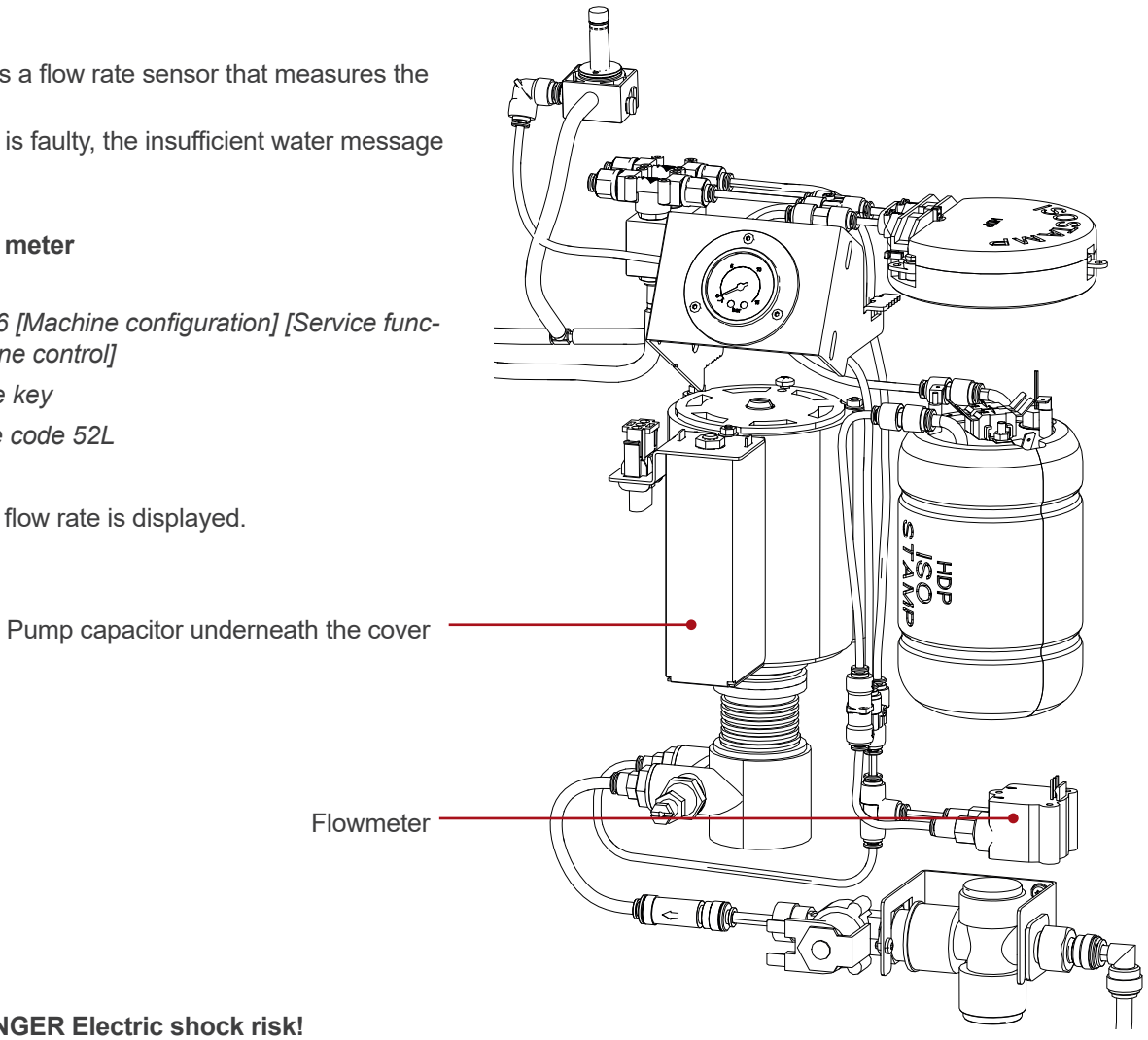
If the flow meter is faulty, the insufficient water message appears.

Check the flow meter

Procedure

1. *Click on tab 6 [Machine configuration] [Service functions] [Machine control]*
2. *Insert service key*
3. *Enter service code 52L*
4. *Press send*

✓ The average flow rate is displayed.

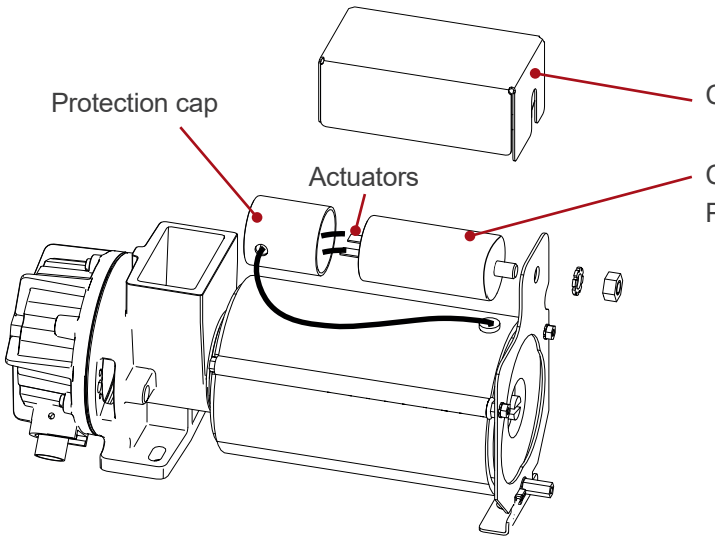


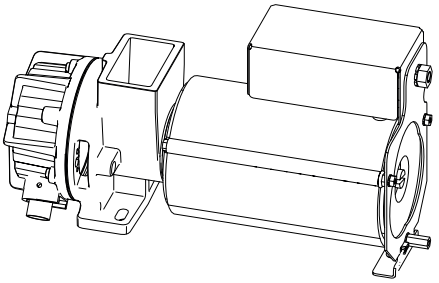
DANGER Electric shock risk!

Live electrical components. Severe or fatal injuries. Always switch the machine off before starting work e.g. by pulling out the plug.

Capacitor

- The capacitor must be discharged before measuring commences.
- Disconnect the electrical contacts.
- Measure the functionality of the capacitor.
- The capacity tolerance is displayed on the capacitor. If the tolerance is not achieved, the capacitor must be replaced.





Capacitor grinder assembled correctly

5.6 Adjusting the dynamic pressure

The dynamic pressure is dependent on the mains water pressure. Therefore the dynamic pressure must be checked and adjusted if necessary when being newly installed or being moved to a new location.
The inflatable seals require an exact dynamic pressure of 9.5 bar.

Requirement

- The espresso boiler heater must be switched off. See tab 6 [Machine settings] [Heating/Water system] [Heating Off]
- Screwdriver (flat)
- Use socket spanner SW 14 mm with compatible fitting

Procedure

1. *Open the machine door*
2. *Click on tab 6 [Machine configuration] [Service functions] [87M] empty the boiler*
3. *Insert service key*
4. *Press [OK]*

→ The pressure will be reduced and the pointer on the manometer will show 0 bar.

5. *Click on tab 6 [Machine configuration] [Service functions] [86M]*

→ The pressure is increased.

→ The service function for the pressure test (dynamic pressure) is being carried out. Reference value 9.5 bar on the pressure indicator.

6. *Press [87M]*

→ The pressure has been reduced

✓ If necessary the setting can be changed:
If the pressure is higher it can be reduced by turning to the left.
If the pressure is lower, this can be increased by turning to the right.

- For checking purposes, carry out the service function for pressure testing again : [86m].
- Switch the heater back on. See tab 6 [Machine configuration] [Heating/Water system] [Heating]
- Finally tighten the nut on the adjustment screw (if accessible).

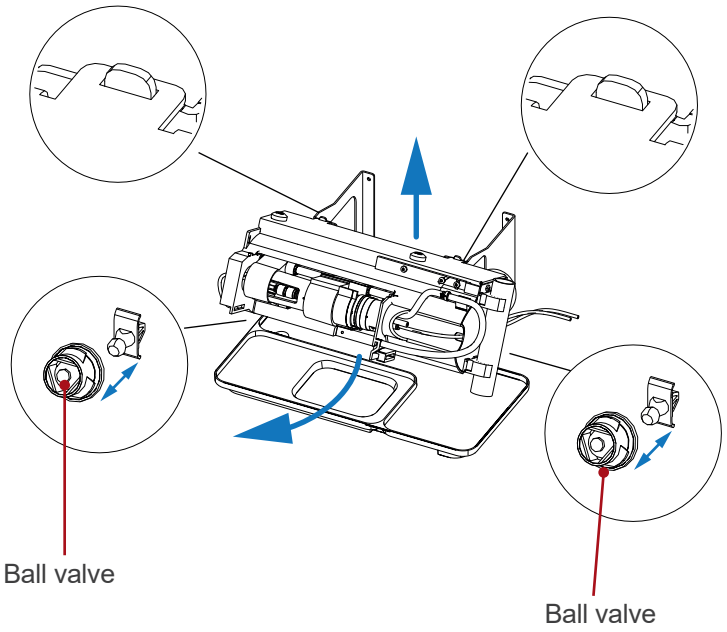
6. Components

6.1 Brewer

6.1.1 Remove the brewer

Hold the brewer at the bottom and pull: The ball valve is now separate

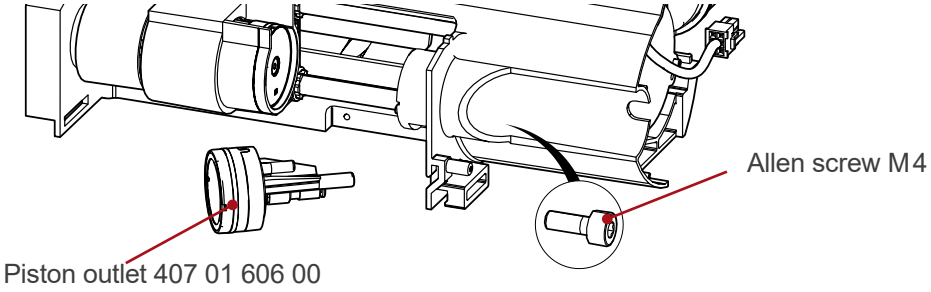
Lift up the brewer and unhook at the top.



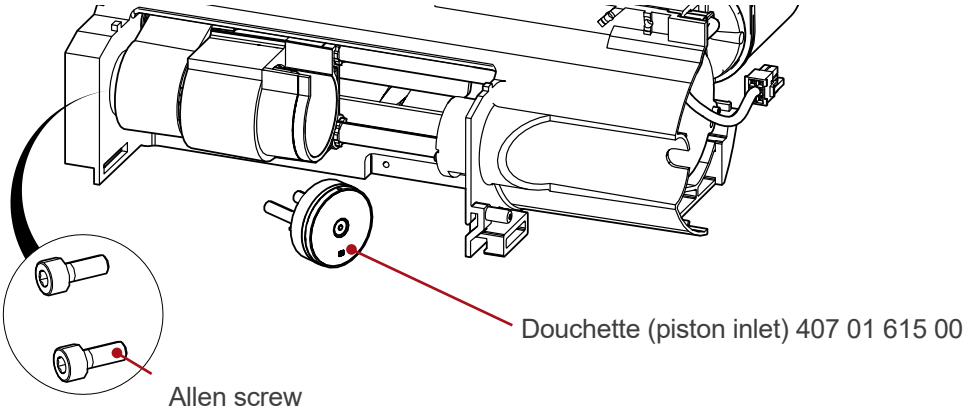
6.1.2 Replace piston outlet

CAUTION! Danger of crushing!

By inserting the service key, a protection device is de-activated. When the brewer closes, there is a crushing risk. Therefore fingers should always be kept well away from the brewer when the service key is inserted.



6.1.3 Replace douchette (piston inlet)

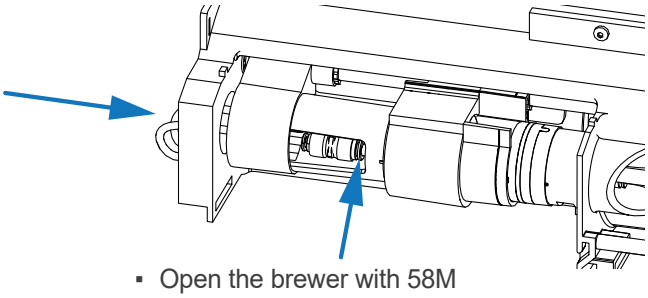


- Unhook the brewer, so that the left side is accessible
- Insert the Allen key M4 at the front of the left side to remove both Allen screws

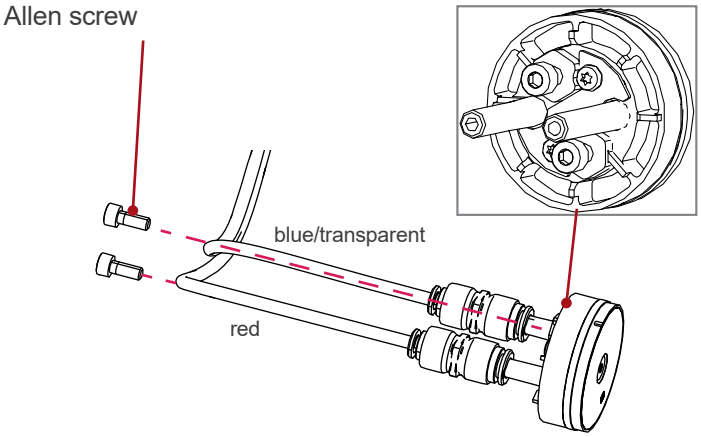
Service codes :

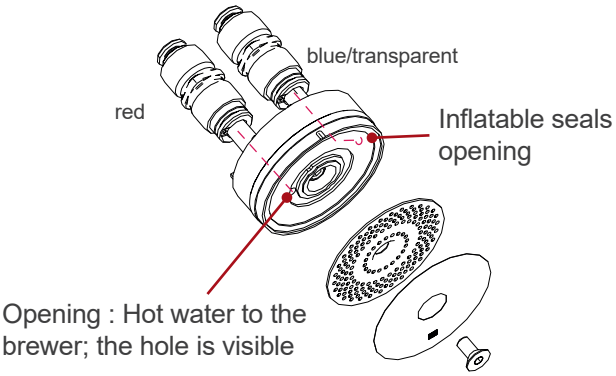
57M Close brewing chamber

58M Open brewing chamber



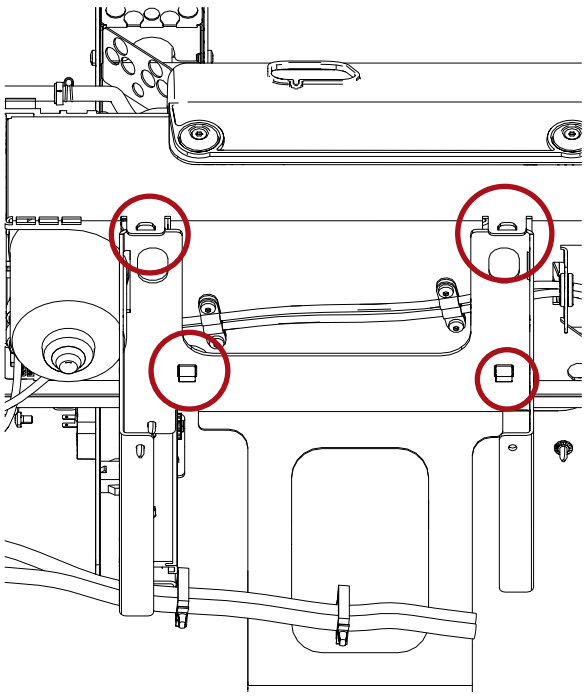
- Open the brewer with 58M
- Press long nosed pliers against the lock to pull the tube out of the coupling (taking care not to damage the tube)





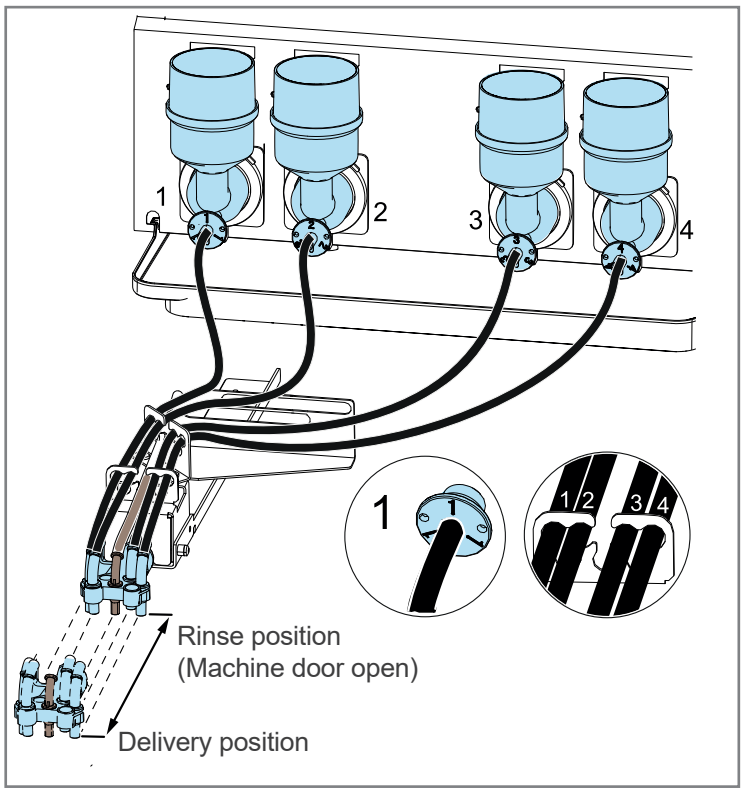
Brewer fitted

The markings show if the brewer is correctly fitted.



View from rear

Tubes



The tubes should :

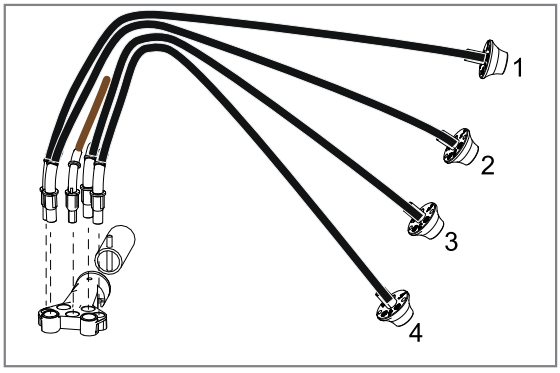
- be easy to fit (no liquid residue)
- in the correct sequence 1 - 2 - 3 - 4 to the mixer
- Lay parallel in the clamping units

Procedure

1. Click on tab 6 [Machine configuration] [Service functions] [Machine control]
2. Insert service key
3. *Enter service code:*
   62L Search swivel arm
   62M Move swivel arm to rinse position
   63M Move swivel arm to dispense position

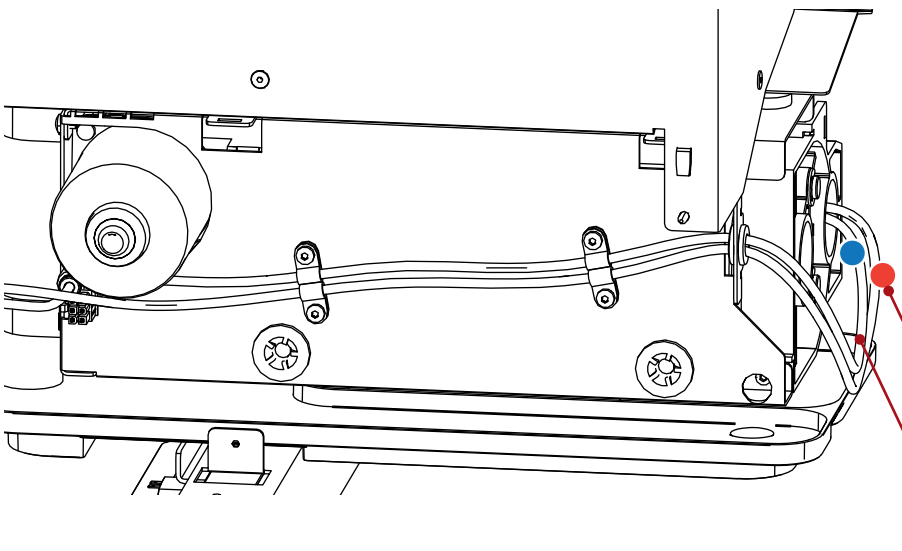
Note:

The term "swivel arm" refers to the movable outlet and originates from earlier vending machines.

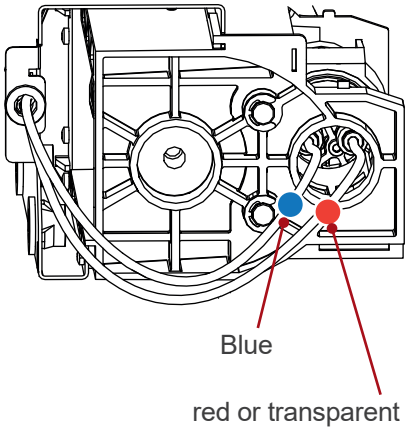


no.	Pipe length approx.
1	45 cm
2	48 cm
3	54 cm
4	60 cm

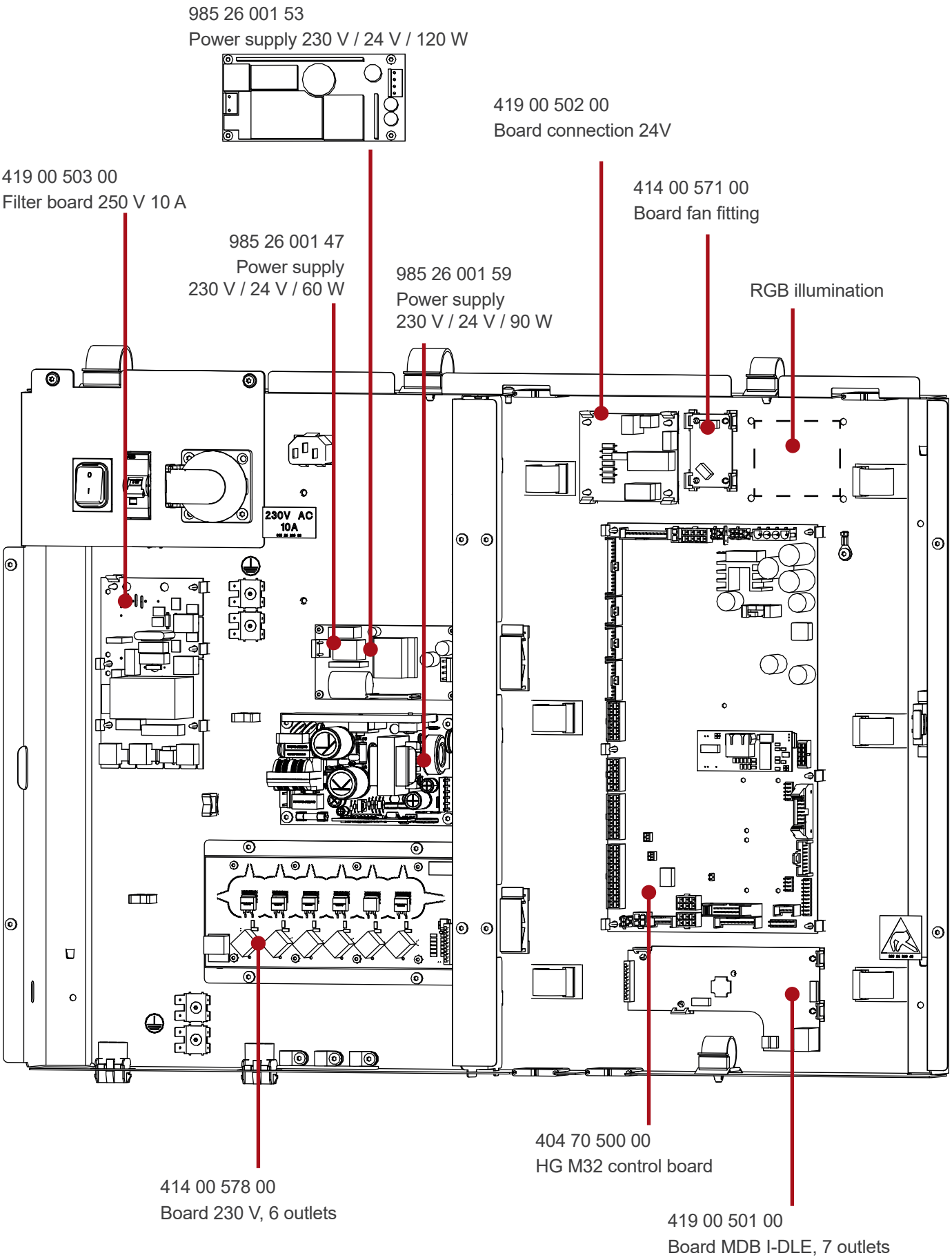
Rear side of brewer



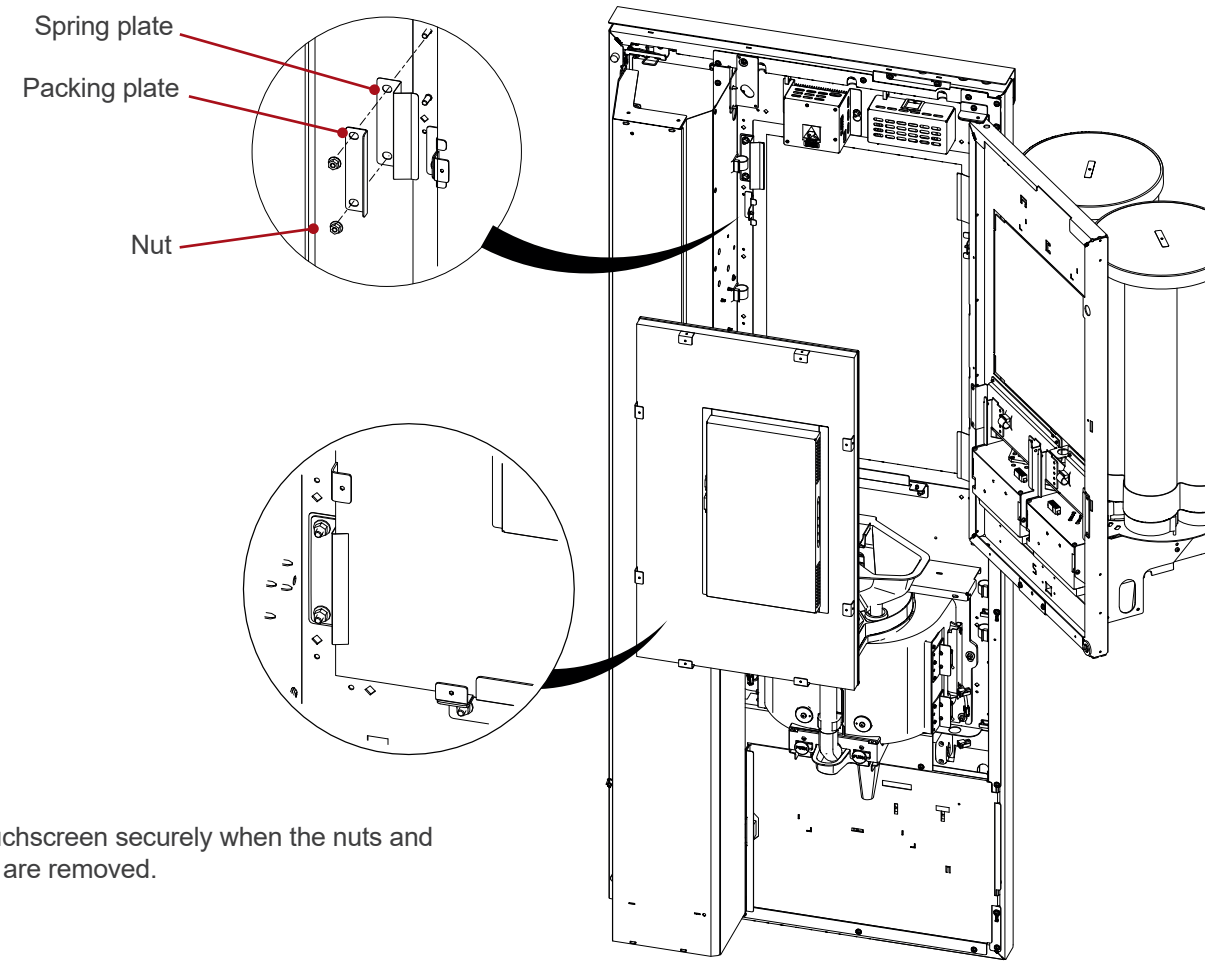
Brewer inlet



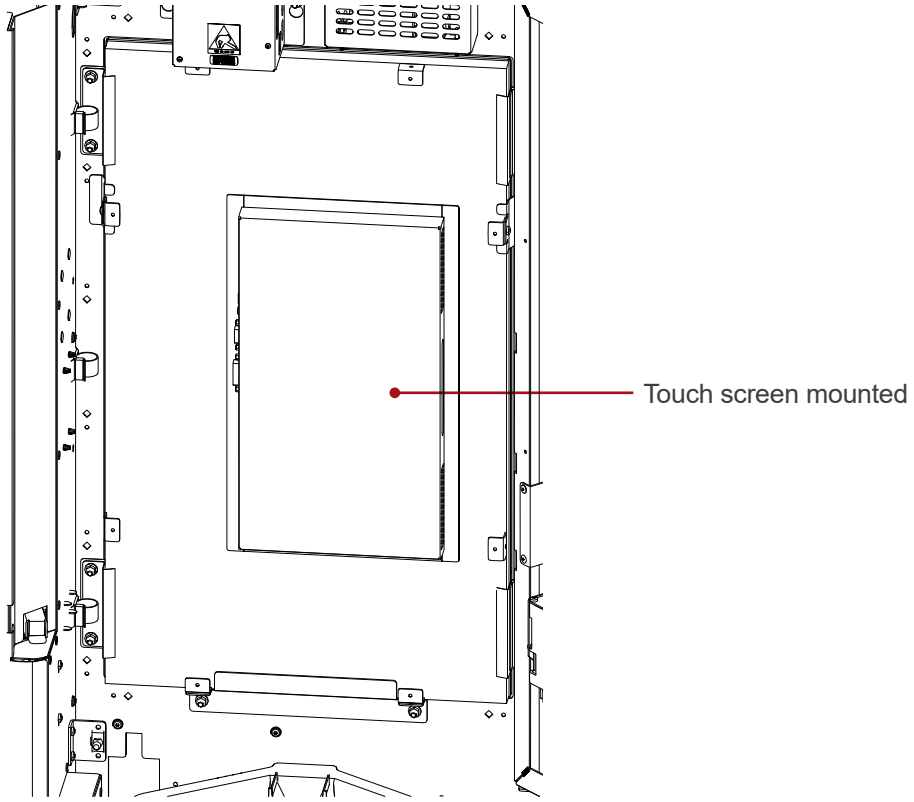
6.2 Holder for machine control



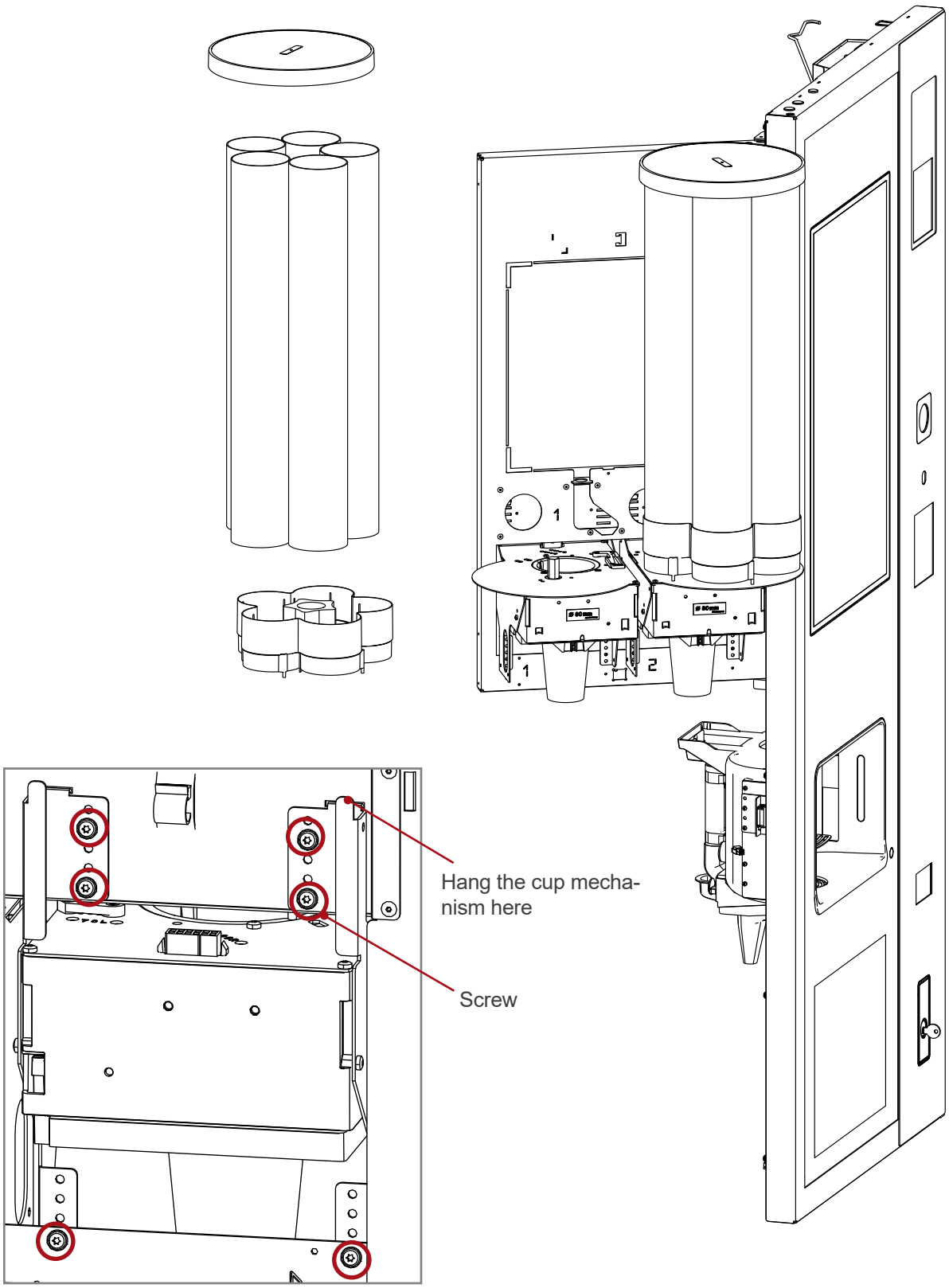
6.3 Remove 27 inch touchscreen



Hold the touchscreen securely when the nuts and spring plate are removed.



6.4 Dismantle cup mechanism

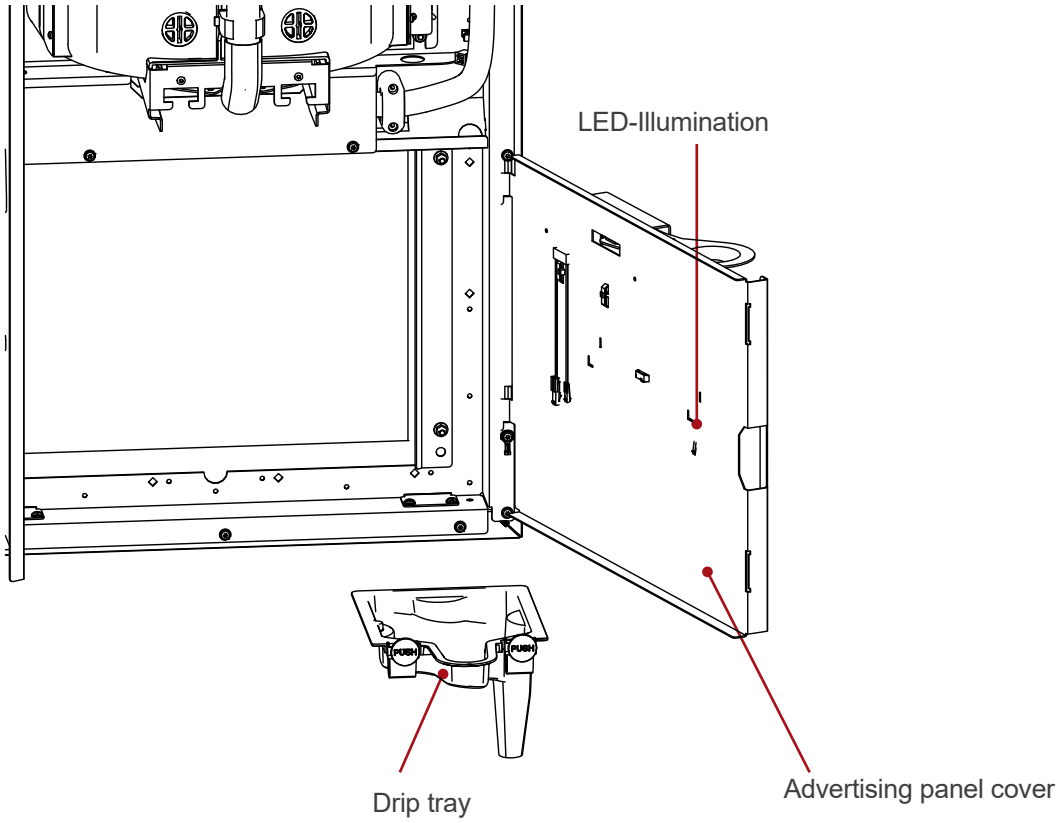


6.5 Lower advertising panel flap

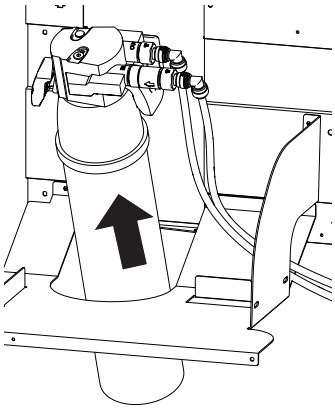
Procedure

1. Remove the collection container
2. Fold up the advertising panel flap

✓ The LED illumination is yet accessible.



6.6 Water filter (optional)



If the water hardness is 6°dH (°KH) or more, a water filter should be fitted. When installing a water filter take note of the residual limestone content. This should be at approx. 6°dH (°KH). Use the bypass-setting on the filter head

Refer to the manufacturer's documentation.

Subsequent conversion to water filter operation:

- Turn off the water supply
- Connect the tube from the water inlet to the IN-connection on the filter head
- Fit the OUT-connection tube to the quick coupling on the main inlet valve
- Open water supply
- Rinse the cleaning cartridge, collect the water in a container.

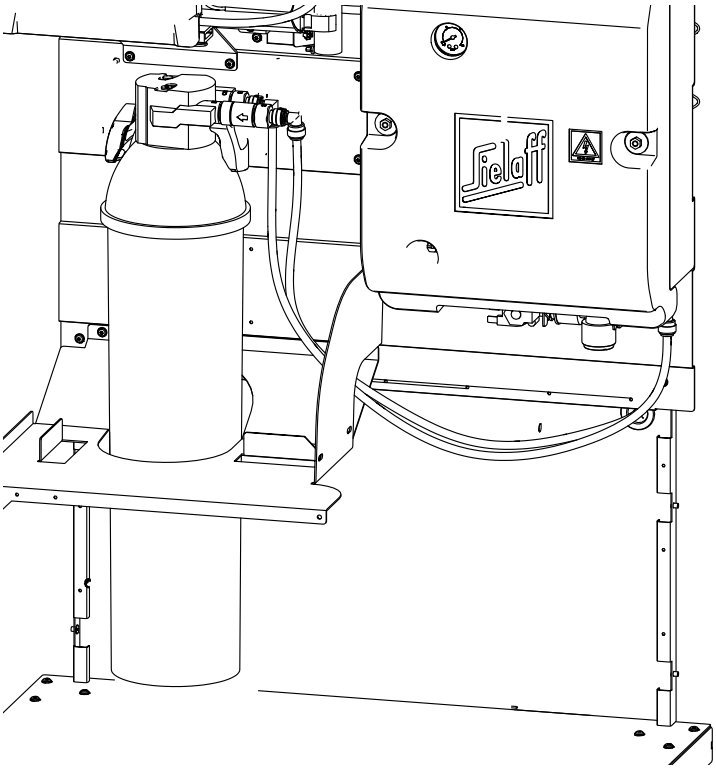
Replacing the filter cartridge

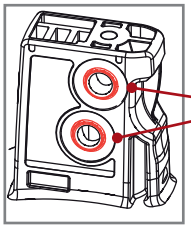
Examine all remaining parts carefully when changing the cartridge. Faulty part must be replaced.

Proceed as follows

1. *Open the locking handle*
2. *Rinsing valve (depressurize the system).*
3. *Remove the filter head upwards.*
4. *Remove the empty filter cartridge from its holder.*
5. *Insert the new filter cartridge.*
6. *Put on the head filter vigorously.*
7. *Close the locking handle.*
8. *Rinse the cleaning cartridge, collect the water in a container.*

✓ The new *filter cartridge has been put into operation.*





Check that the seals are fitted on both sides

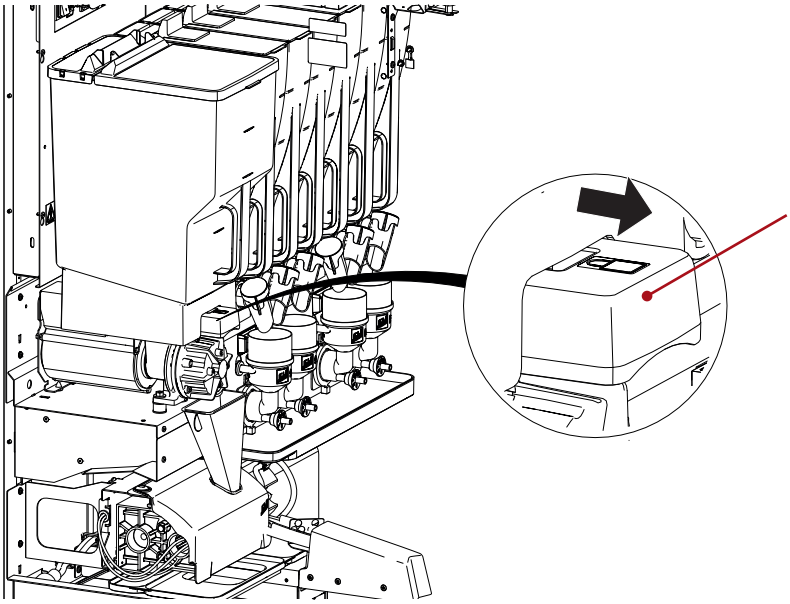
6.7 Changing the grinder

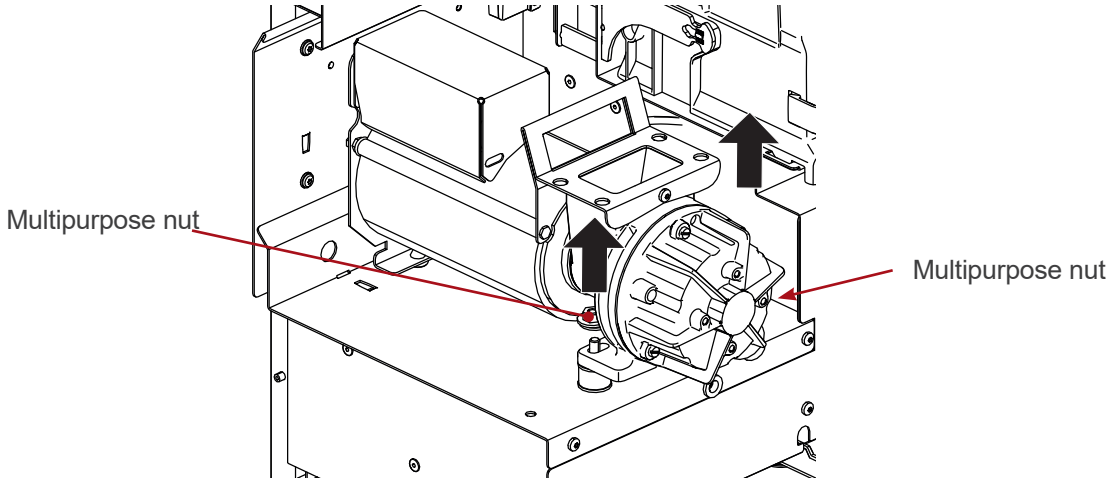
DANGER Electric shock risk!
Live electrical components. Severe or fatal injuries. Always switch the machine off before starting work e.g. by pulling out the plug.

Proceed as follows

1. *Pull the locking slider, the bean outlet is now closed*
2. *Lift off the bean container.*
3. *Remove the powder chute.*
4. *Remove the nuts (2 pieces).*
5. *Separate the plug-in connection.*
6. *Disconnect the earth connector.*

✓ The grinder can now be removed





6.8 Boiler, flow heater

DANGER Electric shock risk!

Live electrical components. Severe or fatal injuries. Always switch the machine off before starting work e.g. by pulling out the plug.

Requirement

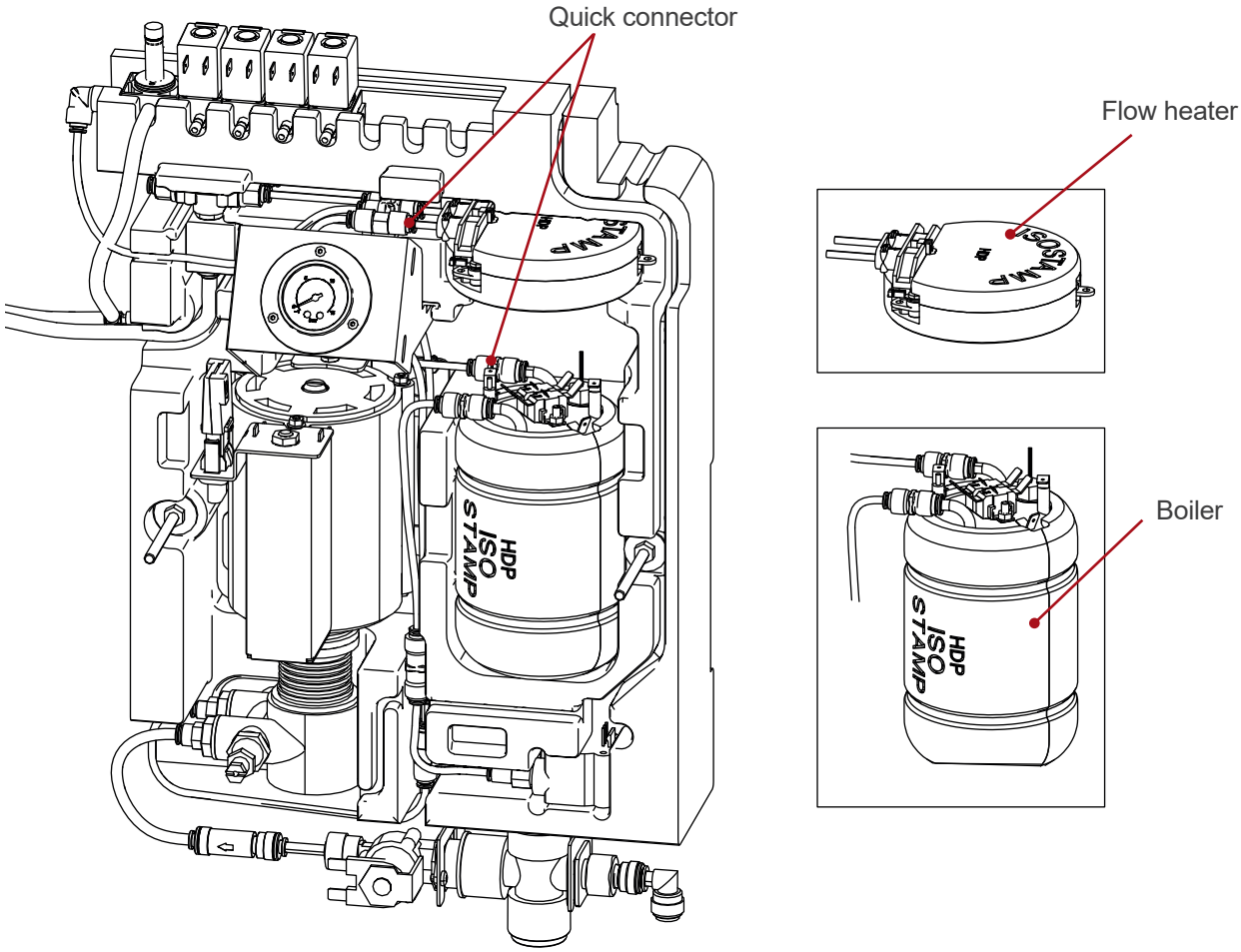
Switch off the heater and rinse for 2 minutes so that the system is cold and non-pressurised.

Service code : 87M Empty the boiler

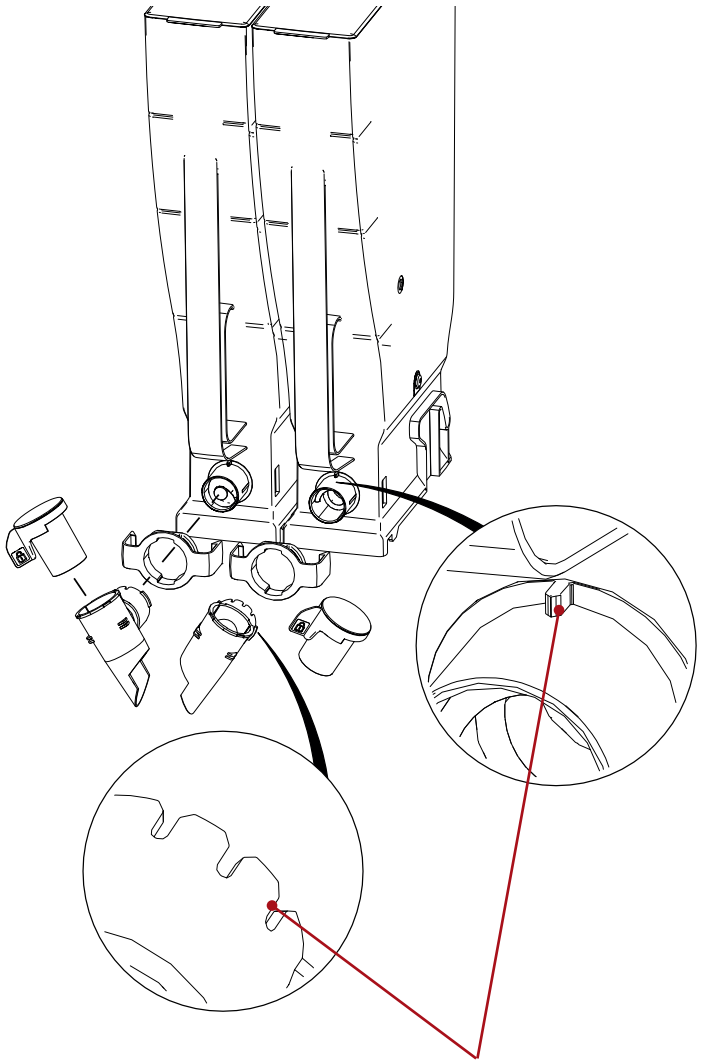
Proceed as follows

1. *Disconnect from the power supply*
2. *Remove the nuts*
3. *Remove the foam cover*
4. *Loosen the tube connection by pressing the quick coupling*
5. *Pull out the tube*
6. *Separate the plug-in connection.*
7. *Remove the boiler or the flow heater from the foam.*

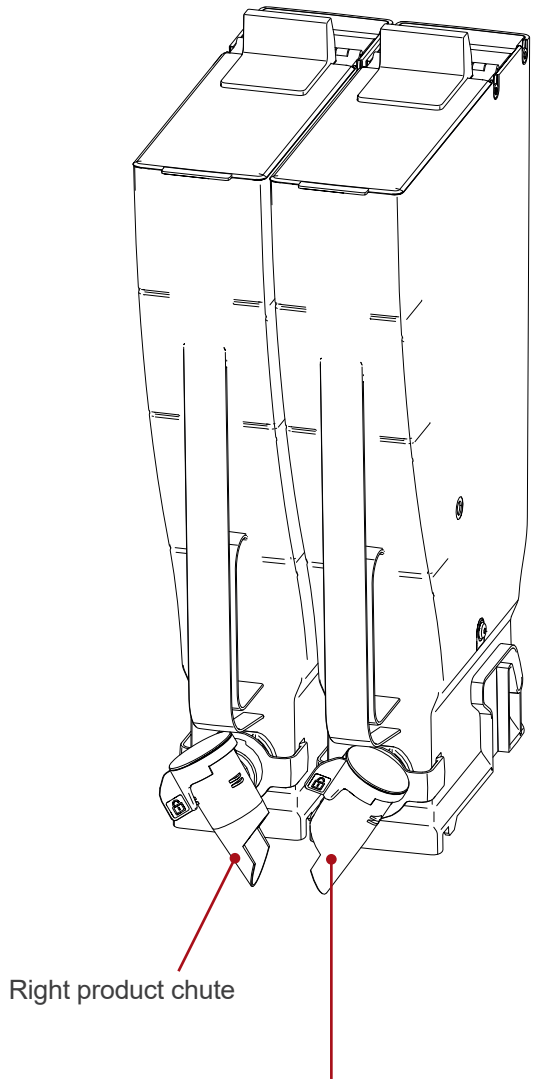
✓ The boiler or the flow heater can be replaced.

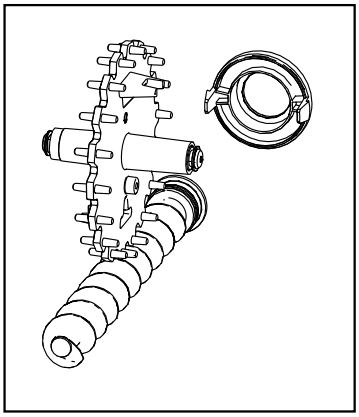


6.9 Instant container

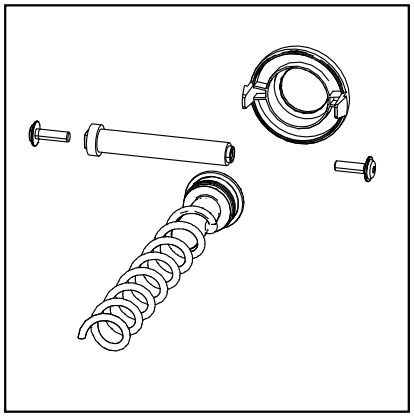


Bar and groove must interlock during assembly



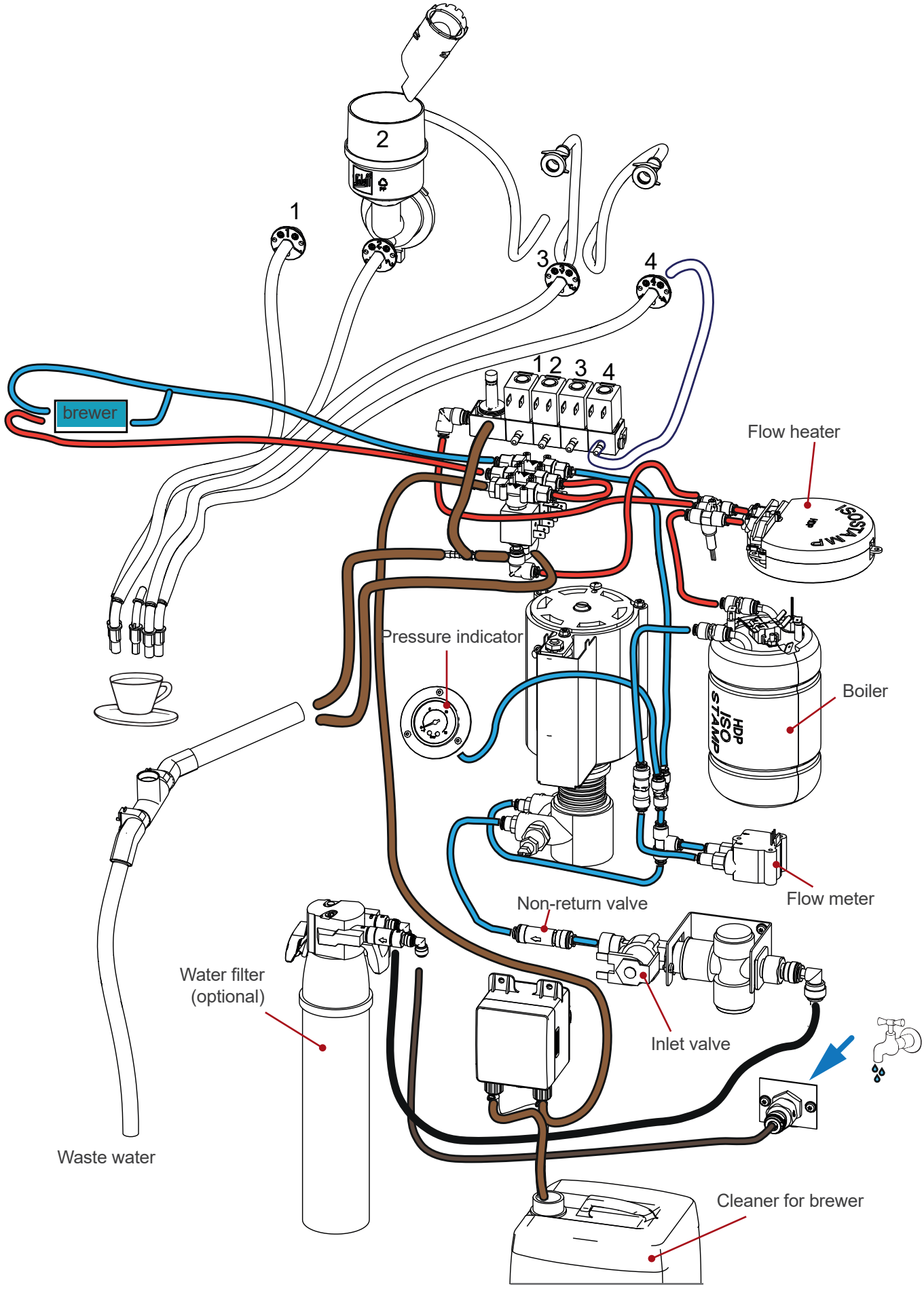


Inside the instant container with worm

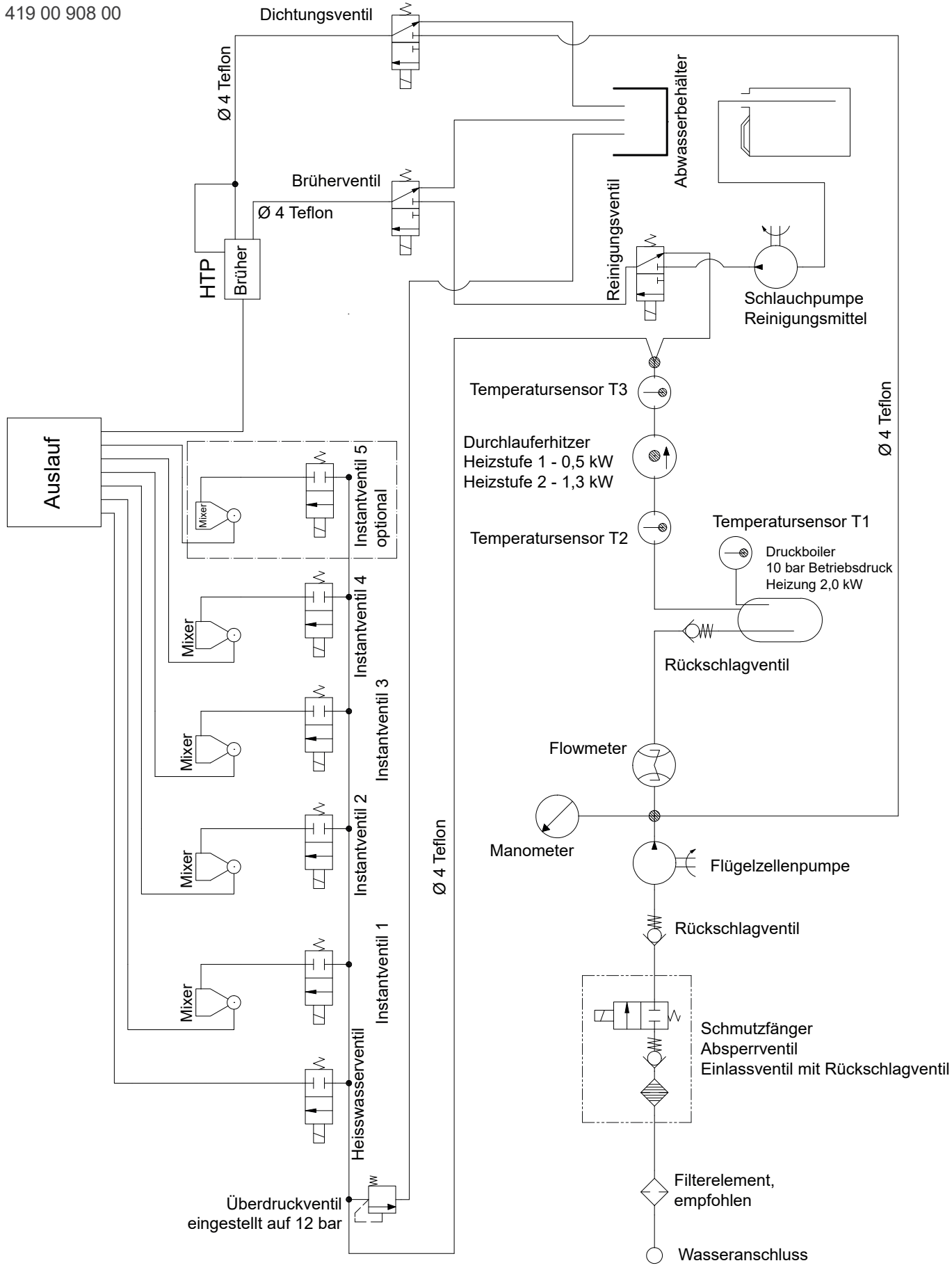


Instant product container with spiral for wire worm

7. Diagram showing the tube layout for the water system



8. Water diagram



9. Service codes

Not all service codes apply to your machine type.

1L	Supply voltage
2L	Door status
3L	Power supply unit
4L	Logic voltage
9L	Power supply unit temperature
50L	Coin return limit switch
277L	SW version
47M	Light
50M	Return money
91L	Status of MDB devices
91L1	Debug MDB device
91L2	Debug next MDB device
101M	Coin changer : Tube 1 once
102M	Coin changer : Tube 2 once
103M	Coin changer : Tube 3 once
104M	Coin changer : Tube 4 once
105M	Coin changer : Tube 5 once
106M	Coin changer : Tube 6 once
110M	Coin changer : Empty all coin tubes
111M	Coin changer : empty tube 1
112M	Coin changer : empty tube 2
113M	Coin changer : empty tube 3
114M	Coin changer : empty tube 4
115M	Coin changer : empty tube 5
116M	Coin changer : empty tube 6
101M1	Note changer : Tube 1 once
102M1	Note changer : Tube 2 once
103M1	Note changer : Tube 3 once
104M1	Note changer : Tube 4 once
105M1	Note changer : Tube 5 once
106M1	Note changer : Tube 6 once
110M1	Note changer : Empty all coin tubes
111M1	Note changer : empty tube 1
112M1	Note changer : empty tube 2
113M1	Note changer : empty tube 3
114M1	Note changer : empty tube 4
115M1	Note changer : empty tube 5
116M1	Note changer : empty tube 6
L301L	Activate service mode
L302L	Deactivate service mode
L303L	Abort service
L310L1	Activate coin fill mode
L310L0	Deactivate coin fill mode
L310L11	Activate bill fill mode
L310L10	Deactivate bill fill mode
L320L1	Activate coin token mode
L320L0	Deactivate coin token mode
L320L11	Activate bill token mode
L320L10	Deactivate bill token mode

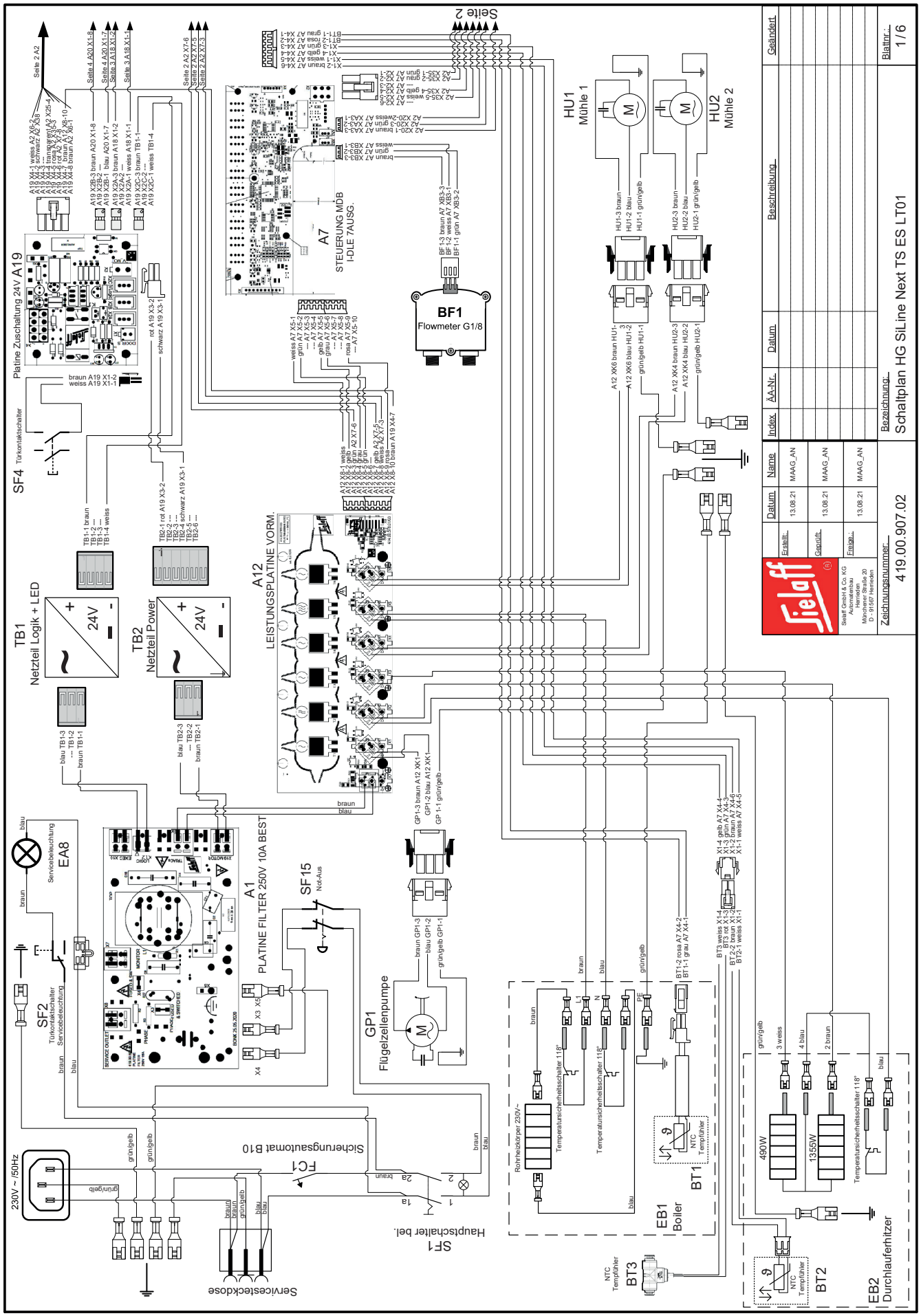
L390L1	File: Write configuration
L391L1	File: Write Debug
L392L1	File: Write Communication
L392L0	File: Write concluding communication
10C	Coin sorter software version
32M	**Inlet valve 1**
20M	**Valve - brewer**
21M	**Valve - instant coffee**
22M	**Valve - chocolate powder**
23M	**Valve - tea**
24M	**Valve - soup**
25M	**Valve - cappuccino special**
26M	**Valve - sugar**
27M	**Valve - topping**
28M	**Rinse hotwater valve**
14L	Cup detection
30M	Pump
66M	Brewer sealing valve
67M	Americano valve
86M	**Adjust dynamic pressure**
87M	**Empty boiler**
88M	**Fill pressure boiler (coffee) + crema valve 1**
1M	**Mixer - instant coffee**
2M	**Mixer - chocolate powder**
3M	**Mixer - tea**
4M	**Mixer soup**
5M	**Mixer cappuccino special**
6M	**Mixer - sugar/whitener**
7M	**Mixer topping**
9M	**Coffee grinder**
19M	**Espresso grinder**
9M0M	Fill coffee grinder
19M0M	Fill espresso grinder
9M10M	Dispense 10 g from coffee grinder
19M10M	Dispense 10 g from espresso grinder
10M	Product motor - instant coffee
11M	Product motor - chocolate powder
12M	Product motor - tea
13M	Product motor soup
14M	Product motor cappuccino special
15M	Product motor - sugar
16M	Product motor topping
55L	Cup mechanism 1 empty
56L	Cup mechanism 2 empty
57L	Limit switch for cup dispenser1 front/ behind
58L	Limit switch forcup dispenser2 front/behind

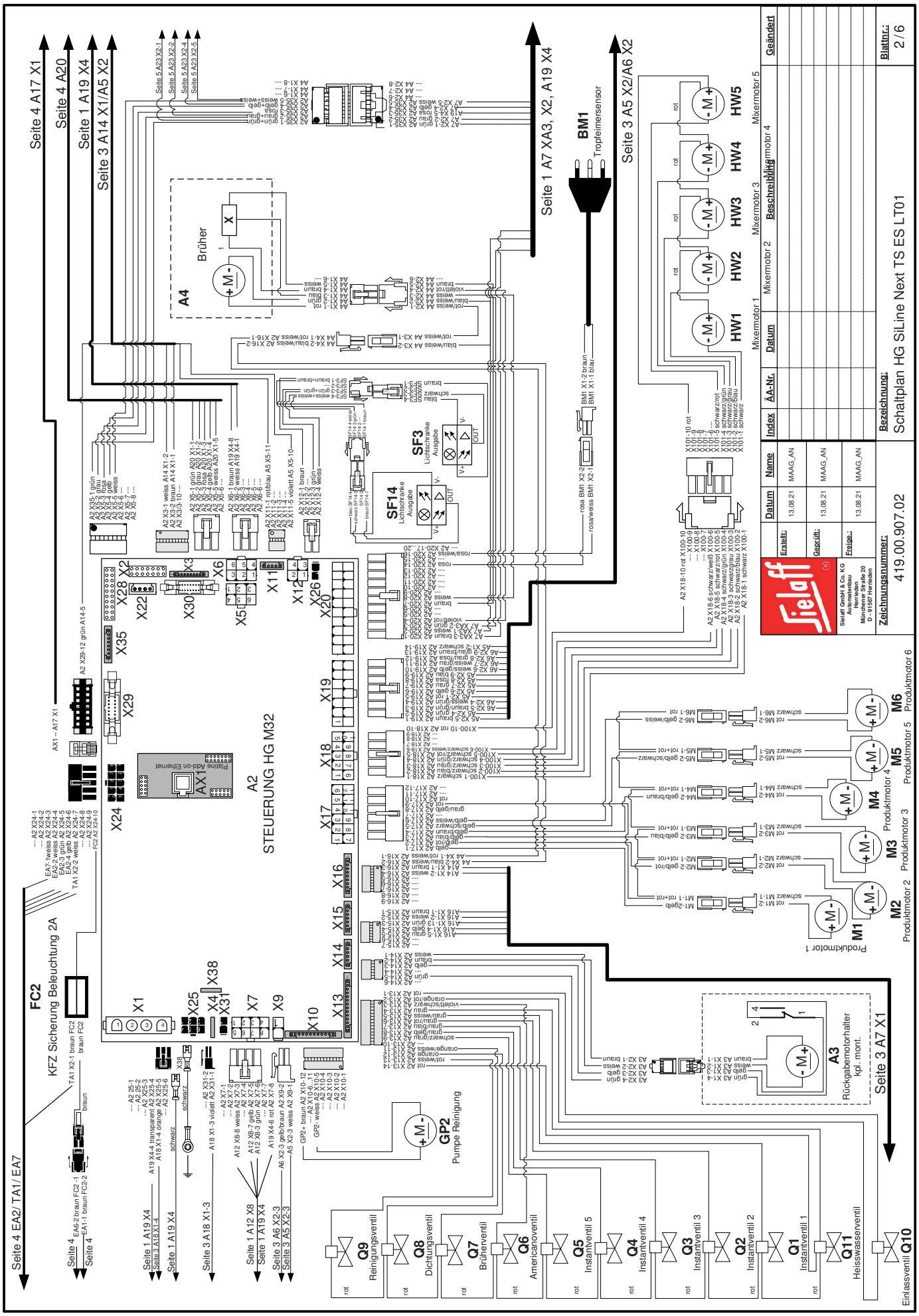
55M	Cup dispensing 1
56M	Cup Dispensing 2
57M	**Close brewing chamber**
58M	**Open brewing chamber**
59M	Valve brewer cleaning
60M	Pump cleaning liquid
60M0M	Prime cleaning liquid
62L	Position of rotary
62M	**Move rotary arm to cleaning position**
63M	**Move rotary arm to outlet position**
64M	Motor dry sugar
65M	Stick dispense
90M	Reference run cup catcher
92M	Cup catcher position for cup of left dispenser
93M	Cup catecher position for cup of right dispenser
94M	Cup catcher position for own cup
95M	**Cup catcher open**
96M	**Cup catcher close**
90L	**Cup catcher position**
92L	Cup catcher position of left cup
93L	Cup catcher position of right cup
94L	Cup catcher position of own cup
21L	Display software version
23L	Operating hours display
26L	Door openings
28L	Last 5 door openings and last 5 cleans
29L	State of hot water vent
29M	Valve - hot water
30L	Status of pump
40L	Date of last price change
45L	Set remote call
51L	Impulse transmitter
52L	**Flow rate**
53L	Flow rate brewer
54L	Water quantity
69L	Reset journal to readable
79L	Request data for load cells
80L	Reset the time of the last cleaning
81L	Cashless Save ID on/off
82L	Container emptied
85L	Reset filter counter
86L	Reset service counter
87L	Reset cleaning counter
88L	Reset waste disposal counter
89L	Reset errors
33M	**Fan**
150M	Brewer - reference run
215M	**Clean mixer**
217M	Test instant
96M10M	Milk intake

100L	Communication link
101L	VMI version
100M0M	VMI update
100M2M	VMI reset to delivery version
102L	Cache statistics
103L	KBus statistics
104L	Stream statistics
105L	MDB statistic
106L	VMI ID
107L	VMI serial-number
122L	Boiler filled
150L	Moisture sensor
151L	**Key switch 1**
152L	**Key switch 2**
153L	Canister
900L	Software version
901L	Machine status
902L	Machineconfiguration
903L	Machine initialisation status
904L	Computing load
81M	Set machine to maintenance mode
82M	Reset IR-password
83M	Dispense outlet without drum
222M	Set demo-mode
99M40M	Backup database
99M41M	Restore database
99M42M	Delete statistics
99M43M	Delete journal
99M44M	Delete configuration
99M45M	Delete selection-related statistics
99M46M	New init for selections
99M47M	Delete process params
99M48M	Reset db version number
99M49M	Delete all product names from db
99M50M	Set enable selections
99M55M	Put machine into operation and erase error code EC_1002
99M56M	Put machine with error code EC_1002 out of order
99M57M	Clear access rights
99M60M	Save configuration as back-up data
99M61M	Download configuration from back-up data
99M78M	Delete error history
99M80M	Enter default configuration
99M81M	Erase the database and restart the Dataprocess

99M85M	Reset error history and counters
99M86M	Set TcpClient calls to 0
99M87M	Delete Deposit data
99M91M	Erase the journal table from the database
99M92M	Delivery condition
50000L	Container Status ContainerID 0
50001L	Container Status ContainerID 1
50010L	Overview of container fill status
50020L	Container calibration measures zero Container 0
50030L	Container calibration measures second weight Container 0
50031L	Container calibration measres second weight Container 1
700111M	Open electrical door lock for coin container
700112M	Open electrical door lock for machine front
700101M	Coin sorting extension sort coin container one
700102M	Coin sorting extension sort coin container two
505031L	Load cell value interpolated load cell 1

10. Circuit diagrams




Seite 4 A17 X1
Seite 4 A20
Seite 1 A19 X4
Seite 3 A14 X1/A5 X2
Seite 1 A7 XA3, X2, A19 X4
Seite 3 A5 X2/A6 X2
Seite 3 A7 X1
Seite 4 EA2/ TA1/ EA7
FC2
KFZ Sicherung Beleuchtung 2A
A2
STEUERUNG HG M32
AX1
Platine Add-on Ethernet
A4
Brüher
A3
Rückgabemotorhalter kpl. mont.
BM1
Tropfelmensor
SF3
Lichtschranke Ausgabe
SF14
Lichtschranke Ausgabe
GP2
Pumpe Reinigung
Einlassventil Q10
Q1 Instantventil 1
Q2 Instantventil 2
Q3 Instantventil 3
Q4 Instantventil 4
Q5 Instantventil 5
Q6 Americanoventil
Q7 Brüherventil
Q8 Dichtungsventil
Q9 Reinigungsventil
Q11 Heisswasserventil
M1 Produktmotor 1
M2 Produktmotor 2
M3 Produktmotor 3
M4 Produktmotor 4
M5 Produktmotor 5
M6 Produktmotor 6
HW1
HW2
HW3
HW4
HW5
Mixermotor 1
Mixermotor 2
Mixermotor 3
Mixermotor 4
Mixermotor 5
Sielaff GmbH & Co. KG
Automatenbau
Herrieden
Münchener Straße 20
D- 91567 Herrieden
Erstellt: 13.08.21 MAAG_AN
Geprüft: 13.08.21 MAAG_AN
Freige.: 13.08.21 MAAG_AN
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ÄA-Nr.
Datum
Beschreibung
Geändert
Bezeichnung:
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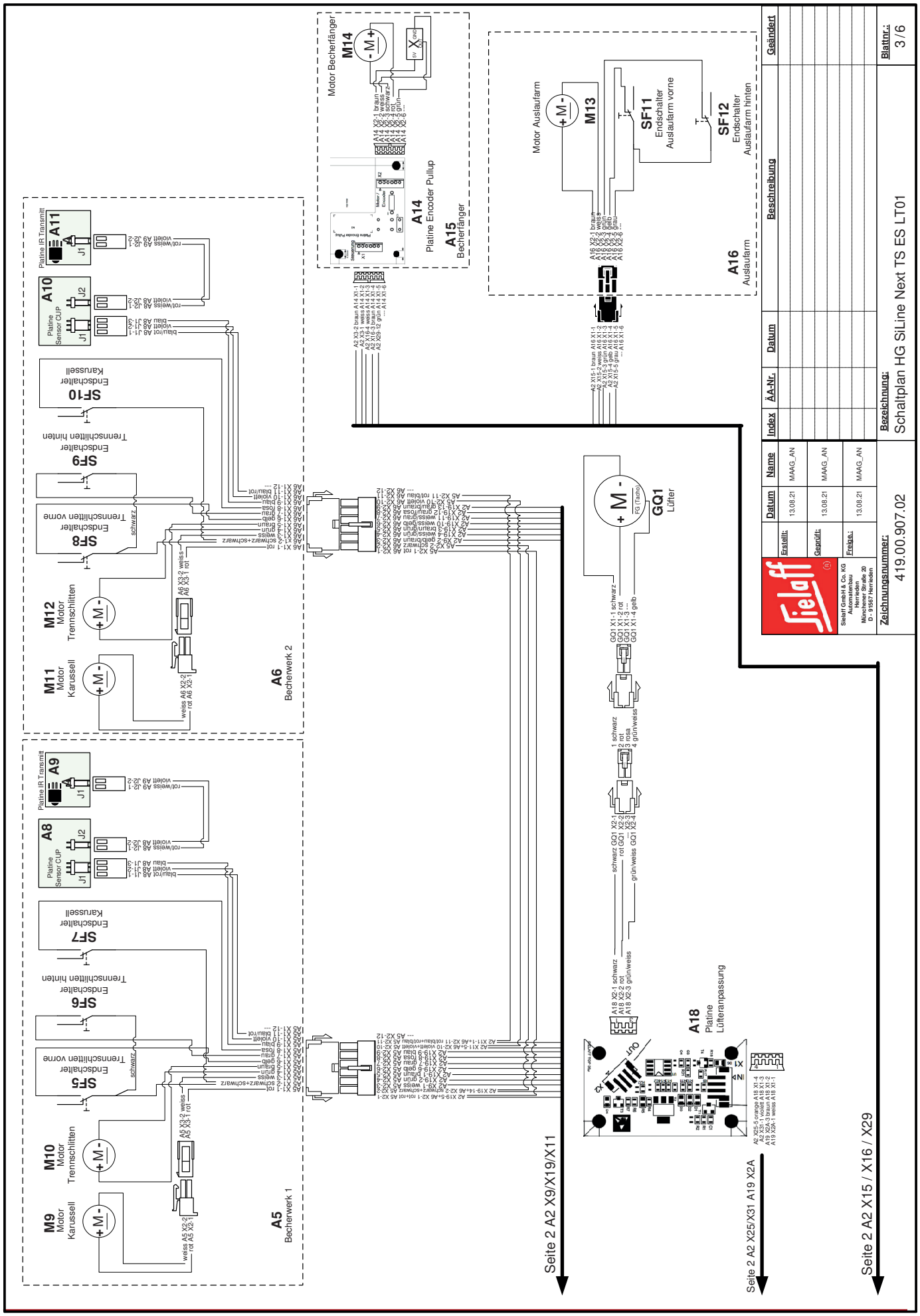
Zeichnungsnummer:
419.00.907.02
Blattnr.:
2 / 6


Motor Becherfänger
M14
A14
Platine Encoder Pullup
A15
Becherfänger
Motor Auslaufarm
M13
SF11
Endschalter
Auslaufarm vorne
SF12
Endschalter
Auslaufarm hinten
A16
Auslaufarm
Platine IR Transmit
A11
A10
Platine
Sensor CUP
SF10
Endschalter
Karussell
Trennschlitten hinten
SF9
Endschalter
SF8
Endschalter
Trennschlitten vorne
schwarz
M12
Motor
Trennschlitten
M11
Motor
Karussell
A6
Becherwerk 2
A9
A8
SF7
SF6
SF5
M10
M9
A5
Becherwerk 1
GQ1
Lüfter
A18
Platine
Lüfteranpassung
Seite 2 A2 X9/X19/X11
Seite 2 A2 X25/X31 A19 X2A
Seite 2 A2 X15 / X16 / X29
Beschreibung
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Index
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Name
Erstellt: 13.08.21 MAAG_AN
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Münchener Straße 20
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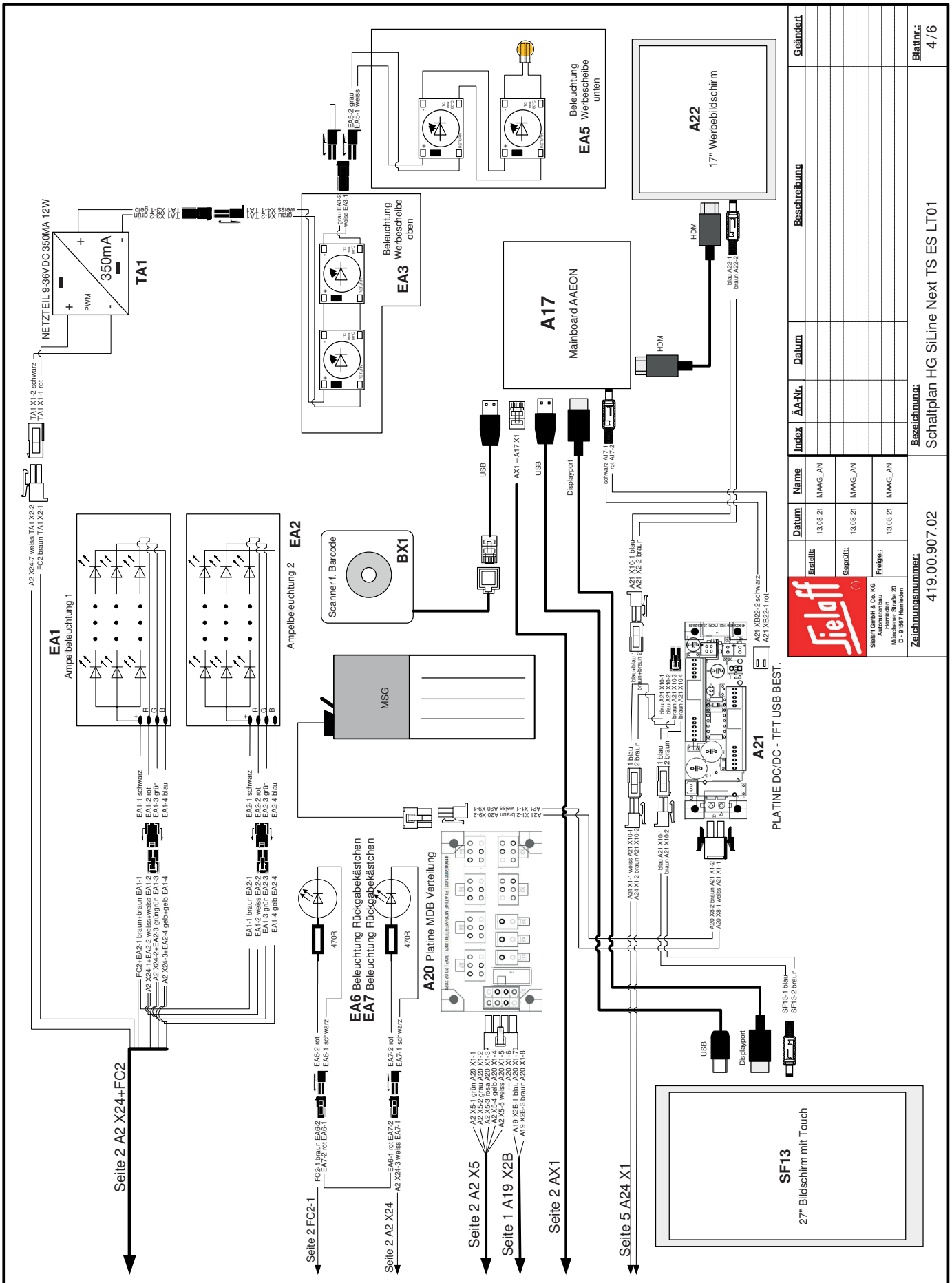
NETZTEIL 9-36VDC 350MA 12W
TA1
350mA
PWM
TA1 X1-2 schwarz
TA1 X1-1 rot
A2 X24-7 weiss TA1 X2-2
FC2 braun TA1 X2-1
EA1
Ampelbeleuchtung 1
EA2
Ampelbeleuchtung 2
EA1-1 schwarz
EA1-2 rot
EA1-3 grün
EA1-4 blau
FC2+EA2-1 braun+braun EA1-1
A2 X24-1+EA2-2 weiss+weiss EA1-2
A2 X24-2+EA2-3 grün/grün EA1-3
A2 X24-3+EA2-4 gelb+gelb EA1-4
EA2-1 schwarz
EA2-2 rot
EA2-3 grün
EA2-4 blau
EA1-1 braun EA2-1
EA1-2 weiss EA2-2
EA1-3 grün EA2-3
EA1-4 gelb EA2-4
Seite 2 A2 X24+FC2
Beleuchtung Werbescheibe oben
EA3
Beleuchtung Werbescheibe unten
EA5
EA5-2 grau
EA5-1 weiss
A22
17" Werbebildschirm
HDMI
A17
Mainboard AAEON
USB
AX1 – A17 X1
Displayport
schwarz A17-1
rot A17-2
Scanner f. Barcode
BX1
MSG
A21 X10-1 blau
A21 X2-2 braun
A21 XB22-2 schwarz
A21 XB22-1 rot
A21
PLATINE DC/DC - TFT USB BEST.
A21 X1-2 braun A20 X9-2
A21 X1-1 weiss A20 X9-1
A20 Platine MDB Verteilung
A20 X8-2 braun A21 X1-2
A20 X8-1 weiss A21 X1-1
EA6 Beleuchtung Rückgabekästchen
EA7 Beleuchtung Rückgabekästchen
470R
EA6-2 rot
EA6-1 schwarz
EA7-2 rot
EA7-1 schwarz
FC2-1 braun EA6-2
EA7-2 rot EA6-1
EA6-1 rot EA7-2
A2 X24-3 weiss EA7-1
A2 X5-1 grün A20 X1-1
A2 X5-2 rosa A20 X1-3
A2 X5-3 rosa A20 X1-2
A2 X5-4 gelb A20 X1-4
A2 X5-5 weiss A20 X1-5
A19 X2B-1 blau A20 X1-7
A19 X2B-3 braun A20 X1-8
SF13-1 blau
SF13-2 braun
SF13
27" Bildschirm mit Touch
Seite 2 FC2-1
Seite 2 A2 X24
Seite 2 A2 X5
Seite 1 A19 X2B
Seite 2 AX1
Seite 5 A24 X1
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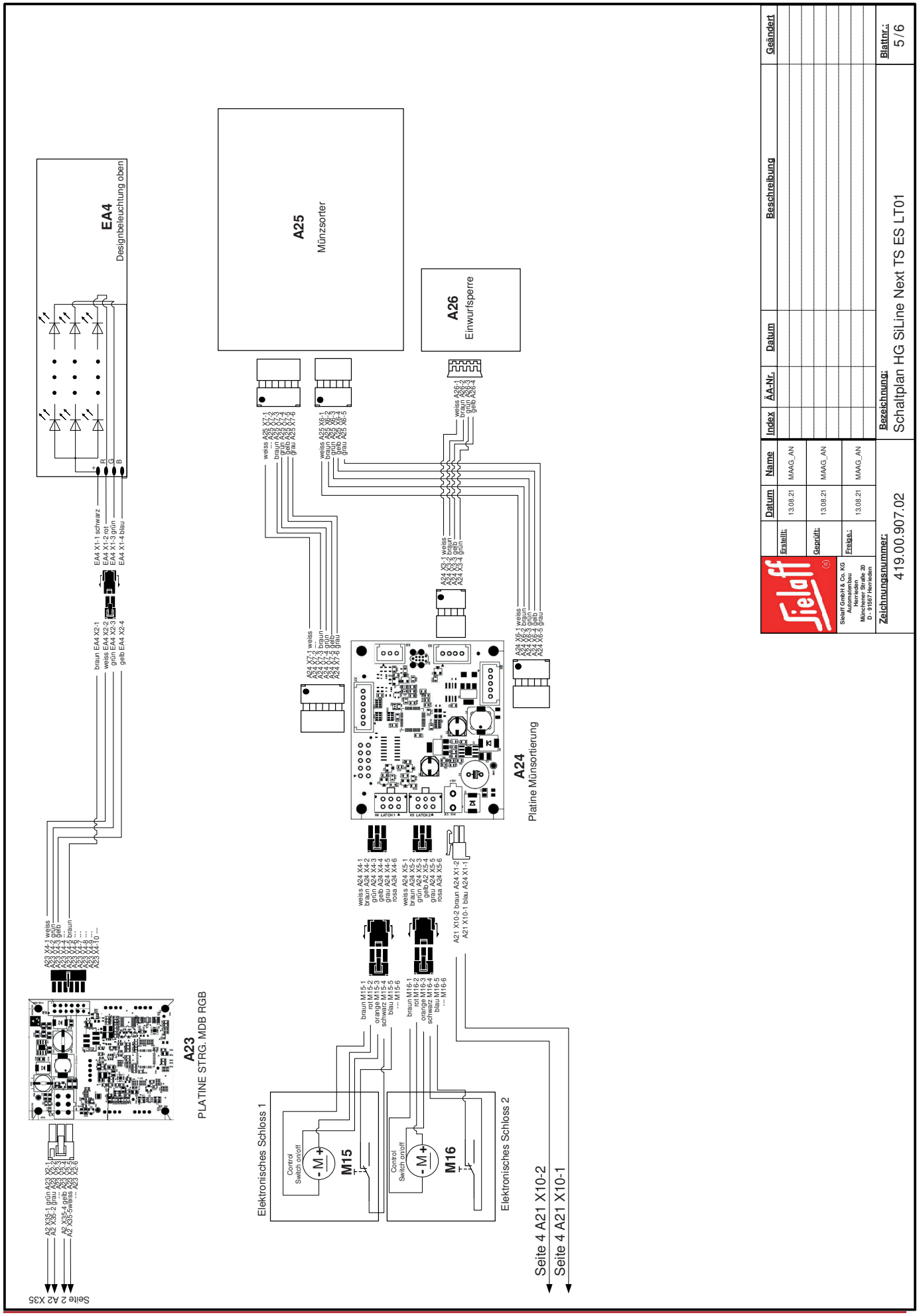
EA4
Designbeleuchtung oben
A25
Münzsorter
A26
Einwurfsperre
A24
Platine Münsortierung
A23
PLATINE STRG. MDB RGB
M15
M16
Elektronisches Schloss 1
Elektronisches Schloss 2
Seite 4 A21 X10-2
Seite 4 A21 X10-1
Seite 2 A2 X35
Sielaff GmbH & Co. KG
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FC1	9852043003	SICHERUNGSAUTOMAT 1-POLIG 10A	B10 - 1TE
FC2	9852133900	KFZ-SICHERUNG	32V /2A /GRAU
GP1	4090501400	FLÜGELZELLENPUMPE MONT.	
GP2	4150203700	Schlauchpumpe vorm.	
SF1	9851429029	Wippschalter bel.Snap-In 2 pol	16A 250V 6,3 * 0,8 Ausschalter
SF2	9851406525	Taster 1-Wechsler Snap-In	10A/250V
SF3	9855535300	LICHTSCHRANKE	REFLEXLICHT 0-2,5M
SF4	9851406527	Sicherheits Trennschalter Snap	
SF5	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF6	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF7	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF8	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF9	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF10	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF11	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF12	9851406020	Mikroschalter Wechsler	mit UL-Prüfzeichen
SF13	9855596391	Touchscreen 27 Zoll	616,6*364,6*42,0MM
SF14	9855535300	LICHTSCHRANKE	REFLEXLICHT 0-2,5M
SF15	4190162100	NOT-AUS MONT.	
EB1	4047816700	BOILER VORM.	2,0 KW /HG NEXT
EB2	4190012300	DURCHLAUFERHITZER	DUAL
BT1	9851540014	Temperaturfühler NTC-30oC	150oC G1/8 Leitung0,3m+Molex
BT3	4190012800	TEMPERATURSENSOR AVS	
A1	4190050300	PLATINE FILTER 250V 10A BEST.	ZWEISTUFIG VG:2 ÜSK:2
A2	4047050000	Steuerung HG M32	
A3	4190161800	RÜCKGABEMOTORHALTER MONT.	
A4	4140306400	BRÜHER MONT.	
A5	4190306900	BECHERWERK LI. 80MM MONT.	
A6	4190406900	BECHERWERK RE. 80MM MONT.	
A7	4190050100	STEUERUNG MDB I-DLE 7AUSG.	137*68MM /BESTÜCKT
A8	4140050800	Platine Sensor Cup kpl. best.	5V /Empfänger /SiLine
A9	4130050300	Platine IR Transmitt kpl.Best.	IR Sender B-Stapel/Sensor Cup
A10	4140050800	Platine Sensor Cup kpl. best.	5V /Empfänger /SiLine
A11	4130050300	Platine IR Transmitt kpl.Best.	IR Sender B-Stapel/Sensor Cup
A12	4190110500	LEISTUNGSPLATINE VORM.	
A14	4190057000	Platine Encoder Pullup kpl.	
A15	4190113800	TS ANTRIEB BECHERFÄNGER MONT.	
A16	4190109100	AUSLAUFARM MONT.	
A17	4190118200	Mainboard AAEON mont.	
A18	4140057100	PLATINE LUEFTERANPASSUNG BEST.	PWM DC
A19	4190050200	PLATINE ZUSCHALTUNG 24V BEST.	
A20	4190051600	PLATINE MDB VERTEILUNG BEST.	90*50MM
A21	4190056700	PLATINE DC/DC - TFT USB BEST.	120x38x30mm
A22	4190051400	DISPLAY 17 ZOLL OH. TOUCH	DMXX5542 /12V DC
A23	6500052400	PLATINE STRG. MDB RGB BEST.	62X75MM
A24	4190056900	Platine Münzsortierung best.	HG Next
AX1	4140050600	PLAT.ADD-ON ETHERNET M32 BEST.	F. M32 67,5*27,5MM
TB1	9852600153	Netzteil 230VAC 24VDC 120W	SNP-G129, L*B*H 107*51*36mm
TB2	9852600159	Netzteil 230VAC 24VDC 90W	TP156A / TPSF-90-1-A
TA1	4140055000	NETZTEIL LED VORM.	
BF1	4024140400	FLOWMETER VORM.	

HU1	4080139400	Einbaumühle EK21 kpl.mont.	Auslauf nach rechts
HU2	4080139300	Einbaumühle EK21 kpl.mont.	Auslauf nach links
Q1	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q2	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q3	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q4	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q5	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q6	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
Q7	4140194100	MAGNETVENTIL 3/2 VORM.	
Q8	4140194100	MAGNETVENTIL 3/2 VORM.	
Q9	4140194100	MAGNETVENTIL 3/2 VORM.	
Q10	4040118600	Halter f Einlassventil 1 kpl.	
Q11	4140094000	Magnetventil 2/2	D 6mm (0 -16,0 Bar) Anreihbar
M1	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M2	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M3	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M4	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M5	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M6	4120052600	GETRIEBEMOTOR DC 24V	TROCKENZUCKERANTRIEB
M9	9852792710	Getriebemotor DC 24V	2,2 Min^-1, Flachst.2,8x0,5
M10	9852703568	Getriebemotor DC 18V m.Zahnrad	1.61.065.064
M11	9852792710	Getriebemotor DC 24V	2,2 Min^-1, Flachst.2,8x0,5
M12	9852703568	Getriebemotor DC 18V m.Zahnrad	1.61.065.064
M13	9852703568	Getriebemotor DC 18V m.Zahnrad	1.61.065.064
M14	4120053000	GETRIEBEMOTOR MONT. M. ZAHNRAD	Z9 / ANTRIEB BECHERWERK
M15	4047066900	Fallenschloss Elektromech. m.	Schalter 73,5(81,26)x37,5x15,5
M16	4047066900	Fallenschloss Elektromech. m.	Schalter 73,5(81,26)x37,5x15,5
BM1	4040054200	Tropfwassersensor kpl.	
HW1	4040033000	Mixerhalterung inkl.Motor	
HW2	4040033000	Mixerhalterung inkl.Motor	
HW3	4040033000	Mixerhalterung inkl.Motor	
HW4	4040033000	Mixerhalterung inkl.Motor	
HW5	4040033000	Mixerhalterung inkl.Motor	
GQ1	4140052600	LUEFTER VORM.	
EA1	9852201600	LED MODUL RGB STREIFEN 24V	14,4W/M /100*10MM/KV 0,14M
EA2	9852201600	LED MODUL RGB STREIFEN 24V	14,4W/M /100*10MM/KV 0,14M
EA3	4190054800	KV LED BELEUCHTUNG SCHEIBE	OBEN
EA4	3440053300	LED MODUL RGB STREIFEN 6-FACH	LACKIERT
EA5	4140056100	KV LED BELEUCHTUNG SCHEIBE	
EA6	4080052200	LED-Leuchte 12 V kpl.mont.	150 mm
EA8	4040053500	Lampe vorm. 2-pol.Litze	
BX1	9855500700	SCANNER F. BARCODE	Honeywell HF521

Sielaff GmbH & Co. KG
Automatenbau
Herrieden
Münchener Straße 20
D - 91567 Herrieden

	Datum	Name
Erstellt:	13.08.21	MAAG_AN
Geprüft:	13.08.21	MAAG_AN
Freige.:	13.08.21	MAAG_AN

Index	ÄA-Nr.	Datum	Beschreibung	Geändert

Zeichnungsnummer: 419.00.907.02

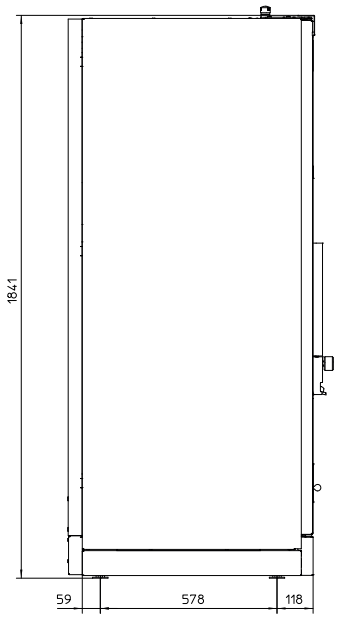
Bezeichnung: Schaltplan HG SiLine Next TS ES LT01

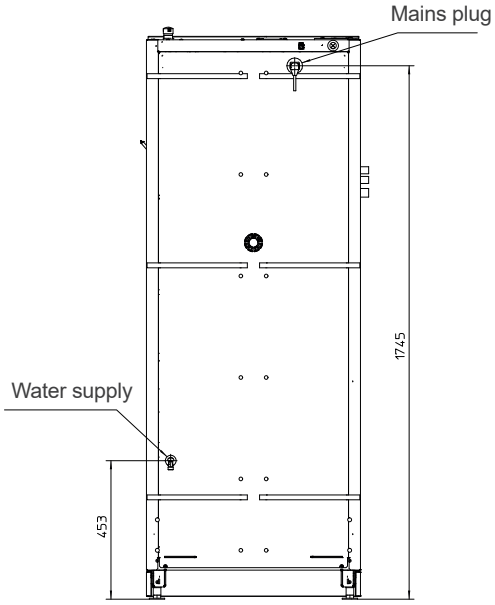
Blattnr.: 6 / 6

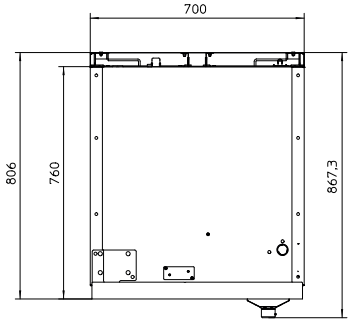
11. Installation and commissioning

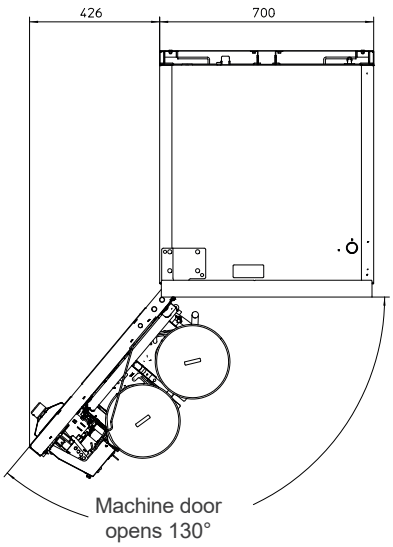
11.1 Installation requirements

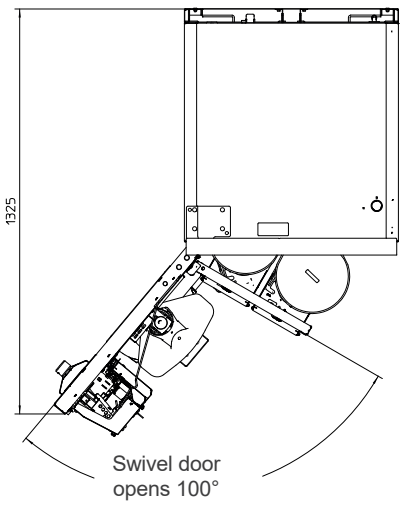
- Voltage, water connection and ambient temperature specifications can be found in the technical section of the Operating Manual
- An insufficient power supply can result in machine damage
- The existing electrical network must match the specifications on the machine identification plate.
- Only operate the vending machine using a shockproof socket, installed as per the instructions.
- Never use multiple sockets and extension cables.
- For safety reasons, the power socket for the machine must be easily accessible so that the plug can be easily removed.
- Before commissioning the machine, ensure that it has reached room temperature.
- Ensure that the supporting surface is horizontal, stable, has sufficient load-bearing capacity and is not subject to vibration.
- The machine must be easily accessible for operating, filling, cleaning and maintenance
- The machine must be in a level position. Four adjustable feet are fitted to assist with machine alignment.
- Ensure that the machine cannot slide.
- The following distances from walls or other objects should be adhered to.











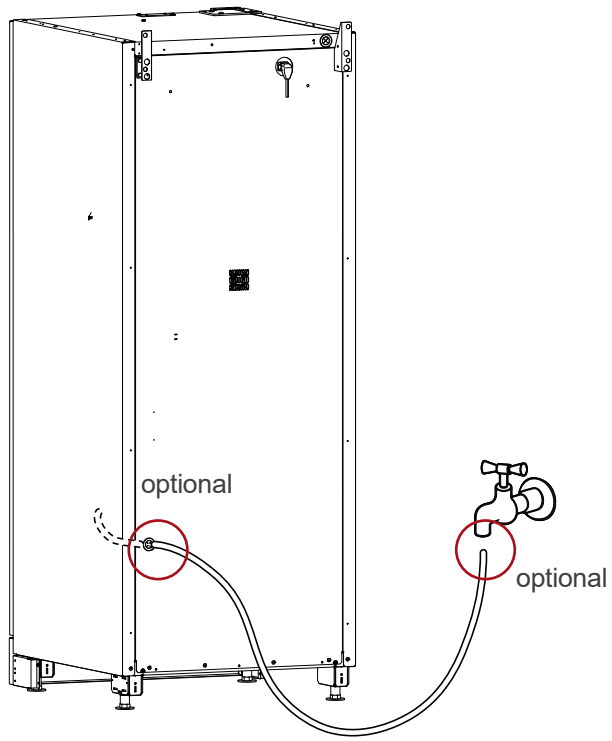
11.2 Commissioning

Transportation safety device

After unpacking the machine, it is essential to remove any transportation safety devices fitted. The instant product containers are secured with cardboard packaging and adhesive tape. This must be removed.

Connecting the water pipe

- Connect the water tap to the machine's water connection.
- The vending machine should only be connected to a cold water line that is suitable as drinking water.
- Water supply pressure must be between 2 and 6 bar (0.6 MPa). Pressures that are lower or higher than this are unsuitable. The machine will not operate at low pressure, a pressure reducer must be used for higher pressures.
- We recommend fitting an AquaStop System
- Upstream connection of a water filter is compulsory, in order to soften the water and filter out coarse particles.
- The design and set-up of the drinking water installation must always comply with the hygiene requirements for drinking water. Circulation systems must be installed if necessary.
- Particularly with new buildings the water tap should turned on for a long time before connecting the machine. This will prevent any dirt present in the water lines entering the vending machine.
- Ensure that pipes are firmly connected in order to prevent flooding.

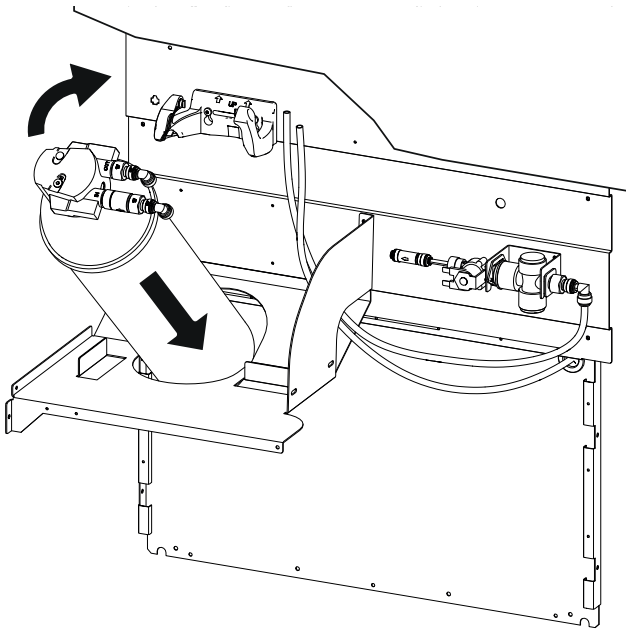


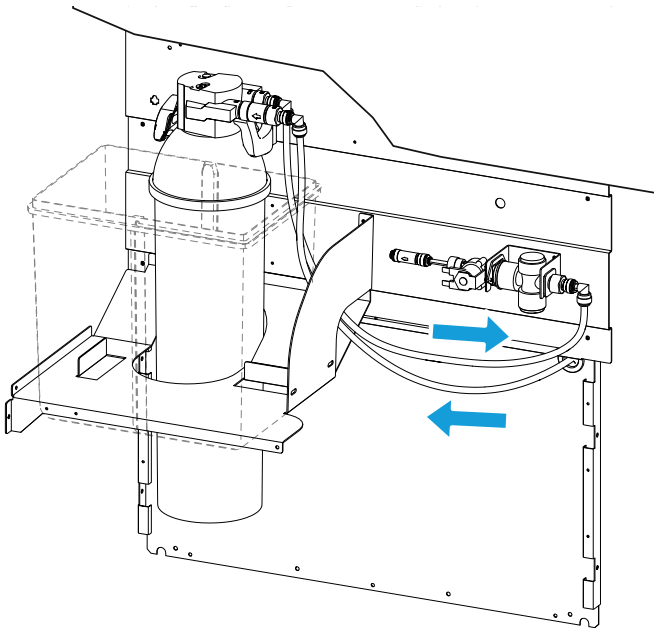
optional:

- Water supply pipe 3/8 inch (2 m) partno. 402 00 082 00
- Water feed pipe (polyethylene tube Ø 8.0 x Ø 6.0 mm) partno. 980 50 508 08

Fitting the water filter

The machine is prepared for the Brita© Purity C300/C500 water filter.

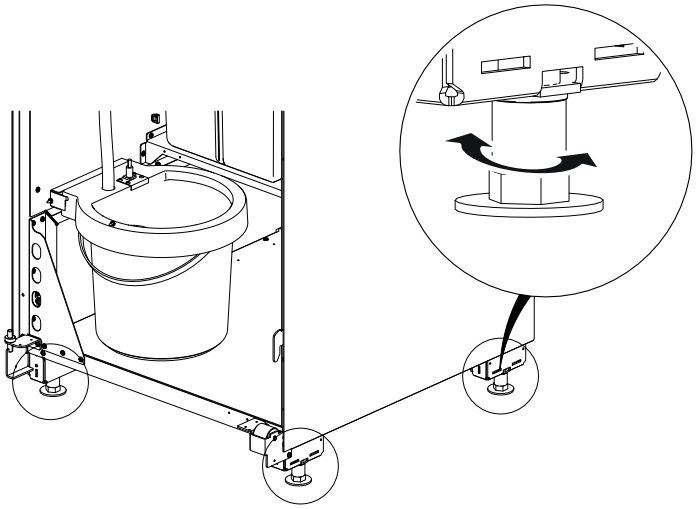




Levelling the machine

The vending machine must be levelled, and it is essential that the following criteria is adhered to:

- Horizontal and stable position
- Correct height adjustment if part of a vending machine station.
- The machine door can be opened and closed **without jamming**

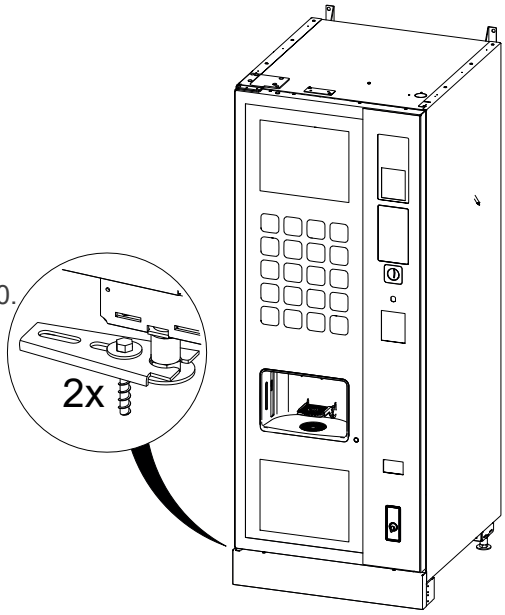


Securing the machine

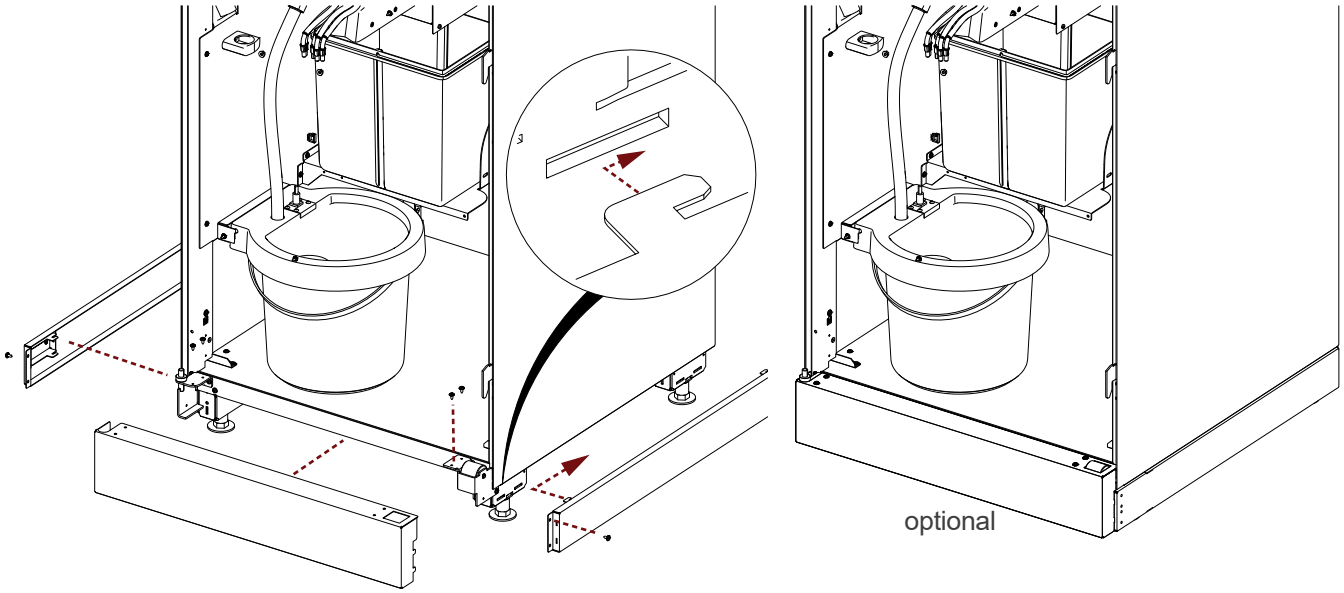
WARNING: Risk of tipping over!

The vending machine can tip over on site. There is crushing risk. Fix vending machine to the wall or floor:

Secure the machine to the floor using floor fixing kit, part no. 603 02 639 00.



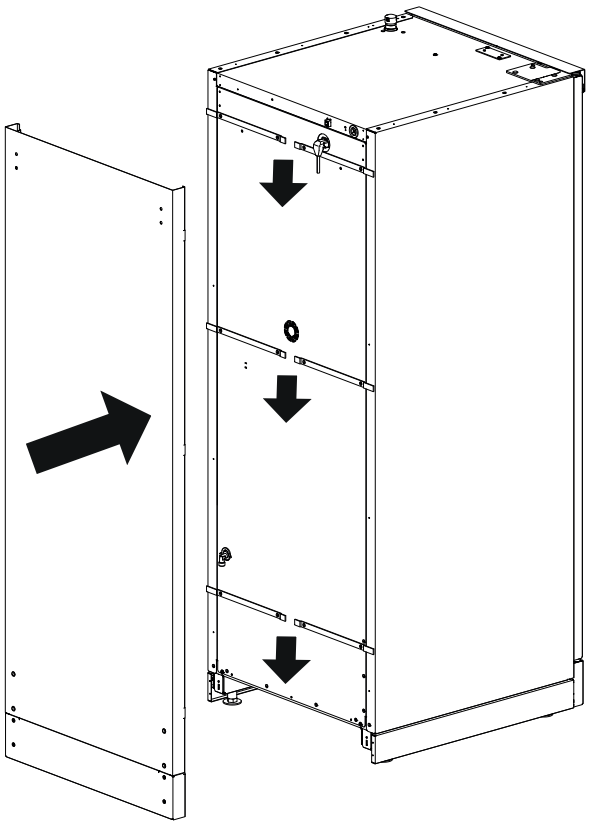
Mount the kickplates

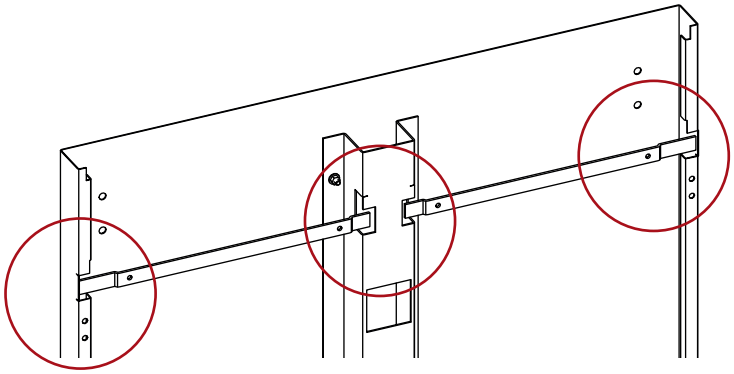


Mount the rear wall

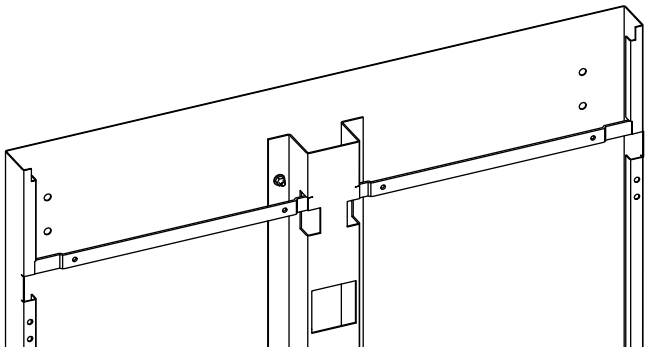
The rear wall is positioned on the machine and then moved downwards to be mechanically secured. The rear panel is not affixed using screws.

Important: Cables and hoses must not be squashed.





The rear wall must be hooked on as shown



Push the rear wall downwards; completed

Switch on the machine

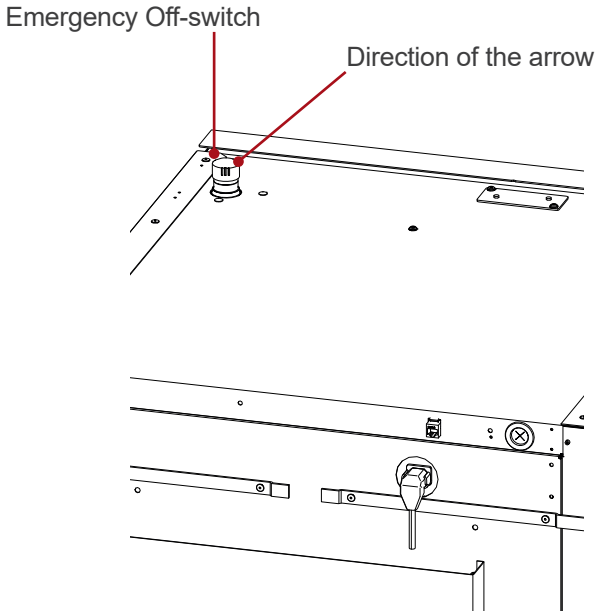
Requirement

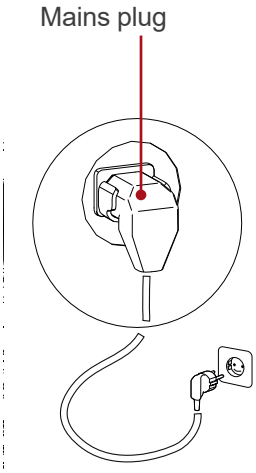
- Mains plug inserted

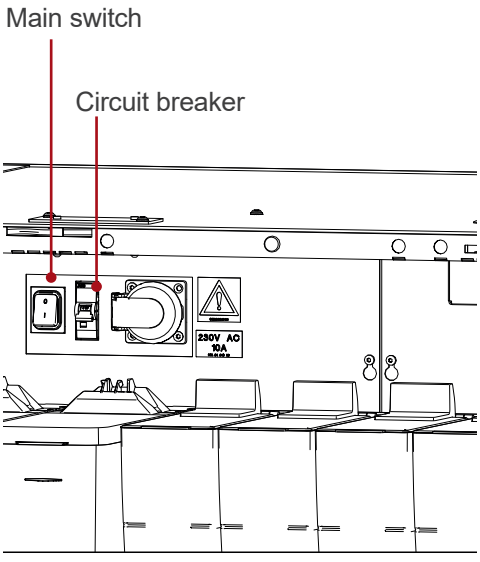
Procedure

1. *The emergency Off-switch (optional) must be disengaged: to do this turn in the direction of the arrow*
2. *Switch on the circuit breaker.*
3. *Switch on the main switch*

✓ The machine is now powered up.







11.3 Fitting a coin mechanism (optional)

Mounting the coin mechanism

Procedure

1. *Follow the instructions provided by the coin mechanism manufacturer.*
2. *Mount the coin mechanism on the holding plate.*
3. *Insert securing screw (M4 x 8).*

Setting the eccentric disc

Adjust the motorised coin return so that the return lever on the coin mechanism is activated when the refund button is pressed.

Connecting the adapter kit

The coin mechanism and the machine control board (VMC) must be connected electrically. Always switch the machine off before starting work e.g. by pulling out the plug.

Example: Conversion kit MDB Executive Converter part no. 414 01 507 00

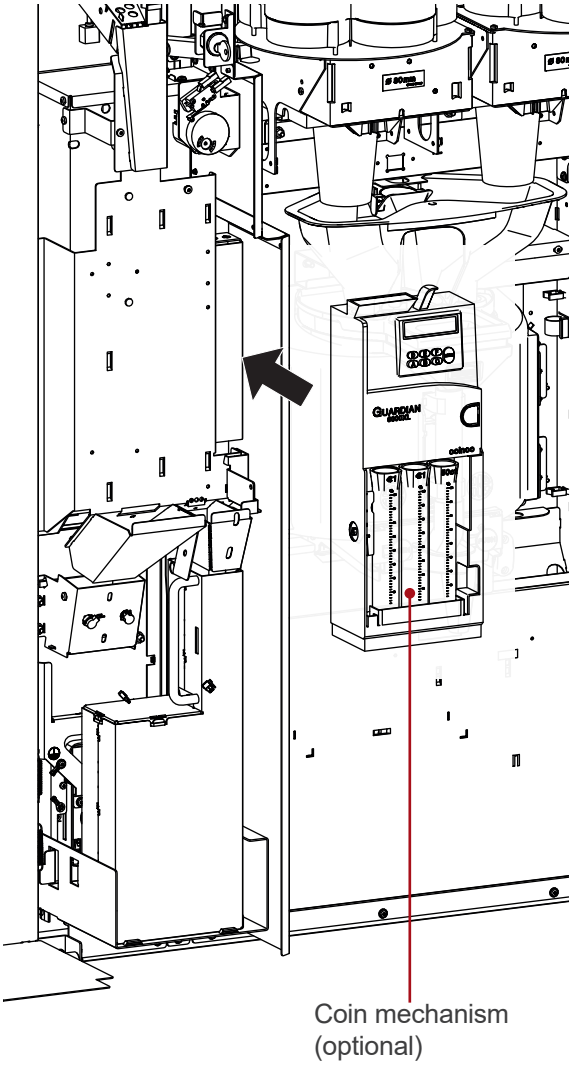
Other adapter kits are available upon request.

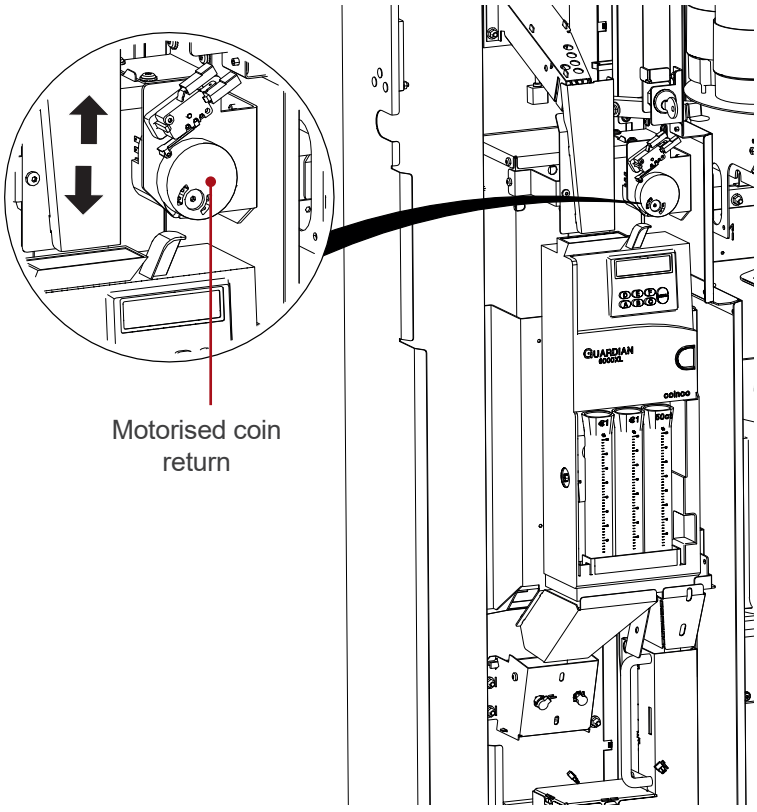
Plug in male and female connectors securely.

Setting the credit system protocol

Procedure

1. *Click on tab 5 [Payment systems] - [General] - [Credit system protocol]*
2. *Select [MDB] or [Executive] or [Free Vend] or [BDV] and confirm*





11.4 Fill boiler

The vending machine is delivered empty from the factory so as to avoid frost damage during transport and storage. For this reason the boiler must be manually filled with water once.

Requirement

- Machine is switched on
- Water supply connected.

Procedure

1. *Open the machine door*
2. *Click on tab 6 [Machine configuration] - [Heating/ Water system] - [Mode] - [off] and then confirm.*
3. *Click on tab 6 [Machine configuration] - [Service functions] - [Service codes] [88M] and then [OK].*

→ The pump begins to function. Water flows from the outlet into the waste bucket. Approx. 1 litre of water is required before the pump stops by itself.

✓ The boiler has been filled with water.

11.5 Switching on the heater

Procedure

1. *Open the machine door*
2. *Click on tab 6 [Machine configuration] - [Heating/ Water system] - [Mode] - [on].*
3. *Press [Save]*

✓ The heater has been switched on.

11.6 Setting the grind level

The grind level is set in the factory and does not necessarily have to be adjusted during commissioning. However, depending on the type of coffee used, the grind can vary greatly. It may therefore be necessary to adjust the grind level.

Tip
When the grind level is adjusted, the coffee powder may jam the grinder. To avoid this the coffee grinder should be run until empty before making any adjustment.

Empty the grinder.

Procedure

1. *Pull the locking slider out to its limit.*
2. *Click on tab 6 [Machine configuration] - [Service functions] - [Machine control] [9M] Coffee grinder or [19M]* Espresso *grinder.*
3. *Press [Send]*

→ The grinder works and the remaining powder falls out. The grinder is empty.

Adjusting the grind

Procedure

To set the grind level, push in the adjusting screw on the grinder using a screwdriver and turn gradually.

Turn to the right (grinder must run !)	Powder finer	Brew time longer
Turn to the left	powder coarser	Brew time shorter

Check adjustment

Procedure

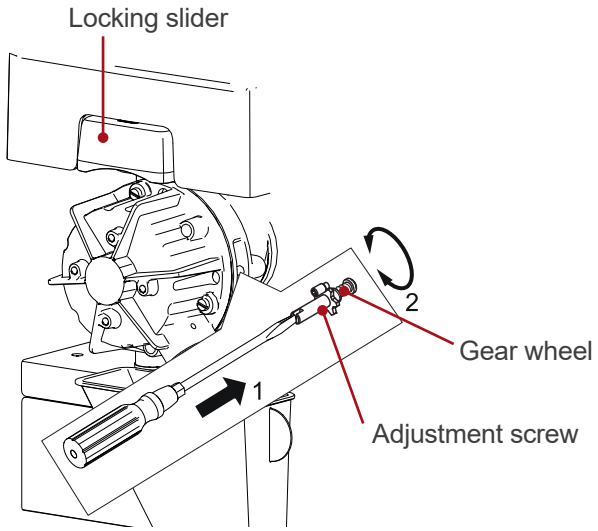
1. *Push the locking slider in to its limit.*
2. *Click on tab 6 [Machine configuration] - [Service functions] - [Service codes].*

→ Enter code

3. *Enter [9M] or [19M].*
4. *Press [Send]*

→ The grinder works

Check the grind level. Repeat the procedure to set the grind level until the required setting has been achieved.



11.7 Calibrate the coffee grinder

The grinder must be calibrated.

Before calibration starts the system must be completely filled with powder. Only then can the correct readings be obtained. For this purpose the [Move forward] button can be used.

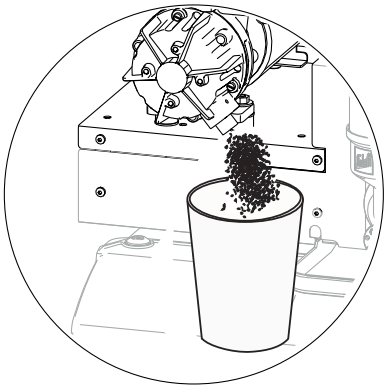
Resources

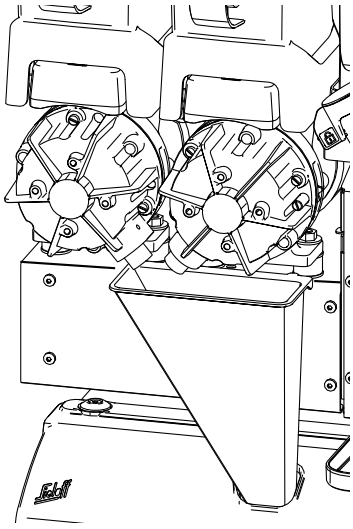
- Scales (to 0.1g accuracy)
- Cup

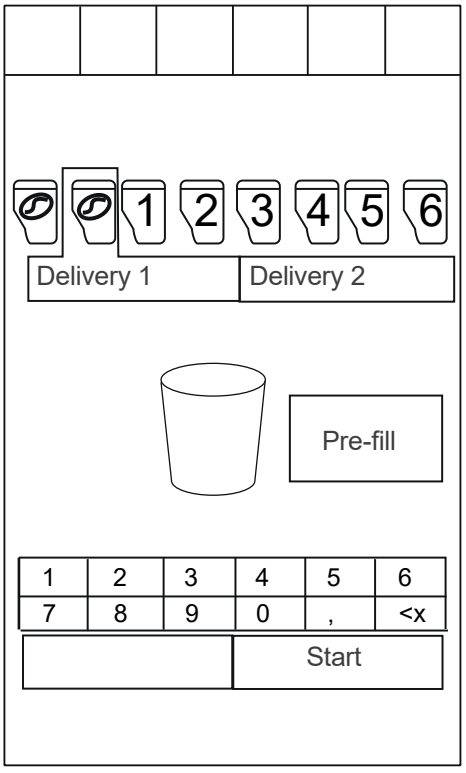
Procedure

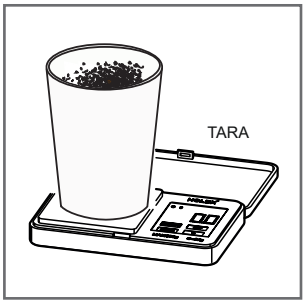
1. *Open the machine door*
2. *Lift the powder slide slightly and remove*
3. *Select [Technician] - [Product/Test vend] - [Calibration].*
4. *Select [Grinder]*
5. *Insert service key*
6. *Place a cup on a scale and tare.*
7. *Hold the cup under the outlet.*
8. *Select [Start]*
9. *Catch the ground powder in the cup*
10. *Weigh it to an accuracy of 0.1 g.*
11. *Enter the value and confirm.*
12. *Further instructions follow*

✓ The coffee grinder has been calibrated









11.8 Calibrate the instant containers

The dosing motors for the instant product containers must be calibrated. This must be done every time the products are changed. Due to their different consistencies the products can vary in how they perform.

Before calibration starts the system must be completely filled with powder. Only then can the correct readings be obtained. For this purpose the [Move forward] button can be used.

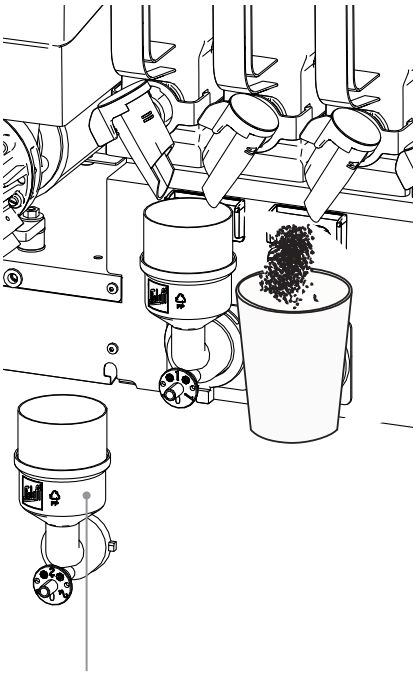
Resources

- Scales (to 0.1g accuracy)
- Cup

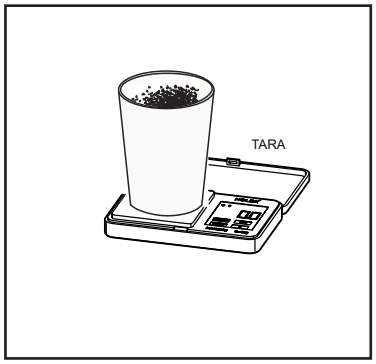
Procedure

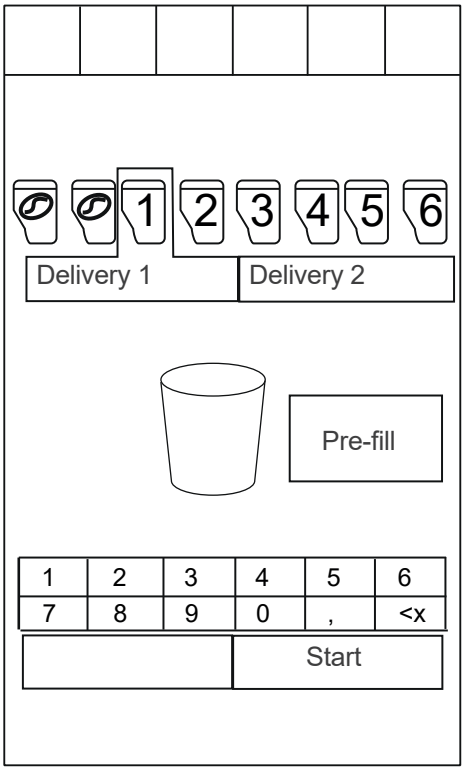
1. *Open the machine door.*
2. *Remove the mixer bowl*
3. *Select [Technician] - [Product/Test vend] - [Calibration].*
4. *E.G. select [Chocolate product motor]*
5. *Insert service key*
6. *Place a cup on a scale and tare.*
7. *Hold the cup under the outlet.*
8. *Select [Start]*
9. *Collect the instant powder in the cup.*
10. *Weigh it to an accuracy of 0.1 g.*
11. *Enter the value and confirm.*
12. *Further instructions follow*

✓ A product dosing motor has been calibrated.



Mixing bowl





11.9 Adjust dynamic pressure

The dynamic pressure is dependent on the mains water pressure. Therefore, if the machine is relocated, the dynamic pressure should be checked and adjusted, if necessary.

Procedure

1. *Open the machine door*
2. *Click on tab 6 [Machine configuration] - [Heating/ Water system] - [Mode] - [off] and then confirm.*

✓ The heating has been switched off because the heater is being checked when switched off.

3. *Insert service key*
4. *Click on tab 6 [Machine settings] - [Service functions] - [Service codes] - [20M] and then [OK]*
   Service function for [Valve brewer].

→ The pressure will be reduced and the pointer on the manometer will show 0 bar.

✓ If the manometer does not display 0 bar, it must be replaced.

5. *Enter [30M] and then [OK]*
   Service function for pressure test (dynamic pressure).

→ The pump begins to function

→ The pressure is increasing : Reference value 9.5 bar must be checked.

6. *Press [OK]*

→ The pump is switched off

7. *[20M] - [OK]*

→ The pressure has been reduced

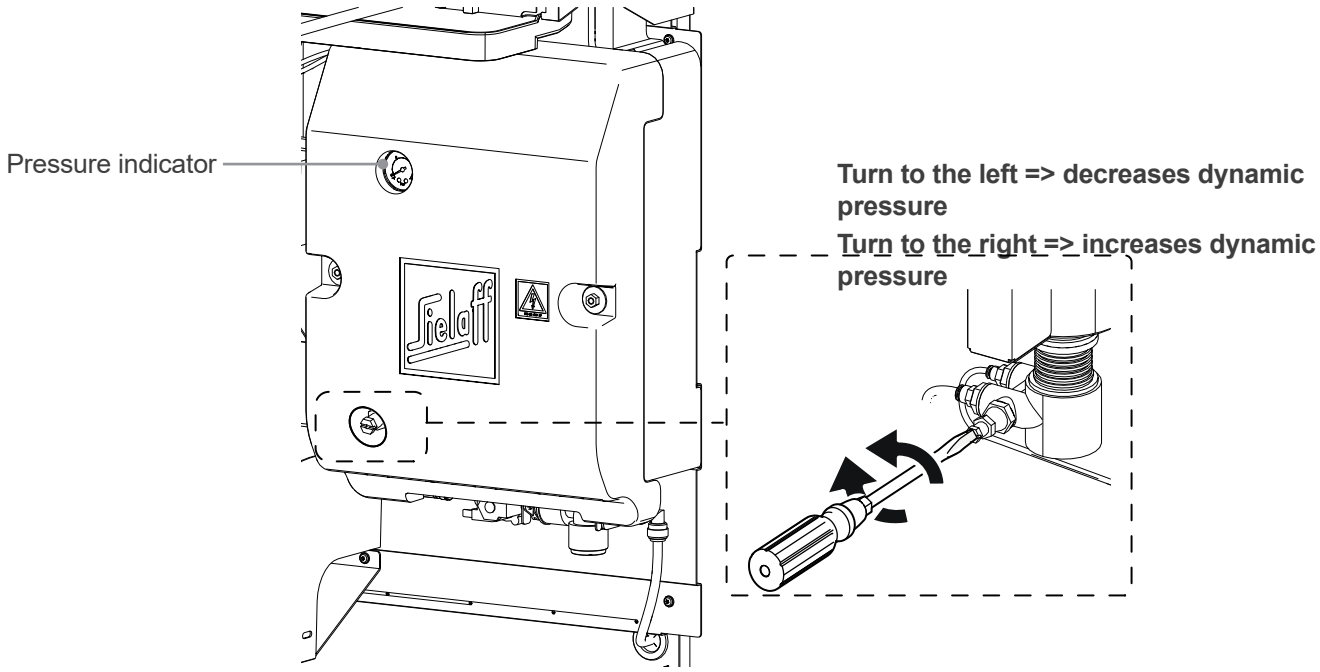
Adjustment of the dynamic pressure

- If the pressure is higher, this can be reduced by turning to the left.
- If the pressure is less, this can be increased by turning to the right.

Checking the dynamic pressure, completing the work

1. *Carry out the pressure test again*
2. *Switch the heater back on (see „11.5 Switching on the heater“ on page 56).*

✓ The dynamic pressure has been adjusted.



12. Transportation, Storage, Shutdown, Decommissioning and Disposal

12.1 Transportation information

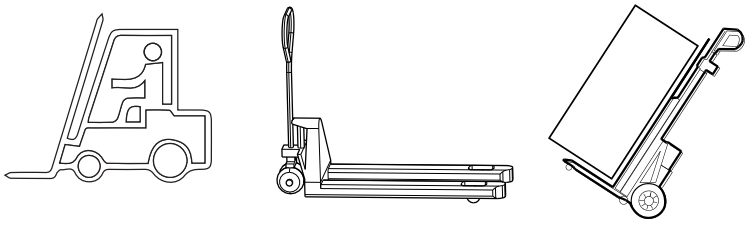
	**WARNING** The vending machine can tip over during transportation. There is crushing risk. Only move the machine using the appropriate means of transport.

The following safety instructions must be observed during transportation, loading, unloading:

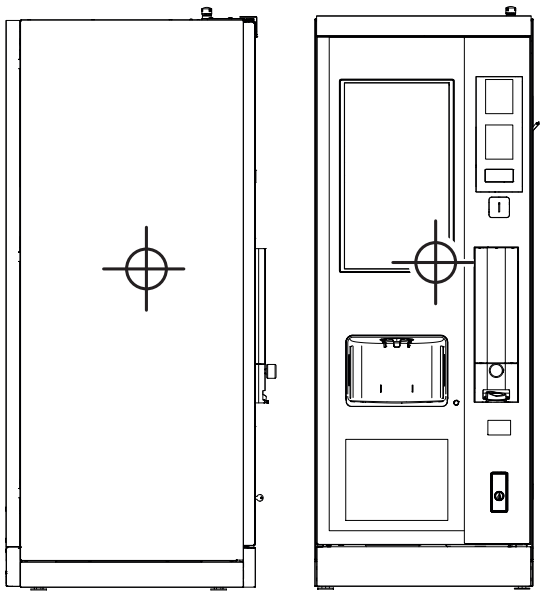
- Move the machine only with a pallet truck or a fork lift. Remove front and back kick plates. Lower the machine slowly.
- Do not transport the machine in the air.
- Always move the machine with care and caution.
- Prevent it from sliding sideways.
- Do not move the machine on inclined ramps, use stair-walkers.
- Observe the machine's centre of gravity. Due to its design the centre of gravity can be high. The machine may tip over.

12.2 Suitable means of transport

- Fork lift
- Pallet truck
- Lifting platform for vending machines



12.3 Machine's centre of gravity



12.4 Storage, Shutdown, Decommissioning and Disposal

Storage

The vending machine should be stored in a clean and dry location. Use a suitable cover to protect it from dirt, humidity and damage.

Remove the products and leave the machine door slightly ajar to allow the humidity to escape.

Decommissioning

The machine may be shut down temporarily.

- Remove the mains plug
- Remove the products
- Leave the machine door ajar
- For recommissioning refer to the chapter entitled "Commissioning".

Shut-down

If the machine cannot be operated any longer, it must be decommissioned:

- If necessary delete any personal data from the machine
- Remove the mains plug
- Remove the mains cable
- Remove and dispose of batteries correctly

Disposal

For correct disposal of the vending machine please contact our Customer Service on +49 9825 - 18 31 5108.

The machine can be sent at your own expense to the manufacturer (headquarters in Herrieden, Germany), The manufacturer will then make arrangements for proper disposal.

If required, you can ask the manufacturer to provide details on appropriate waste management companies to take care of the complete machine disposal process on your behalf.

A product displaying this symbol must not be put into house waste at the end of life, but disposed of separately. The regulations may vary depending on the country.

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