

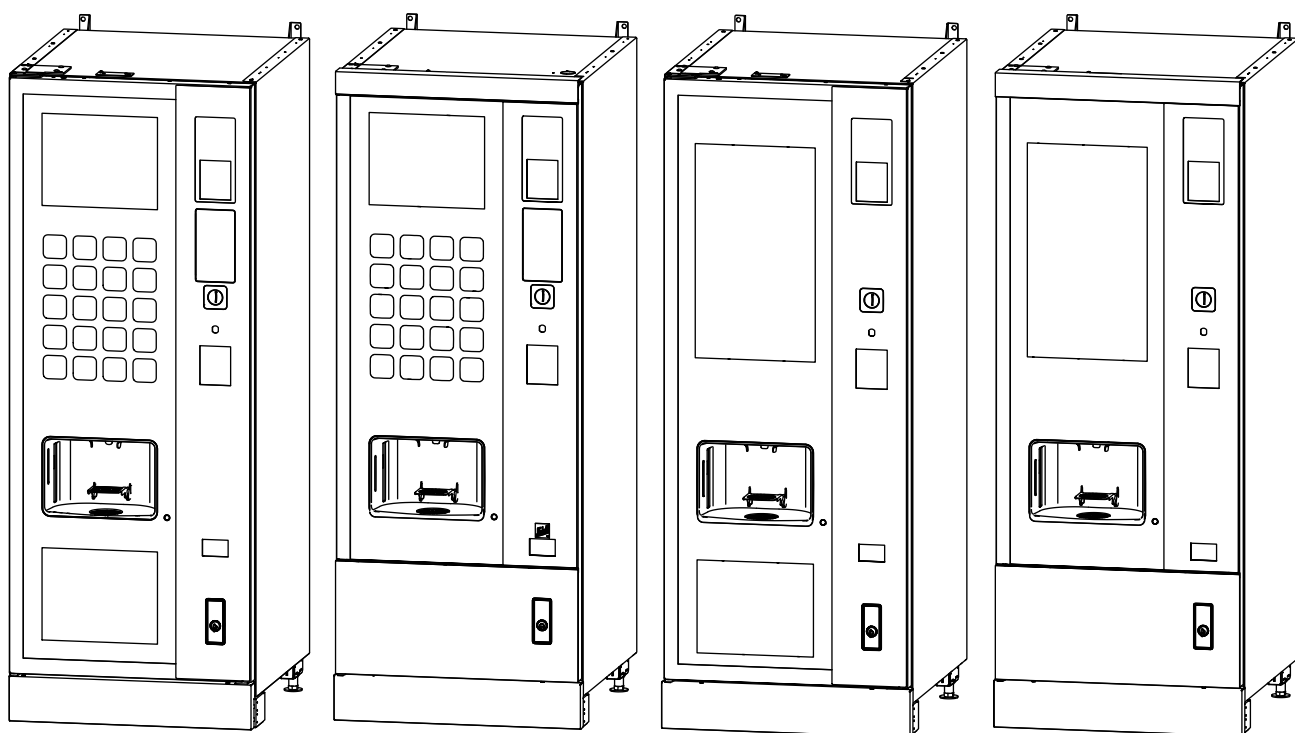


Technical Manual

HG SiLine TS

Espresso variant

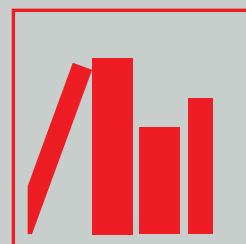
Instant variant



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Contents

1. General	4
2. Machine illustrations.....	6
3. Maintenance list (only Espresso variant)	10
4. Maintenance list (only Instant variant).....	12
5. Maintenance components	16
5.1 Housing, machine door	16
5.2 Brewing unit (only Espresso).....	18
5.3 Instant section.....	23
5.4 Electronics	24
5.5 Settings.....	26
6. Components.....	27
6.1 Brewer	27
6.1.1 Removing the brewer.....	27
6.1.2 Replacing the piston outlet.....	27
6.1.3 Replacing the brewing piston.....	27
6.2 Controller board.....	30
6.3 Rafi © keypad	31
6.4 Removing the 27-inch touchscreen.....	32
6.5 Removing the PC and 7-inch touchscreen with Rafi © keypad	33
6.6 Cup dispenser	34
6.7 Upper advertising panel	35
6.8 Lower advertising panel	36
6.9 Water filter.....	37
6.10 Changing the grinder	38
6.11 Rectifying mechanical blockages in grinder EK21	39
6.12 Boiler, flow heater	40
6.13 Instant product containers	41
6.14 Dry sugar	42
6.15 Light barriers (reflection light barrier)	43
6.16 Pepperl&Fuchs ML100-55/59/103/115a/154 (no control elements)	43
6.17 Leuze PRK3C.TT3/PT-P1 50142354 (with calibration button)	43
6.18 Solenoid valve seals.....	44
6.19 Assembling solenoid valves	44
6.20 Separating solenoid valves	44

- 7. Drawings and plans45**
 - 7.1 Water system tube layout diagram.....45
 - 7.2 Hot water parts set and Americano parts set.....46
 - 7.3 Water system circuit diagram (only Espresso).....47
 - 7.4 Water system circuit diagram (only Instant).....48
- 8. Service codes49**
 - 8.1 Service codes table49
 - 8.2 Using service code 87 M (empty boiler).....50
- 9. Circuit diagrams (only Espresso, 7 inch)51**
- 10. Circuit diagrams (only Espresso, 27 inch)57**
- 11. Circuit diagrams (only Instant)63**
- 12. Appendix A (Coil table)69**

1. General

Variants

This manual applies to the following versions:

Machine type	Note	Internal part no.
HG SiLine TS 7 ES RB	Espresso version, RAL operator panel, 7" touchscreen	419 00 000 01
HG SiLine TS 7 ES RB Trend	Espresso version, Trend, RAL panel, 7" touchscreen	419 00 000 11
HG SiLine TS 27 ES RB	Espresso version, RAL operator panel 27" touchscreen	419 00 000 41
HG SiLine TS 27 ES RB Trend	Espresso version, Trend, RAL panel, 27" touchscreen	419 00 000 51
HG SiLine TS 7 ES AD01	AD version, 7" touchscreen	419 70 000 01
HG SiLine TS 7 IN RB	Instant version, RAL operator panel, 7" touchscreen	419 00 000 21
HG SiLine TS 7 IN RB Trend	Instant version, Trend, RAL panel, 7" touchscreen	419 00 000 31
HG SiLine TS 27 IN RB	Instant version, design RA, 27" touchscreen	419 00 000 61
HG SiLine TS 27 IN RB Trend	Instant version, Trend, design RA, 27" touchscreen	419 00 000 71
HG SiLine TS 7 IN AD01	AD version, 7" touchscreen	419 70 000 21

Identification

	1 Manufacturer 2 Type designation 3 Connection data
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Who this document is intended for

This manual is intended to be used by trained specialists and service technicians. It is assumed that target users have received training on the machine.

Safety information

Repairs

- The inside of the machine may have sharp edges and corners. Wear protective gloves when carrying out maintenance work.
- The use of the service key is reserved exclusively for trained service technicians. A protective device is bypassed when the service key is inserted. Risk of injury!
- Only use original spare parts.
- Only products approved by SIELAFF may be used.
- Any modification or conversion of the vending machine is prohibited. SIELAFF does not accept any responsibility for any defect claims caused by failing to follow the aforementioned instructions.

Explanation of signs and symbols

This beverage dispenser has been manufactured in line with current technological standards. Nevertheless, even the most expertly designed vending machine cannot be entirely without risks.

In order to ensure sufficient safety for the operator, additional safety instructions are provided. Attention is drawn to these using the conventions described below.

Observing this information is the only way to ensure adequate operational safety.

The wording and/or symbols carry different meanings:



DANGER

Immediate danger which could result in death or severe injury.



WARNING

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



CAUTION

Information about a hazardous situation that could cause minor injuries.



NOTE

Information about something that could damage the machine.



TIP

Indicates information that will make it easier to handle and use the vending machine.

In addition, the following danger symbols are used in some places:



WARNING electrical energy! Danger to life!

This symbol warns that electrically live components are installed in this area. Covers marked with this symbol may only be removed by a recognised electrician.



CAUTION! Hot surfaces!

This symbol is attached to surfaces that become hot.

There is a risk of scalding or serious burns.

The surfaces may 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 devices (ESD)

Covers marked with this symbol have electrostatically sensitive devices located behind them.

Contact with plug-in connections, conductor tracks and component pins must be avoided at all costs.

Only specialist personnel with ESD knowledge are authorised to carry out work!

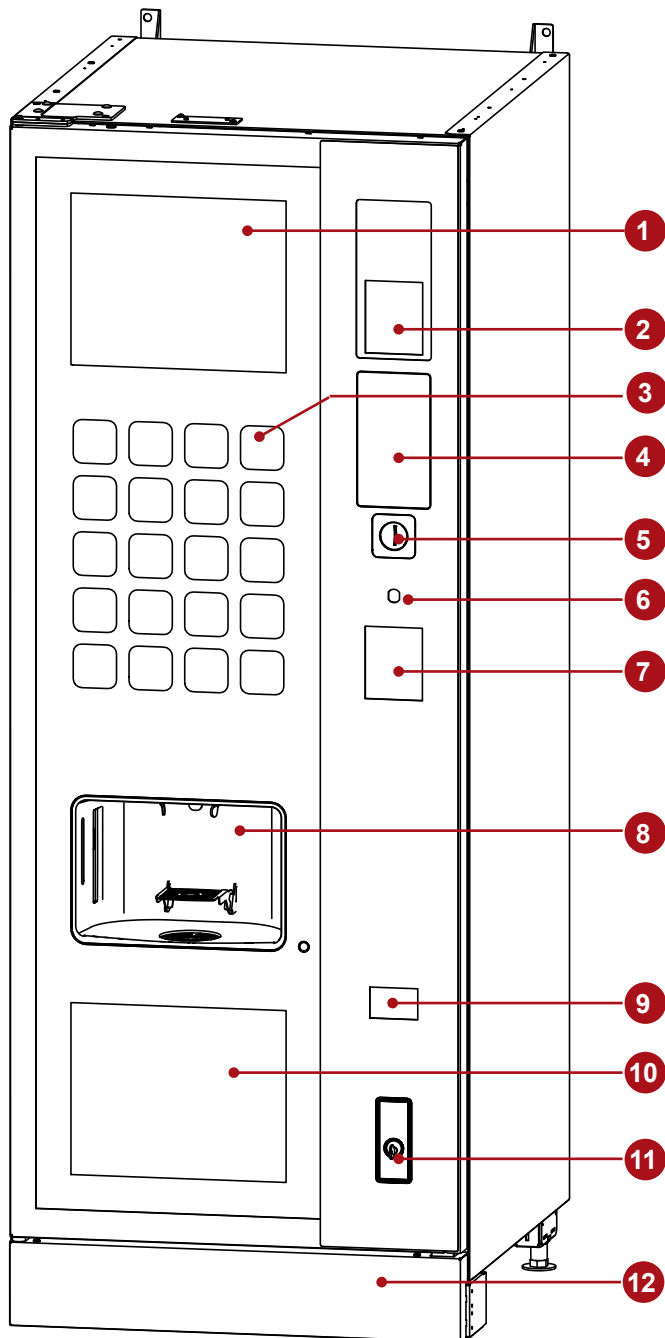


CAUTION! Danger of crushing!

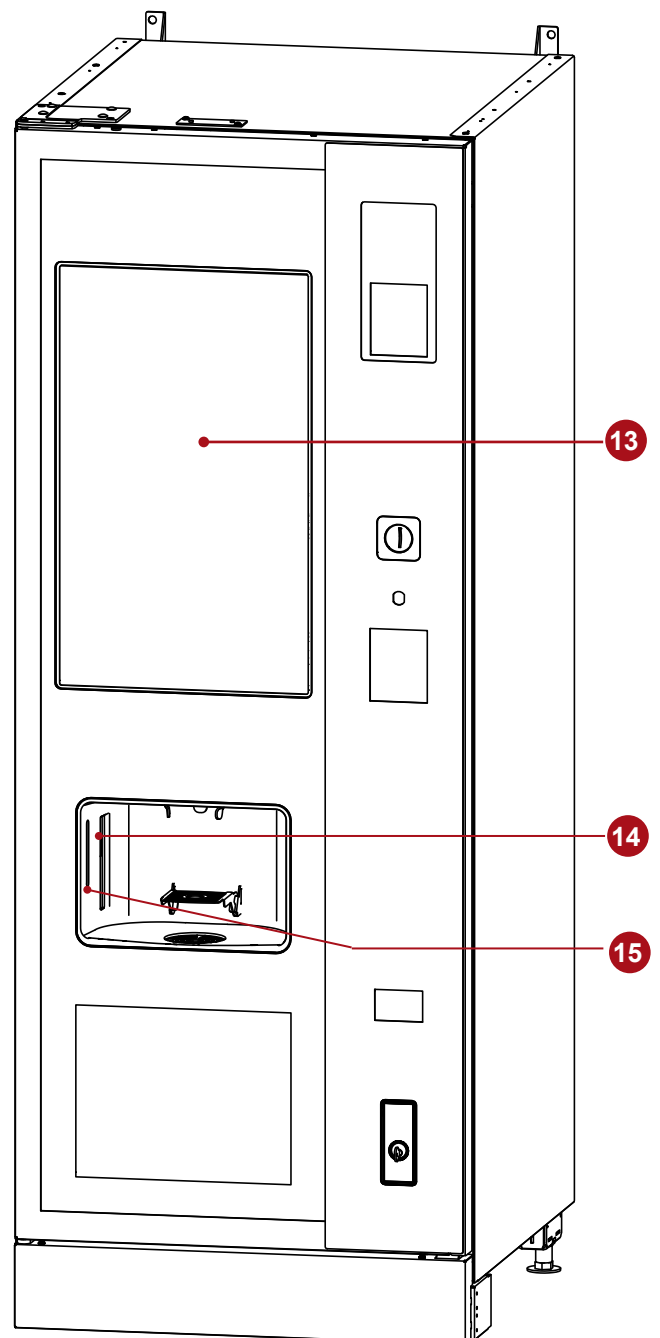
This symbol warns against crushing. Areas marked with this symbol contain moving parts. During normal operation there is a danger of crushing in these areas.

2. Machine illustrations

Machine variant: Selection keypad

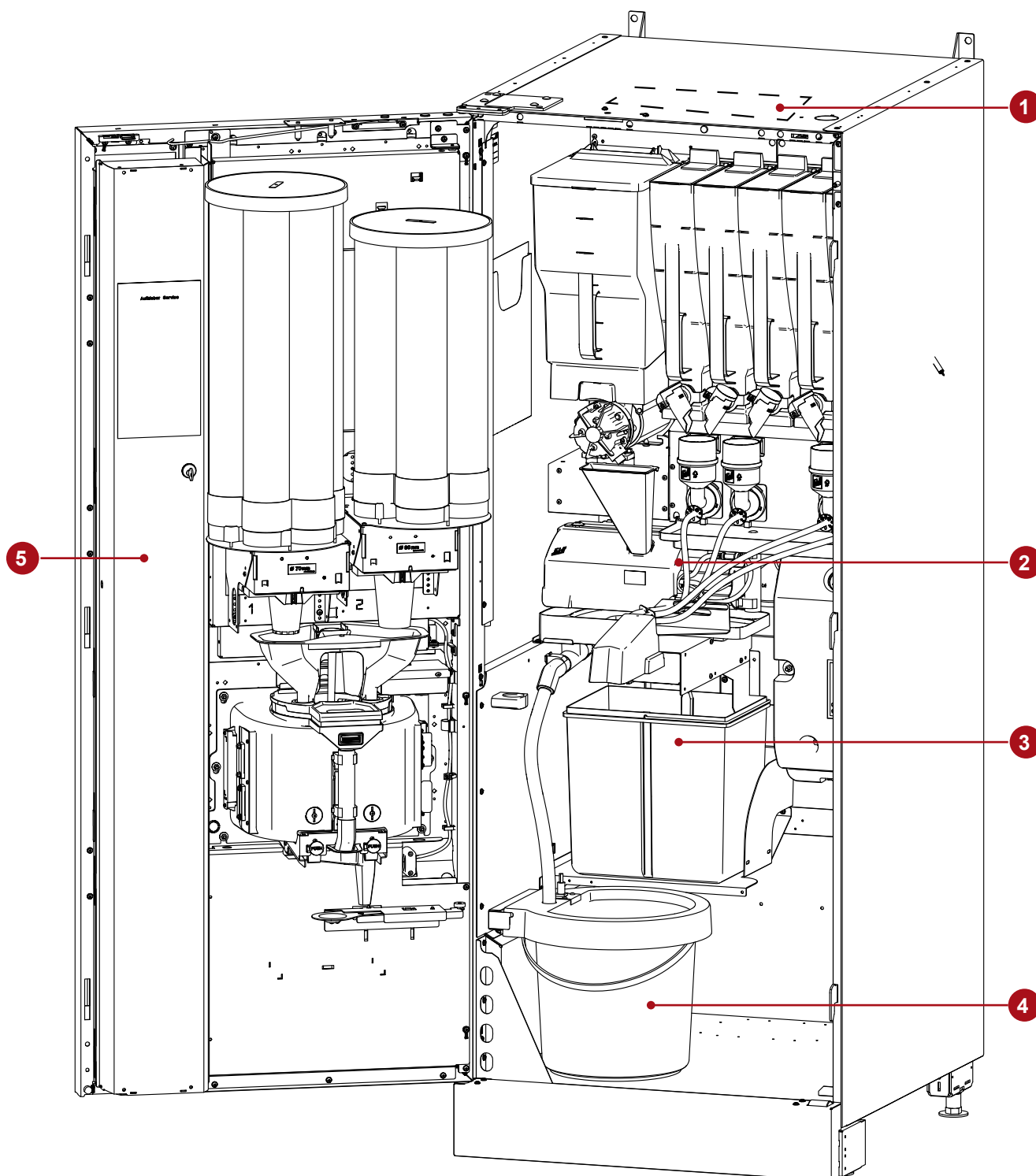


Machine variant: Touchscreen

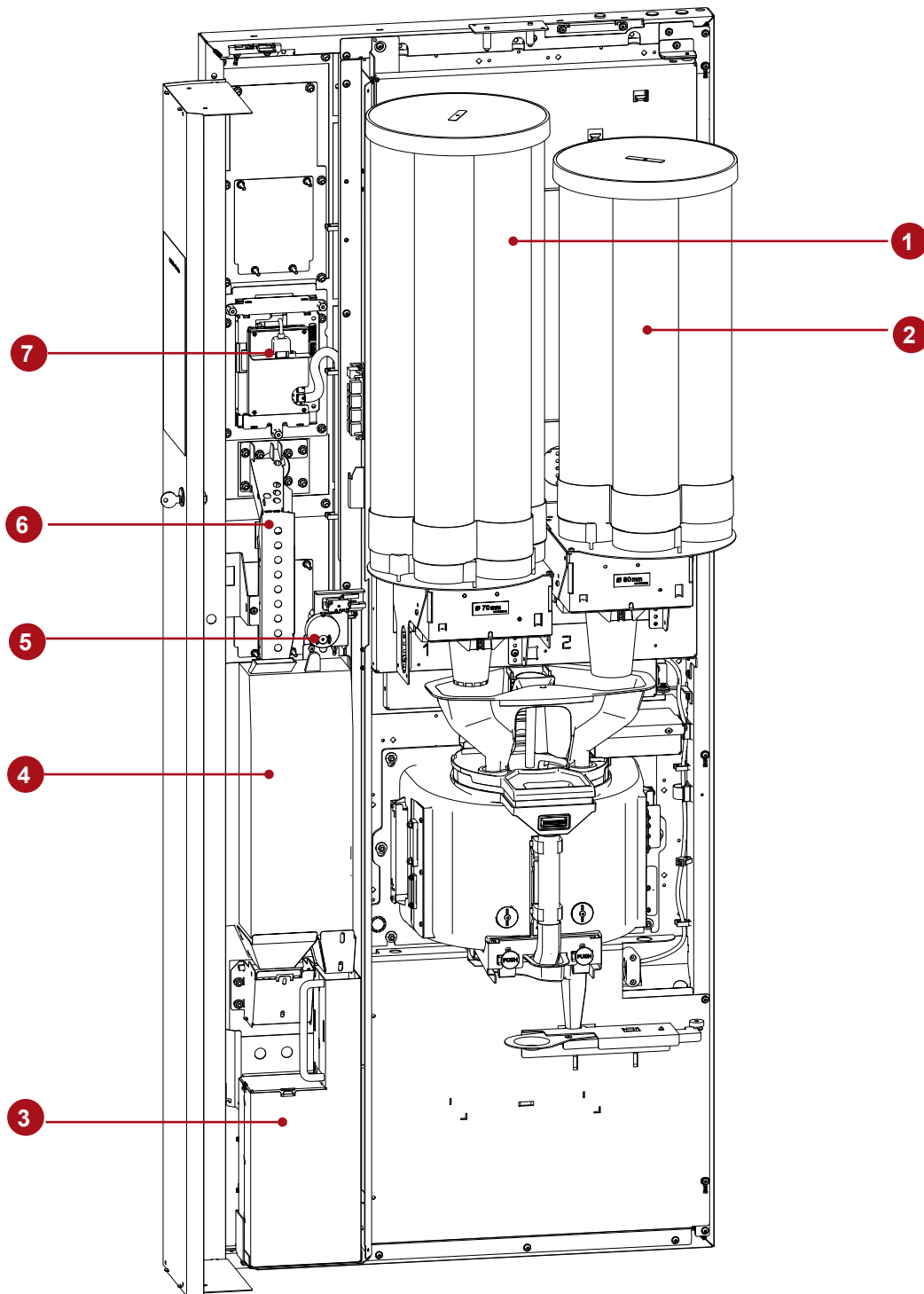


- 1 Illuminated advertising panel or display for advertising (optimal)
- 2 EVA cutout
- 3 Selection keypad
- 4 Display (7 inches)
- 5 Coin slot
- 6 Key-operated switch (optional)
- 7 EVA cutout

- 8 Delivery outlet, open
- 9 Coin refund
- 10 Advertising space (illuminated; optional)
- 11 Lock
- 12 Kickplate
- 13 Touchscreen 27 inches
- 14 Light barrier
- 15 Illuminated delivery outlet (optional)

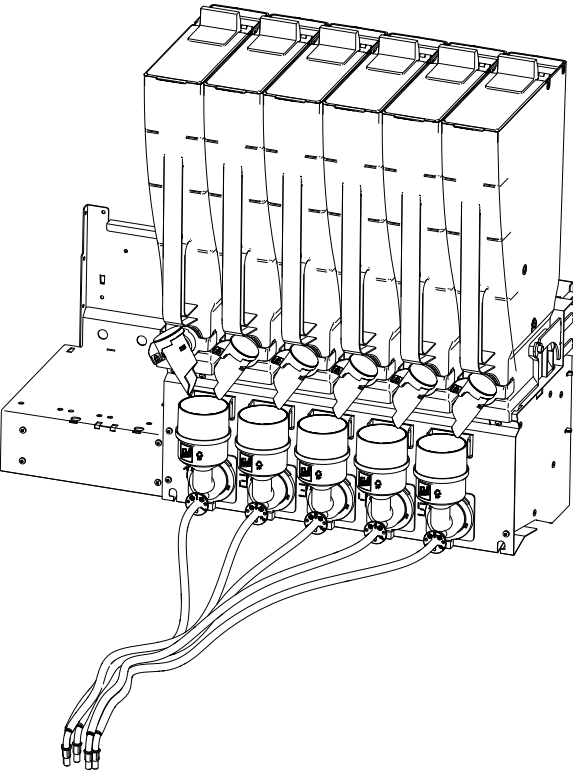


- 1 Illumination
- 2 Brewer
- 3 Grounds container
- 4 Waste water bucket
- 5 Cash box door

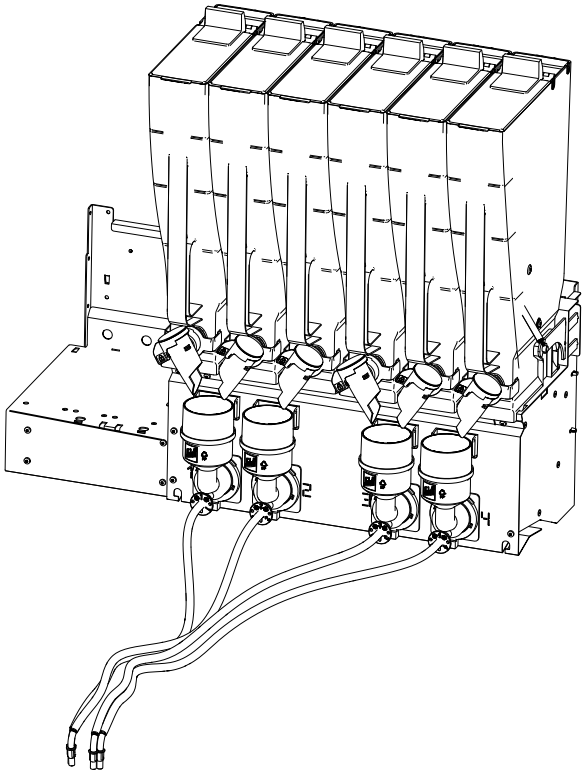


- 1 Cup dispense mechanism no. 1
- 2 Cup dispense mechanism no. 2
- 3 Cash Box
- 4 Coin mechanism (as an example)
- 5 Coin return motor
- 6 Coin channel
- 7 USB connection

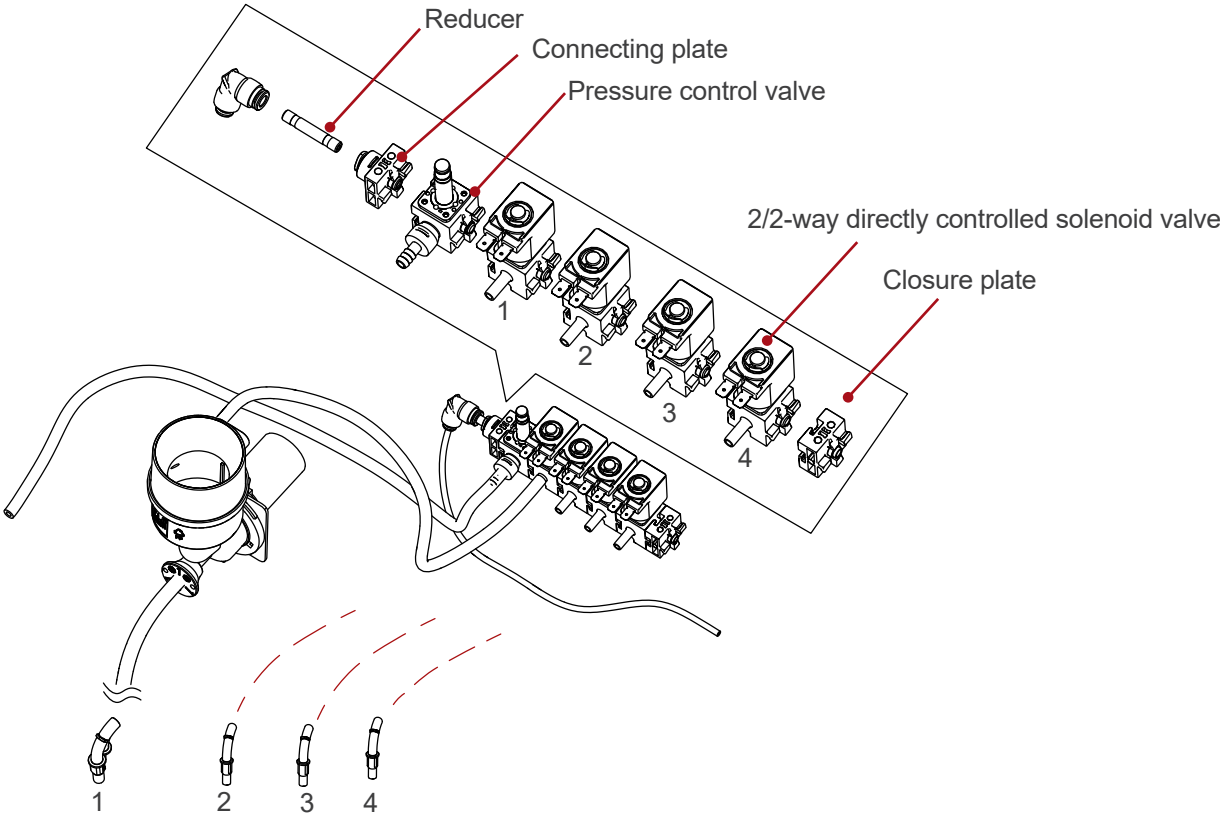
Example: VA 6502 variant



Example: VA 6401 variant



VA 6401



3. Maintenance list (only Espresso variant)

Housing, machine door (see chapter 5.1 on page 16)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Is the machine standing safely, not tipping, firmly secured?		4	4	4	4	4	4
Door mounting, locking hook		4	4	4	4	4	4
Water supply line (polyethylene tube dia. 8.0 x dia. 6.0 mm)	980 50 508 08	4	1	4	1	4	1
Water supply line (polyethylene tube dia. 8.0 x dia. 6.0 mm)	981 50 508 08	4	1	4	1	4	1
Water filter		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 outlet tube	412 00 184 00	4	4	4	4	4	4
Outlet tube (instant)	412 00 185 00	4	4	4	4	4	4
Outlet tube (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
Hinge bolts on door	998 90 023 00	4	4	4	4	4	4
Bolt hook	998 90 037 01	4	4	4	4	4	4

Brewer unit (only espresso variant) (refer to chapter 5.2 on page 18)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Guide rails	998.90.009.00	2	2	2	2	2	2
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 tube reducer - 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
Silicone tube non-return valve - brewer	985 13 420 16 (4x2 mm black)	4	1	4	1	4	1
Grinder		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 discs for EK21	407 00 011 01	4	4	4	4	4	4
Boiler pressure relief valve	414 00 942 00	4	4	4	4	4	4
Transparent Teflon tubes	985 13 430 10	4	4	4	4	4	4
Red Teflon tubes	985 13 434 04	4	4	4	4	4	4
Non-return valve	403 00 164 40	4	1	4	1	4	1

(only Espresso variant)**Instant section (see chapter 5.3 on page 23)**

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Fan	Service number 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	404 00 331 00	1	1	1	1	1	1
Mixer water couplings	402 00 326 00	4	1	4	1	4	1
Silicone tube mixer housing - outlet	985 13 420 31 (6x2 mm black)	4	1	4	1	4	1
Conversion kit - 2C coupling no. 1-4	404 71 784 00	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 with screw conveyors and agitator wheels		4	4	4	4	4	4
Instant section: Reducer (up to SN 90567935)	408 00 380 00	4	1	4	1	4	1
Instant section: Reducer (from SN 90567936)	420 00 151 00	4	1	4	1	4	1

Electronics (see chapter 5.4 on page 24)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	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 inlet valve	Service number 32M	4	4	4	4	4	4
Waste bucket sensor	Service number 150L	4	4	4	4	4	4
Software version	Service number 900L	4	4	4	4	4	4
Keypad (Rafi ©) optional	Flashing green OK red malfunction	4	4	4	4	4	4
Online module (optional)		4	4	4	4	4	4
LED illumination (optional) advertising panel illumination		4	4	4	4	4	4
LED illumination (optional) delivery outlet illumination		4	4	4	4	4	4
LED illumination (optional) design illumination		4	4	4	4	4	4
Internal illumination	Check circuit breaker	4	4	4	4	4	4
Flow meter	Service number 52L 402 40 404 00	4	4	4	4	4	4
Capacitor grinder Mono 1x; 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 (see chapter 5.5 on page 26)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Water quantities	Measuring cup	3	3	3	3	3	3
Dosages, calibration, grind level	Measuring cup, scales accurate to 0.1 g	3	3	3	3	3	3
Cup catcher position	Service phone number	3	3	3	3	3	3
Brewing temperature	Thermometer	3	3	3	3	3	3

Special lubricant e. g. Microlube GL 261 part no. 998 90 037 01

Tunfluid DAB Aerosol, spray can part no. 998 90 023 00

Vaseline part no. 989 90 009 00

4. Maintenance list (only Instant variant)**Housing, machine door (see chapter 5.1 on page 16)**

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Is the machine standing safely, not tipping, firmly secured?		4	4	4	4	4	4
Door mounting, locking hook		4	4	4	4	4	4
Water supply line (polyethylene tube dia. 8.0 x dia. 6.0 mm)	980 50 508 08	4	1	4	1	4	1
Water supply line (polyethylene tube dia. 8.0 x dia. 6.0 mm)	981 50 508 08	4	1	4	1	4	1
Water filter		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
Non-return valve	403 00 164 40	4	1	4	1	4	1
Water circulation	Check for leakages	4	4	4	4	4	4
Support for outlet tube	412 00 184 00	4	4	4	4	4	4
Outlet tube (instant)	412 00 185 00	4	4	4	4	4	4
Outlet tube (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
Hinge bolts on door	998 90 023 00	4	4	4	4	4	4
Bolt hook	998 90 037 01	4	4	4	4	4	4

Only Instant variant**Instant section (see chapter 5.3 on page 23)**

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Fan	Service number 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	404 00 331 00	1	1	1	1	1	1
Mixer water couplings	402 00 326 00	4	1	4	1	4	1
Silicone tube mixer housing - outlet	985 13 420 31 (6x2 mm black)	4	1	4	1	4	1
Conversion kit - 2C coupling no. 1-4	404 71 784 00	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 with screw conveyors and agitator wheels		4	4	4	4	4	4
Instant section: Reducer	408 00 380 00	4	1	4	1	4	1
Boiler pressure relief valve	414 00 942 00	4	4	4	4	4	4
Transparent Teflon tubes	985 13 430 10	4	4	4	4	4	4
Red Teflon tubes	985 13 434 04	4	4	4	4	4	4

Electronics (see chapter 5.4 on page 24)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	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 inlet valve	Service number 32M	4	4	4	4	4	4
Waste bucket sensor	Service number 150L	4	4	4	4	4	4
Software version	Service number 900L	4	4	4	4	4	4
Keypad (Rafi ©) optional	Flashing green OK red malfunction	4	4	4	4	4	4
Online module (optional)		4	4	4	4	4	4
LED illumination (optional) advertising panel illumination		4	4	4	4	4	4
LED illumination (optional) delivery outlet illumination		4	4	4	4	4	4
LED illumination (optional) design illumination		4	4	4	4	4	4
Internal illumination	Check circuit breaker	4	4	4	4	4	4
Flow meter	Service number 52L 402 40 404 00	4	4	4	4	4	4
Capacitor pump	985 53 300 24	4	4	4	1	4	4

Settings (see chapter 5.5 on page 26)

Component	Equipment Spare part no.	Action 1 = replace 2 = clean 3 = adjust 4 = check					
	Months or sales	6 20,000	12 40,000	18 60,000	24 80,000	30 100,000	36 120,000
Water quantities	Measuring cup	3	3	3	3	3	3
Dosages, calibration, grind level	Measuring cup, scales accurate to 0.1 g	3	3	3	3	3	3
Cup catcher position	Service phone number	3	3	3	3	3	3
Brewing temperature	Thermometer	3	3	3	3	3	3

Special lubricant e. g. Microlube GL 261 part no. 998 90 037 01

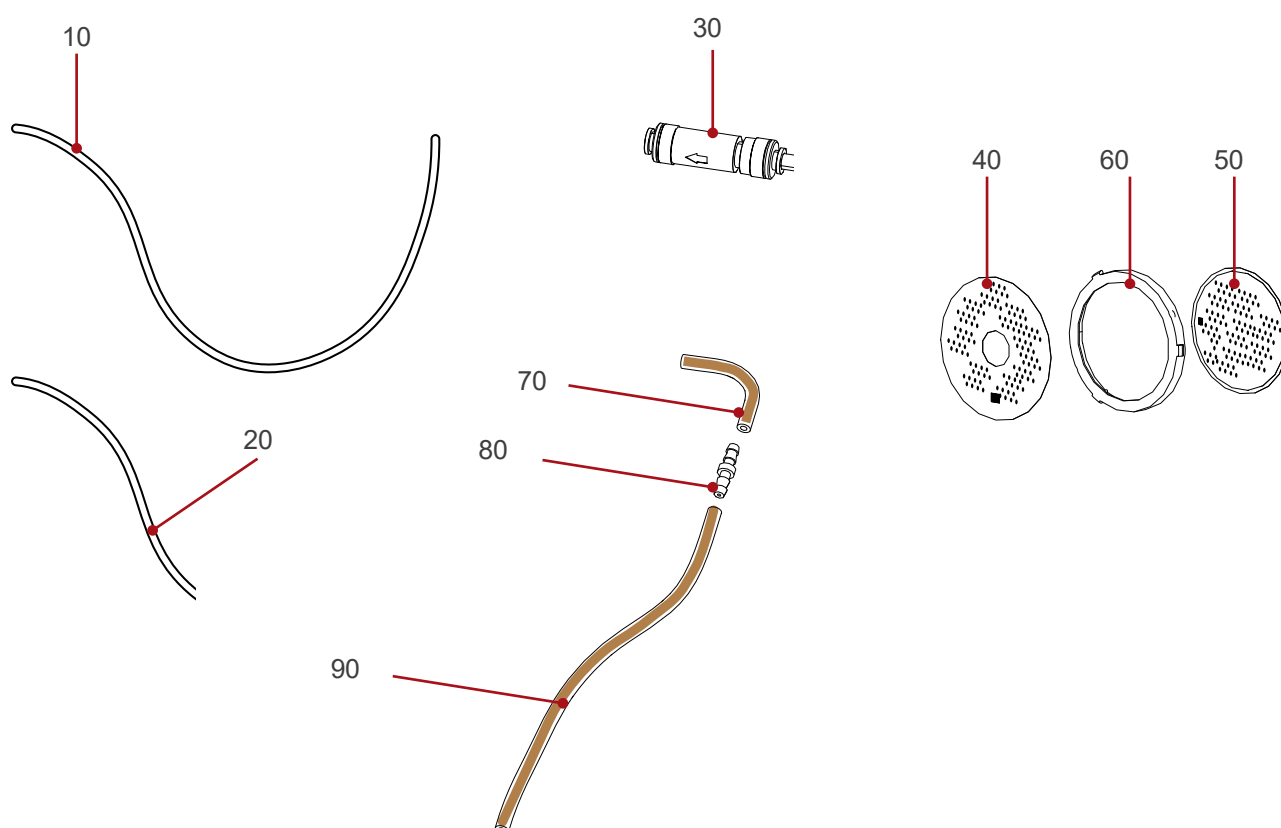
Tunfluid DAB Aerosol, spray can part no. 998 90 023 00

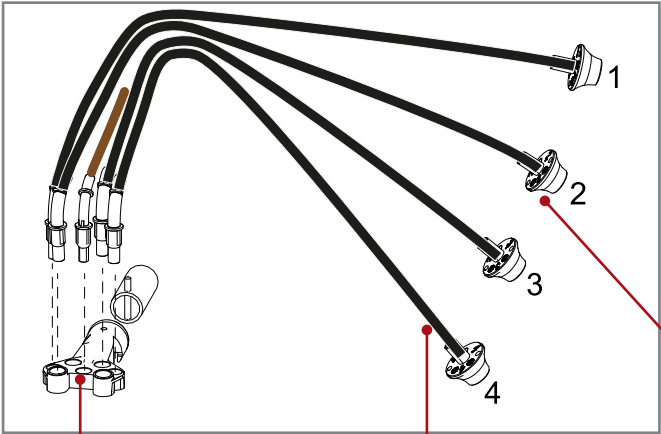
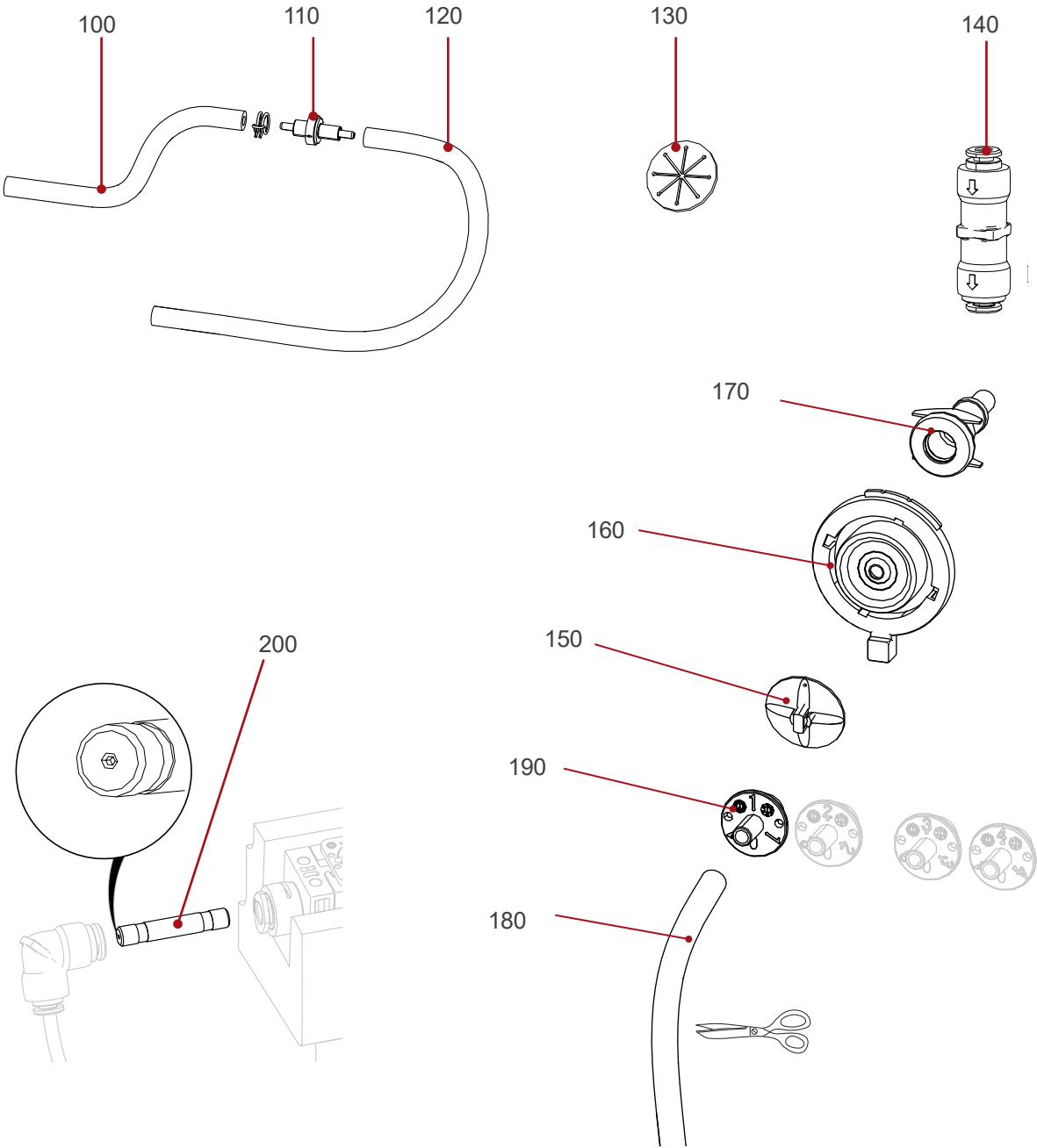
Vaseline part no. 989 90 009 00

Maintenance kit part no. 419 50 000 02**(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	Description
10	2	980 50 508 08	Polyethylene tube dia. 8.0 x dia. 6.0 mm
20	1	980 50 508 08	Polyethylene tube dia. 8.0 x dia. 6.0 mm
30	1	404 00 995 29	Non-return valve
40	1	407 00 644 00	Filter compl. Espresso in High-Tech-Peek brewer unit
50	1	407 00 608 00	Filter dia. 35
60	1	407 00 609 00	Clamping ring
70	0.08 m	985 13 420 45	Silicone tube, brown, dia. 4 x 2 mm
80	1	412 00 146 00	Outlet reducer dia. 2 mm
90	0.34 m	985 13 420 45	Silicone tube, brown, dia. 4 x 2 mm
100	0.12 m	985 13 420 16	Silicone tube, black, dia. 4 x 2 mm
110	1	412 00 322 00	Non-return valve 12 mm x 31 mm
120	0.235 m	985 13 420 16	Silicone tube, black, dia. 4 x 2 mm
130	2	406 00 348 01	Silicone flow regulating disc EK21
140	1	403 00 164 40	Non-return valve (in 4 mm, out 6 mm)
150	4	404 00 309 00	Mixer paddle
160	4	404 00 331 00	Flange, complete
170	4	402 00 326 00	Mixer - water coupling, black
180	2.5 m	985 13 420 31	Silicone tube, black, dia. 6 x 2 mm
190	1	404 71 784 00	Conversion kit - 2C coupling no. 1-4
200	1	420 00 151 00	Reducer





Dispense head

Outlet tube

Coupling piece

No.	Tube length approx.
1	45 cm
2	48 cm
3	54 cm
4	60 cm

5. Maintenance components

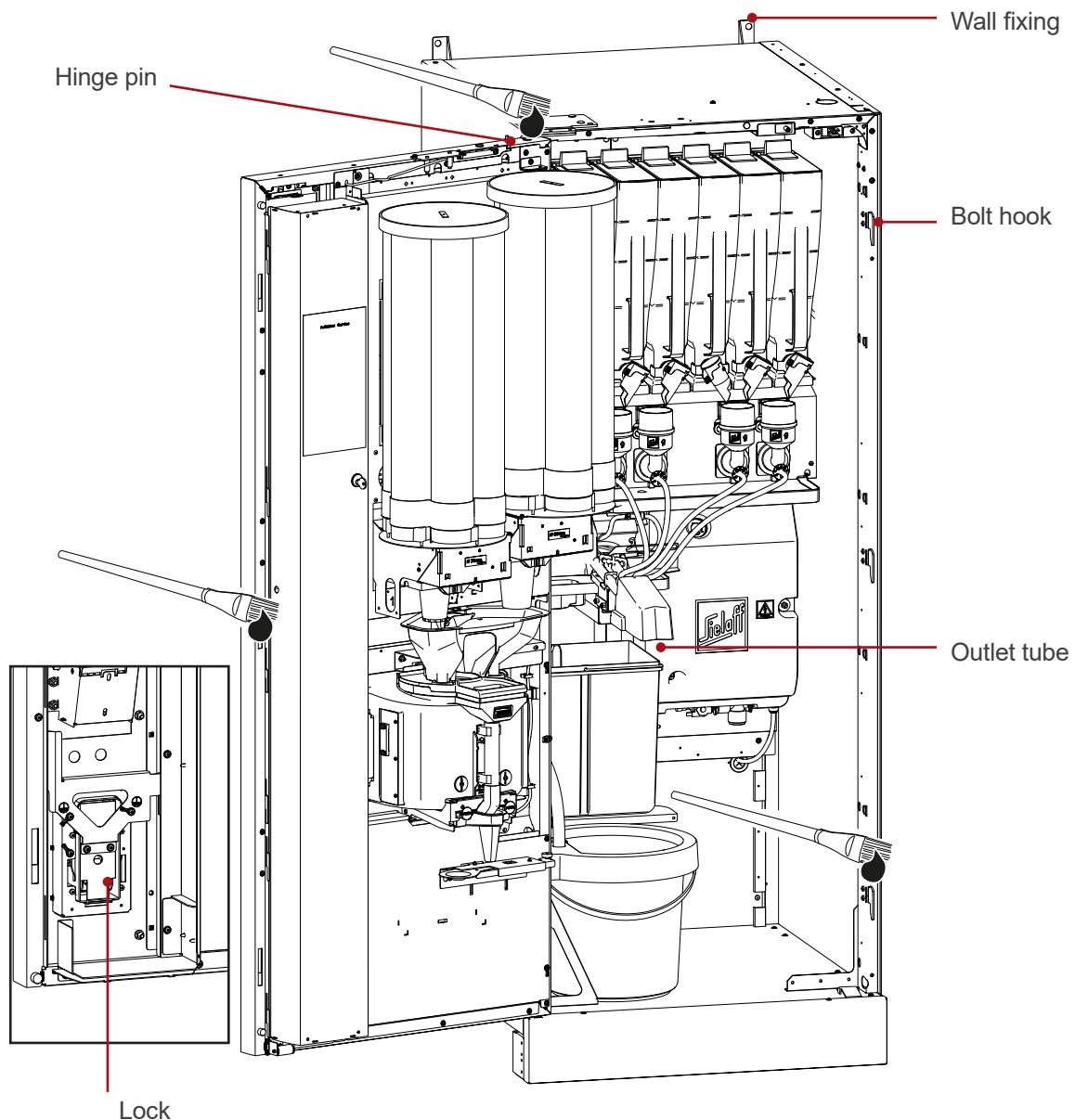
5.1 Housing, machine door

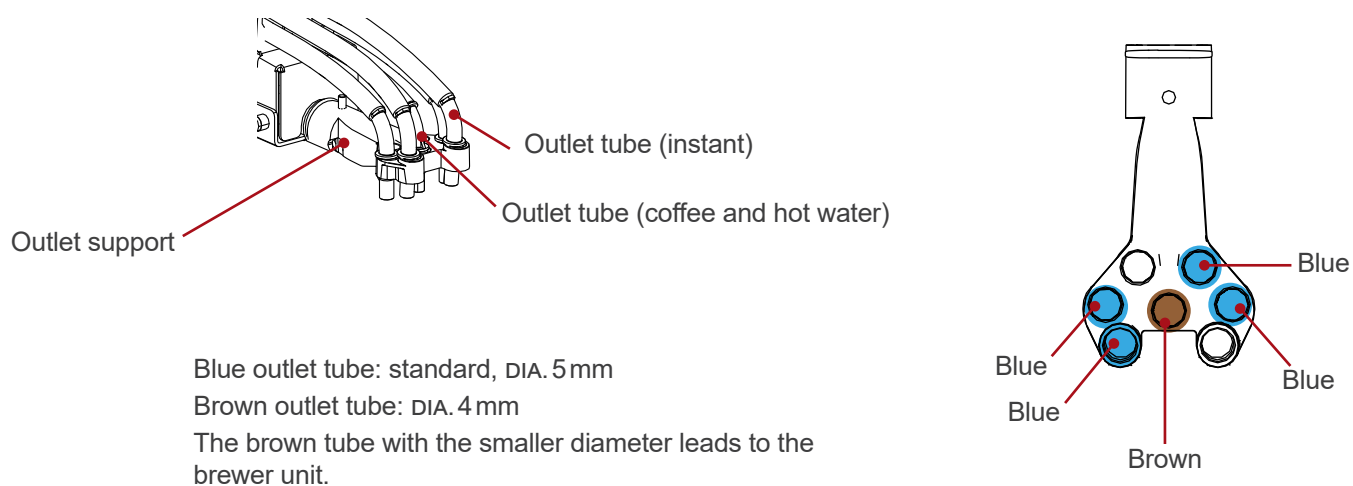
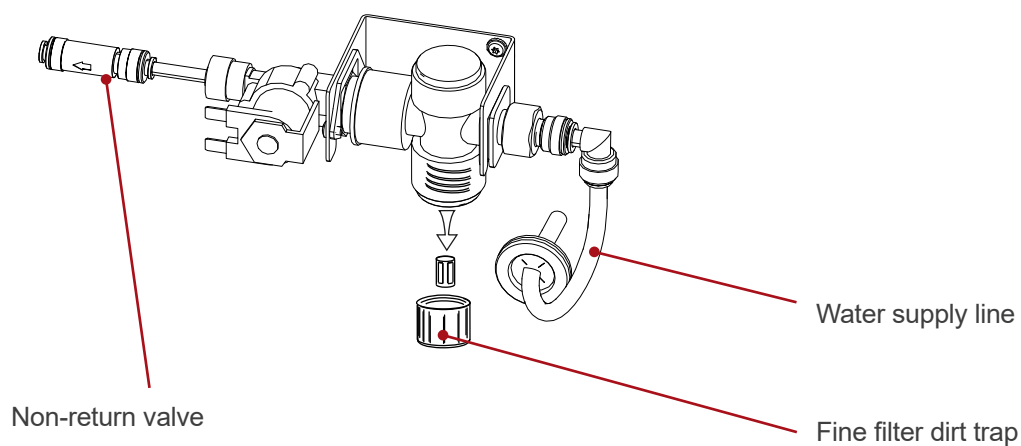
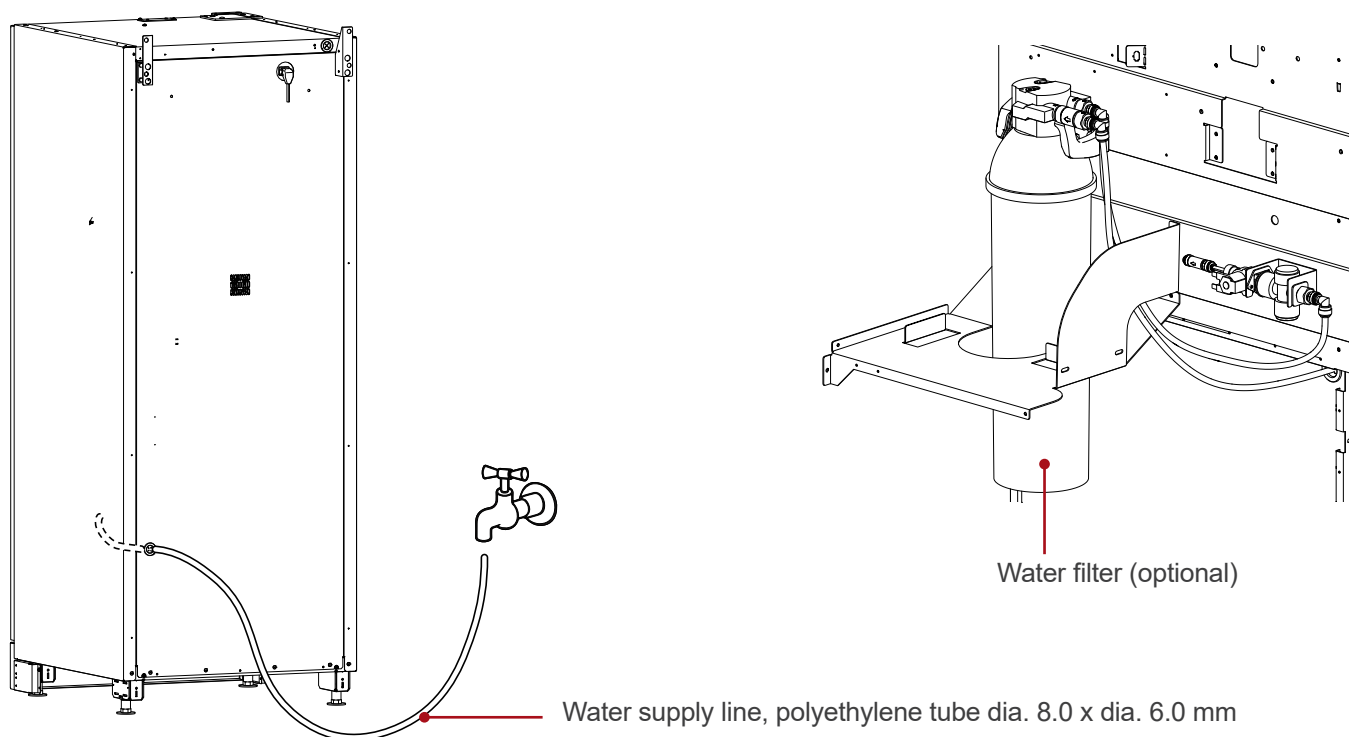
Additional equipment

- Special lubricant e.g. Microlube GL 261 part. no. 998 90 037 01

Procedure

- Check that the machine is fixed firmly to the wall or floor
- Check the function and fit of the closed machine door.
- Check the integrity of the machine door bearings and lubricate them.
- Lubricate the contact surfaces of the locking hook using Microlube GL 261 special lubricant.
- Check that the locking flap and bearing pins work correctly and lubricate with Microlube GL 261.
- Maintain the lock of the locking flap according to the manufacturer's instructions





5.2 Brewing unit (only Espresso)



CAUTION! Danger of crushing!

When the service key is inserted, a protective device is bypassed. 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.

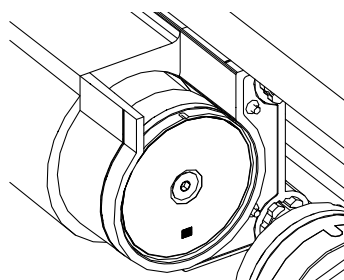
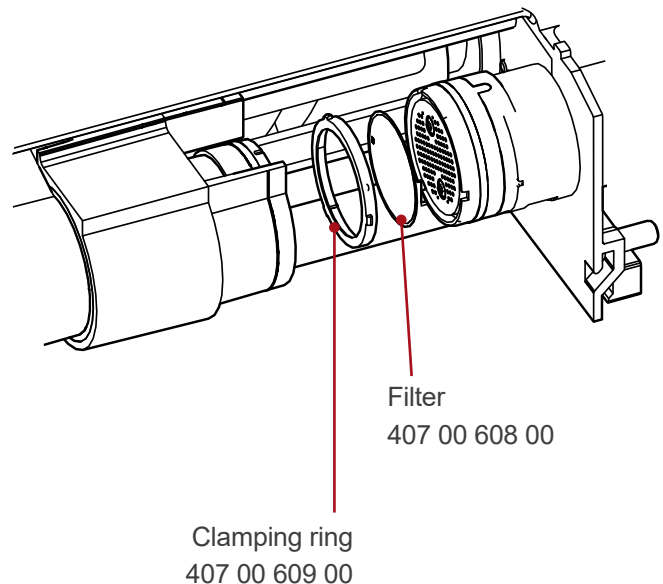
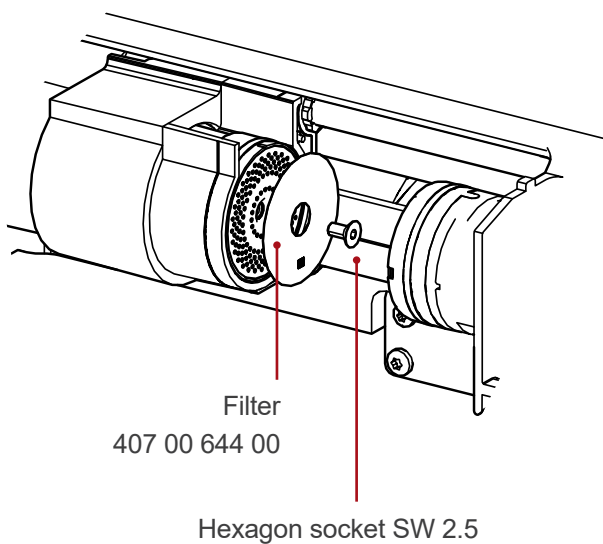
Checking the brewer filters / brewer seal

- 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.

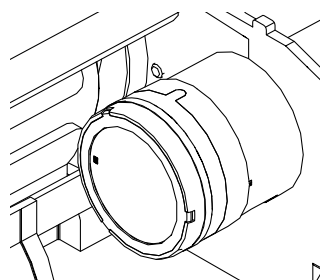
Changing the brewer filters

Procedure

1. Insert the service key
 2. Run service function 58M until the brewer is in service position (open)
 3. Remove service key
 4. Change the left-hand brewer filter using a hexagon socket wrench (tighten securing screw by hand)
 5. Remove any dirt from behind the brewer filters (coffee grease) using a damp cloth.
 6. Using a small, flat screwdriver, carefully free the clamping ring on the right-hand brewer filter.
 7. Replace the old brewer filter with a new one
 8. Fit the clamping ring so that the 3 locking catches engage with the slots on the piston
 9. Insert the service key
 10. Run service function 57M (close brewer)
 11. Remove service key
- ✓ The brewer filter has now been changed



Brewer filter now correctly installed

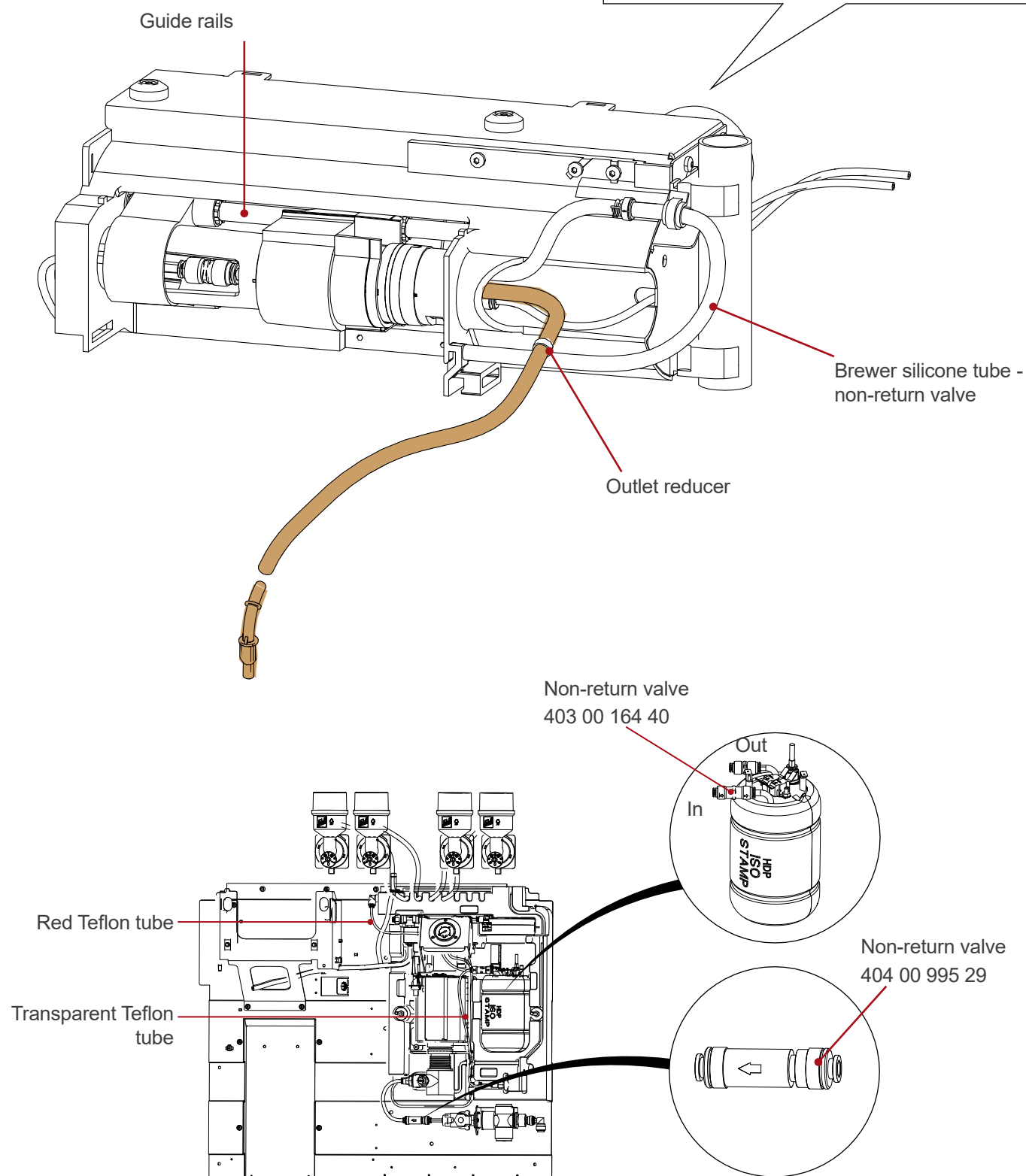


Additional equipment

- Vaseline part no. 998 90 009 00

Procedure

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



Cleaning the 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.

Procedure:

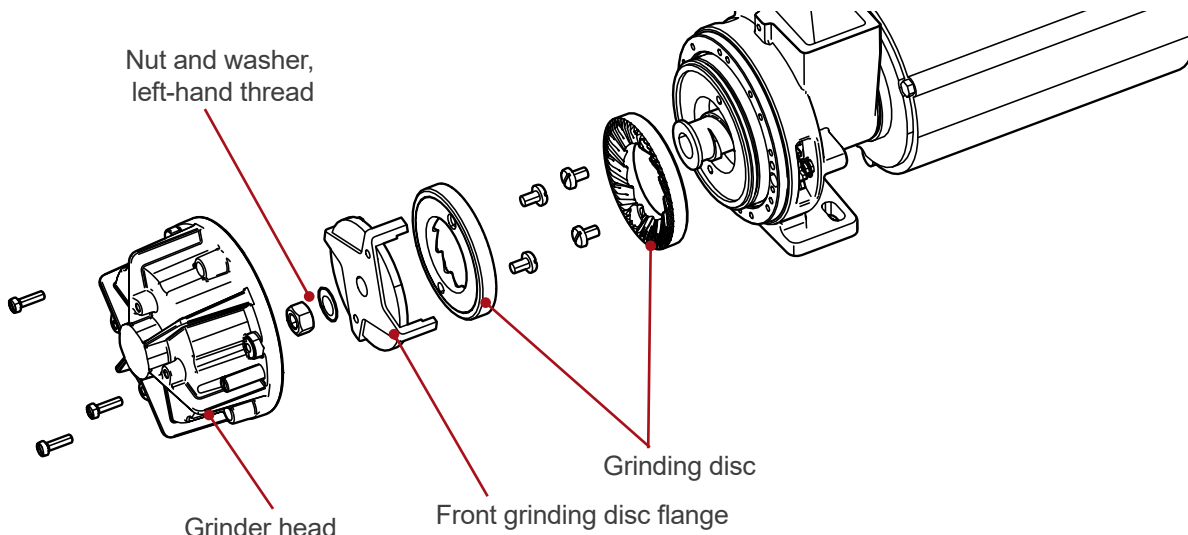
1. *Open the machine door.*
 2. *Pull the locking slider out to its limit (it will click).*
 3. *Lift the bean container up.*
 4. *Empty the bean container.*
 5. *Insert the service key*
 6. *Use service function 9M (coffee grinder) or 19M (espresso grinder) to completely empty the grinder. No more coffee powder must run out of the coffee powder chute.*
 7. *Pour approx. 40 g of grinder cleaner into the bean container*
 8. *Use service function 9M or 19M to run the grinder; the cleaning process starts*
- ✓ The ground cleaning tablets move the coffee oil residue to the outside during the grinding process

Finally

- Fill with fresh beans
- Approx. 40 g of coffee beans should be ground to remove the grinder cleaner residue

Replacing grinder discs for EK 21 integrated grinder

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



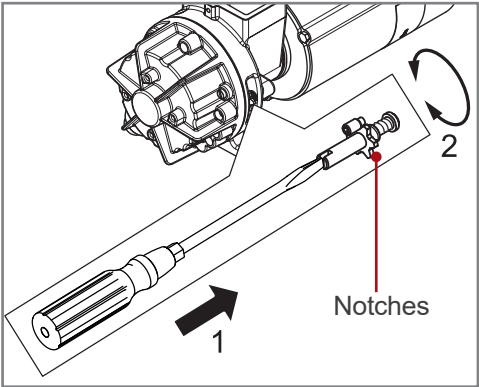
Moving the grinder discs to home position

Requirements

- Ensure there is nothing remaining in the grinder.

Procedure

1. Select tab 6 [Machine configuration] - [Service functions] - [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 noise can be heard (squeaking).
 4. Press [Send] to stop the grinder.
 5. Unscrew the discs anti-clockwise by 5 notches.
- ✓ Home position has been calibrated



Adjusting the grind level

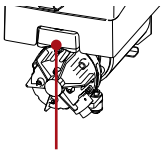
Requirements

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

Procedure

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

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



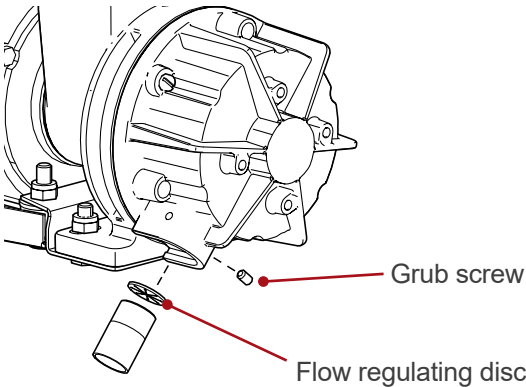
Open the locking slider to release the beans

Flow regulating disc (silicone flow regulating disc)

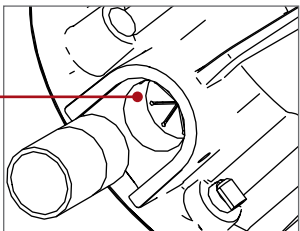
The silicone flow regulating disc is fitted in the grinder head outlet tube to regulate powder flow.



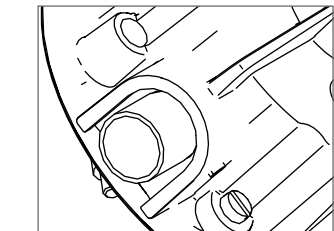
Silicone flow regulating disc EK21
406 00 348 01
2 supplied in maintenance kit for two grinders



Slot



The flow regulating disc must be correctly positioned in the slot. Otherwise it will be pushed out.



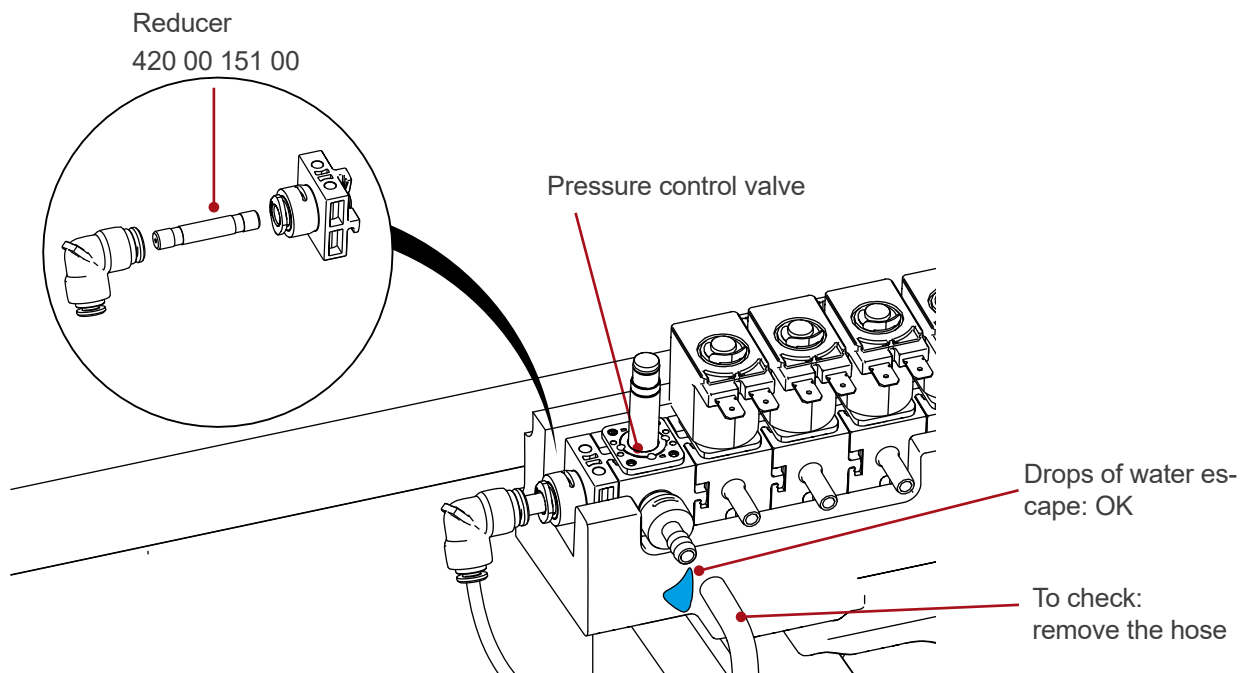
Outlet tube and grub screw correctly fitted

Checking the 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.

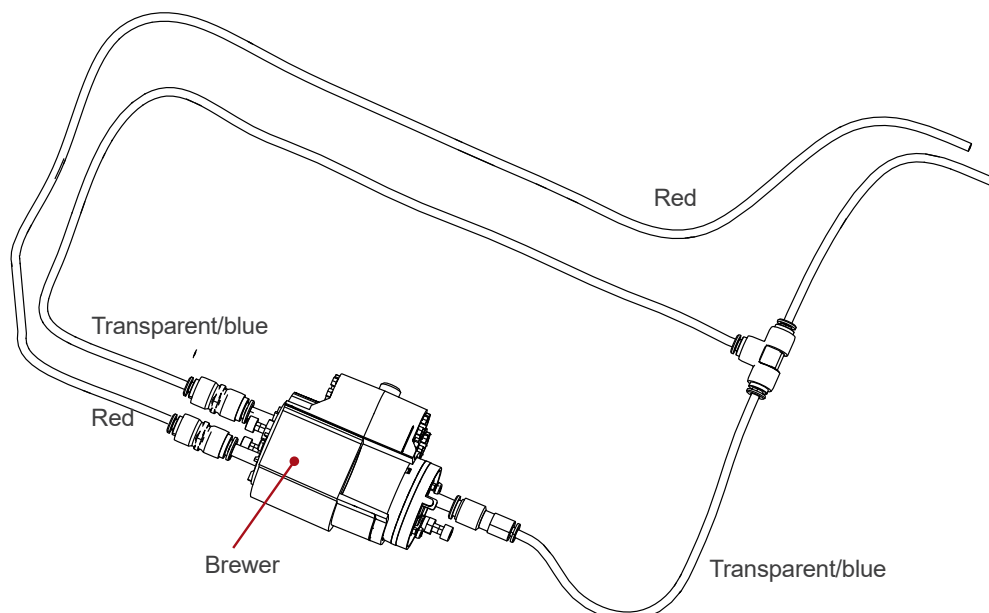
Procedure

1. Disconnect the tube from the pressure relief valve
 2. Run service function 87M (empty the boiler)
 3. Run 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



5.3 Instant section

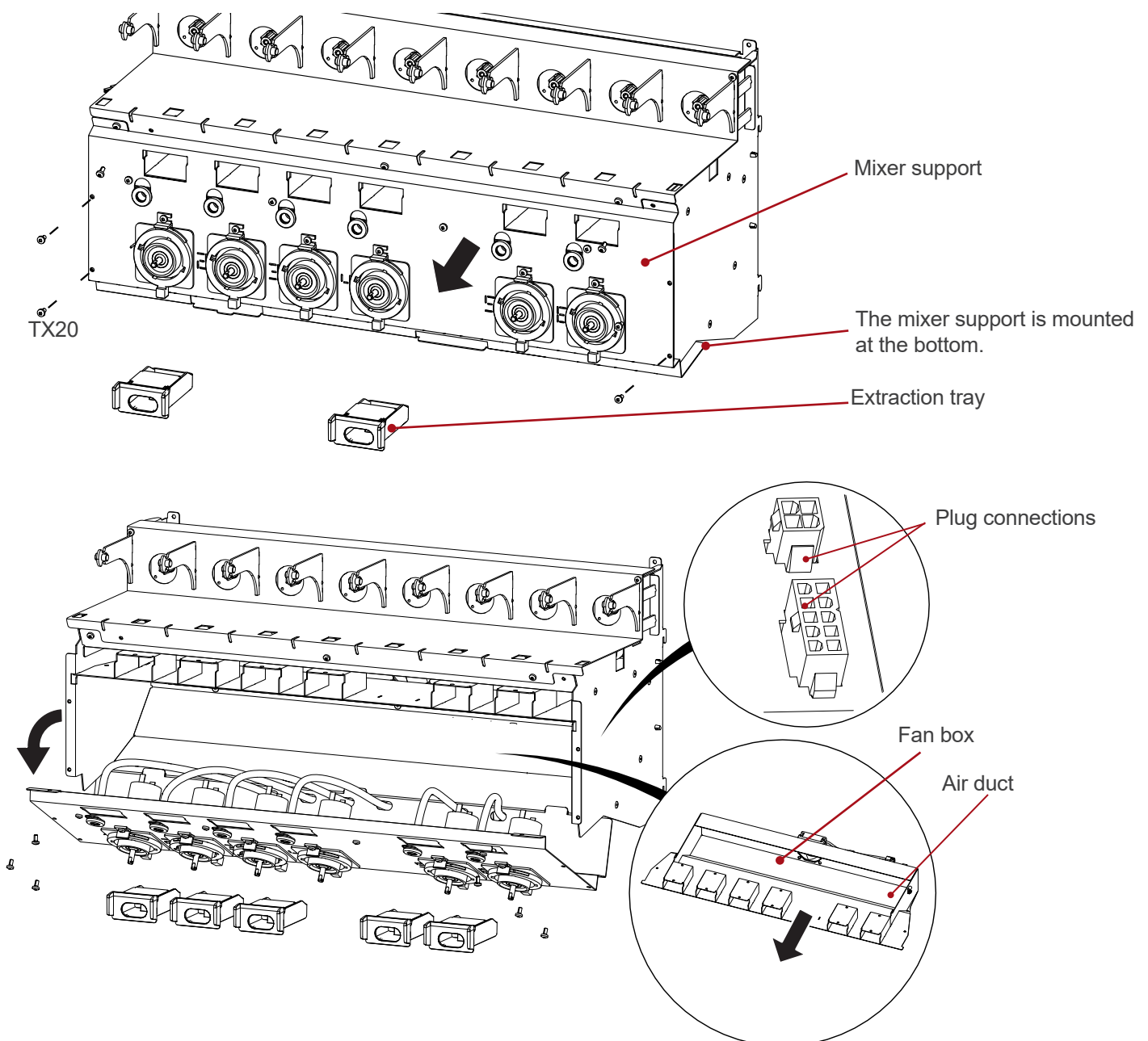
Extraction tray, fan box, fan

The fan and the air duct must be cleaned periodically.

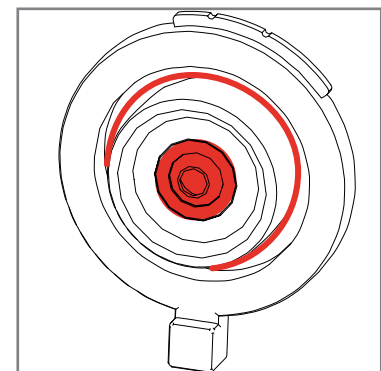
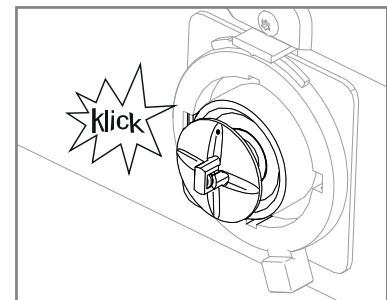
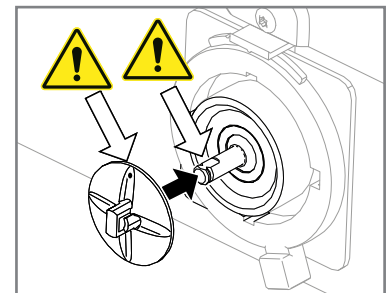
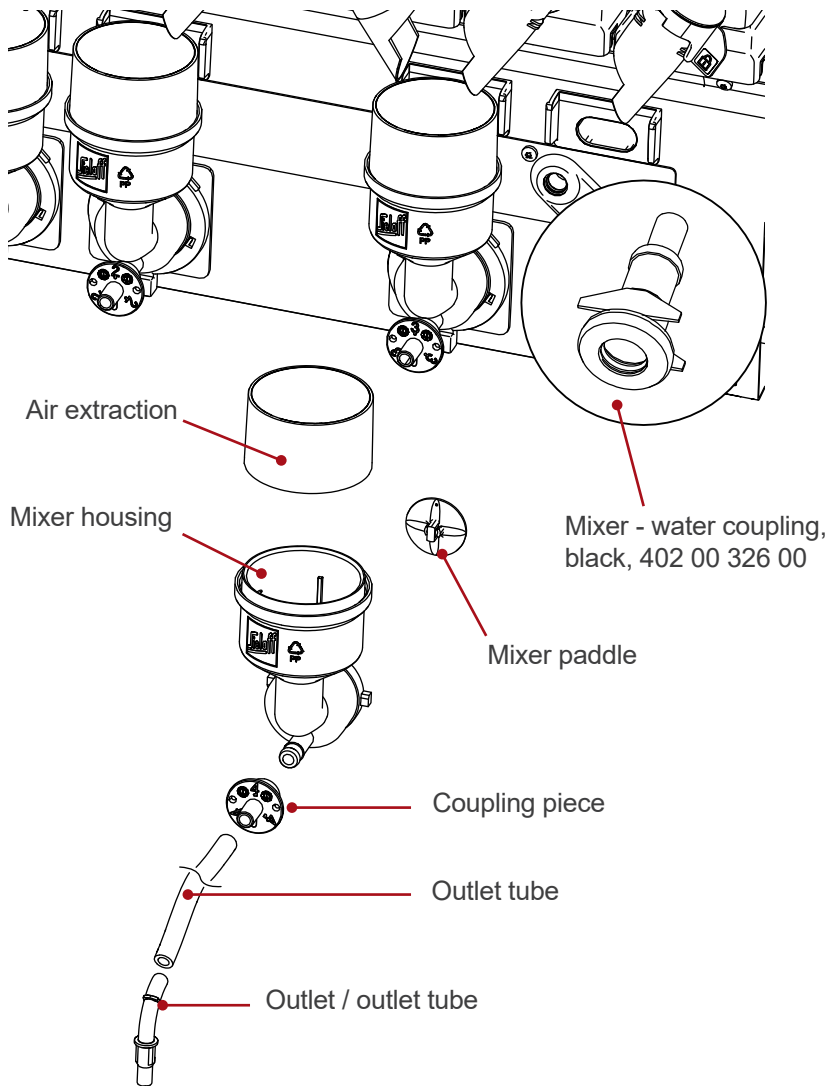
Procedure

- Remove mixer housing and extraction trays.
- Open and dry clean the extraction trays
- Remove the screws (TX20) from the mixer support and open the mixer support (the hose connections remain in place)
- Disconnect the electrical plug connections in the fan box
- Pull out the fan box
- Clean any deposits from the fan at the rear of the fan box
- Clean the fan box

Reinstall by following these instructions in reverse order.



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



5.4 Electronics

Door contact switch

Open the door; the message [DOOR OPEN, PLEASE CLOSE] must be displayed. Service code 2L queries the status of the door contact switch.

Water inlet valve

The water inlet valve can be checked using service function 32M. The valve can be heard clicking if this service function is operated.

Waste bucket sensor

Service code 150L

Software version

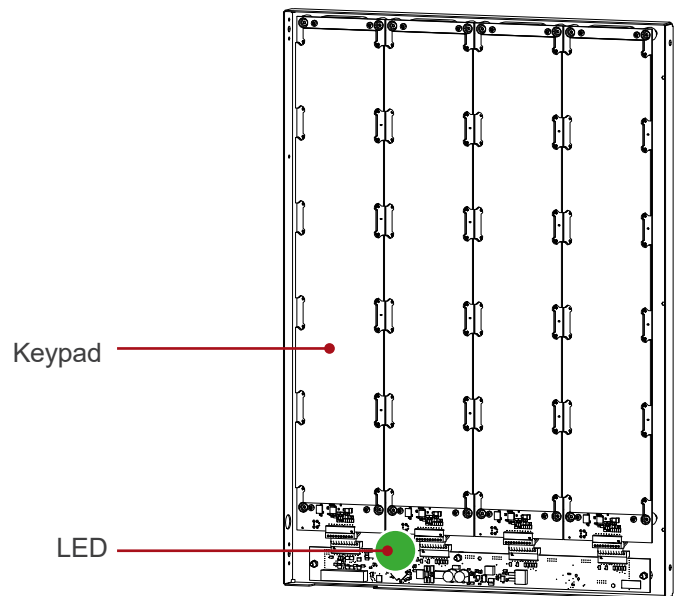
Service code 900L

Check the software version.

The software version should be up to date (<http://www.sielaff.de/download-center/>)

Capacitive keypad: Checking its condition

- Swivel open the cup dispense mechanism
- Swivel open the cover with capacitive keypad
- ✓ A small LED flashes at the bottom of the board:
 - Green - OK
 - Red - error



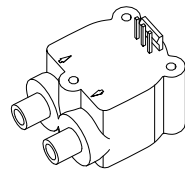
Flow meter

The flow meter is a flow rate sensor that measures the water quantity. If the flow meter is faulty, the insufficient water message appears.

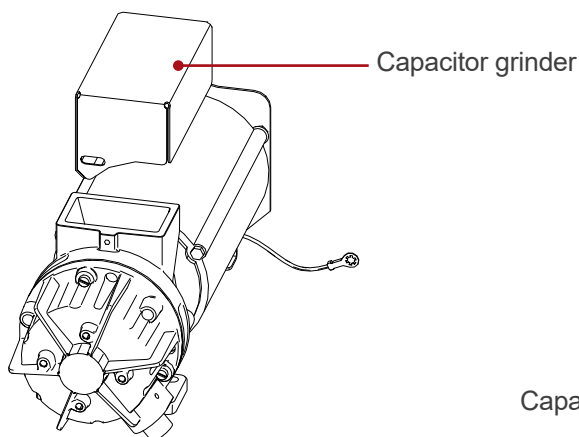
Checking the flow meter

Procedure

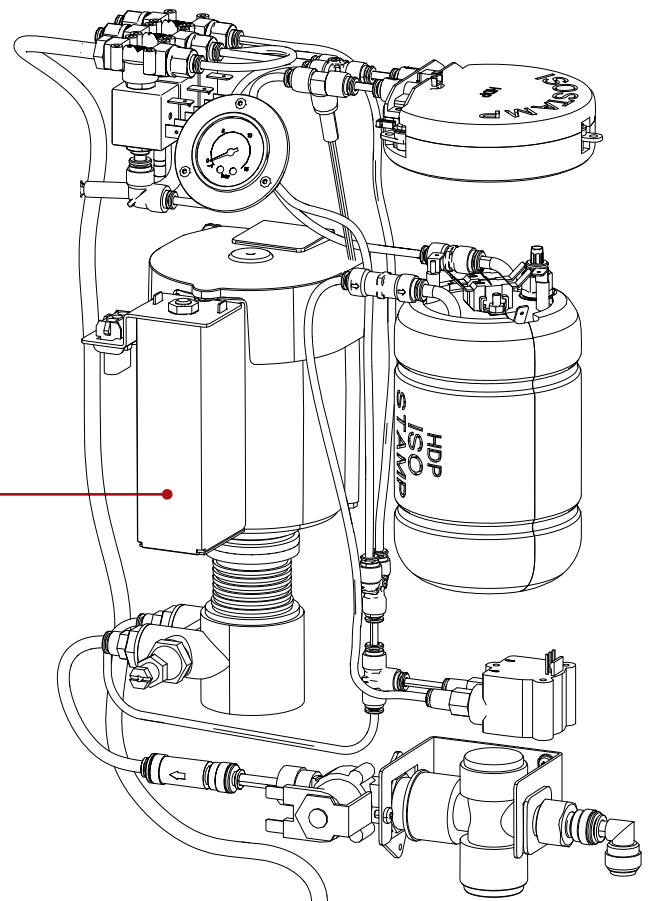
1. Select tab 6 [Machine configuration] [Service functions] [Service code]
 2. Insert the service key
 3. Enter service code 52L
 4. Press [Send]
- ✓ The average flow rate is displayed.



Flow meter



Capacitor pump



5.5 Settings

The cup catcher is a mechanism for holding different cup sizes.

Catch position

The cup is separated from the cup stack and falls downwards into the three grippers. It must fall so that it is held by the 3 grippers.

Dispense position

As the hot drink is being prepared the cup catcher opens slightly so that it is easier to remove the cup when filled. The filled cup must not fall downwards when this happens.

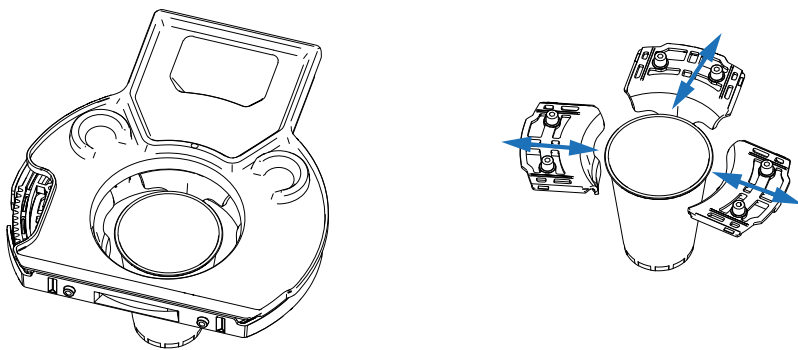
Notes:

- The [Move to position] button is the original setting before [Save]
- [Cup dispense x] button dispenses a cup from the cup stack

Adjusting the catch position

Procedure

1. Select tab 4 [Products] - Cup catcher
 2. Select cup dispenser 1 or cup dispenser 2
 3. Press the [Expand]  or [Reduce]  button to adjust the catch position.
 4. Press [Save]
- ✓ The catch position has been adjusted.

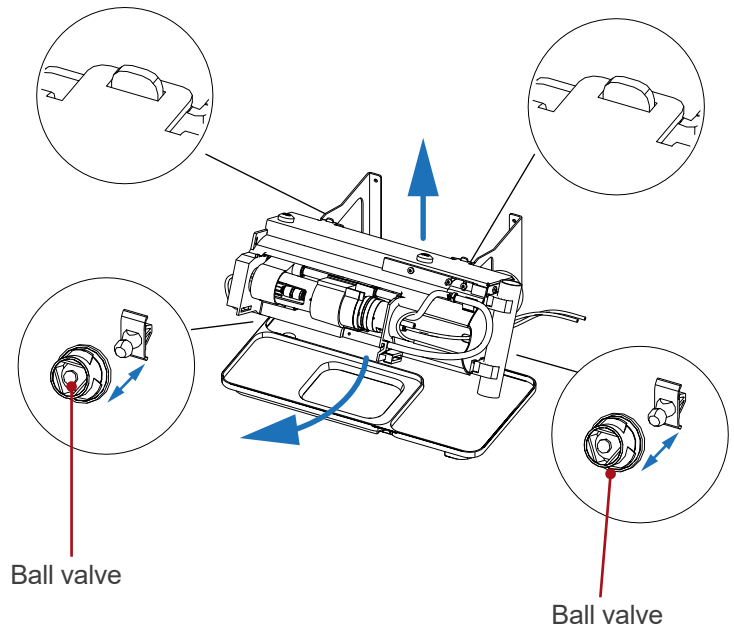


6. Components

6.1 Brewer

6.1.1 Removing the brewer

1. Hold the brewer at the bottom and pull: the ball valve will now be disconnected
2. Lift up the brewer and unhook from the top

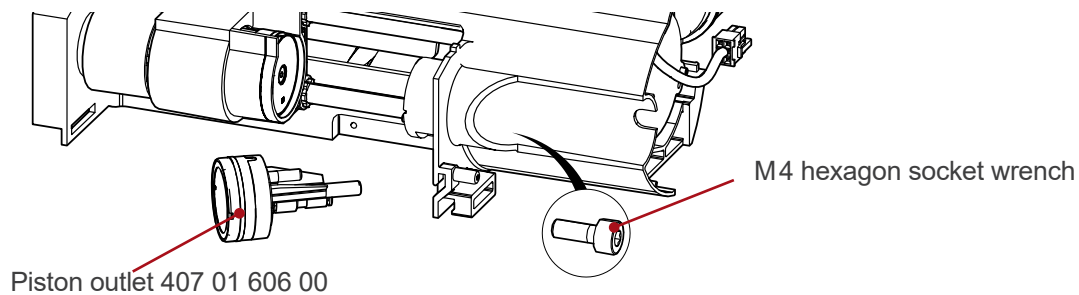


6.1.2 Replacing the piston outlet

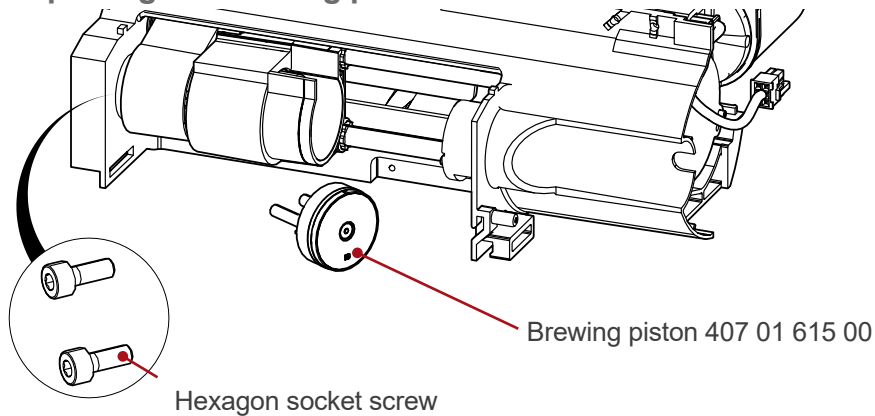


CAUTION! Danger of crushing!

When the service key is inserted, a protective device is bypassed. 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 Replacing the brewing piston

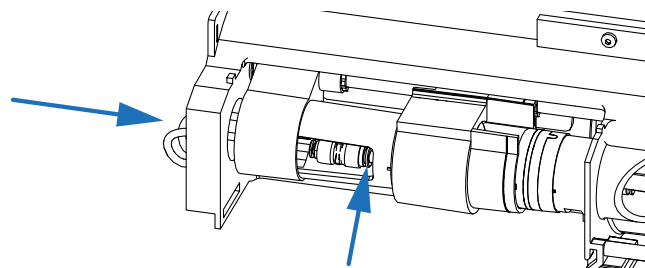


- Unhook the brewer, so that the left side is accessible
- Insert the M4 hexagon socket wrench at the front of the left side to remove both hexagon socket screws

Service codes:

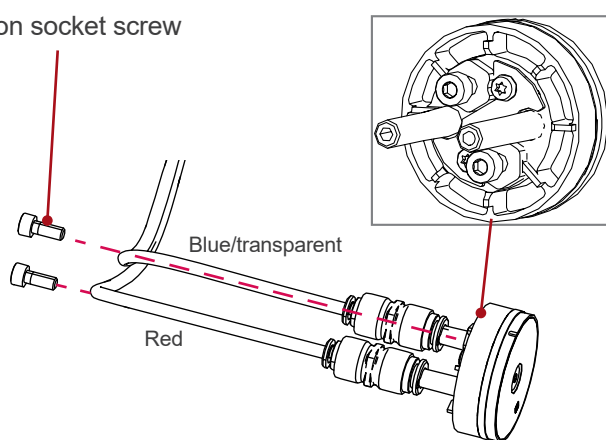
57M Close brewing chamber

58M Open brewing chamber



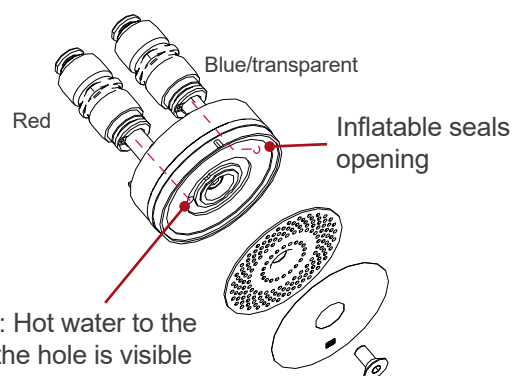
- Open the brewer with 58M
- Press long nosed pliers against the lock to pull the tube out of the coupling (taking care not to damage the tube)

Hexagon socket screw



Blue/transparent

Red



Blue/transparent

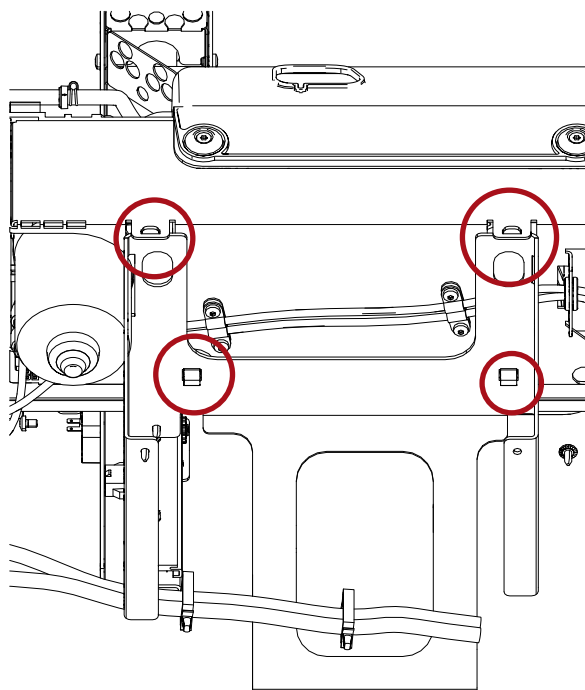
Red

Inflatable seals opening

Opening: Hot water to the brewer; the hole is visible

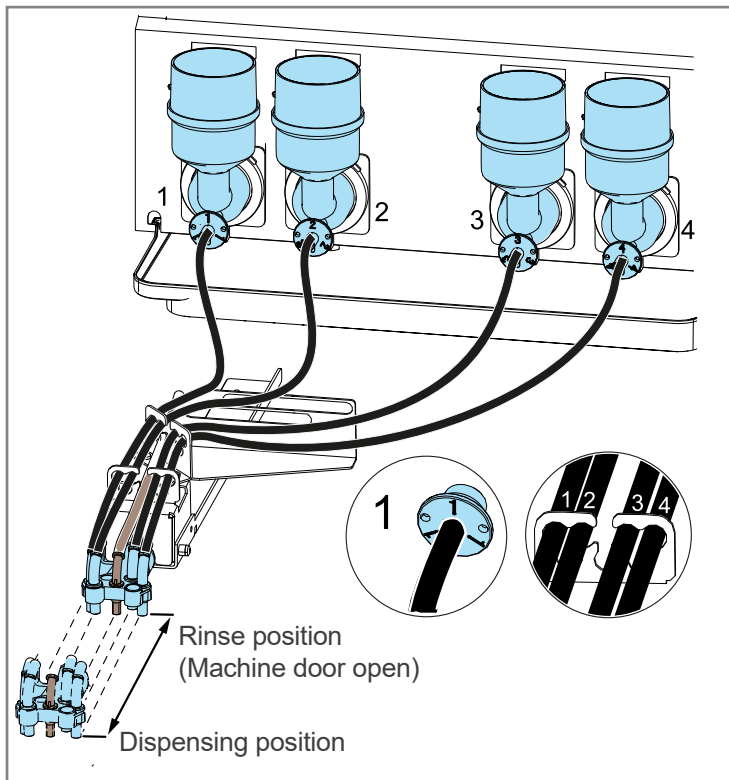
Brewer fitted

The markings show if the brewer is correctly fitted.



View from rear

Tubes



The tubes should:

- Be installed on a slight incline to stop liquid from accumulating
- Be connected to the mixer in the correct order 1 - 2 - 3 - 4
- Be clipped into the clamping units parallel to one another

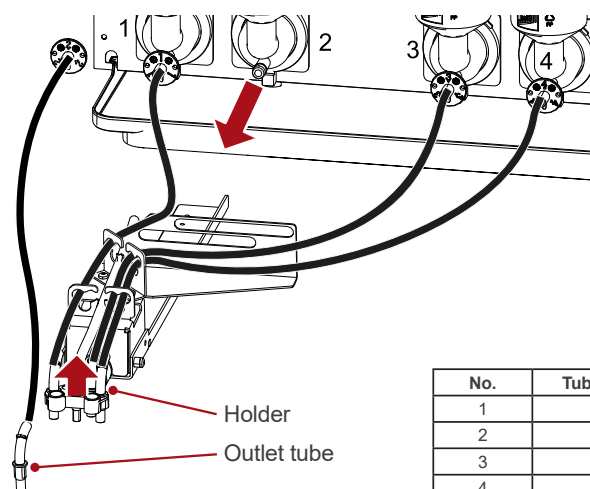
Procedure

1. Select tab 6 [Machine configuration] [Service functions] [Machine control]
2. Insert the 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:

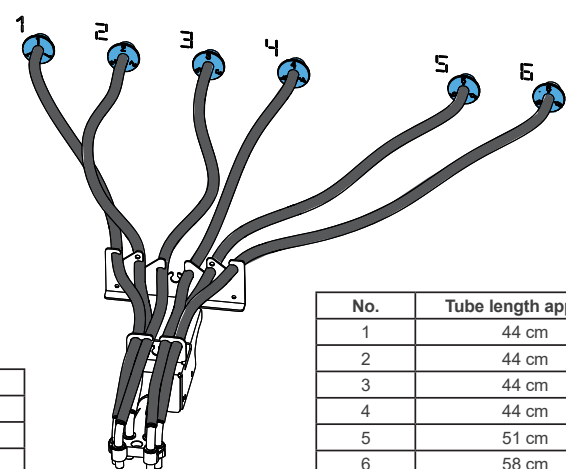
The term "swivel arm" refers to the movable outlet and originates from earlier vending machines.

Espresso variant



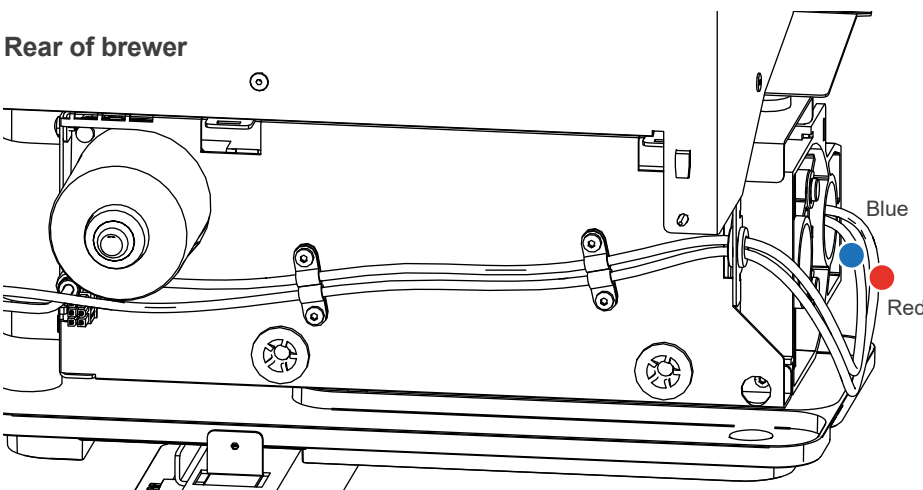
No.	Tube length approx.
1	45 cm
2	48 cm
3	54 cm
4	60 cm

Instant variant

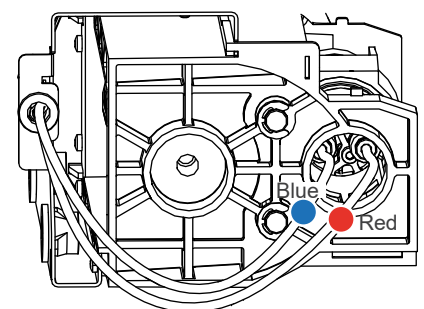


No.	Tube length approx.
1	44 cm
2	44 cm
3	44 cm
4	44 cm
5	51 cm
6	58 cm

Rear of brewer



Brewer inlet

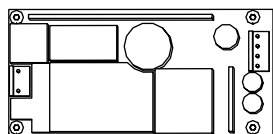


6.2 Controller board

Only for TS variant with 27 inch touchscreen

985 26 001 53

Power supply 230 V / 24 V / 120 W



419 00 502 00

Board connection 24V

419 00 503 00

Filter board 250 V 10 A

985 26 001 47

Power supply 230 V /
24 V / 60 W

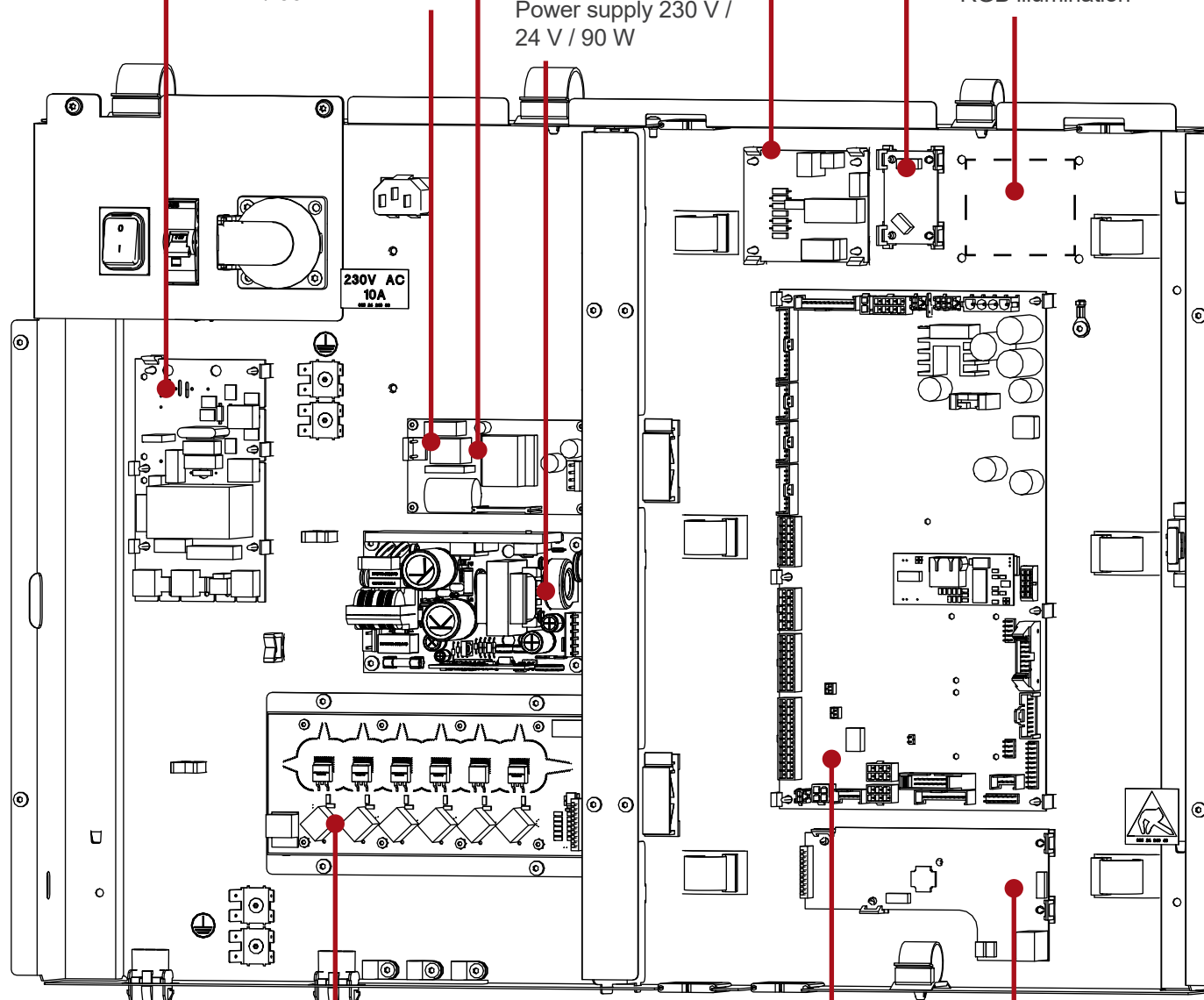
985 26 001 59

Power supply 230 V /
24 V / 90 W

414 00 571 00

Board fan fitting

RGB illumination



414 00 578 00

Board 230 V, 6 outlets

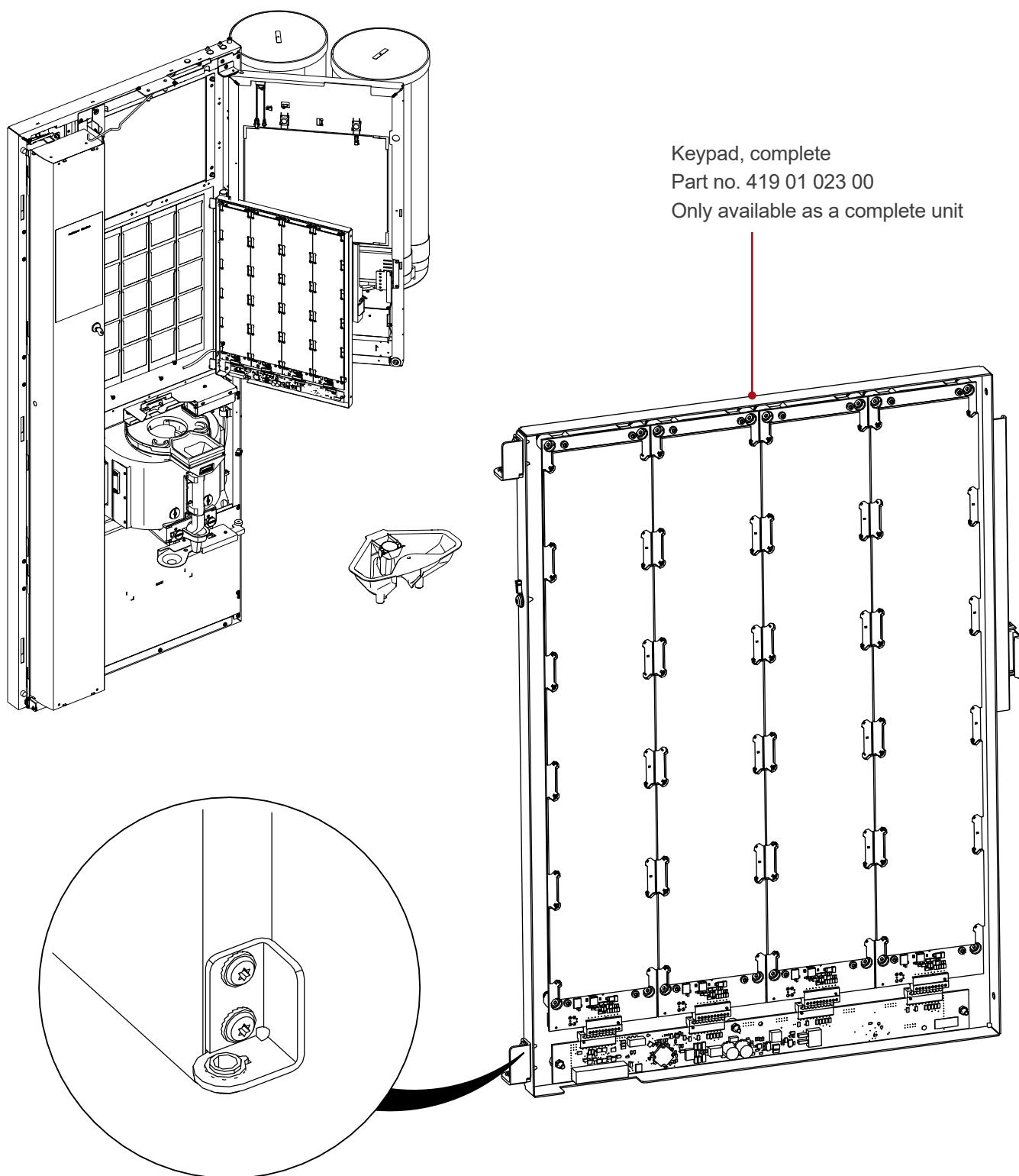
404 70 500 00

HG M32 controller

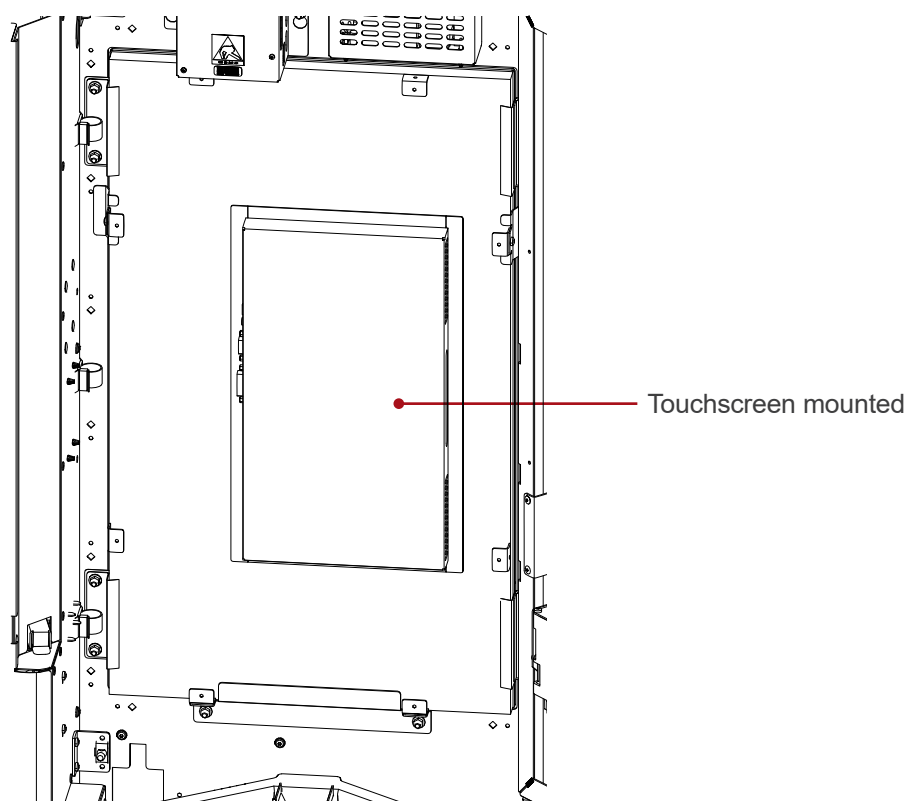
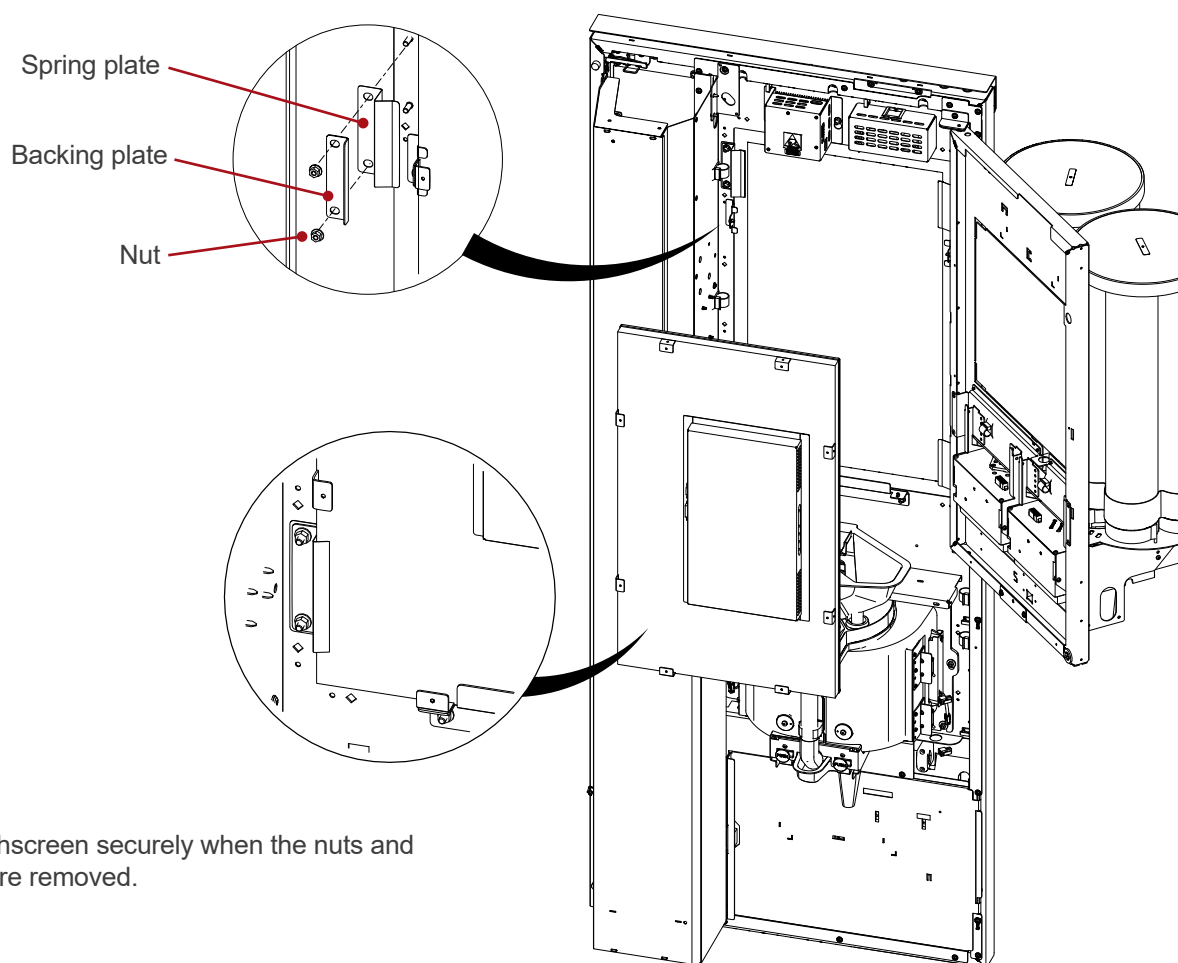
419 00 501 00

MDB I-DLE controller, 7 outlets

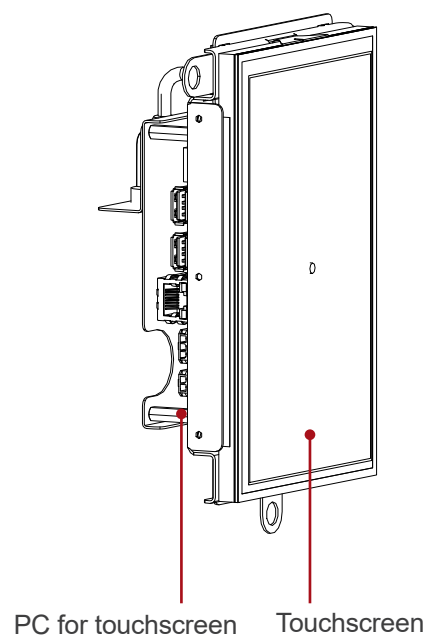
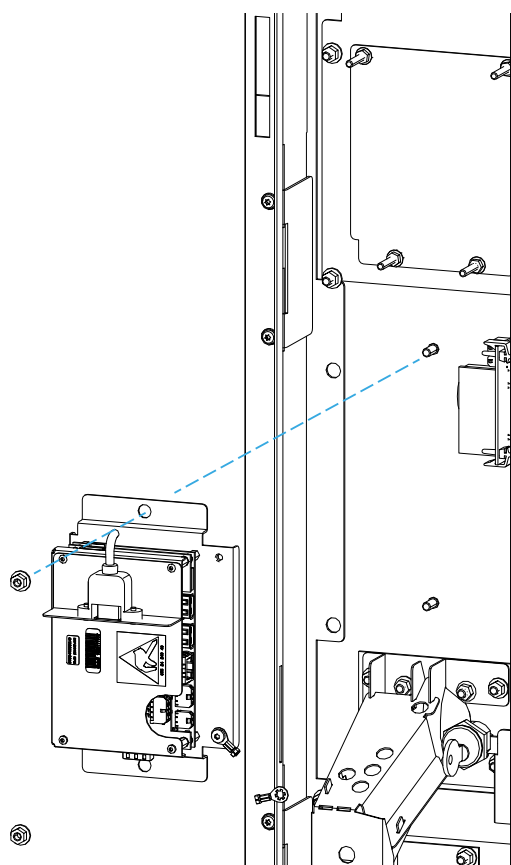
6.3 Rafi © keypad



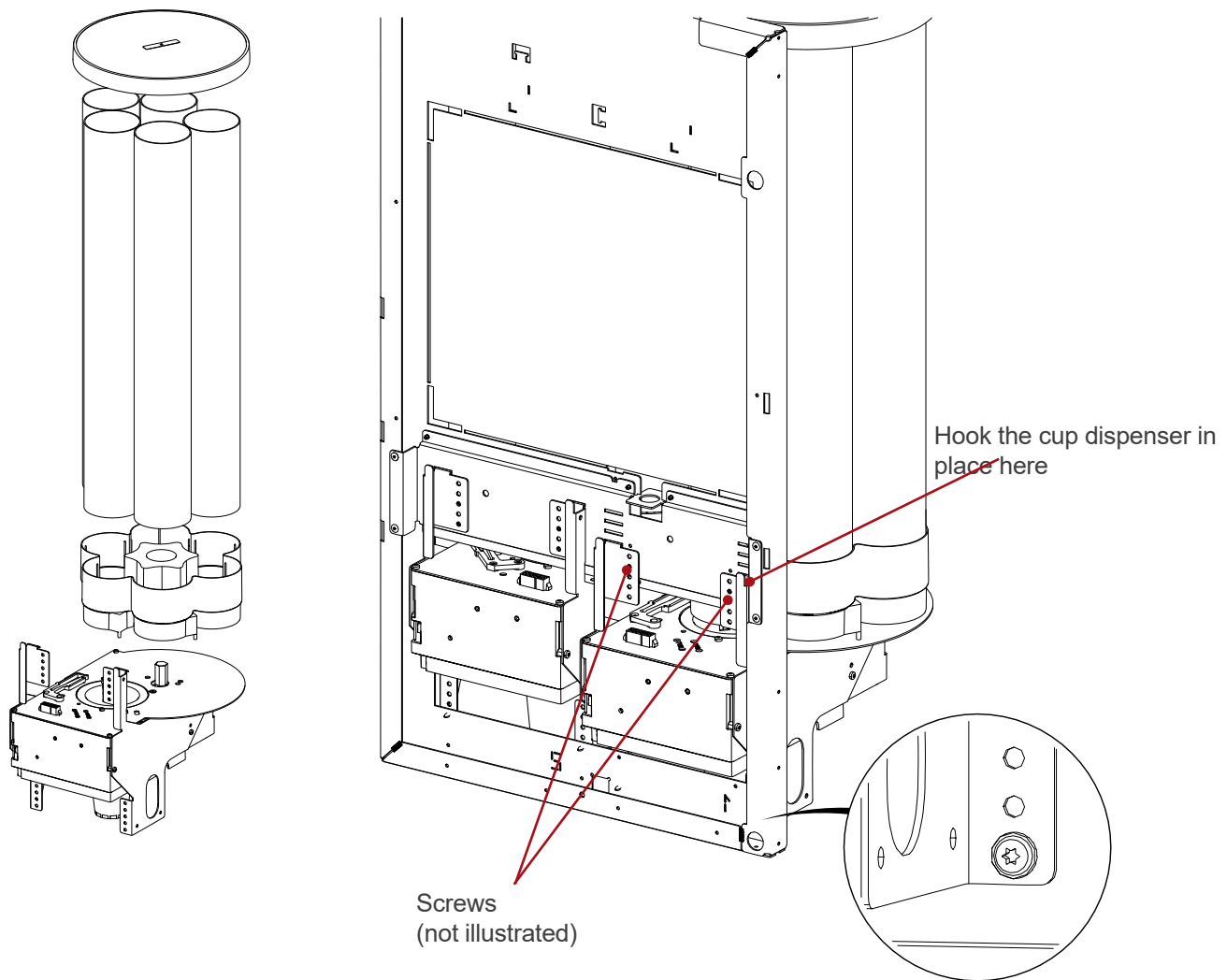
6.4 Removing the 27-inch touchscreen



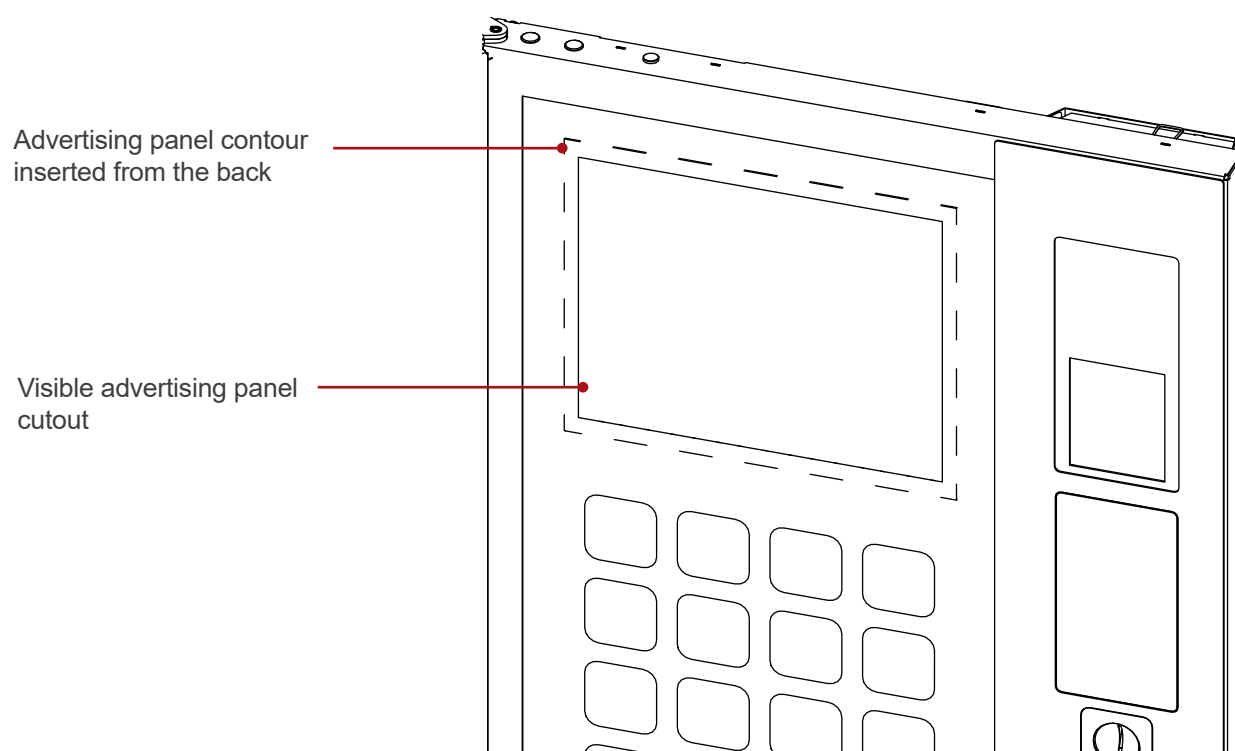
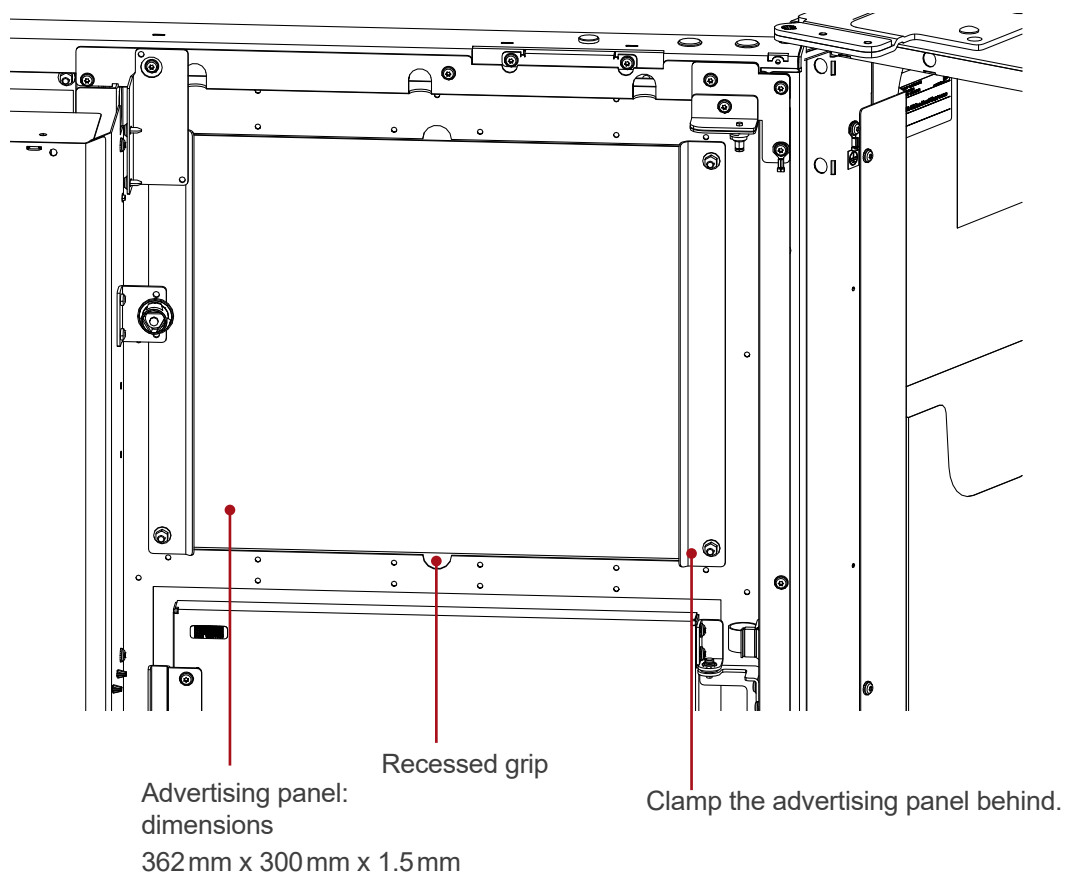
6.5 Removing the PC and 7-inch touchscreen with Rafi © keypad



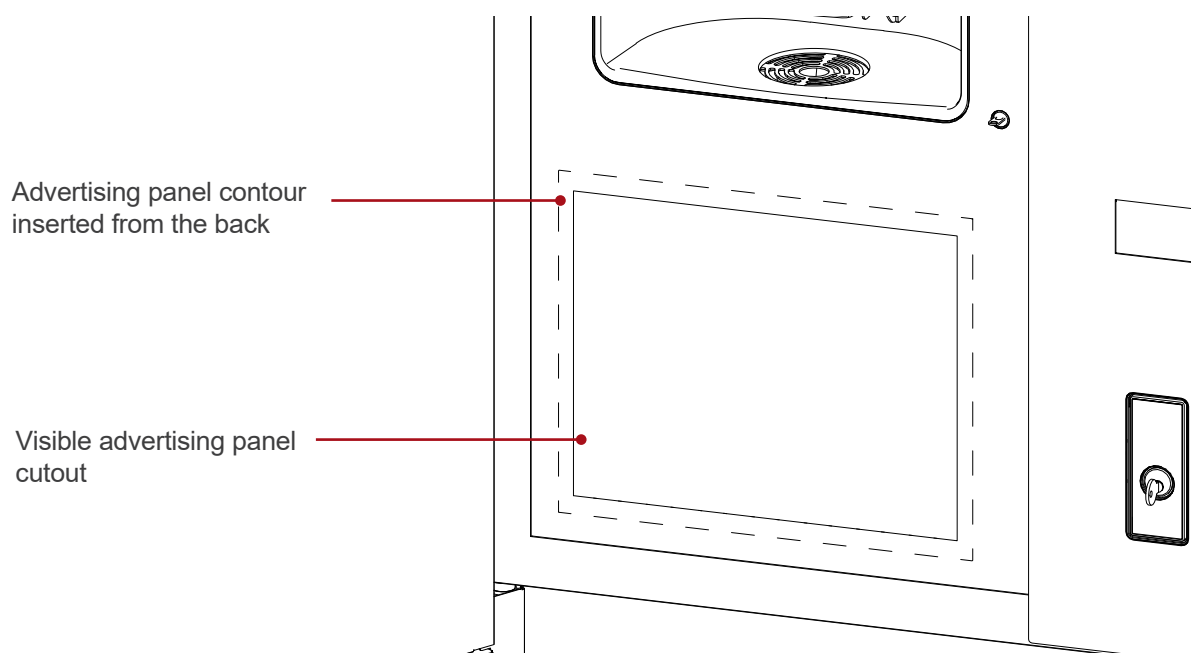
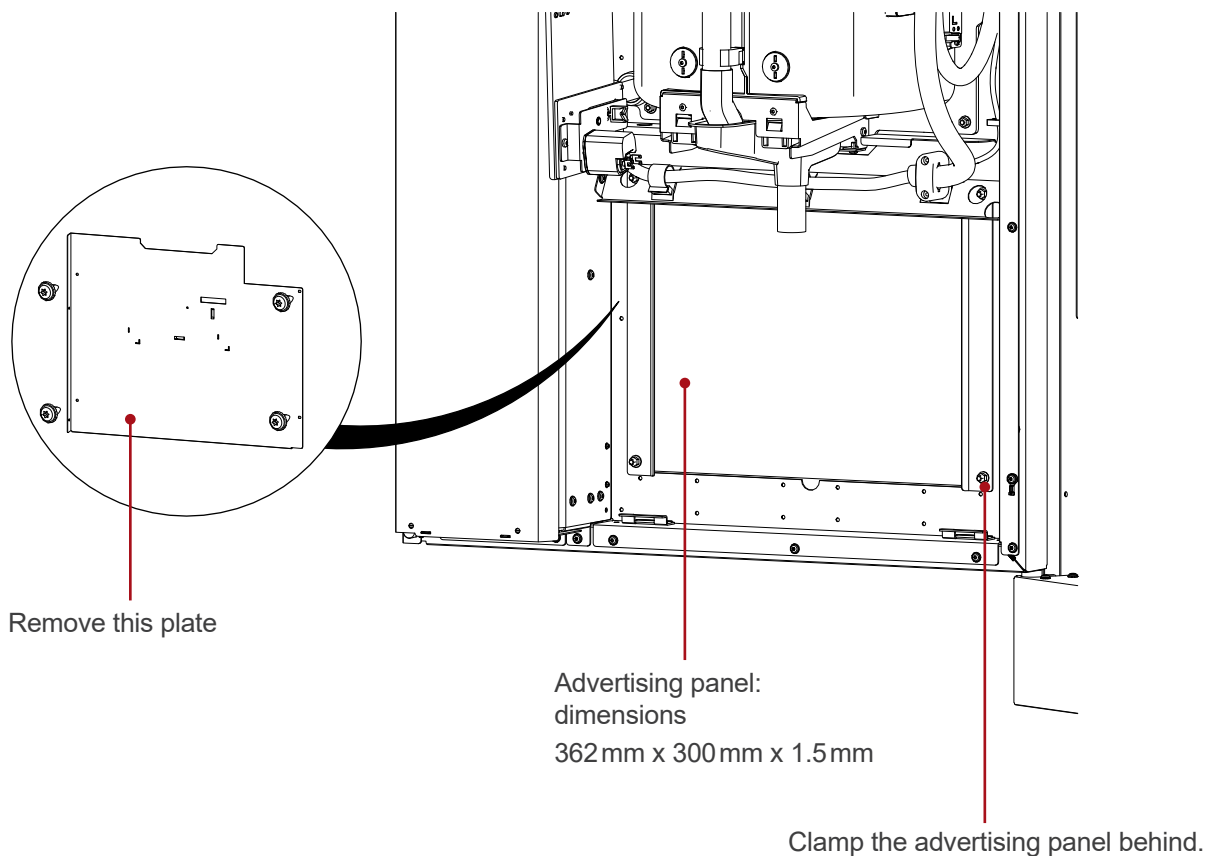
6.6 Cup dispenser



6.7 Upper advertising panel



6.8 Lower advertising panel

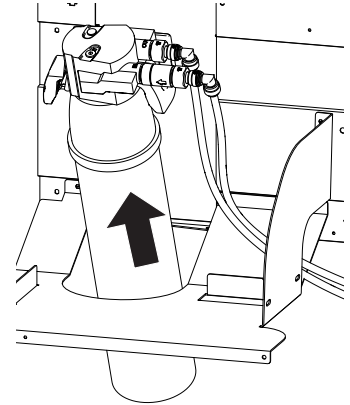


6.9 Water filter

If the water hardness is 6°dH (°KH) or higher, a water filter should be fitted. When installing a water filter, take note of the residual limescale content. This should be at approx. 6°dH (°KH). Use the bypass-setting on the filter head. Refer to the manufacturer's documentation.

Converting to water filter operation:

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

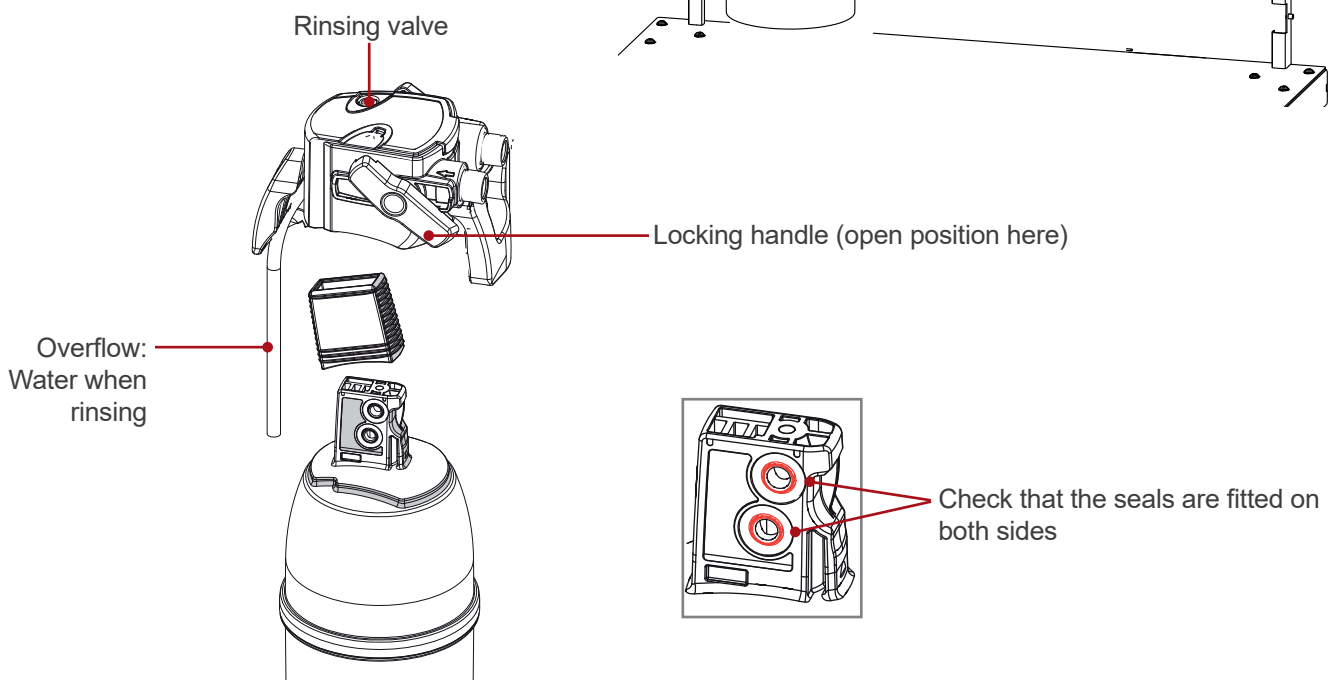
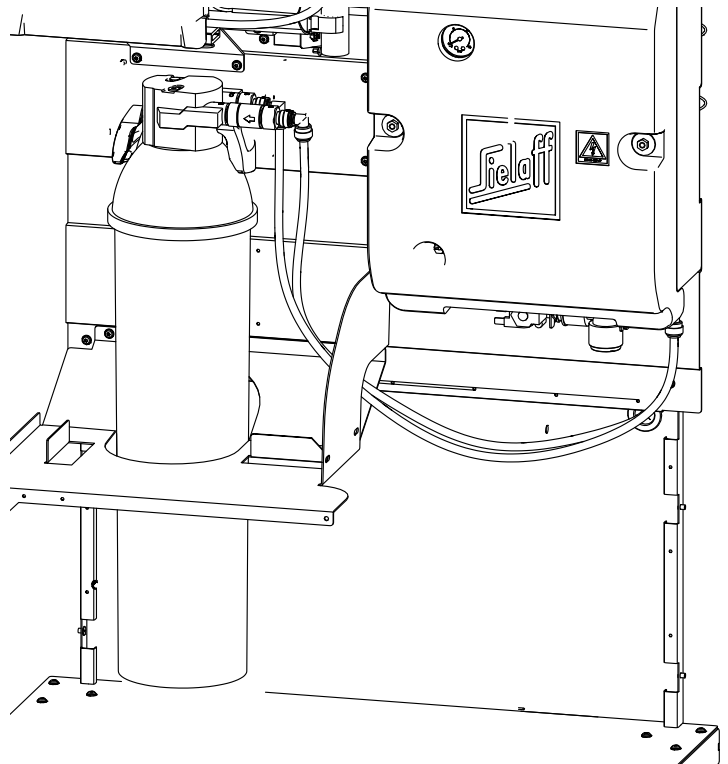


Replacing the filter cartridge

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

Procedure

1. Open the locking handle
 2. Activate the rinsing valve (depressurise the system)
 3. Pull the filter head upwards to remove
 4. Remove the empty filter cartridge from its holder.
 5. Insert a new filter cartridge
 6. Fit the filter head firmly
 7. Close the locking handle
 8. Rinse the cleaning cartridge. Collect the water in a bucket
- ✓ The new filter cartridge has been put into operation.



6.10 Changing the grinder

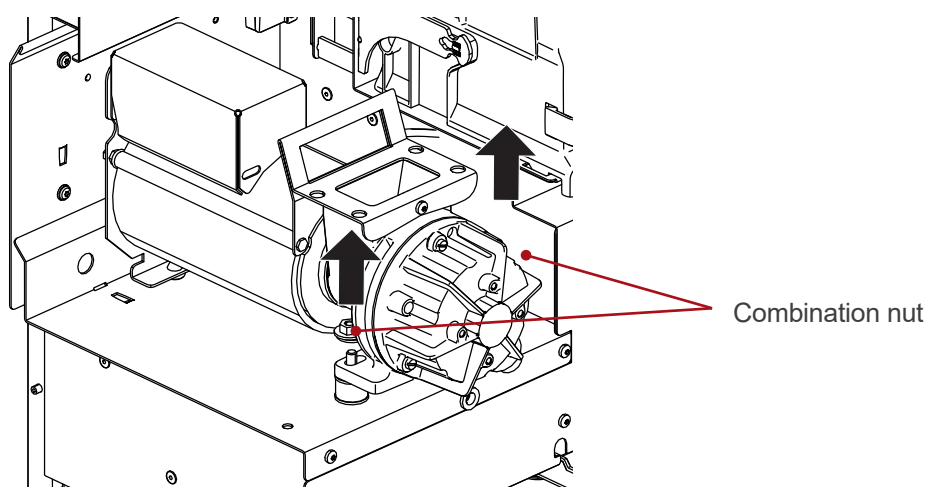
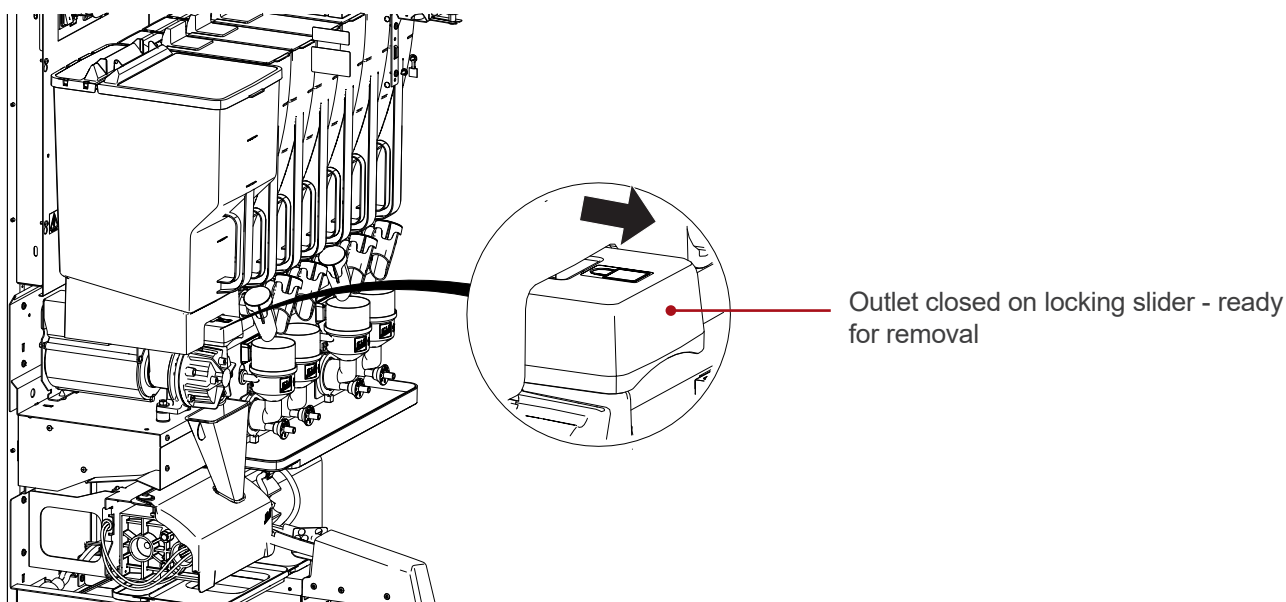


DANGER! Electric shock hazard

Live electrical components. Severe or fatal injuries. Always switch off the machine's power supply before starting work, e.g. by disconnecting the mains plug.

Procedure

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 2 combination nuts
 5. Disconnect the electrical plug connection
 6. Disconnect the earth connector
- ✓ The grinder can now be removed



6.11 Rectifying mechanical blockages in grinder EK21

Foreign bodies in the coffee beans can cause mechanical blockages in the grinder. The grinder will no longer rotate. To rectify blockages, the grinder head must be removed.

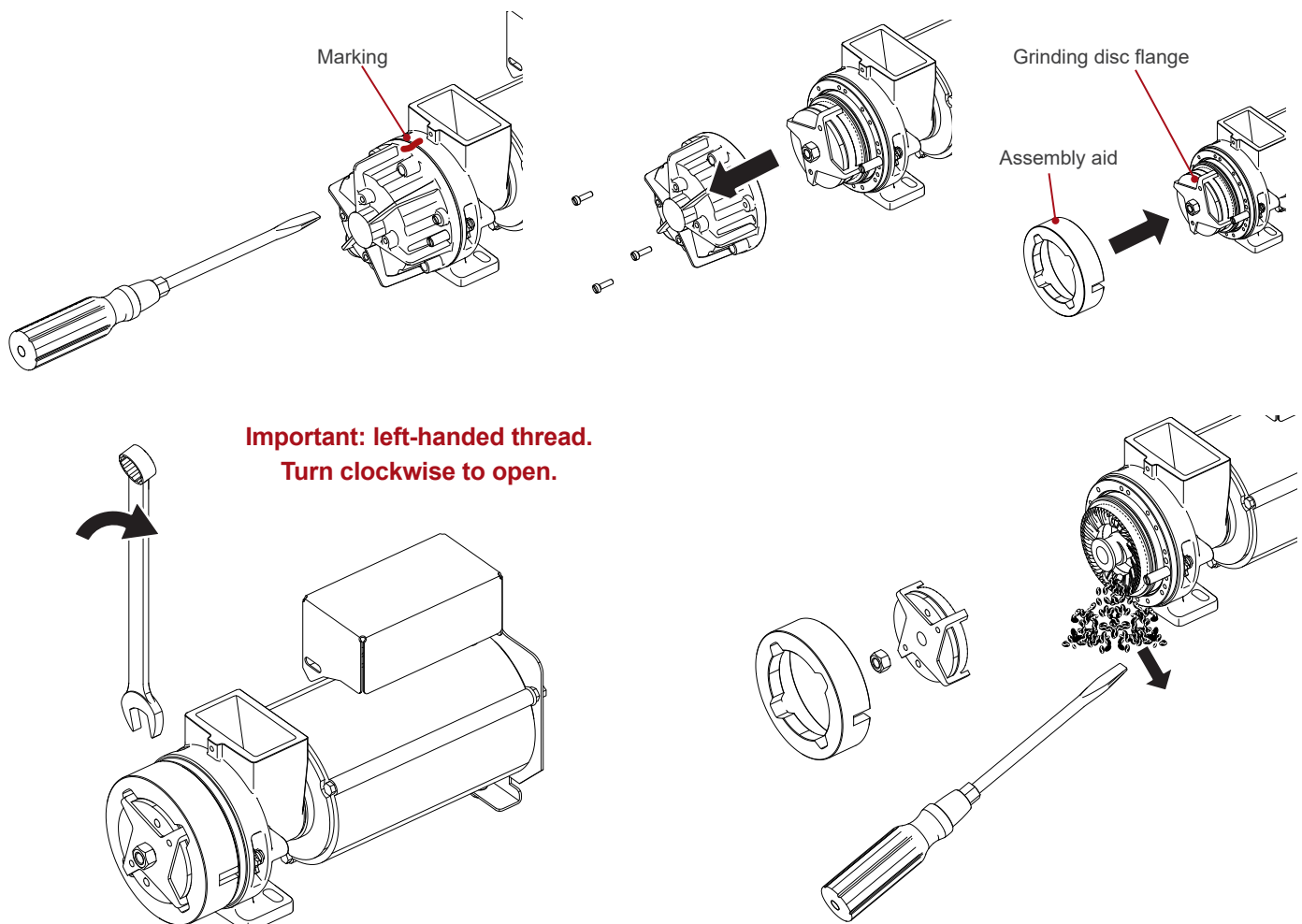
Additional equipment

- Assembly aid part. no. 407 00 011 11 (if available)
- Pipe wrench (alternative)
- Flat screwdriver
- Size 13 open-end spanner

Procedure

1. Mark the installation position of the grinder head using a felt-tip pen
 2. Use a flat screwdriver to remove 3 screws from the grinder head
 3. Place the mounting aid (if available) on the grinding disc flange and hold it in place with one hand. Alternatively, use a pipe wrench to hold the grinding disc flange in place
 4. Loosen the nut with your other hand and a size 13 open-end spanner.
Important: left-handed thread. Turn clockwise to open.
 5. Pull off the grinder head
 6. Use the screwdriver to remove the foreign objects and beans until the axle can be turned by hand again
- ✓ The blockage has now been resolved

Reassemble by following these instructions in reverse order. Turn the nut anticlockwise to tighten.



6.12 Boiler, flow heater



DANGER! Electric shock hazard

Live electrical components. Severe or fatal injuries. Always switch off the machine's power supply before starting work, e.g. by disconnecting the mains plug.

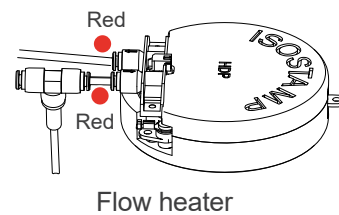
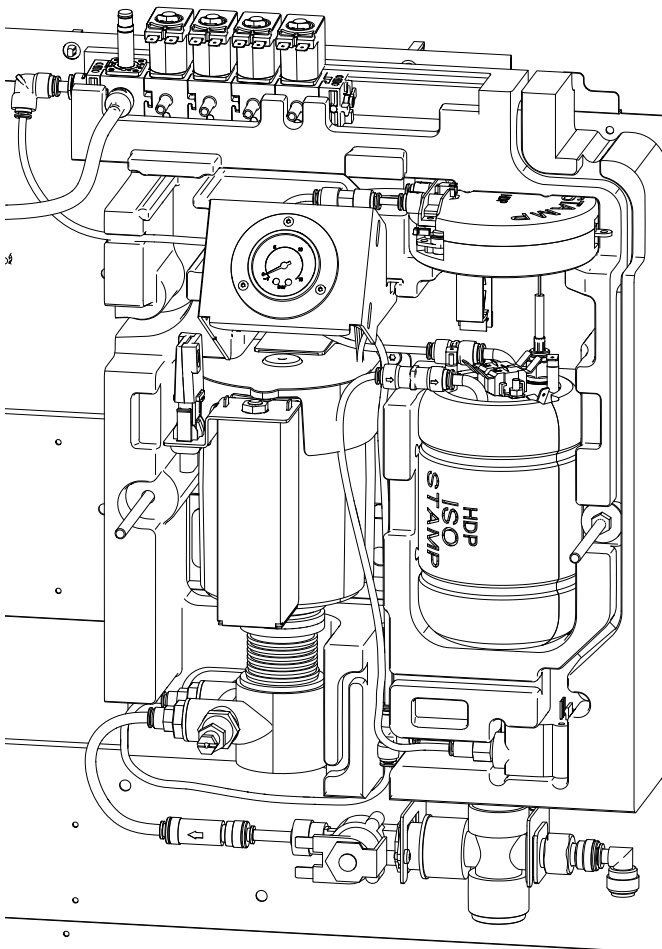
Requirements

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

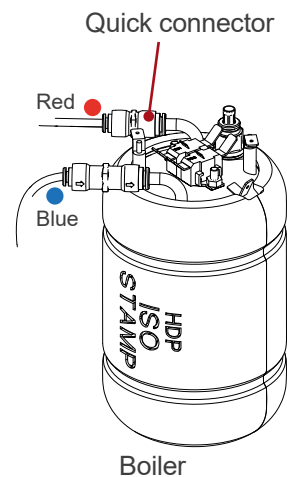
Service code: 87M Empty boiler

Procedure

1. Remove the foam cover
 2. Loosen the tube connection by operating the quick coupling
 3. Pull out the tube
 4. Disconnect the electrical plug connection
 5. Remove the boiler or the flow heater from the foam
- ✓ The boiler or the flow heater can be replaced.

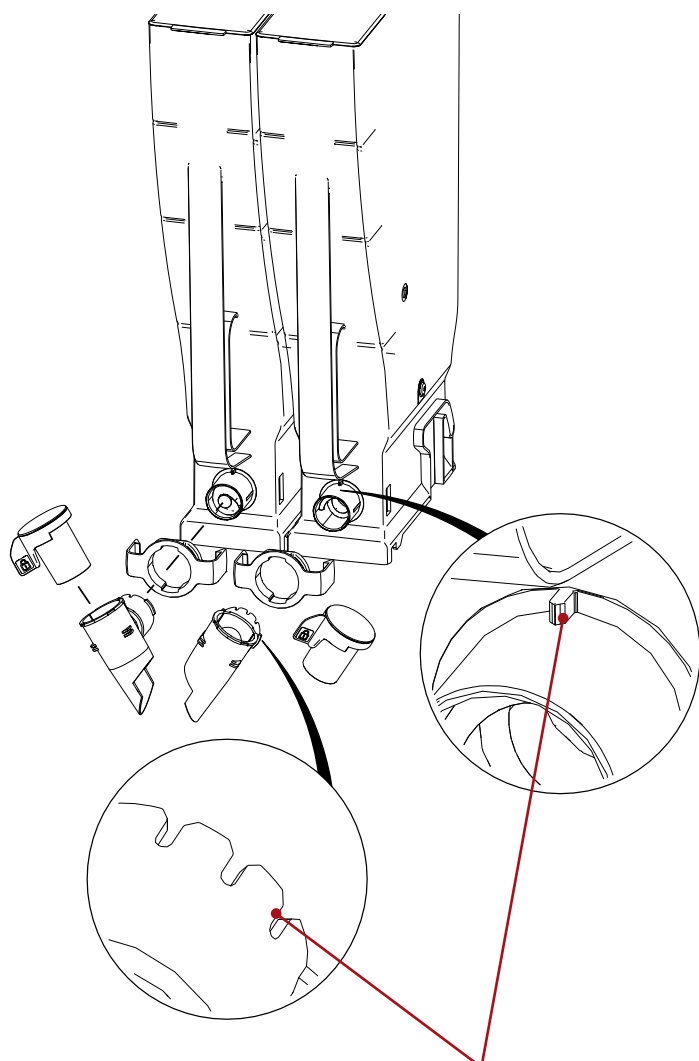


Flow heater

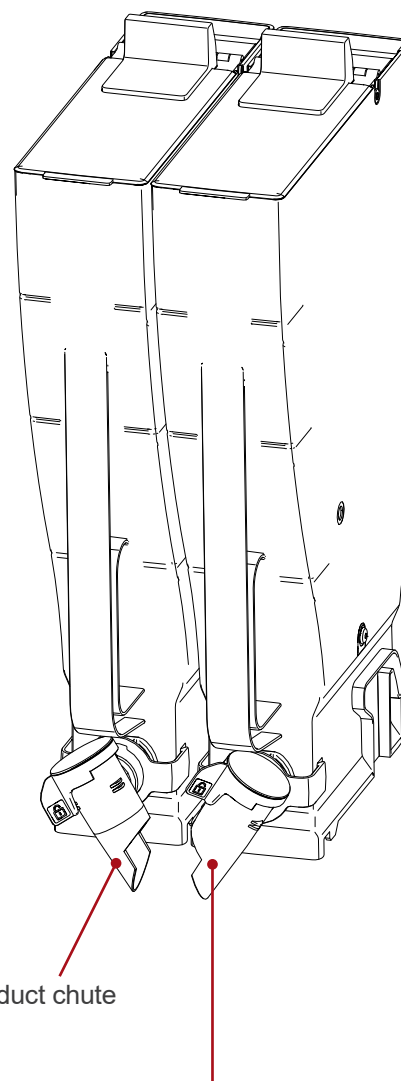


Boiler

6.13 Instant product containers

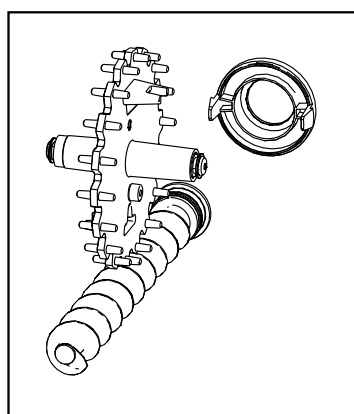


Bar and notch must fit inside each other (3 positions possible)

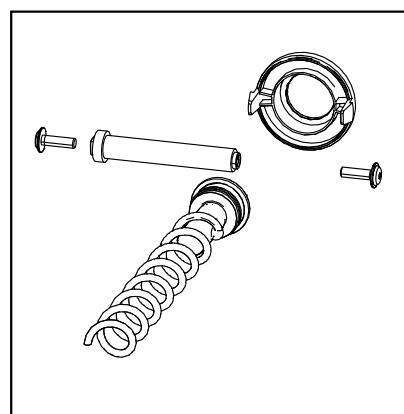


Right product chute

Left product chute



With stirring wheel

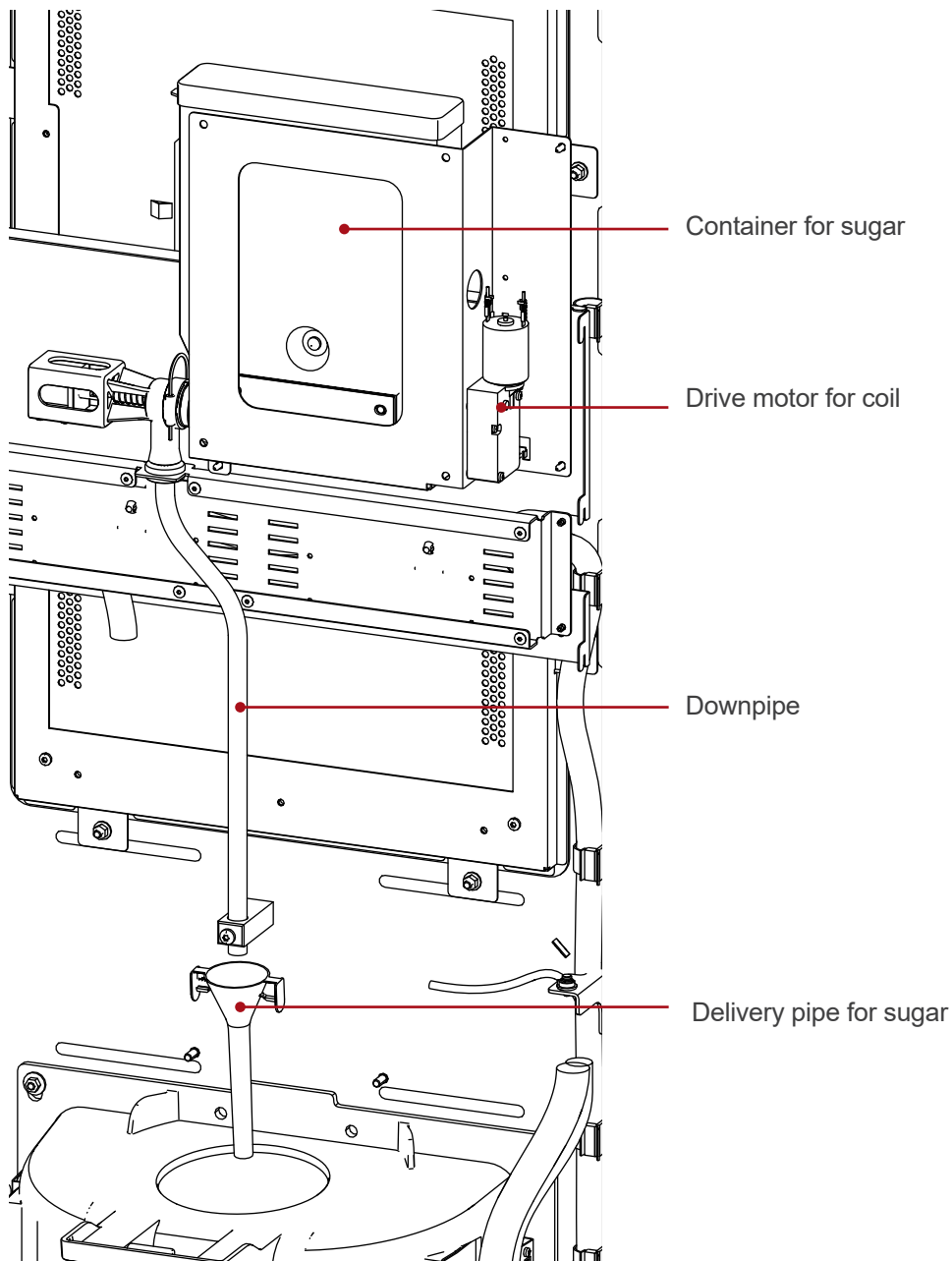


With spiral for wire coil

6.14 Dry sugar

The dry sugar is stored in the container. To dispense the sugar the drive motor attached to the coil turns and the magnetic locking mechanism opens.

The sugar falls directly into the cup below via a downpipe and delivery pipe.



6.15 Light barriers (reflection light barrier)

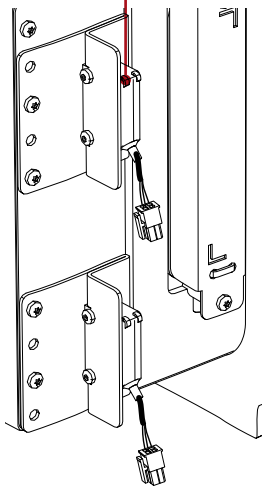
Light barriers are used.

- Pepperl&Fuchs ML100-55/59/103/115a/154 (no control elements)
- Leuze PRK3C.TT3/PT-P1 50142354 (with calibration button)

Light barriers without control elements are not suitable for detecting clear glass.

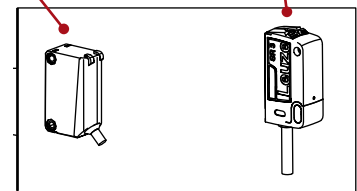
Light barriers with control elements can detect clear glass.

Installed light barrier;
Standard is Pepperl&Fuchs



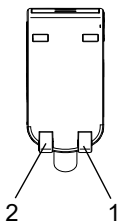
Pepperl&Fuchs
ML100-55/59/103/115a/154

Leuze
PRK3C.TT3/PT-P1 50142354



6.16 Pepperl&Fuchs ML100-55/59/103/115a/154 (no control elements)

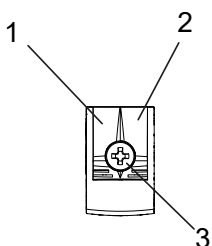
- Calibration unnecessary
- Sensitivity cannot be adjusted



- 1 - Yellow signal indicator
- 2 - Green power indicator

6.17 Leuze PRK3C.TT3/PT-P1 50142354 (with calibration button)

- Manual calibration unnecessary
- Calibration takes place automatically when the power supply is connected
- Sensitivity cannot be adjusted



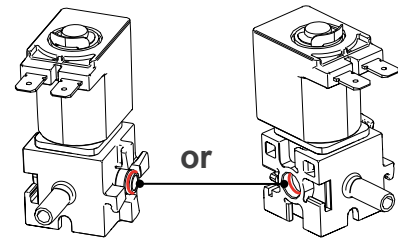
- 1 - Yellow LED
- 2 - Green LED
- 3 - Calibration button

6.18 Solenoid valve seals

The valves are connected to each other according to the principle of a bayonet lock. Start or end pieces and valves can be plugged together as required.

Two parts must form a seal to ensure that the valve block is tight.

The seal can be on the pipe socket or in the bore. The presence of a seal must be checked carefully with each joining!



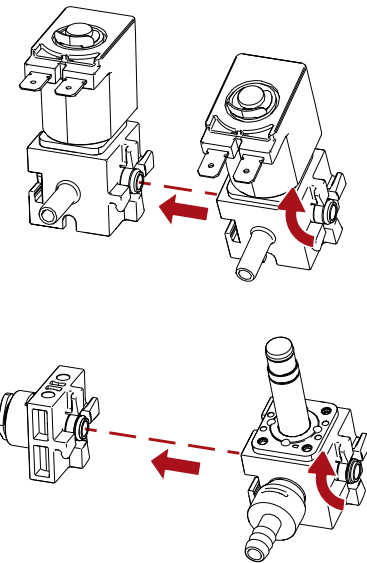
6.19 Assembling solenoid valves

Requirement

There is a seal between two parts.

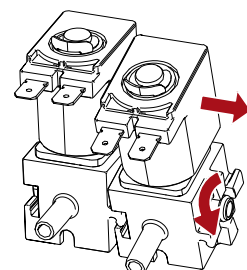
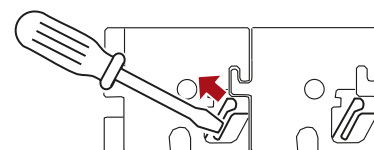
Procedure

1. Insert the valves into each other with a slight angular offset to the longitudinal axis so that the pipe socket of one valve engages in the bore of the other valve
 2. Rotate the valves in opposite directions until they are axially aligned.
- The mechanism engages audibly.



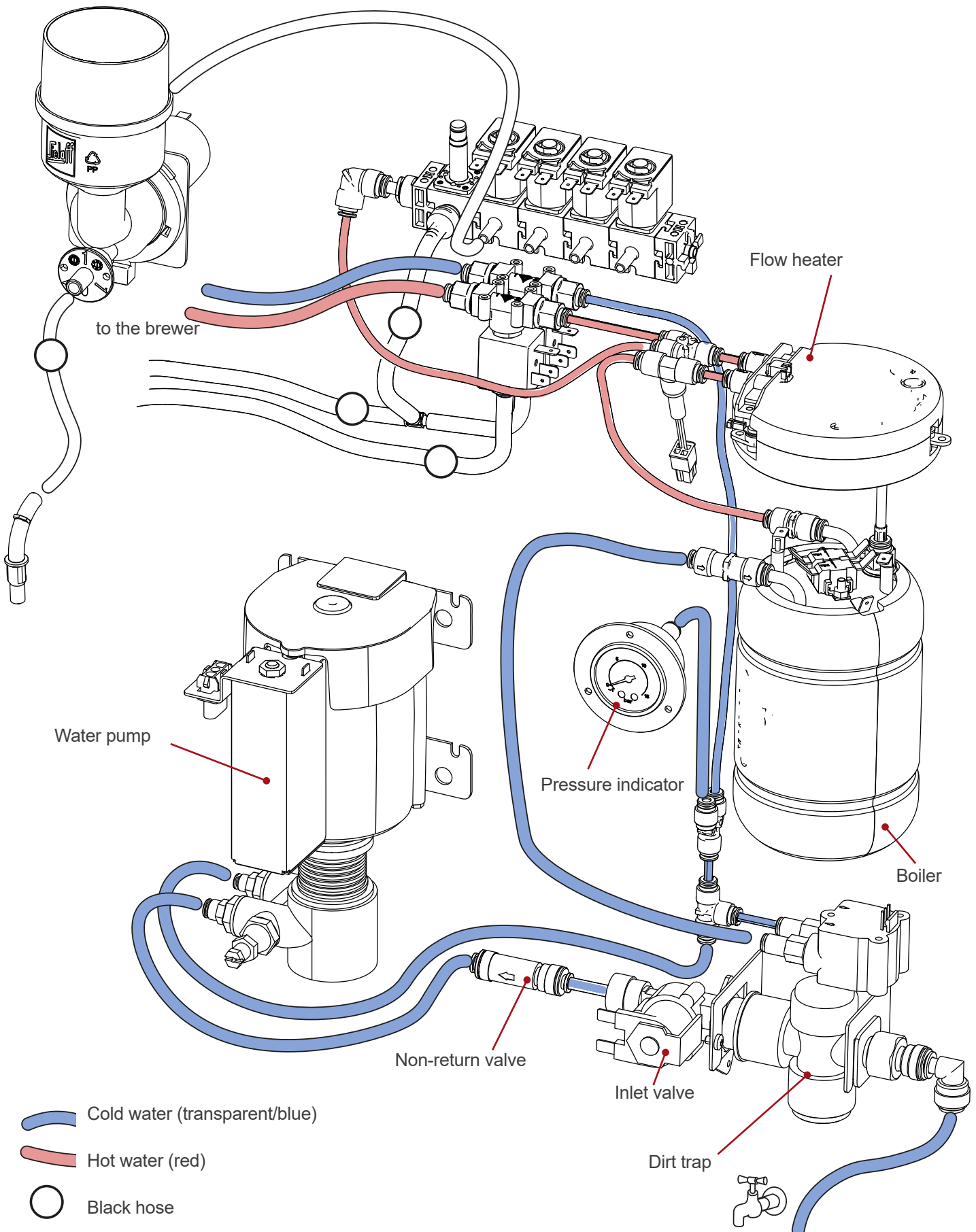
6.20 Separating solenoid valves

1. Use a small flat screwdriver to actuate the locking mechanism on the back of the valves
 2. Rotate one valve slightly relative to the other valve
- ✓ The valves can be pulled apart

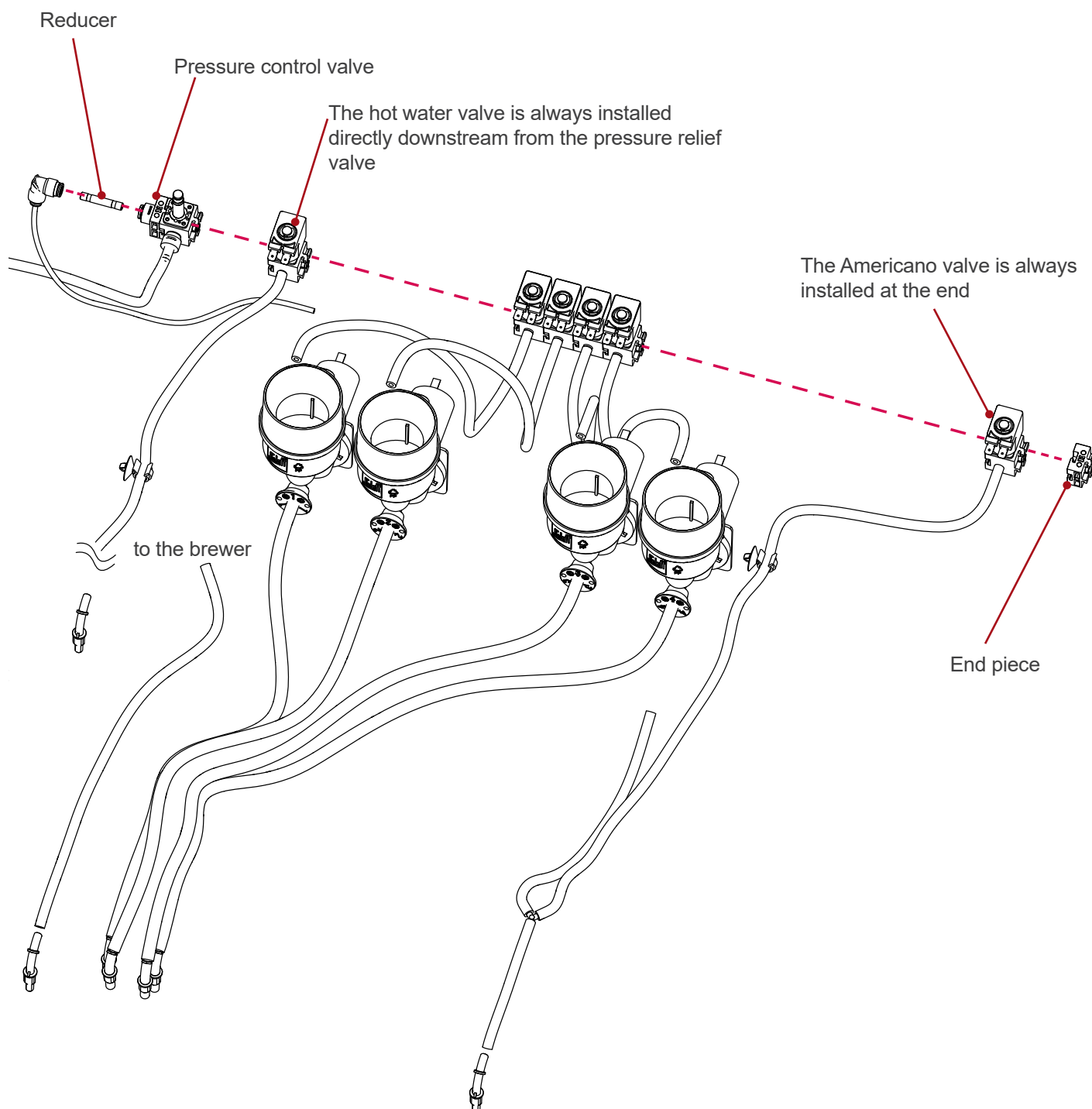


7. Drawings and plans

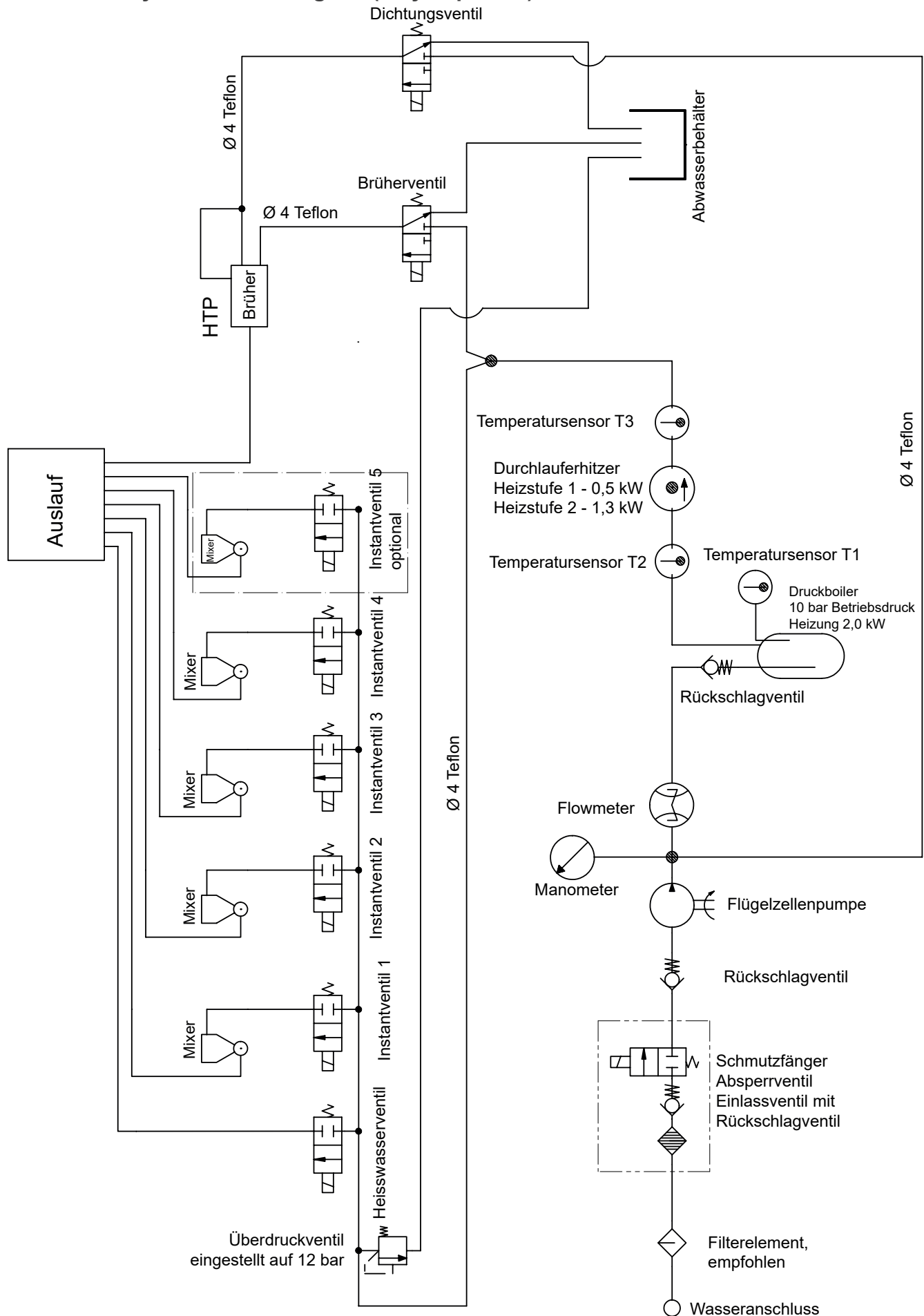
7.1 Water system tube layout diagram



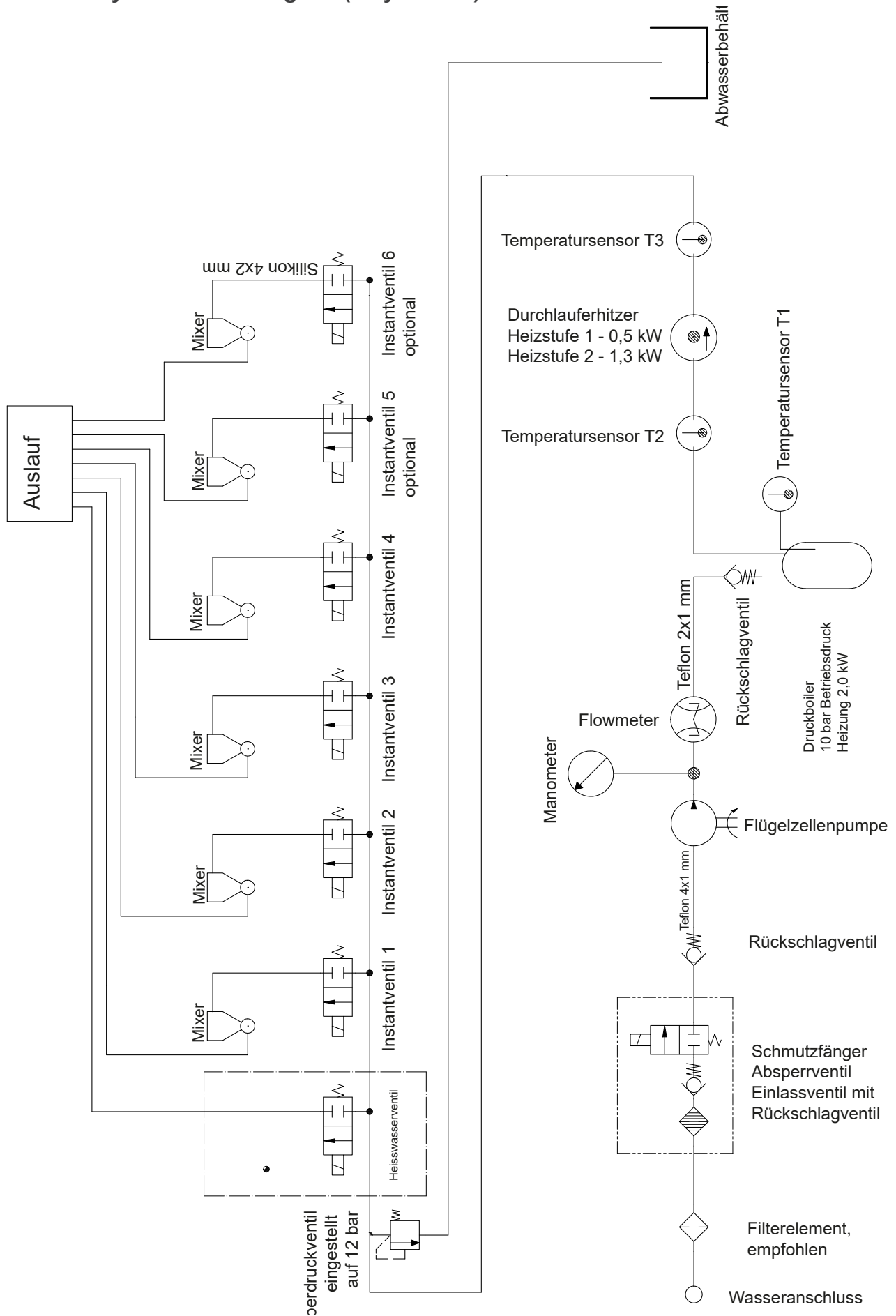
7.2 Hot water parts set and Americano parts set



7.3 Water system circuit diagram (only Espresso)



7.4 Water system circuit diagram (only Instant)



8. Service codes

8.1 Service codes table

Not all service codes apply to your machine type.

2L	Door status	9M0M	Fill coffee grinder	151M	Coffee test dispense
3L	Motor power supply unit	19M0M	Fill espresso grinder	170M	Test intermediate flushing
4L	Logic voltage	10M	Instant coffee product motor	215M	Rinse the mixer
9L	Motor power supply unit temperature	11M	Hot chocolate product motor	216M	Fill the boiler
47L	Light state	12M	Tea product motor	217M	Instant test
48L	RGB values	13M	Soup product motor	96M11M	Flush mixer and brewer
277L	SW version	14M	Cappuccino special product motor	99M121M	Filling quantity is displayed
47M	Light	15M	Sugar product motor	99M122M	Allow debug output
48M	White light	16M	Topping product motor	99M123M	Switch on the heater
50M	Coin refund	55L	Cup dispense mechanism 1 empty	41M	Extend transport motor
91L	MDB device status	56L	Cup dispense mechanism 2 empty	42M	Stop transport motor
91L1	Debug MDB device	57L	Limit switches of cup dispenser1 front/behind	43M	Retract transport motor
10C	Coin sorter software version	58L	Cup dispenser2 limit switch, separator slide front/rear	44M	Open delivery unit cover
		55M	Cup dispenser 1	45M	Close deliver unit cover
13C	Scan light barrier	56M	Cup dispenser 2	46M	Start dispense test
32M	Inlet valve 1	57M	Close brewing chamber	105L	MDB statistics
20M	Brewer valve	58M	Open brewing chamber	122L	Boiler filled
21M	Instant coffee valve	59M	Brewer cleaning valve	122M	Set boiler to state "empty"
22M	Hot chocolate valve			150L	Moisture sensor
23M	Tea valve	61M	Instant boiler heater	202L	Heater state
24M	Soup valve	64M	Dry sugar motor	202M	Switch heater
25M	Cappuccino special valve	65M	Stirrer dispenser	900L	Software version
26M	Sugar valve	80M	Pump cleaning agent forwards		
27M	Topping valve	10L	Testing the pulse generator		
28M	Rinse hot water valve	15L	Steam boiler level sensor		
14L	Cup detection	17L	Positions of the contacts and sensors		
30M	Pump	21L	Display software version		
62L	Query swivel arm position	25L	Number of flushes / cleans		
62M	Move swivel arm to rinse position	28L	Last 5 door openings and last 5 cleanings		
63M	Move swivel arm to dispensing position	29L	Hot water valve state		
66M	Brewer sealing valve	29M	Hot water valve		
67M	Americano valve	45L	Establish online connection		
86M	Adjust dynamic pressure	51L	Pulse generator		
87M	Empty boiler	52L	Flow rate		
88M	Fill pressure boiler (coffee) + crema valve 1	53L	Brewer flow rate		
1M	Instant coffee mixer	54L	Water quantity		
2M	Hot chocolate mixer	80L	Reset service counter		
3M	Tea mixer	82L	Container emptied		
4M	Soup mixer	33M	Fan		
5M	Cappuccino special mixer	34M	Espresso boiler heater		
6M	Sugar/whitener mixer	38M	Dispenser lighting		
7M	Topping mixer	150M	Brewer path for reference run		
9M	Coffee grinder				
19M	Espresso grinder				

8.2 Using service code 87 M (empty boiler)

Service function 87M (empty boiler)

This service function automatically switches off the boiler heater and then empties the boiler.

Service function 88M (fill boiler)

If service function 88M is used on a new machine, the boiler is first filled automatically and the heating only switched on once the boiler is full.

A certain minimum amount of water (approx. 1 litre) must have run through and the process must not have been cancelled manually before completion.

Recommendation

If service function 87M is used, service function 88M should also be used afterwards.

Changing the boiler

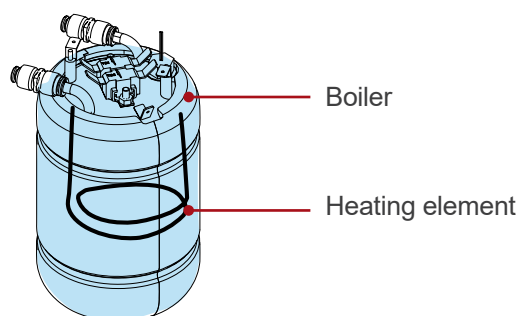
When changing the boiler, service code 87M is used to empty the boiler and deactivate the heater at the same time. After changing the boiler, fill the new boiler using service code 88M.

Querying the heater status (switched on or off)

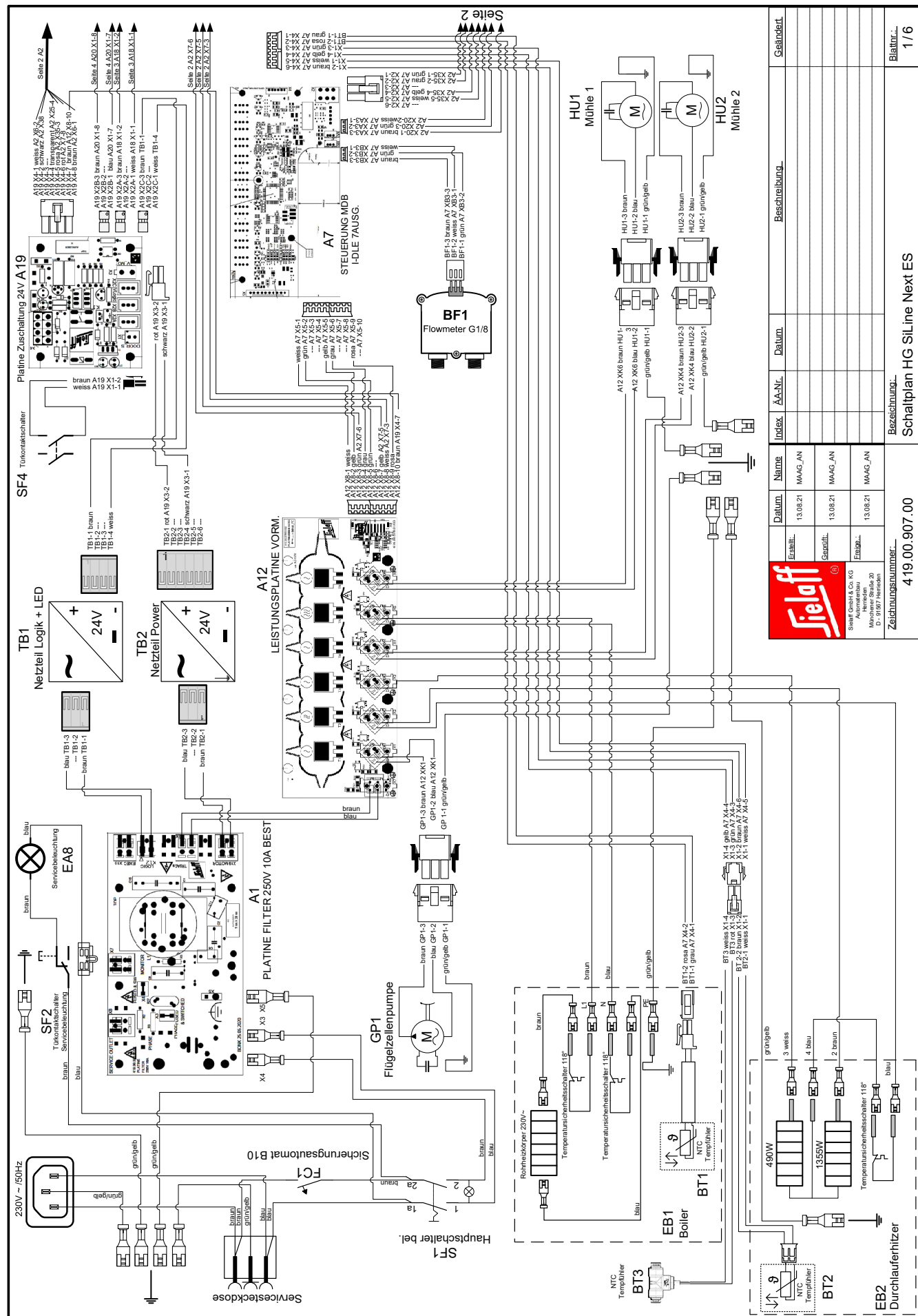
The status of the heater can be queried using service function 202L.

Note on boiler

The boiler must be completely filled with water when the heater is switched on. If not, the boiler may be damaged.



9. Circuit diagrams (only Espresso, 7 inch)

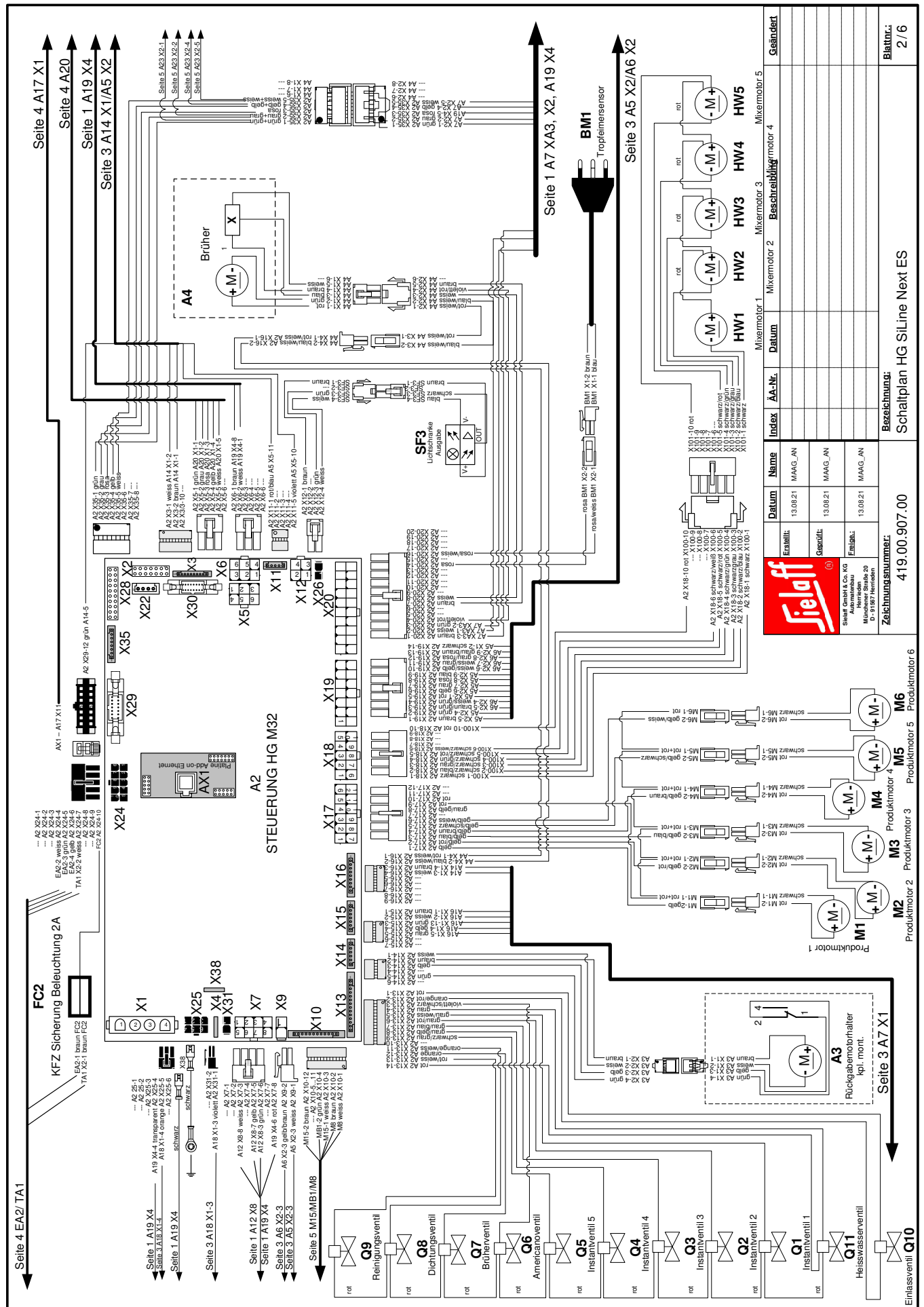


Seit 1987 in der
Kategorie
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Bücherei-
Technik
D-91067 Heidenheim

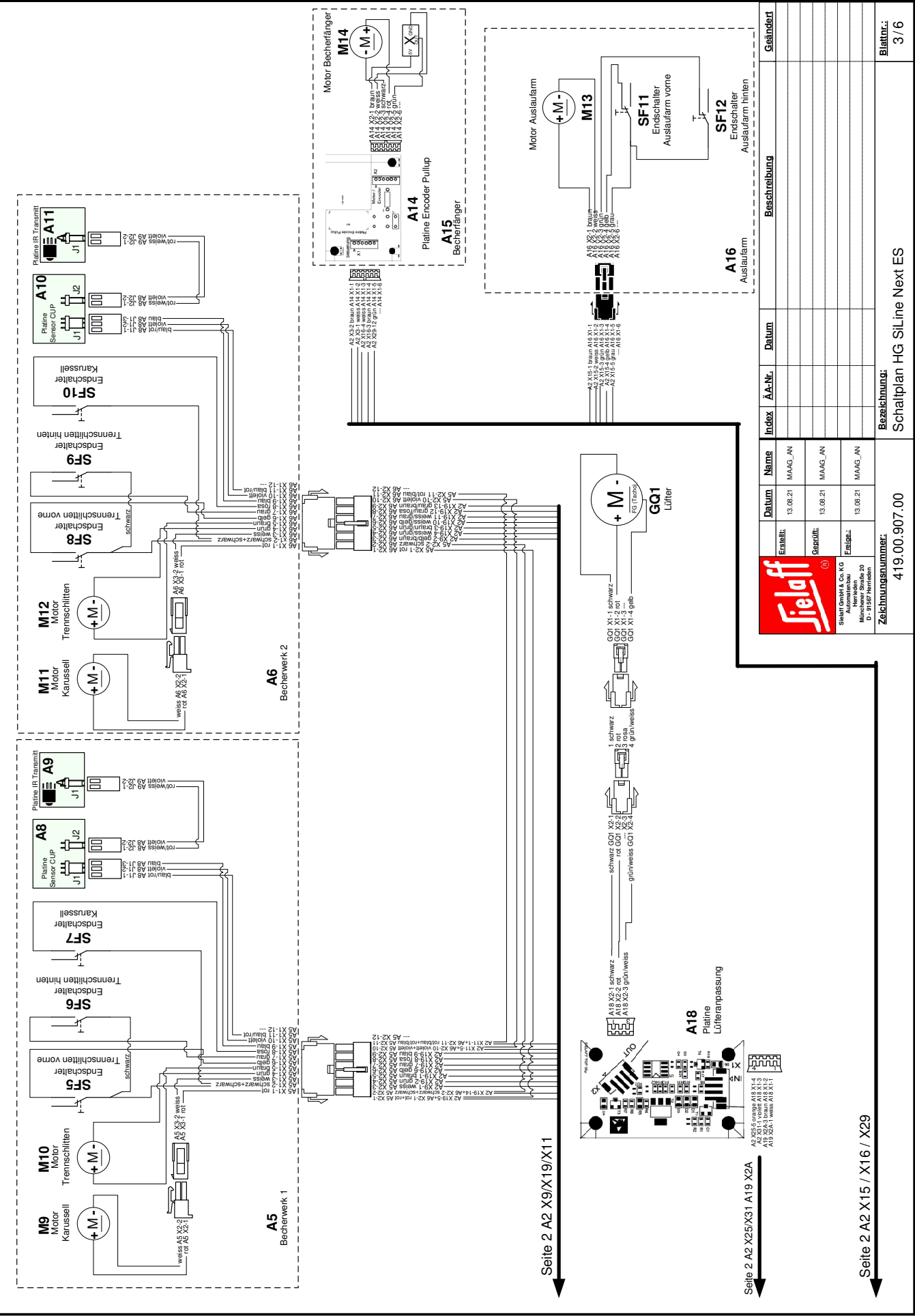
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Zeichnungsnummer:	419.00.907.00	Bezeichnung:	Schaltplan HG SilLine Next ES	Blattnr.:	1/6
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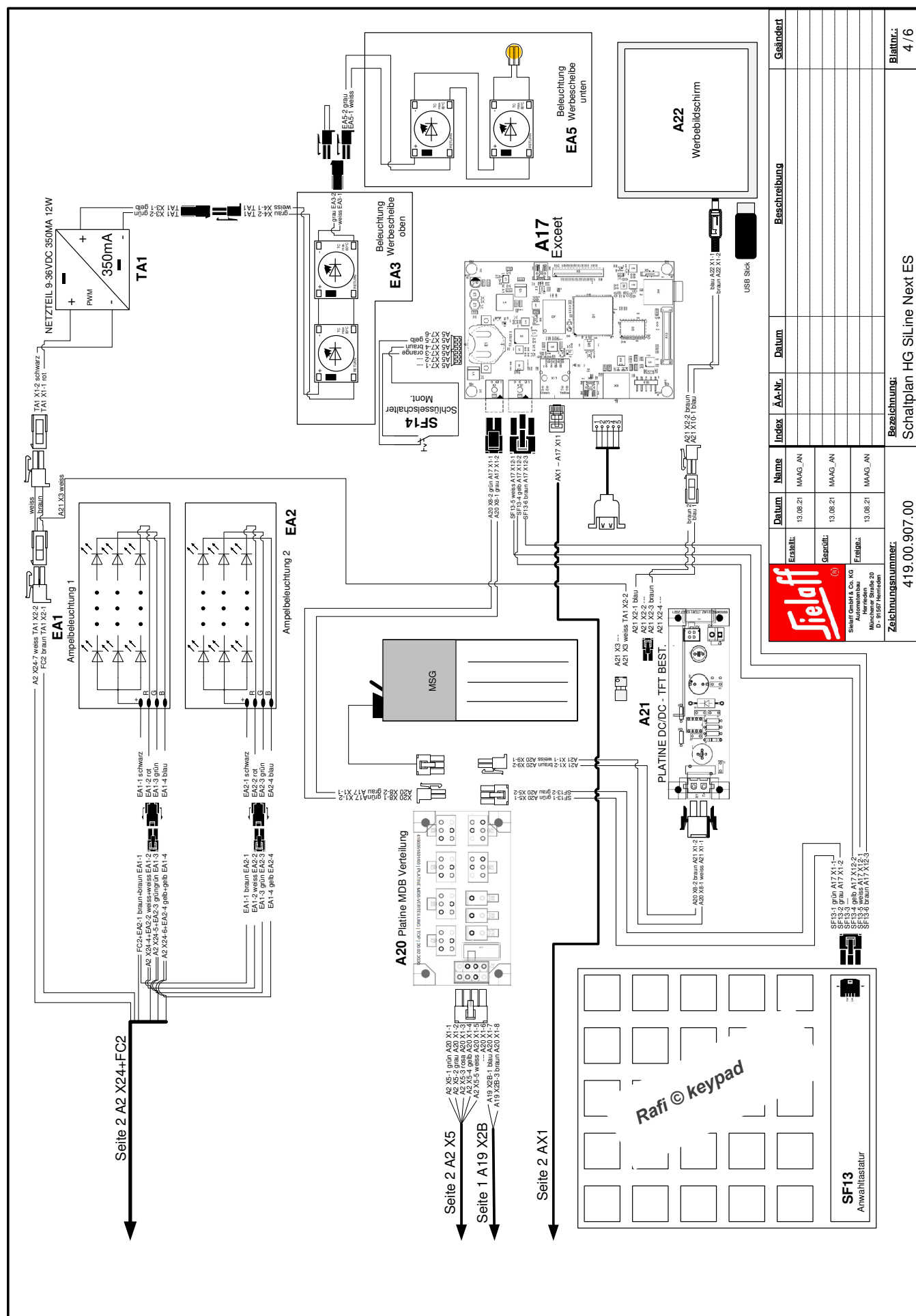
Espresso, 7 inch



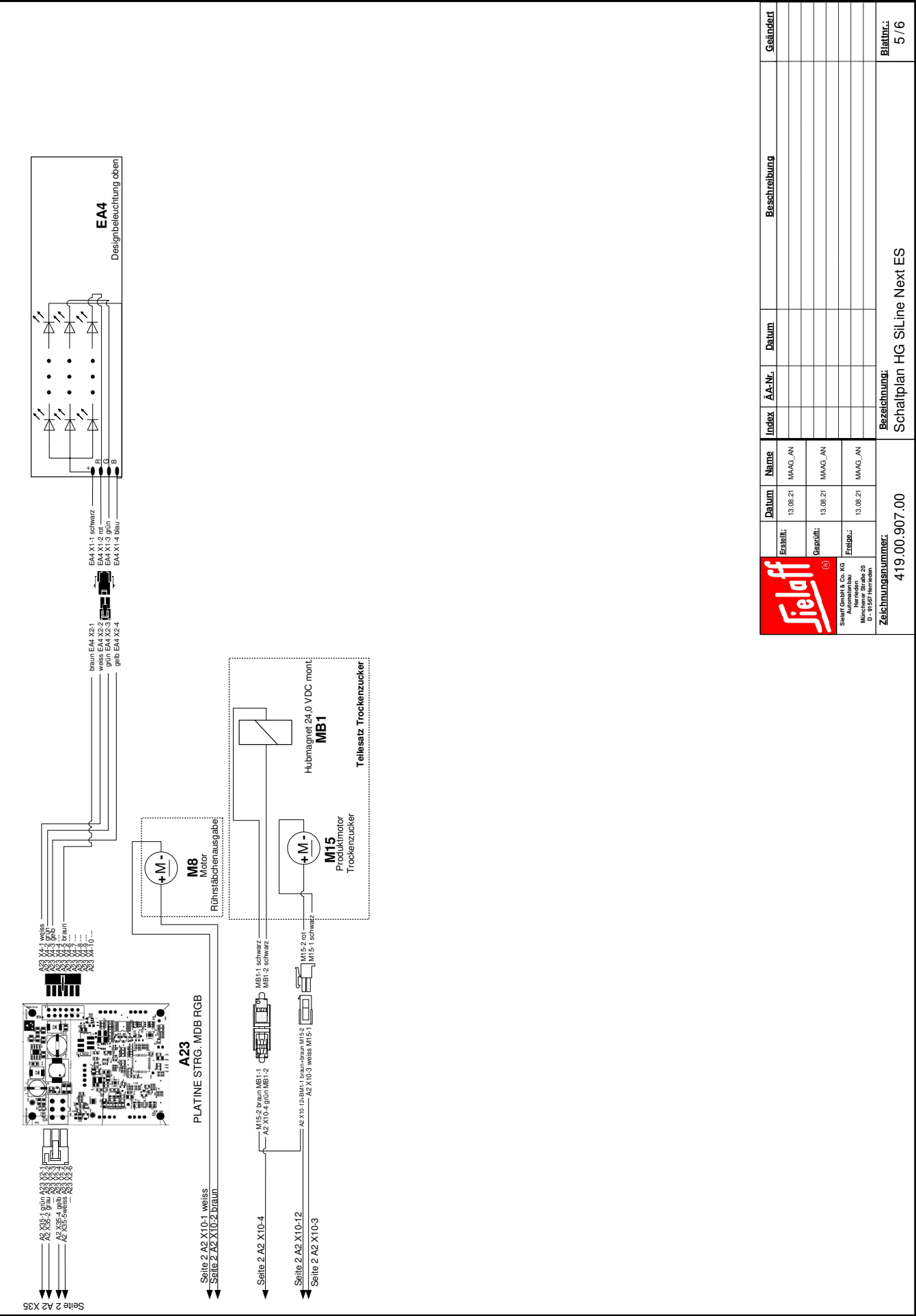
Espresso, 7 inch



Espresso, 7 inch



Espresso, 7 inch



Espresso, 7 inch

FC1	9852043003	SICHERUNGSAUTOMAT 1-POLIG 10A	B10 - 1TE
FC2	9852133900	KFZ-SICHERUNG	32V /2A /GRAU
GP1	4090501400	FLÜGELZELLENPUMPE MONT.	
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	4180101300	TASTATUR VORM.	3.60.101.359/0000
SF14	4170052500	Schlüsselschalter kpl. 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	4140155500	Display kpl. mont. HMI	SiLine
A18	4140057100	PLATINE LUEFTERANPASSUNG BEST.	PWM DC
A19	4190050200	PLATINE ZUSCHALTUNG 24V BEST.	
A20	4190051600	PLATINE MDB VERTEILUNG BEST.	90*50MM
A21	6990059300	PLATINE DC/DC - TFT BEST.	
A22	4190056800	TFT-DISPLAY 17 ZOLL OH. TOUCH	DMXX5542 /12V DC
A23	6500052400	PLATINE STRG. MDB RGB BEST.	62X75MM
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 / TP5F-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
M8	700039900		
M9	9852792710	Getriebemotor DC 24V m.	Zahnscheibe
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	9852756901	Gleichstrom Getriebemotor 24V	
MB1	4190151500	Hubmagnet 24,0VDC mont.	
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	
EA8	4040053500	Lampe vorm. 2-pol.Litze	



Jeldoff GmbH & Co. KG
Automatenbau
Mandener Straße 20
D-31857 Herforden

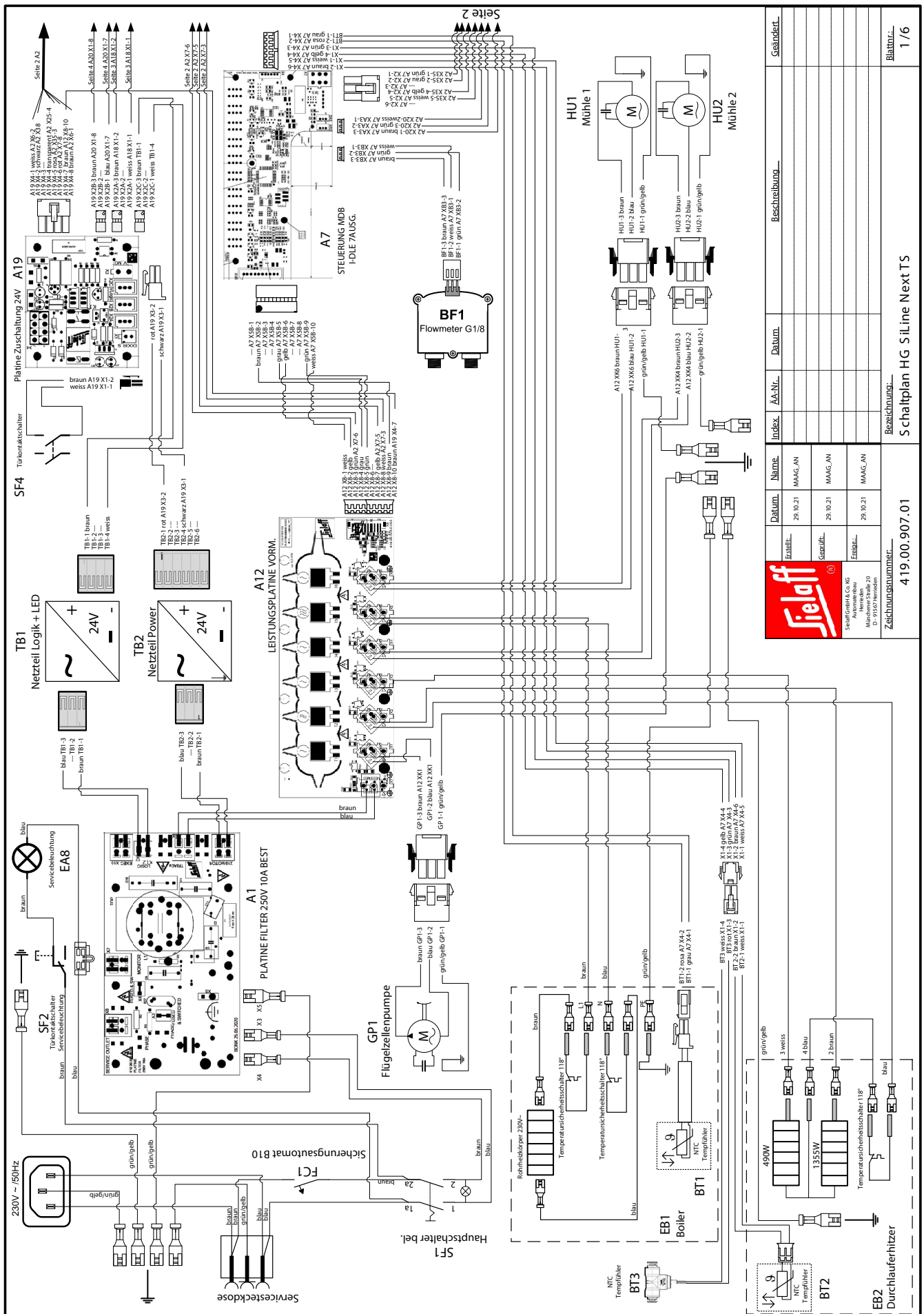
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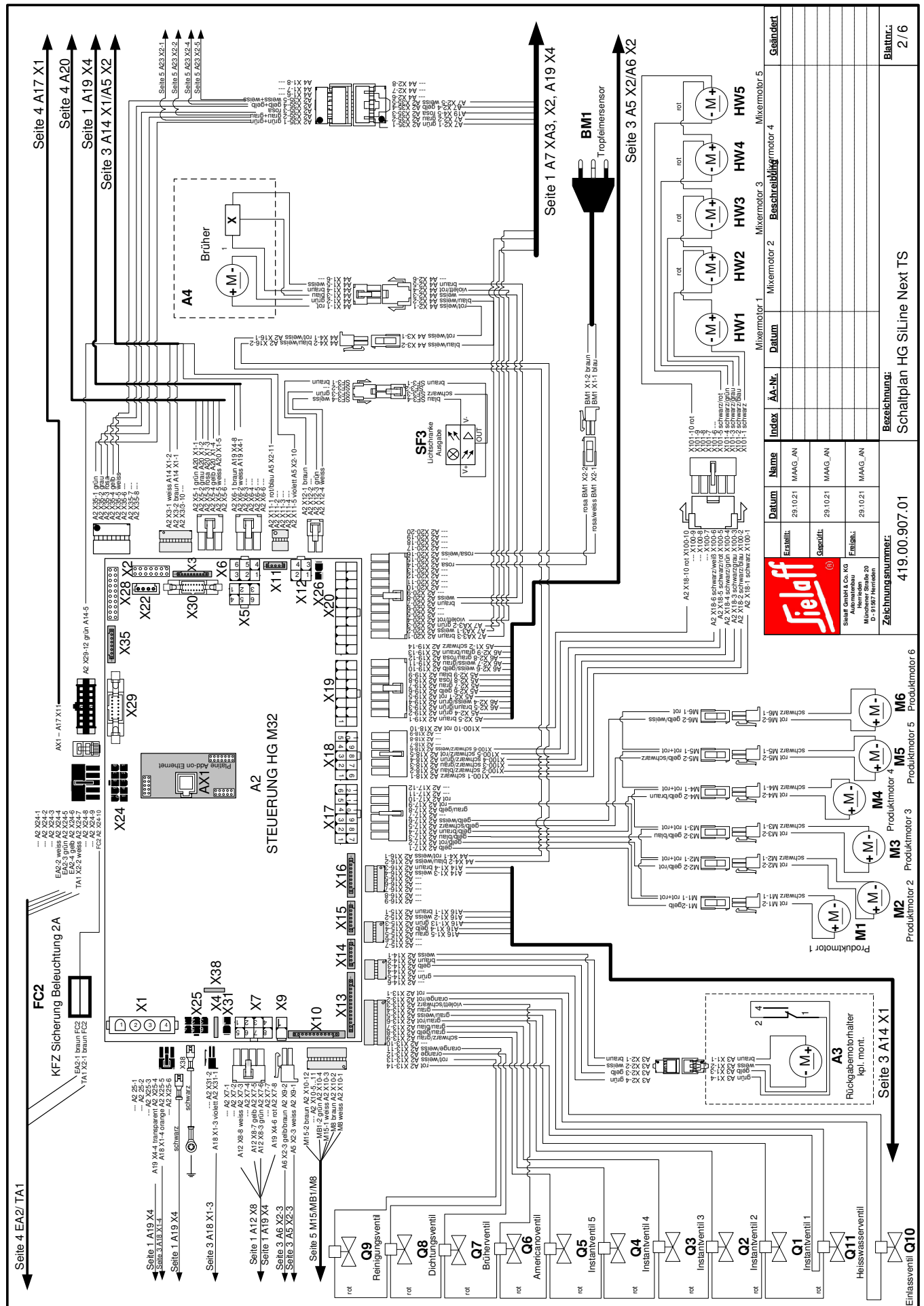
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Blattnr.: 6 / 6

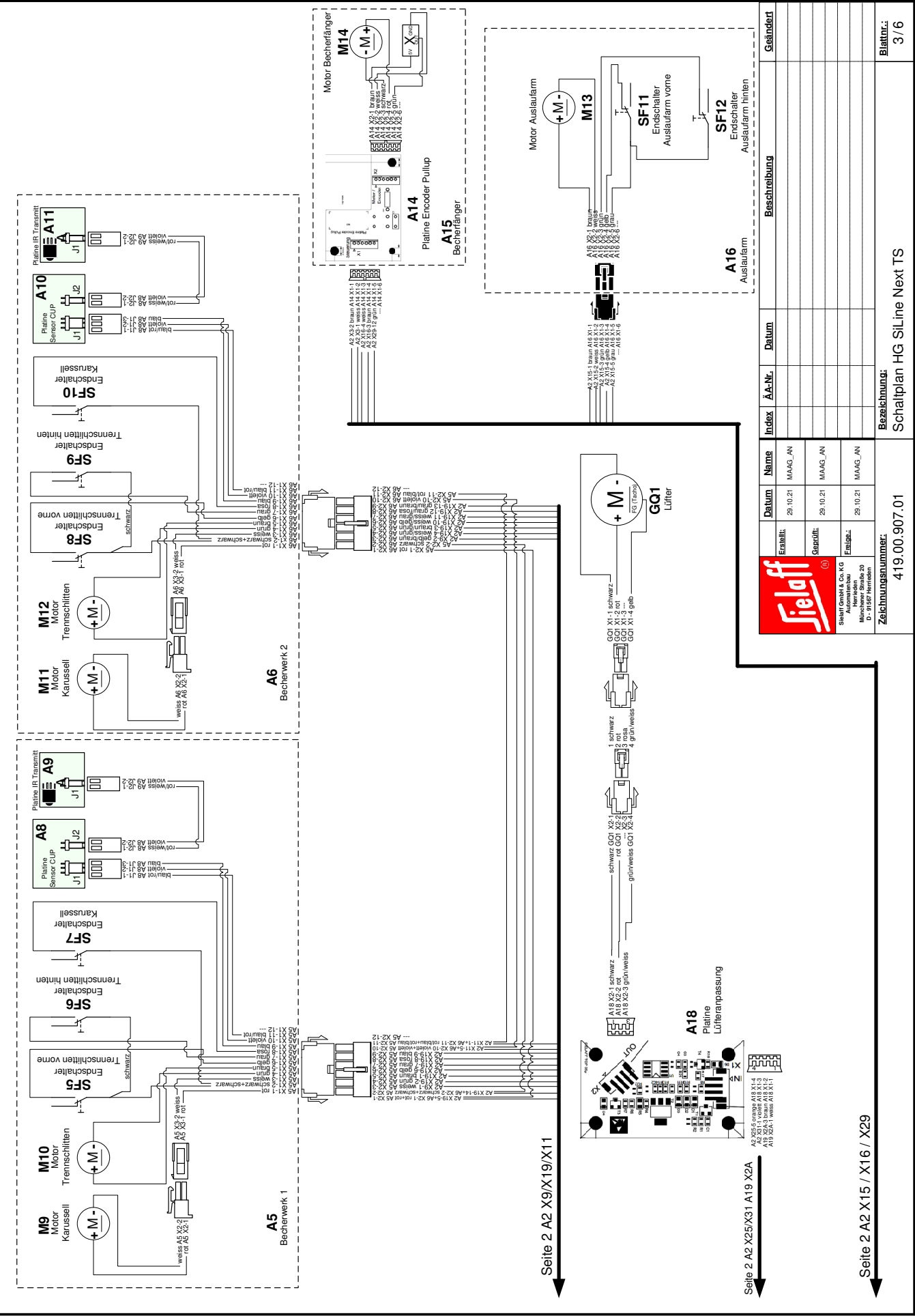
10. Circuit diagrams (only Espresso, 27 inch)



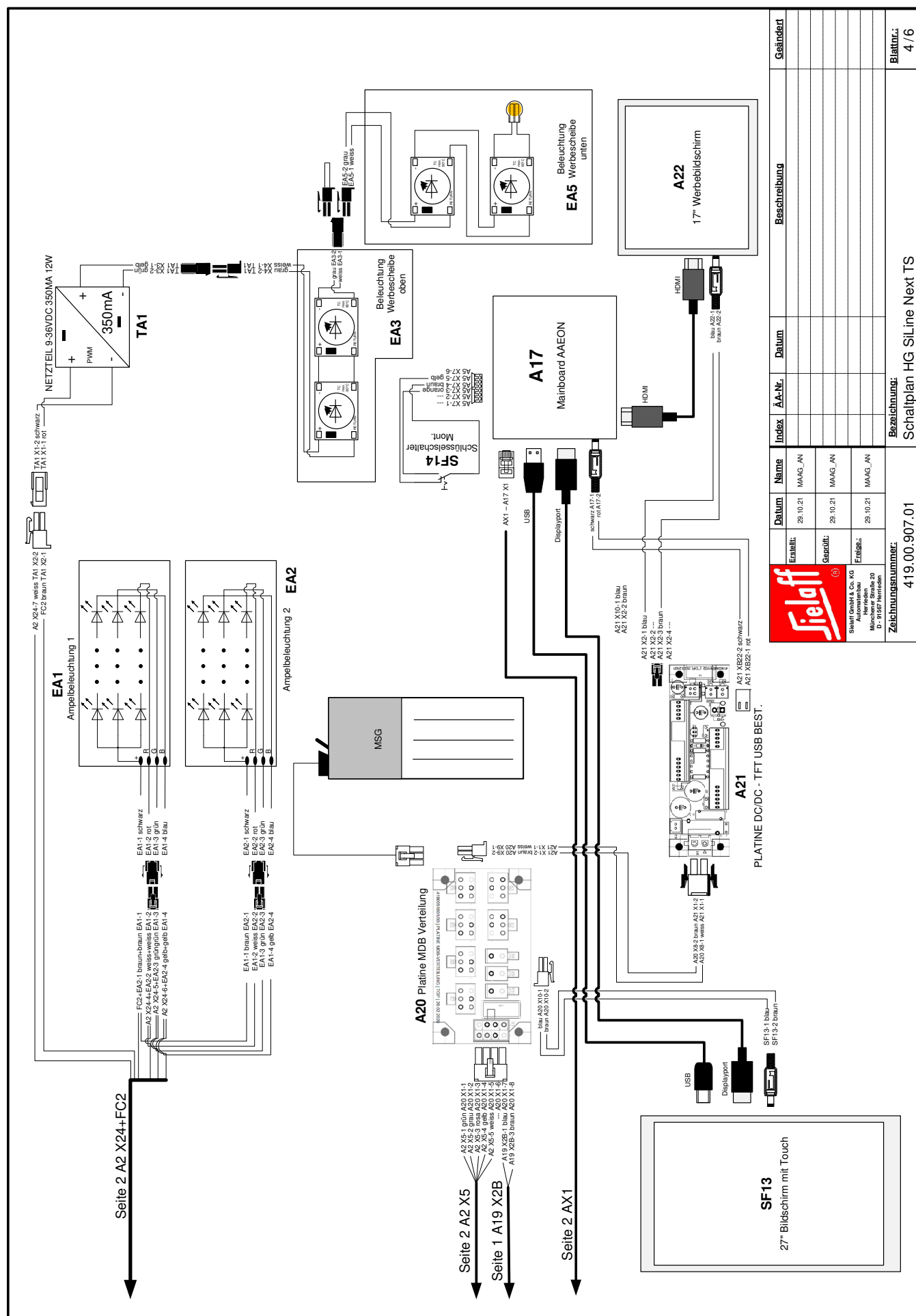
Espresso, 27 inch



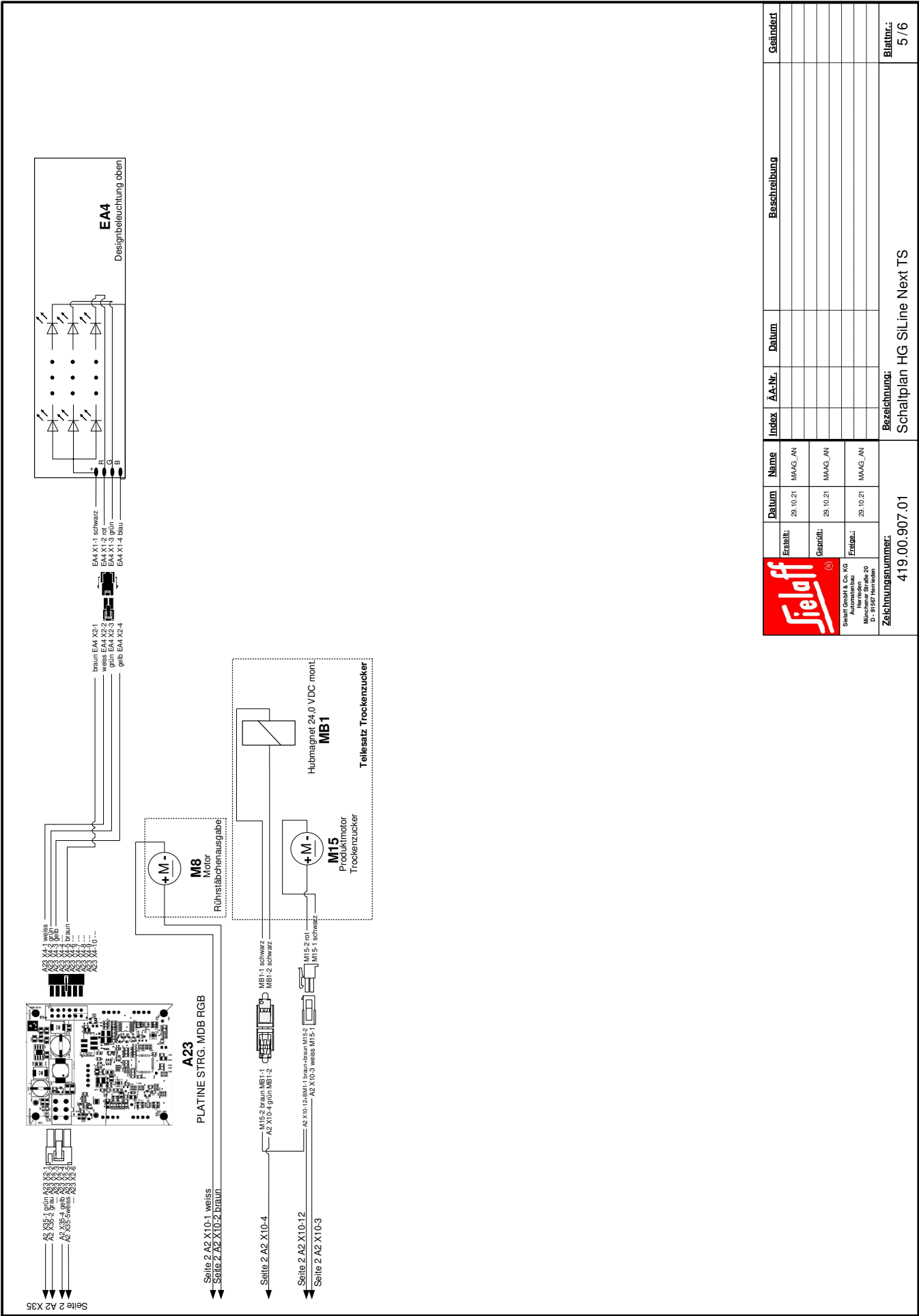
Espresso, 27 inch



Espresso, 27 inch

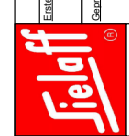
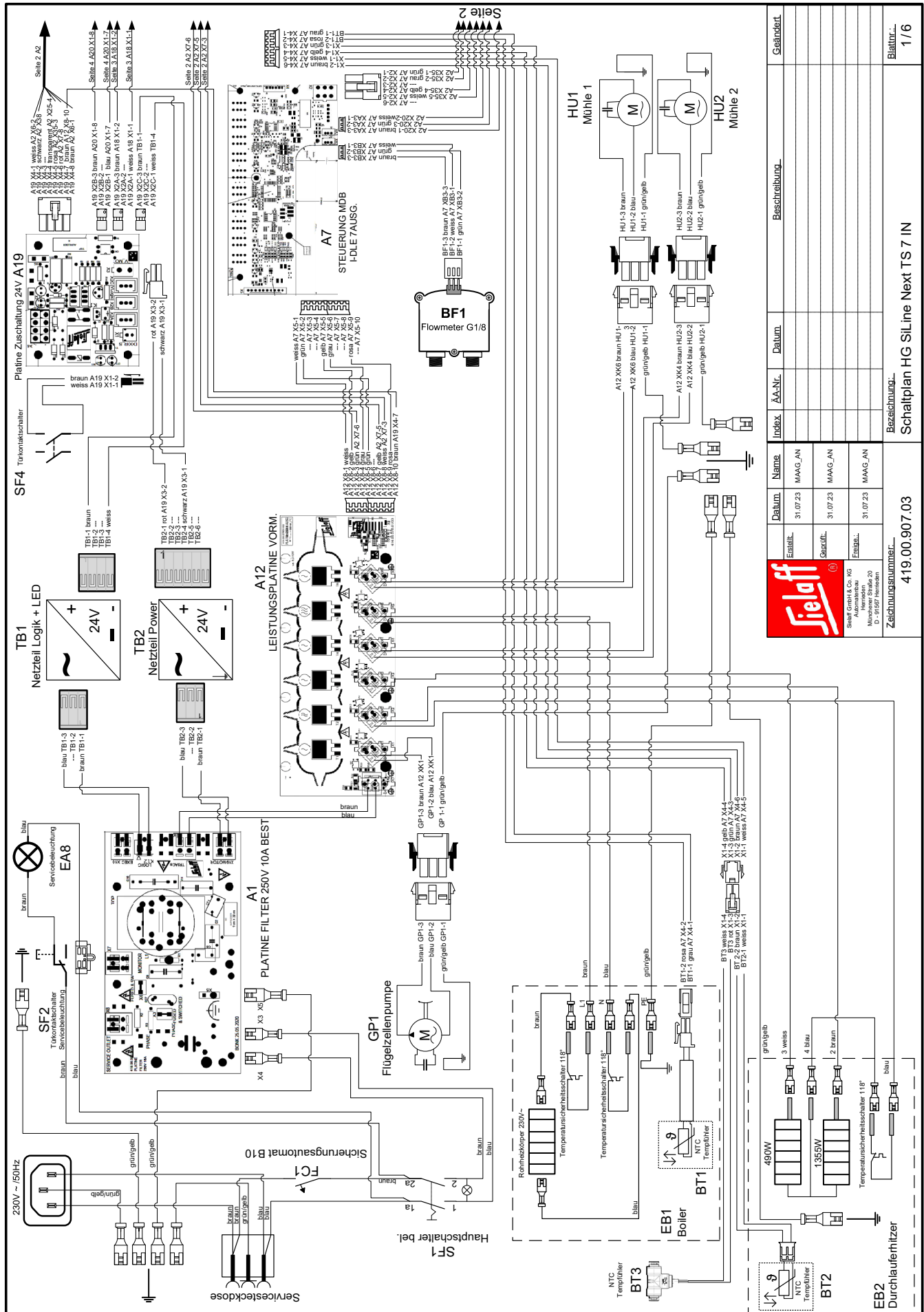


Espresso, 27 inch



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28.10.21			MAAG_AN					
Freigegeben:			MAAG_AN					
28.10.21			MAAG_AN					
Bezeichnung:							Blattnr.: 5/6	
Schaltplan HG SiLine Next TS								

11. Circuit diagrams (only Instant)



Jelaff GmbH & Co. KG
Am Mühlengraben 20
41900 Krefeld, Germany

Erstellt: 31.07.23
Geprüft: 31.07.23
Freigegeben: 31.07.23

MAAG_AN
MAAG_AN
MAAG_AN

Index

AA-Nr.

Datum

Beschreibung

Geändert

Blatt...

1 / 6

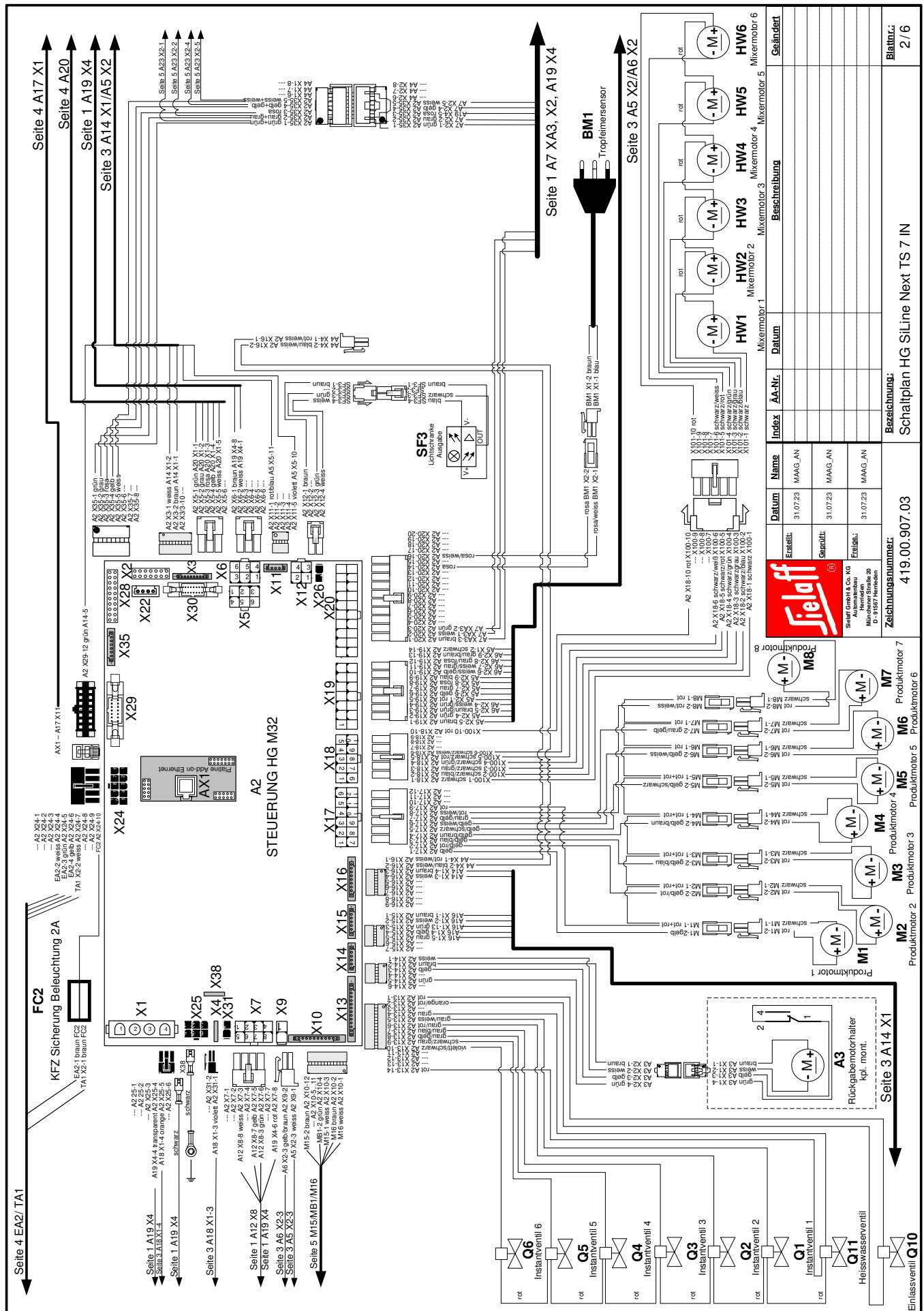
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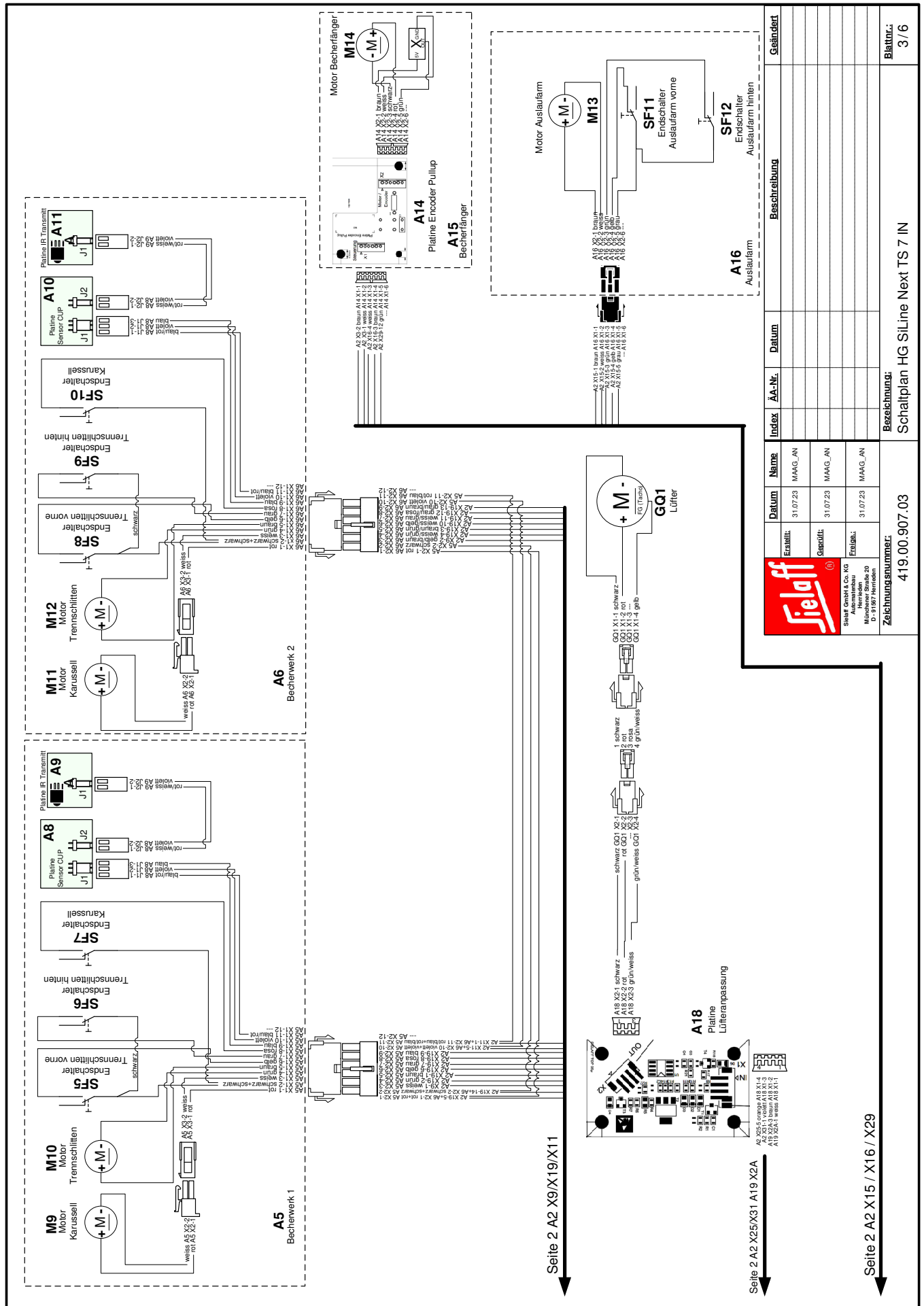
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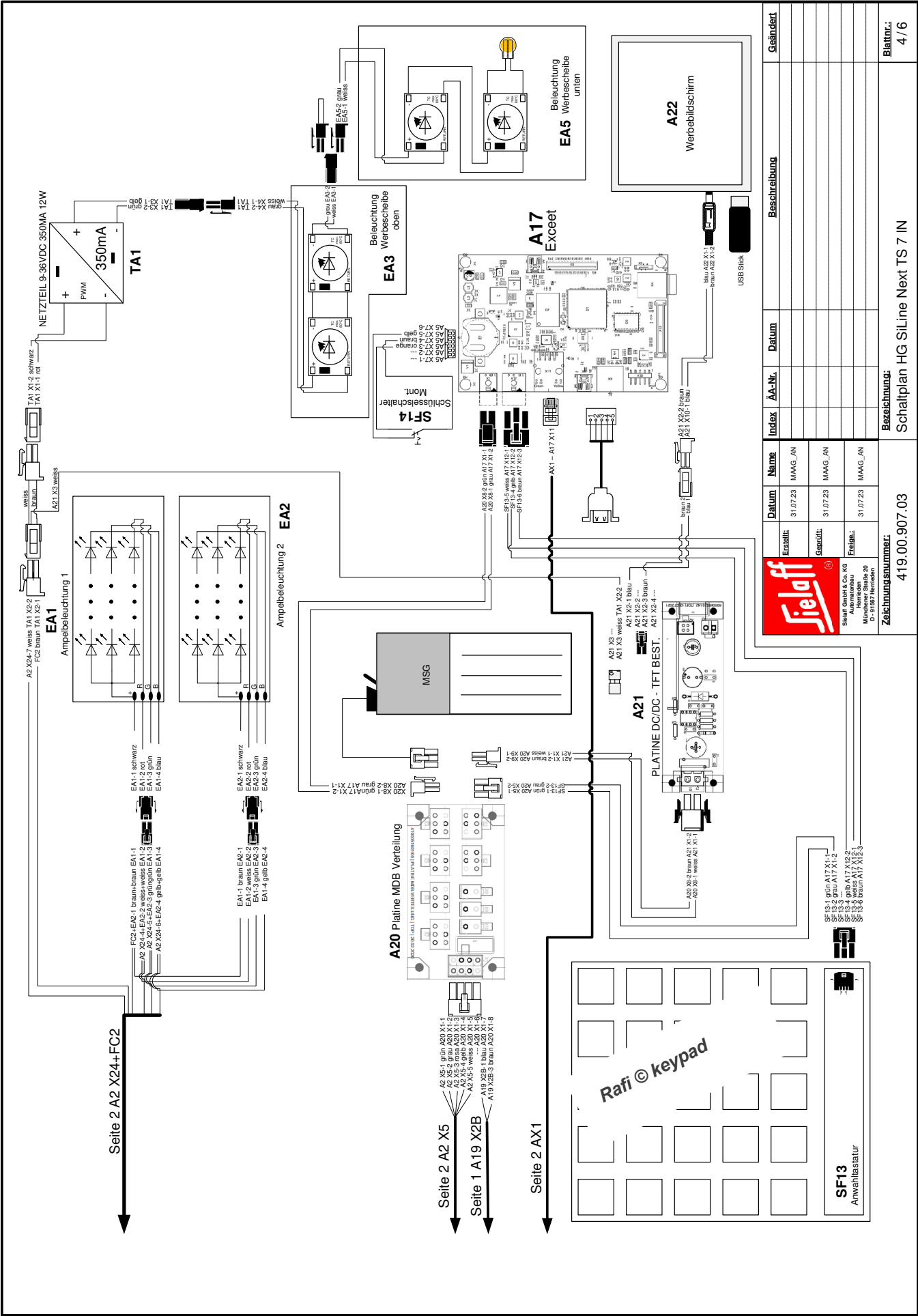
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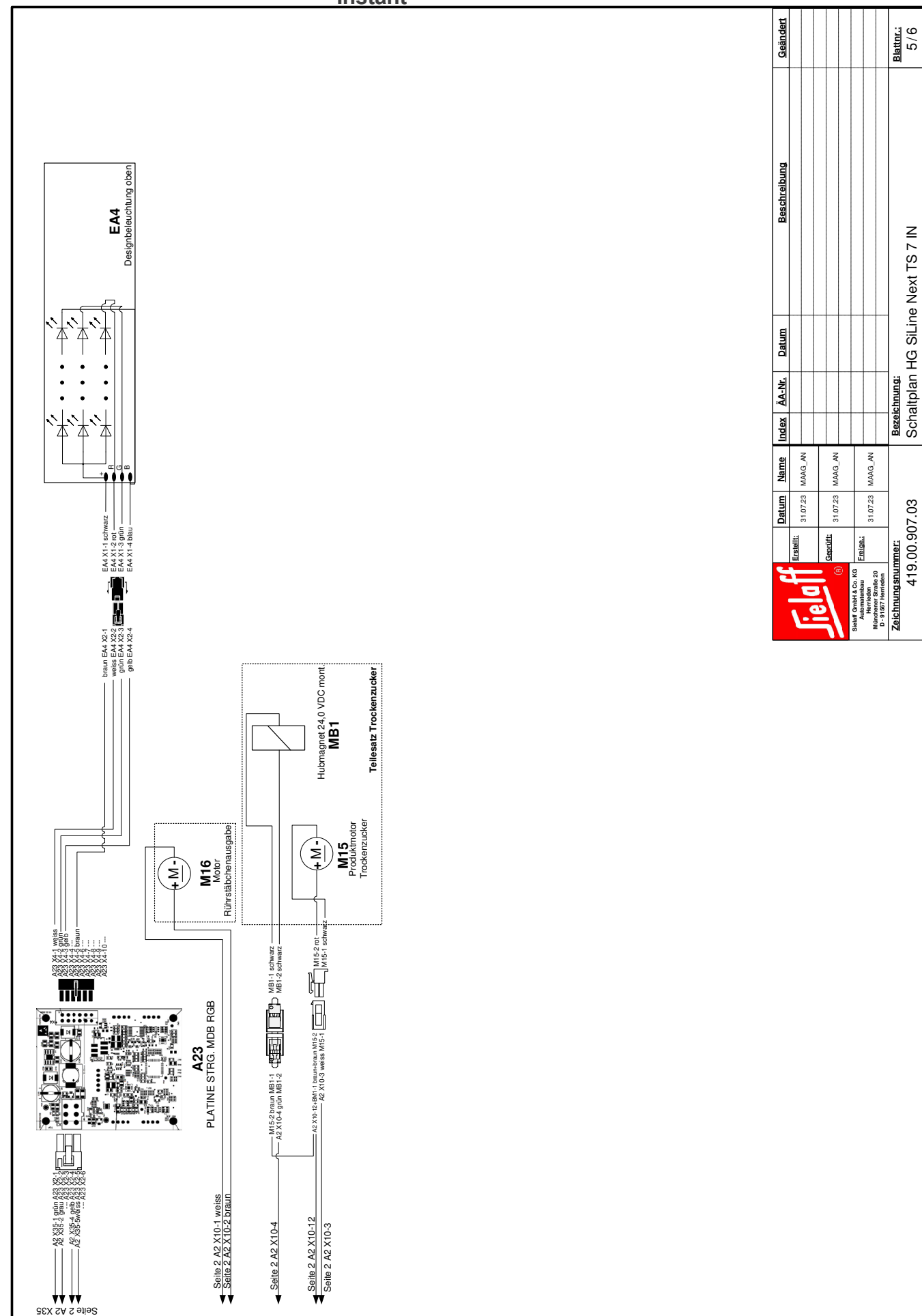
Instant



Instant



Instant



Instant

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FC2	9852133900	KFZ-SICHERUNG	32V /2A /GRAU	
GP1	4090501400	FLÜGELZELLENPUMPE MONT.		
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	9855353300	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	4180101300	TASTATUR VORM.	3.60.101.359/0000	
SF14	4170052500	Schlüsselschalter kpl. mont.		
EB1	4047816700	BOILER VORM.	2,0 kW /HG NEXT	
EB2	4190012300	DURCHLAUFERHITZER	DUAL	
BT1	9851540014	Temperaturfühler NTC-300C	1500C G1/8 Leitung0,3m+ Molex	
BT3	4190012800	TEMPERATURSENSOR AVS		
A1	4190050300	PLATINE FILTER 250V 10A BEST.		
A2	4047050000	Steuerung HG M32	ZWEISTUFIG VG-2 ÜSk-2	
A3	4190161800	RÜCKGABEMOTORHALTER MONT.		
A5	4190306900	BECHERWERK LI. 80MM MONT.		
A6	4190406900	BECHERWERK RE. 80MM MONT.		
A7	4190050100	STEUERUNG MDB -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	4140155500	Display kpl. mont. HMI	Sil.ine	
A18	4140057100	PLATINE LUEFTERANPASSUNG BEST.	PWM DC	
A19	4190050200	PLATINE ZUSCHALTUNG 24V BEST.		
A20	4190051600	PLATINE MDB VERTEILUNG BEST.	90*50MM	
A21	6990059300	PLATINE DC/DC - TFT BEST.		
A22	4190056800	TFT-DISPLAY 17 ZOLL OH. TOUCH	DMXS542 /12V DC	
A23	6500052400	PLATINE STRG. MDB RGB BEST.	62X75MM	
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 / TP5F-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
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
M7	4120052600	GETRIEBEMOTOR DC 24V		TROCKENZUCKERANTRIEB
M8	4120052600	GETRIEBEMOTOR DC 24V		TROCKENZUCKERANTRIEB
M9	9852792710	Getriebemotor DC 24V m.		Zahnscheibe
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		29 / ANTRIEB BECHERWERK
M15	9852756901	Gleichstrom Getriebemotor 24V		
M16	7000039900	Getriebemotor DC 24V m.		
BM1	4190151500	Hubmagnet 24,0 VDC mont.		
HW1	4040054200	Tropfwassersensor kpl.		
HW2	4040033000	Mixerhalterung inkl.Motor		
HW3	4040033000	Mixerhalterung inkl.Motor		
HW4	4040033000	Mixerhalterung inkl.Motor		
HW5	4040033000	Mixerhalterung inkl.Motor		
HW6	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		OBERN
EA4	3440053300	LED MODUL RGB STREIFEN 6-FACH		LACKIERT
EA5	4140056100	KV LED BELEUCHTUNG SCHEIBE		
EA8	4040053500	Lampe vorm. 2-pol.Litze		



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Datum	Name	Index	AA-Nr.	Datum	Beschreibung	Geändert
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Geprüft: 31.07.23	MAAG_AN					
Freigez. 31.07.23	MAAG_AN					

Zeichnungsnummer: 419.00.907.03

Bezeichnung: Schaltplan HG SiLine Next TS 7 IN

Blattnr.: 6 / 6

12. Appendix A (Coil table)

Individual menu items may not apply to your vending machine.

Tab	Menu	Function	User	Filler	Operator	Technician	Sielaff
Role description			Without rights (At the beginning of the service menu)			Service technician from the customer	Sielaff technician with all rights
Start menu	Whole page	Navigation	1	1	1	1	1
	Full cleaning		0	1	1	1	1
	Test vend		0	1	1	1	1
	Module test		0	1	1	1	1
	Read out statistics		0	1	1	1	1
	Fill change		0	1	1	1	1
	Show errors		1	1	1	1	1
	Switch to EcoMode		0	1	1	1	1
Show statistics	Whole page	Navigation	1	1	1	1	1
	Summary of short-term statistics		0	0	1	1	1
	Delete short-term statistics		0	1	1	1	1
	Sales (short term per selection)		0	1	1	1	1
	Total sales		0	0	1	1	1
	Journal		0	1	1	1	1
	Search		0	1	1	1	1
	Delete journal		0	0	1	1	1
	Data transfer	Read out statistics without reset	0	1	1	1	1
		Read out statistics with reset	0	1	1	1	1
		Read out journal	0	1	1	1	1
		Read out configuration	0	1	1	1	1
		Read out logs	0		1	1	1
		Read configuration	0	1	1	1	1
		SW update	0	1	1	1	1
	Cashing up		0	0	1	1	1
	Cleaning operations		0	1	1	1	1
	Tube levels		0	1	1	1	1
	Telemetry				1	1	1
Cleaning	Whole page	Navigation	1	1	1	1	1
	Screen cleaning		1	1	1	1	1
	Full cleaning SÜ		0	1	1	1	1

Product configuration	Whole page	Navigation	2	1	1	1	1
	Configuration		2	1	1	1	1
	Configure ingredients		2	1	1	1	1
	Shelf configuration		2	2	1	1	1
	Test vend		0	1	1	1	1
	Youth protection		2	1	1	1	1
	Groups		2	1	1	1	1
	Alternative motors		2	2	1	1	1

Payment system configuration	Whole page	Navigation	2	2	1	1	1
	General		2	2	1	1	1
	Coin mechanism		2	2	1	1	1
	Banknote reader		2	2	1	1	1
	Cashless 1		2	2	1	1	1
	Cashless 2		2	2	1	1	1
	Token		2	2	1	1	1
	Hopper		2	2	1	1	1
	Printer		2	2	1	1	1

Machine configuration	Whole page	Navigation	1	1	1	1	1
	Service codes		2	2	1	1	1
	Date/time		1	2	1	1	1
	Refrigeration unit		2	2	1	1	1
	General		2	2	1	1	1
	Version info		1	1	1	1	1
	Multimedia		2	2	1	1	1
	Network settings		2	2	1	1	1
	Country settings		2	2	1	1	1
	Access configuration		2	2	1	1	1

Test vend	Whole page	Navigation	0	0	0	0	0
	Start sale		0	1	1	1	1
	Start sale (with credit)		0	1	1	1	1

Fill change	Whole page	Navigation	2	0	1	1	1
	Empty all tubes		0	1	1	1	1
	Bring tubes to target		0	1	1	1	1

0 = Not displayed

1 = Full access

2 = Displayed but cannot be used (greyed out)

**TIP**

With further development work some menus may differ from the software displayed.



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