GB

Pressing for Excellence

Operating instructions

Translation of the original operating instructions

Steam generator

VEIT SG67

CE

Read the manual carefully before starting work! Please retain the manual for future use!

155066, VEIT SG67, Version 14, en_GB
30.09.2022

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1 General information

1.1 Type plate

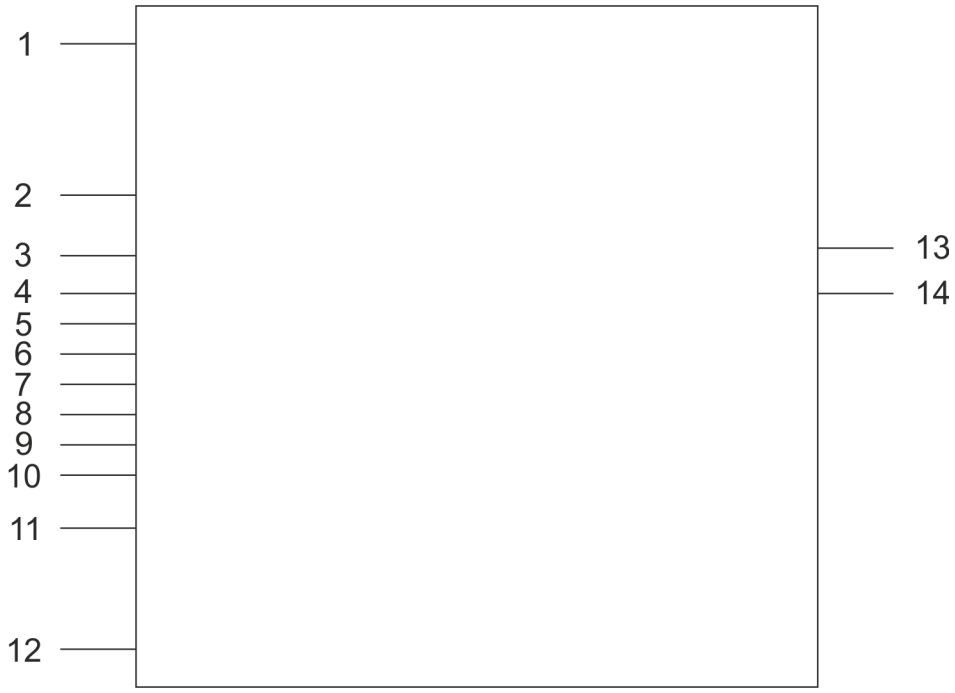

Fig. 1: Type plate

1 Address
2 Device designation
3 Device type
4 Year of construction
5 Connection ratings
6 Boiler number
7 PS: Maximum operating pressure
PB: Pre-set operating pressure
V: Boiler volume
8 Water capacity
9 Testing pressure
10 Operating temperature
11 Pressure equipment directive
12 Serial number
13 Article number
14 Weight

1.2 Declaration of conformity

EU-Konformitätserklärung / EU declaration of conformity / Déclaration UE de conformité

Manufacturer: **VEIT**

Model: **Dampferzeuger SG67**
Steam Generator SG67

Type: SG67 (2367)

serial number: _____

CE marking affixed: _____

Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of the manufacturer.
La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.

Hiermit erklären wir, dass die Bauart des genannten Produkts in der gelieferten Ausführung folgenden einschlägigen Richtlinien entspricht:
Herewith we declare that the supplied model complies with the following provisions applying to it:
Par la présente, nous déclarons, que le modèle fourni correspond aux dispositions pertinentes suivantes:

Directive 2014/35/EU (L 96/357 - 29.03.2014 - LVD)

Directive 2014/30/EU (L 96/79 - 29.03.2014 - EMCD)

Angewandte harmonisierte Normen, insbesondere:
Applied harmonized standards, in particular:
Normes harmonisées utilisées, notamment:

EN ISO 12100:2010

EN 60204-1:2018

EN 55014-1:2017

EN 55014-2:2015

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen:
Authorized representative for the compilation of the technical documents:
Fondé de pouvoir pour l'établissement des documents techniques:

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Zusätzlich angewandte Standards:
Additionally applied standards:
Normes appliquées supplémentaires:

TRD 801 supplemented by AD 2000

Konformitätsbewertungsverfahren nach LVD:
Conformity assessment procedures according LVD:
Procédures d'évaluation de la conformité selon LVD:

Modul: A

Notifizierte Stelle:
Notified body:
Organisme notifié:

CE 0036 / TÜV SÜD Industrie Service GmbH / Westendstr. 199 / D-80686 München

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Landsberg, 27.07.2022

i.V.

Sascha Oehl
(Director Product and Innovation)

Fig. 2: Declaration of conformity

2 Intended use

This device has been developed, designed and built for industrial and commercial use only. The device is intended for operation in closed rooms only. The steam generator is equipped with an electrical resistance heating system and is used to generate water steam for industrial and commercial purposes.

In general, the steam generator must only be filled with normal softened or distilled water!

Only cold water must be used as the feedwater.

Additives must only be added to the feedwater with permission of VEIT GmbH.

WARNING!

This device is exclusively designed for the purpose mentioned above. Any other or further use as well as any rebuilding or retrofitting of the device without the written consent of the manufacturer will be deemed as not in accordance with the intended use. The manufacturer shall not be held liable for damages caused by such use. The user alone bears the risk. This also applies to the installation and setting up of safety devices and valves as well as to any changes to load-bearing parts of the device.

Intended use also includes adherence to operating instructions and compliance with the inspection and maintenance intervals prescribed by VEIT.

2.1 Overview of the device

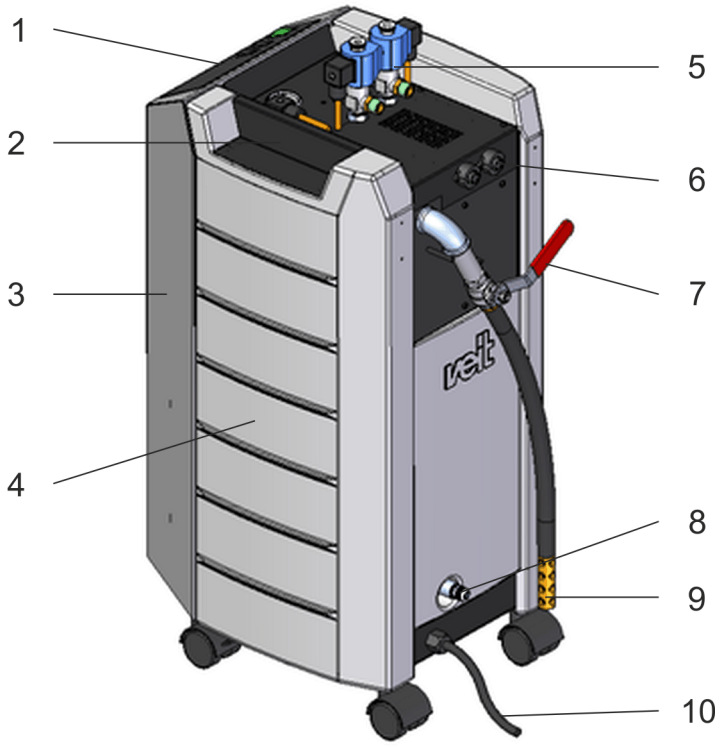

Fig. 3: Overview of the device

1 Control panel
2 Cover of feedwater tank
3 Switch cabinet
4 Feedwater tank
5 Steam connection for iron
6 Special small socket
7 Blow-down valve with locking strap
8 Vent valve
9 Diffuser
10 Power cable

2.2 Technical data

Dimension sheet

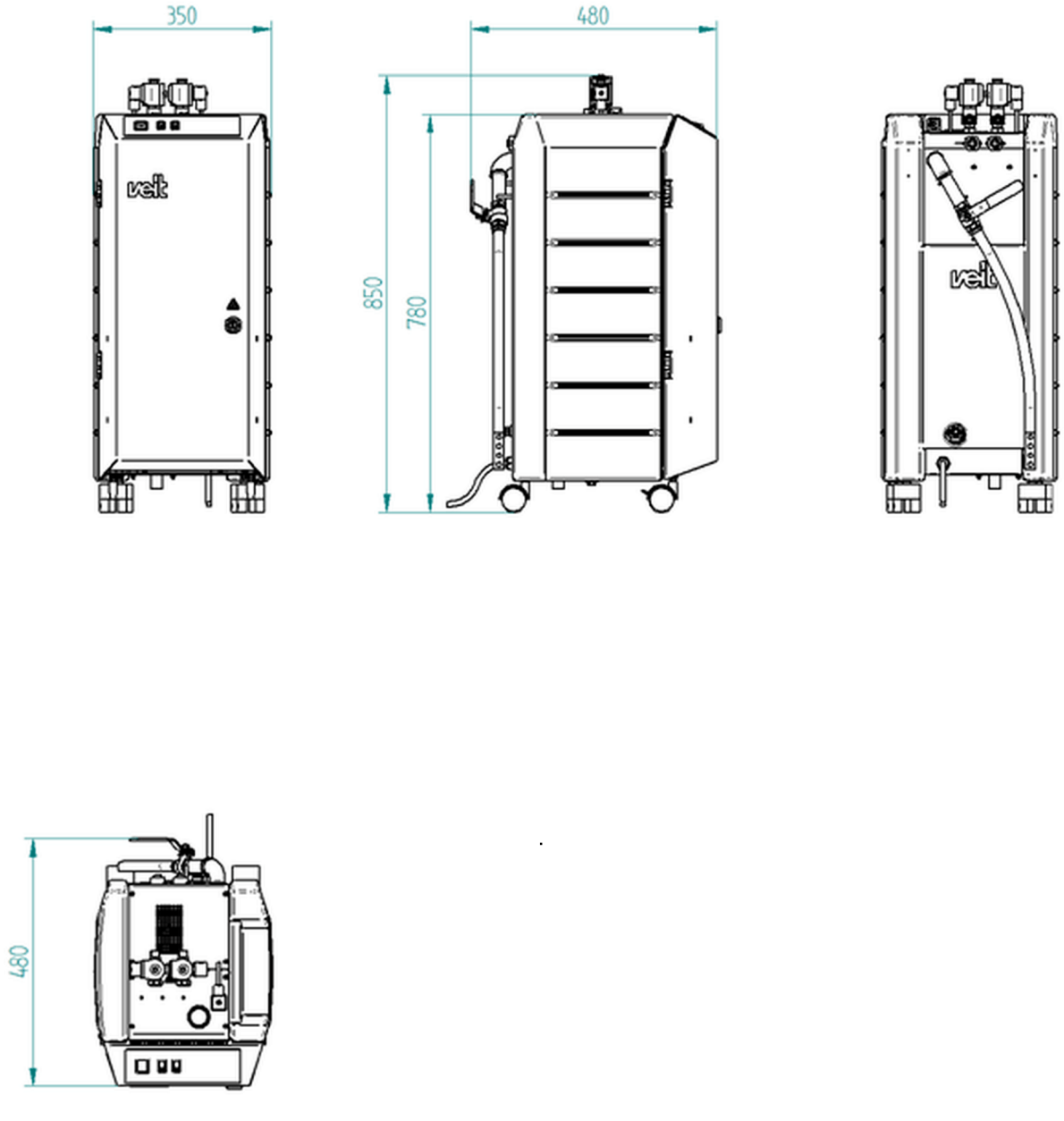

Fig. 4: Dimension sheet

Tab. 1: Dimensions and weight

Width	350 mm	13.5 inches
Depth	480 mm	19.0 inches
Height	850 mm	33.5 inches
Weight	27.5 kg	61 lbs

Tab. 2: Article number

	VEIT SG67 2.2 kW	**VEIT SG67 4.4 kW**	**VEIT SG67-C 4.4 kW**	**VEIT SG67 6.6 kW**
Article number	150042	150000	150044	149801

Tab. 3: Power supply

	VEIT SG67 2.2 kW	**VEIT SG67 4.4 kW**	**VEIT SG67-C 4.4 kW**	**VEIT SG67 6.6 kW**
Supply voltage	230 V	400 V	400 V	400 V
Power	2.2 kW	4.4 kW	4.4 kW	6.6 kW
Current consumption	10.5 A	10.5 A	10.5 A	10.5 A
Protection on the line side	16 A	16 A	16 A	16 A
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz

Tab. 4: Water supply

Connection	Article number 152283, optionally

Tab. 5: Steam supply

	VEIT SG67 2.2 kW	VEIT SG67 4.4 kW	VEIT SG67-C 4.4 kW	VEIT SG67 6.6 kW
Connection	3/8"	2 x 3/8"	2 x 3/8"	2 x 3/8"
Operating pressure	3.5 - 4.0 bar / 0.35 - 0.40 MPa	3.5 - 4.0 bar / 0.35 - 0.40 MPa	2.5 - 5.0 bar / 0.25 -0.50 MPa	3.5 - 4.0 bar / 0.35 -0.40 MPa
Saturated steam capacity	3 kg/h	6 kg/h	6 kg/h	9 kg/h
Steam consumers	1 iron	2 irons	2 irons	2 irons

Tab. 6: Boiler

	VEIT SG67 2.2 kW	VEIT SG67 4.4 kW	VEIT SG67-C 4.4 kW	VEIT SG67 6.6 kW
Connected load without irons	2.2 kW	4.4 kW	4.4 kW	6.6 kW
Water capacity until reaching the minimum water level	3.0 l	3.0 l	3.0 l	3.0 l
Total boiler volume	6.5 l	6.5 l	6.5 l	6.5 l
Pre-set operating pressure	3.5 - 4.0 bar / 0.35 -0.4 MPa	3.5 - 4.0 bar / 0.35 -0.4 MPa	2.5 - 5.0 bar / 0.25 -0.5 MPa	3.5 - 4.0 bar / 0.35 -0.4 MPa
Maximum operating pressure	7 bar / 0.7 MPa	7 bar / 0.7 MPa	7 bar / 0.7 MPa	7 bar / 0.7 MPa
Saturated steam capacity	2.8 kg/h	5.7 kg/h	5.7 kg/h	8.6 kg/h

Tab. 7: General Data

Protection category	IPXXC

3 Safety

3.1 Safety instructions

In these operating instructions, warnings and notes are indicated by a symbol and a signal word.

The warning notes are structured hierarchically:

WARNING!
WARNING indicates a potentially hazardous situation which could result in death or serious injury.

CAUTION!
CAUTION indicates a potentially hazardous situation which could result in minor or moderate injury.

NOTICE!
NOTE indicates a potentially harmful situation which could result in damage to the machine and the surrounding area.

3.2 Warning symbols and danger signs

On the device and in these operating instructions, the following designations or symbols are used for particularly important information:

WARNING!
Replacement of mains connection cable
Electric shocks may lead to death or serious injuries.

– The mains connection cable must only be replaced by a member of the VEIT service team or a person commissioned and instructed by VEIT!

WARNING!

Faults in electrical system

Electric shocks may lead to death or serious injuries.

– Faults in the electrical system must only be resolved by an electrically skilled person!

WARNING!

Risk of burns

Symbol indicating **risk of burns** caused by hot steam and hot surfaces.

– In general, there is a risk of burns on the steam generator caused by hot steam and hot surfaces.
– Do not touch the steam valves on the upper side of the device.

WARNING!

– Do not direct the steam jet at persons. Risk of burns!
– Do not direct the steam jet at the device. Risk of damage to the electrics!

WARNING!

In case steam escapes from the device there is risk of burns!

– immediately stop the device
– make sure the leak is removed properly
– Please observe the notes on maintenance in *Chapter 8.1 'Maintenance and inspection table' on page 40* of these instructions.

WARNING!

– Do NOT start up the steam generator when casings/covers are missing!

WARNING!

Prior to opening the device:

– Set the on/off switch to “0”.
– Set the switch for iron 1 and iron 2 to “0”.
– Unplug the connector of the mains connection cable.
– Allow the steam generator to cool down.
– Make sure that the steam generator is depressurised.

WARNING!

– Unplug the mains disconnecting device (unplug the connector of the mains connection cable) to switch off the steam generator in the event of danger.

WARNING!

Only move the steam generator in an upright position

– The steam generator must only be moved/ transported when in an upright position!

CAUTION!

– When laying the mains connection cable make sure that it is optimally protected against mechanical damage and that there is no risk of tripping over!
– Make sure that the mains connection cable cannot contact any hot surfaces!

CAUTION!

– The mains disconnecting device is the connector of the mains connection cable. It must always be freely accessible! Direct connection without connector is not permissible!

CAUTION!

– The steam generator must only be operated with the voltage, current and frequency indicated in the operating instructions and on the type plate.

CAUTION!

– The steam generator must always be freely accessible.
– Do not cover the steam generator.

CAUTION!

– Prior to commissioning, the steam generator must be checked for visible damage - If damages are present, repairs/servicing must be arranged for immediately => Do NOT start up the steam generator!
– Prior to starting work, check the steam hoses for damages. Immediately replace used or porous hoses.

CAUTION!

– Only spare parts and accessories approved by VEIT may be used!

CAUTION!

– Unauthorised modifications to the product are not permitted. The manufacturer cannot be held liable for accidents/damages resulting from unauthorised modifications!

CAUTION!

– Blow-down must only be carried out by instructed personnel observing the specified safety instructions! ↳ *Chapter 8.2 'Blow-down' on page 42*

CAUTION!

– Following blow-down, the ball valve must be closed again and locked using the locking strap!

CAUTION!

– Protect the machine against frost!

CAUTION!
Observe the following for automatic filling:
- Provide a shut-off valve in the water supply line in the building.
- Close the shut-off valve during interruptions of operation and after the end of operation.
- Regularly check that the connections are leak-proof and seated securely.

NOTICE!
Request to pay particular attention.

This symbol labels the connection points for the **protective conductor connection**.

Reference to external **operating instructions**.

3.2.1 Designation of the machine

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Asia:	+852 2111 9795
E-Mail:	service@veit.de

Spare parts

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America:	+1 770 8688060
Asia:	+852 28349986

3.3 Regulations

The built-in steam boiler of category I is produced according to TRD 801. According to article 1 (2) – f) of the pressure equipment directive 2014/68/EU this steam generator is not covered by the PED 2014/68/EU!

In the Federal Republic of Germany, these steam generators can be installed and operated without permission.

CAUTION!
In the Federal Republic of Germany, maintenance must be carried out by a “competent, authorised and instructed person”. (BetrSichV § 10 (Industrial Safety Regulation)).

Enclosed with the device you will find the certificate for the water pressure test and for the proper installation of the steam boiler unit.

The electrical equipment of the steam boiler complies with the relevant VDE-regulations. The local connection must be performed according to the regulations for technical connections of the authorised electric supply company.

3.4 Built-in safety devices

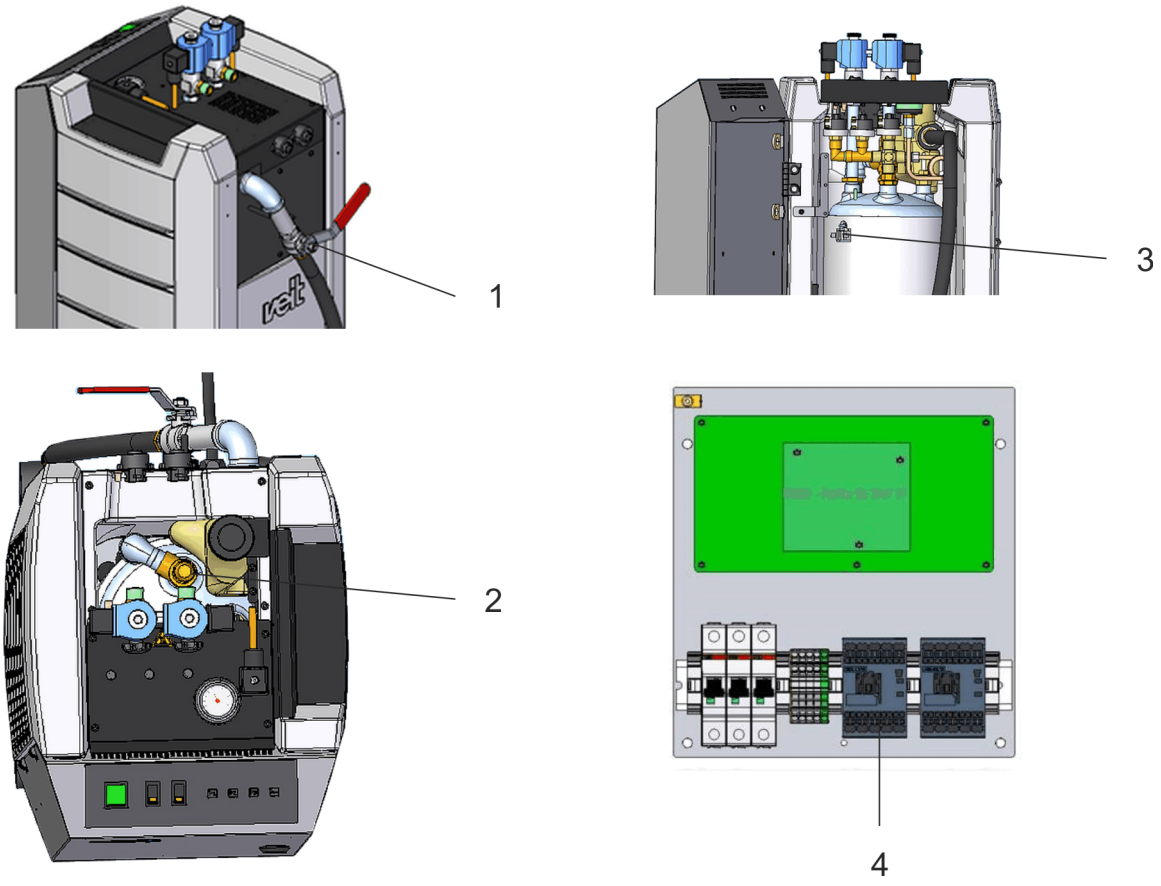

Fig. 5: Built-in safety devices

1 Locking strap for ball valve
2 Safety valve
3 Temperature limiter
4 Main contactor

The safety devices must be checked prior to initial start-up and at the specified intervals.

Tab. 8: Interval

t	Every day
w	Every week
m	Every month
j	Every year

Tab. 9: Inspection

S	Visual inspection
F	Function check
M	Measurement

CAUTION!

Built-in safety devices

The built-in safety devices must only be checked/ replaced by a VEIT service engineer or by trained and instructed skilled personnel.

Additional safety function

NOTICE!

Pump runtime monitoring

The pump runtime is monitored by the electronics. When a specified maximum time (4-5 minutes) is exceeded, an audible signal is triggered. Switching the device off and back on again acknowledges the fault and restarts the pump runtime. The cause of the fault must be removed (see chapter “Remedy of faults/elimination of defects”).

Pos.	Safety device	Interval	Inspection
1	**Locking strap for ball valve** A locking strap is used to protect the ball valve against unintentional opening.	t	S/F
2	**Safety valve** A TÜV-certified safety valve is used to prevent the permissible operating pressure from exceeding 7 bar.	Every 6 months	S/F
3	**Temperature limiter** The temperature limiter protects the steam generator against incorrect heating. The temperature limiter is mounted on the boiler wall and switches off the heating element in the event of overheating (180°C).	Every 6 months	S
4	**Main contactor** **Note:** The main contactor K1 is not available on the 2.2 kW version.	Every 6 months	S/F

NOTICE!

Performing the checks *Chapter 3.4.1 'Performing the checks' on page 21*

CAUTION!

Temperature limiter

In case the temperature limiter was triggered, the source of interruption must be determined and removed. Only then, the limiter may be replaced and the steam generator be restarted.

CAUTION!

Operating instructions

These operating instructions are a part of the device and must be available to operating personnel at all times. The safety instructions they contain must be followed. It is strictly forbidden to take safety devices out of service or to modify their function.

3.4.1 Performing the checks

Locking strap for ball valve (Pos. 1)

- Visual inspection for damage
- Function check: When the ball valve is in the closed position, it must be locked automatically by the locking strap.

Safety valve (Pos. 2)

- Visual inspection for damage
- Function check by means of “cracking open”

“Crack open” procedure

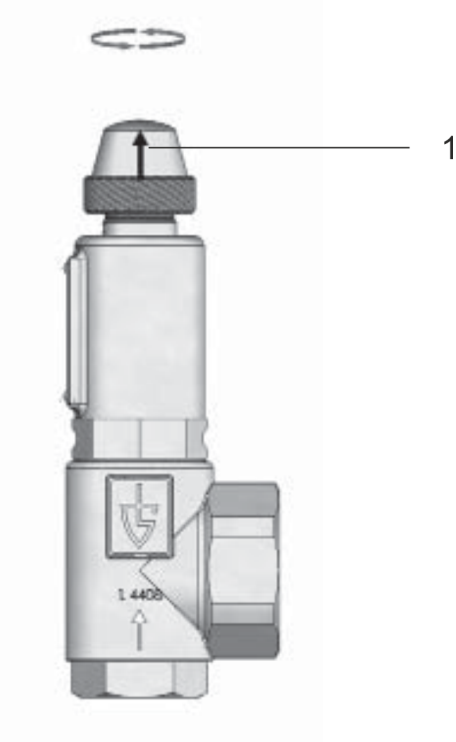

Fig. 6: Knurled nut of safety valve

1. Set the steam generator to its operating pressure.
2. Turn the knurled nut (1) counter-clockwise until steam escapes from the valve.

WARNING!
Risk of burns
– At the safety valve
– From escaping steam

Wear safety gloves to avoid burns.

3. Tighten the knurled nut again after 4-5 seconds.

NOTICE!
Only hand tighten the knurled nut. Do not use tool, such as water pump pliers, for example.

CAUTION!
Leaks on the safety valve
If the safety valve is leaking:

– Check if the knurled screw has been tightened properly by hand.
– If this does not remove the leaks, repeat the “crack open” procedure as described above 2-3 times. Accumulation of dirt might be the cause for the leak.
– If the leaks on the valve can still no be removed, the valve must be replaced.

Temperature limiter (Pos. 3)

- Visual inspection for damage and secure installation

Main contactor (Pos. 4)

- Visual inspection for damage
- Function check: The main contactor pulls in when the green rocker switch is set to the “ON” position, and drops out when the green rocker switch is set to the “OFF” position.

CAUTION!

Electrically skilled person

This check must only be carried out by an electrically skilled person.

3.4.2 Warning label

Warning label for blow-down

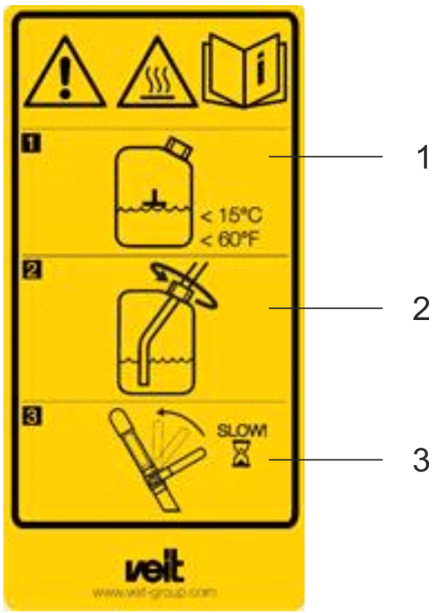

Fig. 7: Warning label for blow-down

1 Fill the blow-down tank with cold water (<15°C) until reaching the mark!
2 Screw the screw cap tightly onto the tank!
3 Slowly and completely open the blow-down ball valve!

The warning label is located on the the back of the machine.

Incorrect blow-down poses a risk of scalding / risk of burns.

Read *Chapter 8.2 ‘Blow-down’ on page 42* in the operating instructions.

Warning label for SteamClean

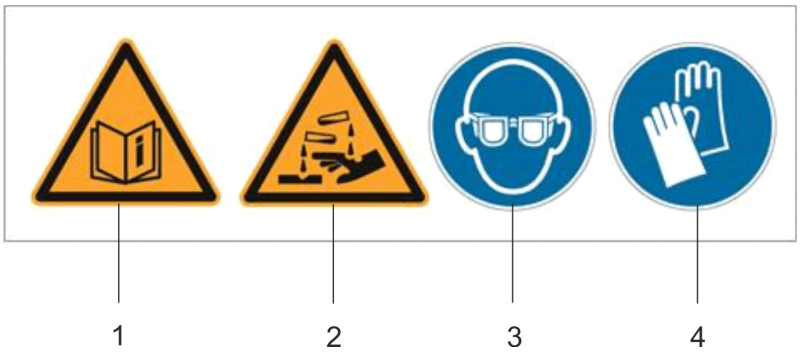

Fig. 8: Warning label for SteamClean

1 Read *Chapter 8.3 'Cleaning program (cleaning version)' on page 45* in the operating instructions!
2 Improper handling of SteamClean poses a risk of chemical burns!
3 Wear safety goggles!
4 Wear protective gloves!

The warning label is located on the inside of the front door.

3.4.3 Instructions

Operating and maintenance personnel will be instructed on site by personnel of VEIT GmbH unless otherwise agreed in the purchase contract.

In case of questions or uncertainties, please contact VEIT GmbH.

WARNING!
The operating company undertakes to introduce any new operating and maintenance personnel to the operation and maintenance of the device as well as to all safety instructions to the same extent and with the same care.

We recommend that operating and maintenance personnel attend appropriate training at VEIT. Please contact the VEIT service department for further information on training opportunities.

WARNING!
The device may only be operated and serviced by instructed personnel.

4 Potential dangers / residual hazards

WARNING!

– There is always a risk of burns caused by hot steam and hot surfaces.
– Keep your distance.
– Do not touch the steam and condensate lines.

WARNING!

Protect the device against frost.

CAUTION!

– Blow-down must only be carried out by instructed personnel observing the specified safety instructions!

WARNING!

SteamClean

– Avoid contact with eyes, skin, mouth and clothes.
– Wear personal protective clothing (safety goggles, protective gloves).
– Act **IMMEDIATELY** in the event of contact with eyes, skin or mouth:
  – Thoroughly rinse with water or wash off with water and soap.
  – Additional first aid measures: see instructions on the VEIT SteamClean bottle and packaging.
  – Immediately contact a doctor.
– The substance must not enter the sewage system or waters.
– It is absolutely necessary to follow the safety instructions on the VEIT SteamClean bottle and packaging.
– Remove any spilled SteamClean as follows:
  – Immerse a cloth in soapy water and wipe up SteamClean.
  – Thoroughly clean the cloth under running water.
  – Then dispose of the cloth with residual waste.

5 Installation

5.1 Setup

The device will be set up, assembled and installed by qualified personnel of VEIT GmbH or by qualified personnel provided by the customer.

- The device has to be set up on an even surface.
- An energy supply (electrical connection) must be available.
- Make sure that there is enough space around the device to carry out service and maintenance work.

NOTICE!

If the place of installation does not comply with the intended use, rebuilding measures must be taken to ensure a higher protection class (see chapter "Technical data").

5.2 Connections

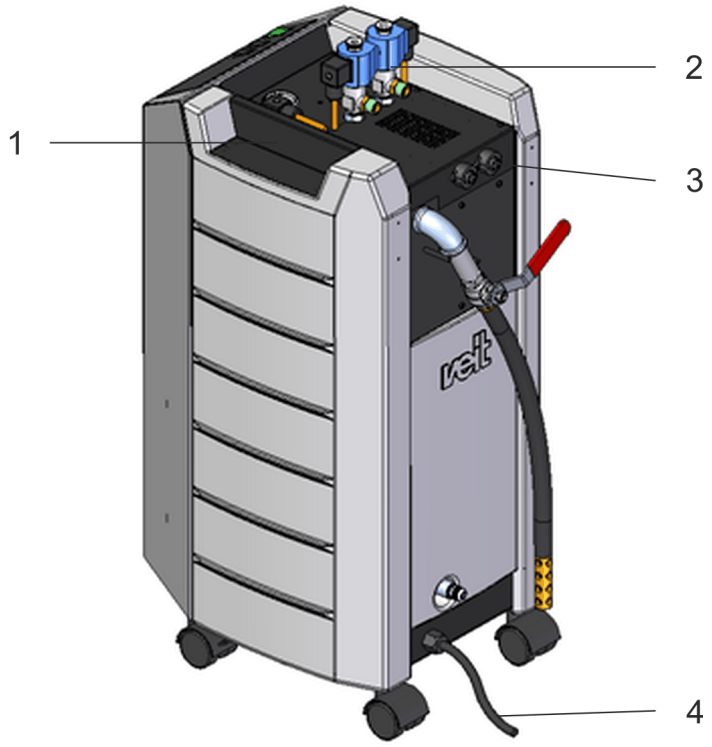

Fig. 9: Connections

1 Water filling opening
2 Steam connection for iron
3 Special small socket for iron
4 Power cable

Electrically heated irons

Connect the iron steam hoses with screw connections (3/8”) at the outputs of steam connection of iron (2). Connect the special small connector of the HD steam iron to special small socket of iron (3).

5.2.1 Power supply connection

WARNING!

Work on electric supply lines

Work on electric supply lines must only be carried out by a qualified electrician. Unplug the mains disconnecting device prior to opening the device. Danger to life!

The electrical connection and compliance of the specifications on the type plate of the device and the local power supply must be checked.

The device is designed to connect to a TN-S network. If a different network configuration is present, additional measures may be required! In this case, please contact the qualified electrician who is responsible for operation!

Connection to the mains must be protected on site. The regulations of the local distribution system operators (DSO) must be observed. Information on fusing can be found in the electrical connection data and in the circuit diagram.

When laying the mains connection cable make sure that it is optimally protected against mechanical damage and that there is no risk of tripping over!

Make sure that the mains connection cable cannot contact any hot surfaces!

WARNING!

Mains disconnecting device

The mains disconnecting device is the connector of the mains connection cable. It must always be freely accessible!

Unplug the mains disconnecting device to stop the device in the event of danger.

WARNING!

Fixed connection

Fixed connection (without connector) of the device is prohibited.

WARNING!

Modifications to the connector

Any person modifying the connector of the mains connection cable or replacing it with another connector is liable for proper clamping of the individual cable wires and for any adverse consequences.

According to European specifications, the individual wires of the mains connection cable are the following:

Tab. 10: Alternating current, 230 volts

Phase (L)	Brown or black
Neutral conductor (N)	Light blue
Protective conductor (PE)	Green/yellow

Tab. 11: Three-phase current, 400 volts

Phase (L1)	Brown
Phase (L2)	Black
Phase (L3)	Grey
Neutral conductor (N)	Light blue
Protective conductor (PE)	Green/yellow

5.2.2 Water supply

NOTICE!

The steam generator is suitable to be operated with normal, softened or distilled water. It is permissible to add the lime binding agent Lapidon at the dosage mentioned in *Chapter 6 'Commissioning' on page 31*. VEIT will not accept liability for function and safety of the device when adding any other chemicals.

Only cold water must be used as the feedwater.

NOTICE!

Complete functionality is guaranteed with a conductivity of 2.5 µS/cm and higher. Limited operation must be taken into account with a conductivity of 1.5–2.5 µS/cm. Functionality cannot be guaranteed with a conductivity below 1.5 µS/cm.

CAUTION!

Make sure that no liquids enter the device. If this is the case, switch off the steam generator and unplug the connector of the mains connection cable. The steam generator may only be started again if it is in a completely dry state.

CAUTION!

When using contaminated water, the filter or the 3/2-way valve in the door may be clogged. As a result the runtime of the pump becomes extremely long or the functions fail completely ⇨ Replace the filter, clean the valve.

5.2.2.1 Water supply via water storage tank

The housing of the SG67 steam generator also is the water storage tank which is filled manually.

To fill the tank, remove the cover (1) and fill in water.

Then place the cover (1) on the tank again ⇨ Protection against contamination of the feedwater.

CAUTION!

Make sure that no water is spilled on the upper side of the steam generator.

5.2.2.2 Water supply via direct water connection (automatic filling)

A direct water connection (article no. 152283) can be used as an option. In this way the steam generator is designed for direct connection to the water line.

In the event you ordered the direct water connection option (article no. 152283), proceed as follows:

1. Switch off the steam generator
2. Remove the cover (1) and mount the assembly for direct water connection. Tighten the two provided screws to 2 Nm and connect the valve reliably to a 3/8" water connection.
3. Unscrew the valve connector from the cover plate and connect it to the valve coil.

CAUTION!

Observe the following for automatic filling:

- Provide a shut-off valve in the water supply line in the building.
- Close the shut-off valve during interruptions of operation and after the end of operation.
- Regularly check that the connections are leak-proof and seated securely.

6 Commissioning

When commissioning the device, proceed as follows:

CAUTION!
When setting up the steam generator, the following must be ensured:

- The blow-down valve on the rear side of the device cannot be opened unintentionally.
- There is no risk of tripping over the connection cable, blow-down hose and blow-down tank.
- The steam vales cannot be touched accidentally.

1. Measuring the water hardness

   The lime in the water may lead to deposits in the boiler and heating elements and thus to system failures. To prevent this from happening, we therefore recommend using the lime binding agent Lapidon if the water hardness exceeds 10°dH (German water hardness). The lime binding agent binds the lime in the water. The lime is then removed from the boiler during blow-down.

   For a water hardness between 10 dH and 15 dH, one measuring cap of the lime binding agent Lapidon is added to the feedwater tank if it is completely filled. When exceeding 15 dH, two measuring caps need to be added.

   CAUTION!
   Measuring information on the bottle
   Please ignore the measuring information on the bottle!

2. Fill the water storage tank with clean tap water or softened or distilled water prior to switching on the device.
3. Connect the device to the power supply.
4. Set the on/off switch to on.
5. Set the switch for the iron to on.

6.1 Filling, venting and heating

The pump fills the boiler. If the pump does not supply any water, the vent valve must be opened while the pump is running until water emerges. Then the valve must be closed again.

When the minimum water level in the boiler is reached, the heating elements are switched off.

The steam pressure in the boiler is indicated on the pressure gauge. When the working pressure is reached and the device has been initialised, the device is ready for supplying steam.

The next operating steps are performed automatically.

If the feedwater tank is almost empty, an audible signal indicates that the minimum will soon be reached and that water needs to be refilled.

6.2 Setting instructions for the water hardness (cleaning version)

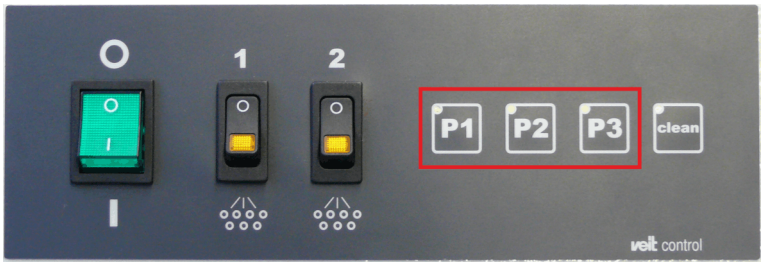

Fig. 10: Setting instructions for the water hardness

Button	Hardness	Millimoles of calcium carbonate per litre	°dH
P1	Soft to moderately hard	< 1.5	< 8.4
P2	Hard	1.5 - 2.5	8.4 - 14
P3	Very hard	> 2.5	> 14

Setting instructions for the water hardness

Press the “clean” button for approximately two seconds immediately after switching on the on/off switch. Two audible beep signals indicate that the water hardness can now be set. Water hardness “hard” is preset by the manufacturer (LED P2 flashes). The required water hardness can be set by pressing the corresponding button.

Deactivating the cleaning function

Press the flashing button again to deactivate the cleaning function and to switch off all the LEDs.

Saving the values

Press the “clean” button for two seconds in order to save the values. Two audible beep signals indicate that the values have been saved successfully.

6.3 Setting instructions for the pressure levels (cleaning version)

The pressure level can be changed at any time during operation. Pressing the corresponding button (P1, P2 or P3) changes the pressure level temporarily. Pressing the button longer (2 seconds, approx.) changes the pressure level permanently. This means that the selected pressure level is also used when switching the device on the next time.

Button	Pressure level	Steam temperature
P1	3 bar / 0.3 MPa, approx.	130°C, approx.
P2	4 bar / 0.4 MPa, approx.	140°C, approx.
P3	5 bar / 0.5 MPa, approx.	150°C, approx.

7 Operation

7.1 Controls and indicators

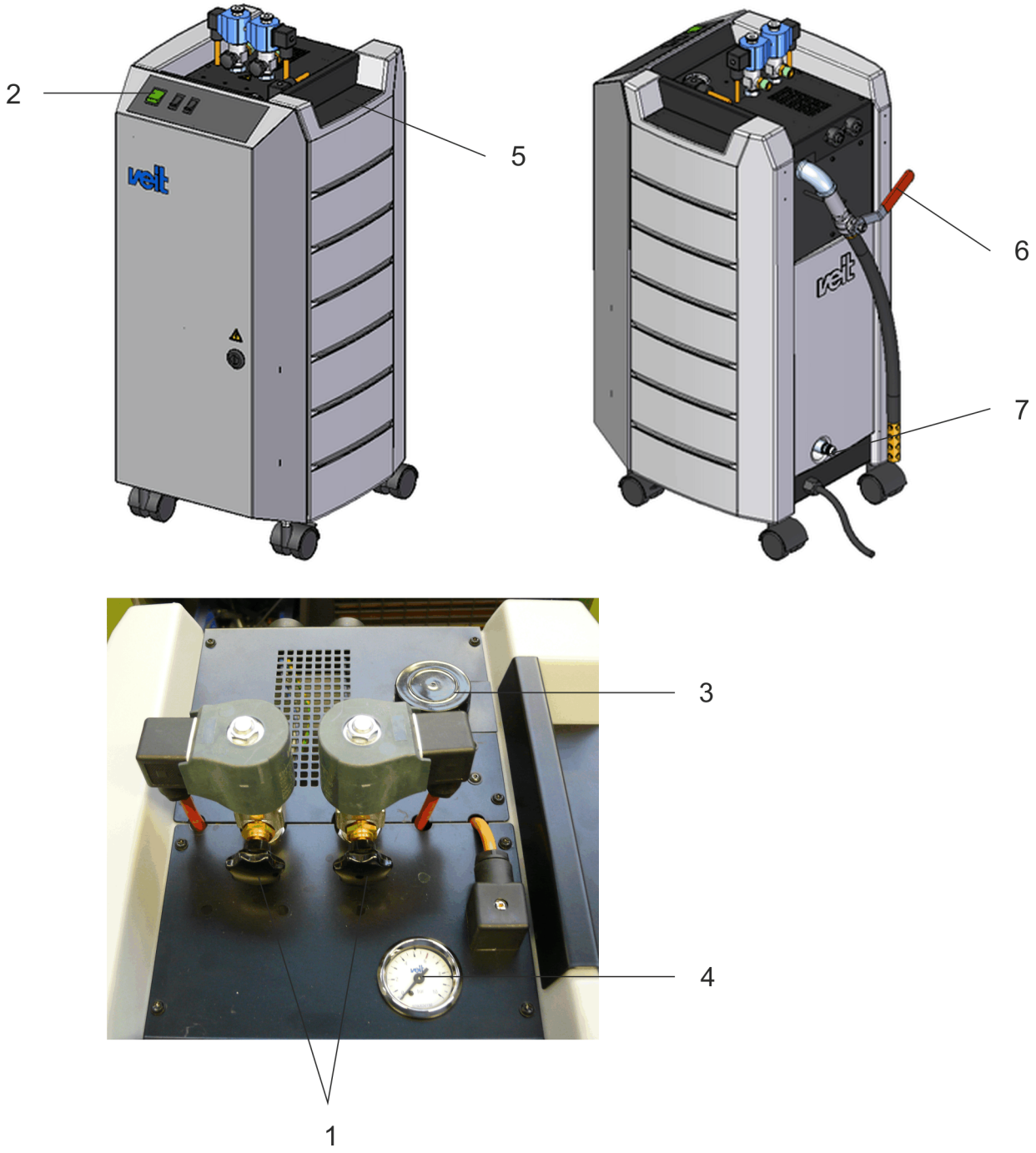

Fig. 11: Controls and indicators

1	**Adjusting the steam volume** Turning the handwheel adjusts the steam volume. VEIT recommends to open the handwheel by 90°.
2	**Control panel** ■ Standard version ↳ *Chapter 7.1.1 'Control panel on standard version' on page 36* ■ Cleaning version ↳ *Chapter 7.1.2 'Control panel on cleaning version' on page 37*
3	**Filling nozzle for VEIT SteamClean** VEIT SteamClean can be refilled via the filling nozzle, if required. For cleaning version only.
4	**Steam pressure** (pressure gauge) Displays the current boiler pressure.
5	**Water filling opening** Feedwater can be refilled via the water filling opening.
6	**Blow-down valve** When opening the blow-down valve, the blow-down water is discharged during blow-down.
7	**Vent valve** If the pump does not supply water, the vent valve must be opened to vent the pump.

7.1.1 Control panel on standard version

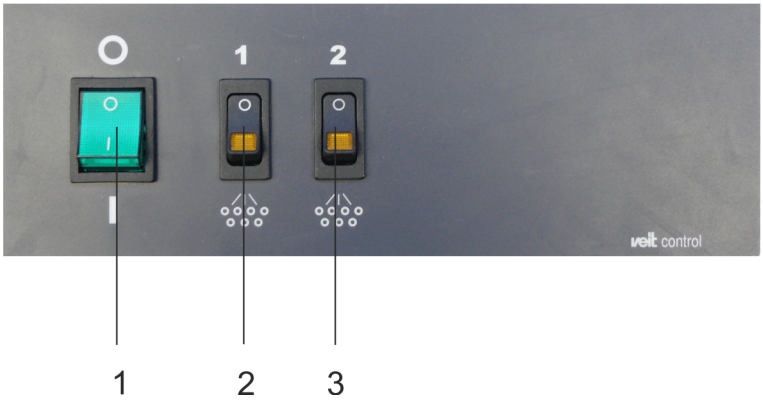

Fig. 12: Control panel on standard version

1	**On/off switch** Pressing the switch switches the device on/off.
2	**Switch for iron 1** Pressing the switch switches iron 1 on/off.
3	**Switch for iron 2** Pressing the switch switches iron 2 on/off.

7.1.2 Control panel on cleaning version

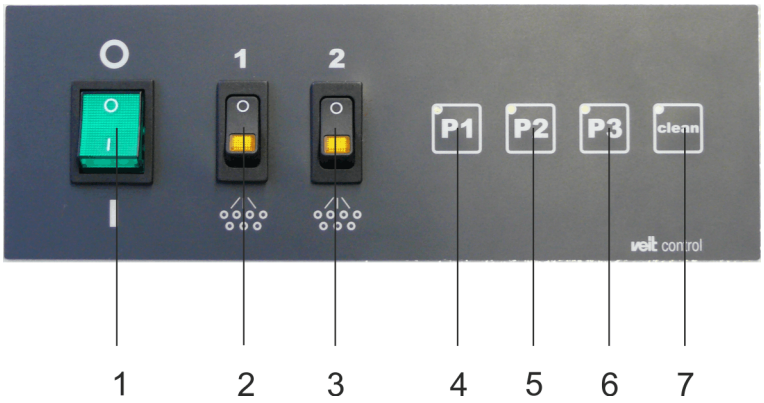

Fig. 13: Control panel on cleaning version

1	**On/off switch** Pressing the switch switches the device on/off.
2	**Switch for iron 1** Pressing the switch switches iron 1 on/off.
3	**Switch for iron 2** Pressing the switch switches iron 2 on/off.
4	**P1 button** Pressing the button activates the pressure level with 3 bar, 130°C, approx.
5	**P2 button** Pressing the button activates the pressure level with 4 bar, 140°C, approx.
6	**P3 button** Pressing the button activates the pressure level with 5 bar, 150°C, approx.
7	**Clean button** Pressing the button starts the the cleaning program.

7.2 Switching on the device

7.2.1 Standard version

- Switch on the device using the on/off switch.
- Two audible beep signals can be heard after approximately 5 seconds.
- The device is now ready to operate.

7.2.2 Cleaning version

- Switch on the device using the on/off switch.
- The device performs a self-test. The LEDs light up in various combinations.
- Two audible beep signals can be heard after approximately 5 seconds.
- The device is now ready to operate.

7.3 Switching off the device

- Switch off the device using the on/off switch.
- Switch off the iron switch(es).

8 Maintenance and cleaning

WARNING!

Prior to opening the device:

- Set the on/off switch to “0”.
- Set the switch for iron 1 and iron 2 to “0”.
- Unplug the connector of the mains connection cable.
- Allow the steam generator to cool down.
- Make sure that the steam generator is depressurised.

WARNING!

SteamClean

- Avoid contact with eyes, skin, mouth and clothes.
- Wear personal protective clothing (safety goggles, protective gloves).
- Act **IMMEDIATELY** in the event of contact with eyes, skin or mouth:
  - Thoroughly rinse with water or wash off with water and soap.
  - Additional first aid measures: see instructions on the VEIT SteamClean bottle and packaging.
  - Immediately contact a doctor.
- The substance must not enter the sewage system or waters.
- It is absolutely necessary to follow the safety instructions on the VEIT SteamClean bottle and packaging.
- Remove any spilled SteamClean as follows:
  - Immerse a cloth in soapy water and wipe up SteamClean.
  - Thoroughly clean the cloth under running water.
  - Then dispose of the cloth with residual waste.

8.1 Maintenance and inspection table

Inspection and maintenance schedule			
Interval	**Part to be inspected**	**Work to be carried out**	**Remarks**
Every day	Boiler	Blow-down (only for standard version)	
	Ball valves	Leak test	Check and replace, if necessary.
	■ Pressure gauge ■ Pressure regulator	Function check	Check and replace, if necessary.
	Steam hoses	Check for damages	Replace defective steam hoses.
Every 6 months	Steam valve	Leak test	Check and replace, if necessary.
	All hoses	Check for damages	Replace defective hoses.
	Connection cable	Check for damages	Replace defective connection cable.
Every year	All connections and components	Leak test	Check and replace, if necessary.
		Corrosion on mounting clamps	Check and replace, if necessary.
		Tightness	Check and replace, if necessary.
	All function parts: ■ Pressure gauge ■ Pressure regulator ■ Check valve	Function check	Check and replace, if necessary.
	■ Inside of boiler ■ Electrode ■ Heating elements	■ Check for contamination ■ Check for lime deposits	■ Remove contaminations. ■ Remove lime deposits.
	■ Filling assembly ■ Blow-down assembly	■ Check for contamination ■ Check for corrosion	■ Remove contaminations. ■ Replace corroded parts.
	■ Filling nozzle ■ Blow-down nozzle	Check for lime residue	Check and clean, if necessary.

CAUTION!
Safety devices
For checks of the safety devices, please refer to
Chapter 3.4 'Built-in safety devices' on page 18.

NOTICE!

Spare parts

– If defects are detected, original VEIT spare parts must be used.
– For safety reasons, the blow-down hoses must only be replaced by original VEIT spare parts.

8.2 Blow-down

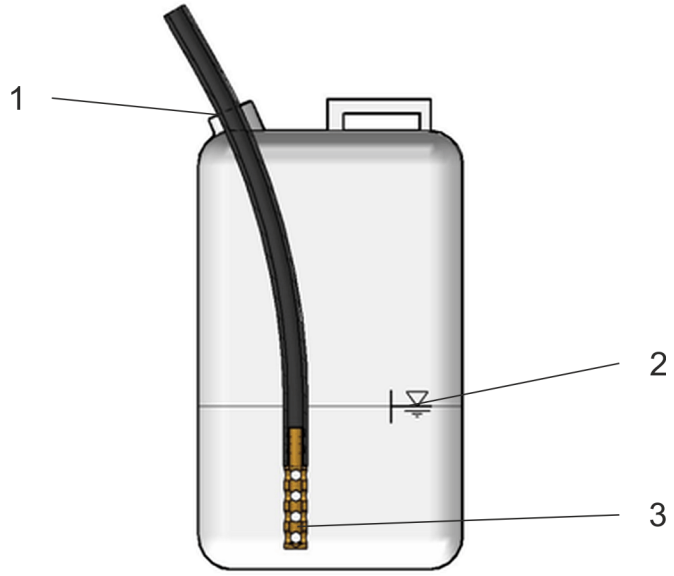

Fig. 14: Position of the blow-down tank during blow-down

1 Screw cap
2 Marking
3 Diffuser

CAUTION!

Risk of burns!

Incorrect blow-down poses a risk of burns. The following safety measures must be performed in a controlled manner prior to every blow-down process:

- Only use original VEIT blow-down tank.
- Check blow-down tank and blow-down hose for visible damage.
  In the event of damages, replace the tank and/or hose.
  Do **NOT** start the blow-down process.
- The blow-down tank must be filled with cold water up to the mark.
- The cover of the blow-down tank must be fixed between the two stainless steel clamps.
- The holes in the diffuser must be free from any lime deposits and contamination.
- The diffuser must be inserted in the tank as close as possible to the bottom.
- The screw cap must be tightly screwed onto the tank.

» Continued on the next page

- The vent holes of the blow-down tank must not be blocked.
- The blow-down ball valve must be opened slowly.
- Wear safety gloves during blow-down.

Following blow-down:

- The ball valve must be closed again immediately. Otherwise, negative pressure causes the blow-down water to be sucked in again.
- The ball valve must necessarily be secured using the locking strap if it does not snap in automatically.

CAUTION!

Hot water must not directly enter the sewage system. The local regulations for the maximum permissible waste water temperature must be observed. If necessary, the waste water of the steam generator must be allowed to cool down or must be cooled down actively.

Workflow

1. Fill the provided blow-down tank with cold water until reaching the mark.
2. Position the blow-down tank vertically behind the device.
3. Insert the blow-down hose with the diffuser in the tank and tighten the screw cap.
4. For **standard version** only: set the on/off switch to off.

> **NOTICE!**
> **Cleaning program**
> The device remains switched on during the cleaning program.

5. Slowly open the blow-down ball valve in order for the hot water running out to mix with the cold water from the blow-down tank.
6. If the pressure gauge no longer indicates any pressure, the blow-down valve is closed.

> **NOTICE!**
> Make sure that the blow-down ball valve is secured by means of the locking strap.

7. For standard version only: set the on/off switch to on again. The boiler will be filled. Then switch off the steam generator using the on/off switch.

> **NOTICE!**
> **Cleaning program**
> The steam generator remains switched on during the cleaning program (automatic running of the cleaning process).

8. The water from the blow-down tank is poured away.

> **CAUTION!**
> Hot water must not directly enter the sewage system. The local regulations for the maximum permissible waste water temperature must be observed. If necessary, the waste water of the steam generator must be allowed to cool down or must be cooled down actively.

8.3 Cleaning program (cleaning version)

WARNING!

VEIT SteamClean

Only use VEIT SteamClean for cleaning the steam generator. Using other cleaning agents may lead to:

– Personal injuries
– Damage to the steam generator

.

WARNING!

SteamClean

– Avoid contact with eyes, skin, mouth and clothes.
– Wear personal protective clothing (safety goggles, protective gloves).
– Act **IMMEDIATELY** in the event of contact with eyes, skin or mouth:
  – Thoroughly rinse with water or wash off with water and soap.
  – Additional first aid measures: see instructions on the VEIT SteamClean bottle and packaging.
  – Immediately contact a doctor.
– The substance must not enter the sewage system or waters.
– It is absolutely necessary to follow the safety instructions on the VEIT SteamClean bottle and packaging.
– Remove any spilled SteamClean as follows:
  – Immerse a cloth in soapy water and wipe up SteamClean.
  – Thoroughly clean the cloth under running water.
  – Then dispose of the cloth with residual waste.

When the “clean” LED starts flashing more frequently and finally flashes quickly (including a short audible signal), the steam generator needs to be cleaned.

The audible signal can be switched off by shortly pressing the “clean” button. When switching on the device the next time, the audible signal sounds again until the cleaning process has been executed successfully.

NOTICE!
Be aware that the cleaning program cannot/must not be stopped once it has started!

Proceed with the steps and instructions as follows:

1. Fill the feedwater tank.

   This step can be omitted if the feedwater tank is filled automatically.

2. Press the “clean” button for 5 seconds to acknowledge flashing. In this way, the cleaning process can be started at any time even if the LED is not on or not flashing.
3. Press the “clean” button again to start the cleaning program. The steam generator heats up to pressure level P1. If the pressure is higher than the pressure at pressure level P1, two repeated audible and visible signals indicate that blow-down can be performed.

   NOTICE!
   Blow-down
   Workflow and safety instructions *Chapter 8.2 ‘Blow-down’ on page 42*

4. Following blow-down (pressure gauge no longer indicates any pressure), the blow-down ball valve is closed.
5. **NOTICE!**
   Make sure that the blow-down ball valve is secured by means of the locking strap.
6. Press the “clean” button to acknowledge blow-down and proper closing of the ball valve.
7. Three audible and visible signals indicate that the cleaning agent can be filled in.

   WARNING!
   Check the cleaning tank for residues of cleaning agent prior to filling in the cleaning agent. If this is the case, the previous cleaning process was not performed properly!
   – Do NOT start the cleaning function!
   – Contact the VEIT service team!

8. Remove the cover of the cleaning tank and fill VEIT Steam-Clean (article number 152681) in the cleaning tank observing the notes indicated on the bottle. The VEIT SteamClean bottle is secured by means of an aluminium strap which is pierced using the mandrel inside the cleaning tank. To enlarge the opening, pierce the strap and rotate the bottle slightly on the mandrel. Make sure that all of the cleaning agent has flown into the tank.

WARNING!
- Do not squeeze the bottle together while emptying - there is a risk from splashes!
- Use only one bottle of SteamClean for each cleaning process!

Then remove the SteamClean bottle and close it again with its cap. Take care when doing so. Read the notes on the packaging carefully.

WARNING!
- Completely empty SteamClean bottles only may be disposed of with residual waste. For this, close the bottle again with its cap.
- Do NOT RINSE the SteamClean bottle!

NOTICE!
Do NOT YET screw the cover onto the cleaning tank!

9. Press the “clean” button to acknowledge that you have filled VEIT SteamClean into the cleaning tank. SteamClean and water will be pumped into the boiler. After approximately 3-5 seconds, the pumping process is complete.

NOTICE!
After the pump time has elapsed, screw the cover onto the cleaning tank.

The active cleaning phase then automatically starts. This step takes about 20 minutes. LEDs P1, P2 and P3 indicate the progress of the cleaning cycle. The cleaning cycle is complete if all the three LEDs are on. The steam generator then automatically heats up until reaching pressure level P1 (LEDs “P1” and “clean” are flashing).

10. Two audible and visible signals indicate that pressure level P1 has been reached. Blow down the steam generator. Observe the blow-down instructions in chapter *Chapter 8.2 ‘Blow-down’ on page 42*. Press the cleaning button to confirm blow-down and proper closing of the ball valve.

This will complete the cleaning program.

11. The steam generator has now been cleaned. The device fills the boiler with water and heats up to the relevant pressure level. The device is ready to operate again.

NOTICE!

In general, the following applies:

– 2 x flashes/beeps: Blow-down
– 3 x flashes/beeps: fill in cleaning agent

NOTICE!

If the cleaning program has not been performed properly (e.g. caused by switching off the steam generator, or due to a power failure during the cleaning process), the steam generator must be switched on again as soon as possible because SteamClean remaining in the system may damage certain components/parts. Depending on the time of interruption, the steam generator can respond in two different ways:

– Interruption **before** “SteamClean filled into cleaning tank” confirmation:
  – The steam generator indicates again that the cleaning program must be run.
  – The operator must check whether or not SteamClean has already been filled into the cleaning tank.
  – Restart the program and, if required, fill in SteamClean. Otherwise, simply confirm with “Steam clean filled into cleaning tank”.
– Interruption **after** “SteamClean filled into cleaning tank” confirmation:
  – The steam generator fills SteamClean/ water into the boiler until the required water level has been reached.
  – The cleaning program will be continued.

If there is an unpleasant, pungent odour during steaming immediately after running the cleaning program, residues of the cleaning agent might still be in the steam generator.

– Make sure to supply fresh air
– Switch off the steam generator
– Blow down the steam generator ↬ *Chapter 8.2 ‘Blow-down’ on page 42*
– Restart the steam generator.

8.4 Maintenance of the boiler

Remove the flange cover for maintenance of the boiler.

Clean the electrode and heating elements inside the boiler from contamination and lime deposits.

NOTICE!

When mounting the flange cover, a new seal must be used.

8.5 Maintenance of the feedwater tank

8.5.1 Emptying the feedwater tank

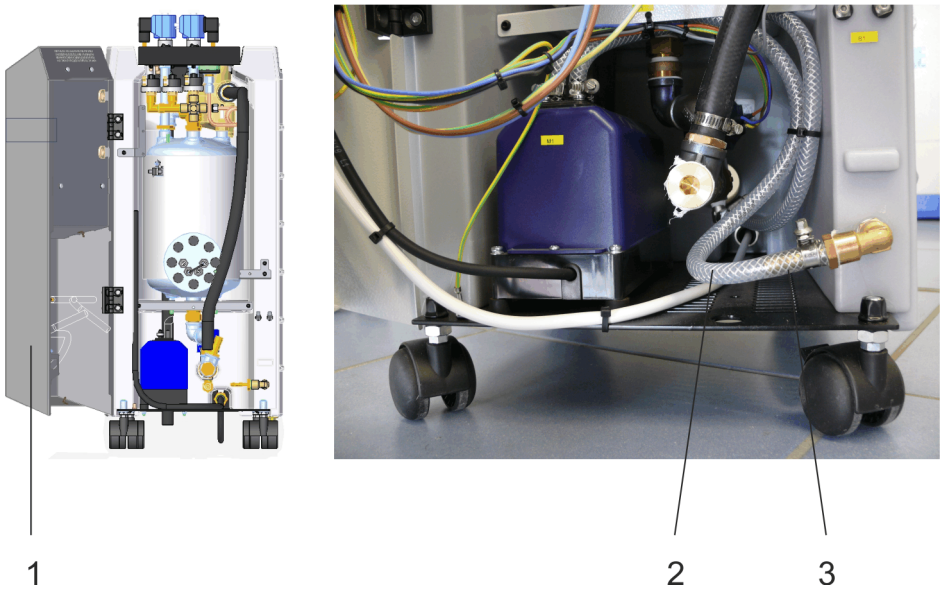

Fig. 15: Emptying the feedwater tank

1 Door
2 Hose
3 Hose nozzle

To empty the feedwater tank, proceed as follows:

- Open the door (1).
- Place a suitable container below the hose nozzle (3) of the feedwater tank.
- Remove the hose (2).
- Allow the feedwater tank to be emptied.
- Tilt the steam generator to also drain the feedwater from the opposite chamber.
- If the feedwater tank is empty replace the hose (2) on the hose nozzle (3).
- Close and lock the door (1).

8.5.2 Replacing/cleaning the filter of the feedwater tank

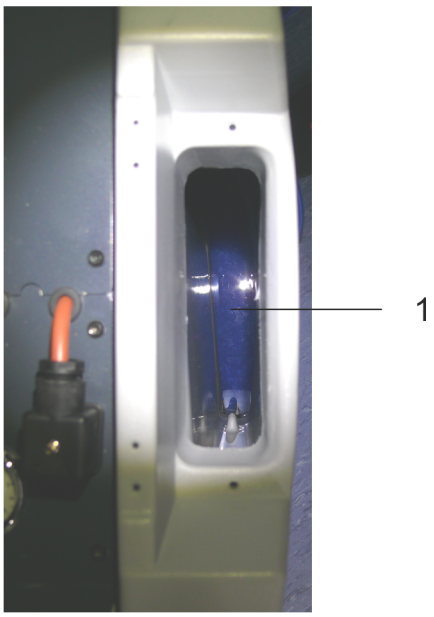

Fig. 16: Replacing_cleaning the filter of the feedwater tank

1 Filter

To replace/clean the feedwater tank, proceed as follows:

- Empty the feedwater tank ↪ *Chapter 8.5.1 'Emptying the feedwater tank' on page 50*.
- Remove the cover of feedwater tank.
- Remove the filter (1) from the feedwater tank.
- Replace or clean the filter (1).
- Insert the filter (1) in the feedwater tank. Make sure that the filter rests on the bottom of the feedwater tank.
- Close the feedwater tank using the cover of the feedwater tank.

9 Remedy of faults/elimination of defects

CAUTION!

The facts and information listed as **faults** in this chapter are described in such a way that they may be eliminated by an instructed person.

If a fault cannot be remedied, a **qualified person** must be informed.

These members of personnel must be provided with the necessary tools and test equipment.

Before starting maintenance and repair work, the shutdown procedures have to be carried out.

If the remedial measures described here are not successful, please contact the VEIT GmbH service department.

WARNING!

Prior to opening the device:

- Set the on/off switch to “0”.
- Set the switch for iron 1 and iron 2 to “0”.
- Unplug the connector of the mains connection cable.
- Allow the steam generator to cool down.
- Make sure that the steam generator is depressurised.

WARNING!

SteamClean

- Avoid contact with eyes, skin, mouth and clothes.
- Wear personal protective clothing (safety goggles, protective gloves).
- Act **IMMEDIATELY** in the event of contact with eyes, skin or mouth:
  - Thoroughly rinse with water or wash off with water and soap.
  - Additional first aid measures: see instructions on the VEIT SteamClean bottle and packaging.
  - Immediately contact a doctor.
- The substance must not enter the sewage system or waters.
- It is absolutely necessary to follow the safety instructions on the VEIT SteamClean bottle and packaging.
- Remove any spilled SteamClean as follows:
  - Immerse a cloth in soapy water and wipe up SteamClean.
  - Thoroughly clean the cloth under running water.
  - Then dispose of the cloth with residual waste.

9.1 Fault, cause, remedy

CAUTION!
The facts and information listed as **faults** in this chapter are described in such a way that they may be eliminated by an **instructed person**. If a fault cannot be remedied, a **qualified person** must be informed.

Fault	Cause	Remedy
Single regular audible beep signal	Water level in feedwater tank has reached the minimum	The fault can be suppressed for two minutes by pressing the “clean” button.
		The fault is removed by filling water in the feedwater tank.
Short audible beep signal at intervals of 10 s	Blow-down of device required	This signal can be suppressed until switching the device on the next time by pressing the “clean” button.
		Perform blow-down of cleaning version.
Special audible signal (3 x short, 3 x long, 3 x short)	Fault in the pump circuit Information: This fault occurs when the max. pump runtime has been exceeded which is required to fill the boiler up with fresh water.	
	Feedwater tank empty	Top up feedwater tank
	Air bubbles inside the suction hose	Vent
	Water fill valve (solenoid valve) defective, clogged	Clean, repair and replace, if necessary
	Check valve defective	Replace
	Filling line clogged	Clean
	Pump defective (pump cannot overcome the boiler pressure)	Replace
		The fault is automatically acknowledged by switching the on/off switch off and on again.
	Pump does not start after fault acknowledgement	Search for the fault in the electrical circuit of the pump.
Safety valve opens shortly after switching-on	Ball valve of blow-down assembly leaking	Replace ball valve

Fault	Cause	Remedy
Boiler is overfilled caused by vacuum build-up	The pressure has risen too fast because the boiler has not been vented during heating-up.	Activate the pressure switch of the iron.
	Overfilling during normal operation	
	Cable leading to electrode defective	Check and replace, if necessary
Heating element cannot be switched on	Pressure regulator line interrupted	Check the line
	Electric line leading to heating defective	Check cable
	Contactor defective	Replace contactor
	Heating element defective	Replace heating element
	Electronics defective	Replace PCB
	Fill level detection defective	Replace fill level detection
Pressure drop in the boiler	Water level regulator defective	Replace PCB
	Heating element defective	Replace heating element
	Blow-down valve leaking	Replace ball valve
	Temperature limiter defective	Replace temperature limiter and determine the cause
	Contactor defective	Replace contactor
Ball valve of blow-down assembly leaking During interruptions of operation (e.g. overnight), leaking of the ball valve may cause soaking and overfilling of the boiler due to vacuum build-up.	Ball valve leaking	Remove and clean ball valve; replace, if necessary
	Water is dripping out of the ball valve -> stuffing box leaking	Remove control lever of the valve and re-tighten stuffing box at the hexagon screw (size 13 wrench). **ATTENTION!** Make sure the locking strap is in the correct position. When the ball valve is closed, the locking strap must prevent the valve from being opened unintentionally.
Iron delivers water	Too much Lapidon in the boiler Overdosage of Lapidon leads to foaming of water. Therefore, water can be carried away during steam extraction.	Use the dosage specified in the operating instructions.
	Iron defective (heating)	Check and replace, if necessary.
	Solenoid valve leaking	Check and replace, if necessary.

Fault	Cause	Remedy
	Error during blow-down: If blow-down is done incorrectly or insufficiently, salts may be concentrated in the water. Therefore, foaming can occur in the water, and water can be carried away during steam extraction.	Blow down the device every day according to the operating instructions.
	Boiler sucked up caused by vacuum build-up.	Blow down.
	Fill level detection defective	Replace fill level detection

9.2 Defect, cause, remedy

CAUTION!

The facts and information listed as **defects** in this chapter are described in such a way that they may be eliminated by a **person skilled** in

– Electrics/electronics
– Mechanics/maintenance

.

The device components mentioned in the “Cause” column are detailed in the supplied electric circuit and pneumatic diagrams.

Defect	Cause	Remedy
Water emerging from the drain hose	Safety valve leaking	Check and adjust, if necessary. ↳ *Chapter 3.4.1 ‘Performing the checks’ on page 21* Operating pressure for standard version: 4 bar, max. Operating pressure for cleaning version: 5 bar, max.
Boiler is being overfilled	Electrode dirty	If yes: Remove electrode and check for soiling (dirt, lime, rust); clean electrode, if necessary. Used electrodes need to be replaced.

10 Disassembly and disposal

- The steam generator mainly consists of painted sheet steel, plastic parts, and electrical/electronic parts. When disposing of the complete device or individual parts the applicable local rules/regulations must be observed.
- SteamClean residues in the cleaning system must be disposed of in accordance with the instructions in the VEIT SteamClean bottle and the local rules and regulations. Please also note the safety instructions in chapter *'Warning label for SteamClean' on page 23*.

11 Spare parts

CAUTION!

Please note that only accessories and spare parts from VEIT GmbH may be used. VEIT GmbH cannot be held liable for damages resulting from using non-genuine accessories and non-genuine parts.

For all enquiries or orders in writing or on the phone, please always quote:

- Type of machine (see cover)
- Machine number
- Article number

11.1 Spare parts lists

Article number	Steam generator
150042	Steam generator SG67 2.2 kW / 230 V / 50-60 Hz
150000	Steam generator SG67 4.4 kW / 230 V / 50-60 Hz
149801	Steam generator SG67 6.6 kW / 230 V / 50-60 Hz
150044	Steam generator SG67-C 4.4 kW / 230 V / 50-60 Hz
154284	Steam generator SG67-TC 2.2 kW / 230 V / 50-60 Hz

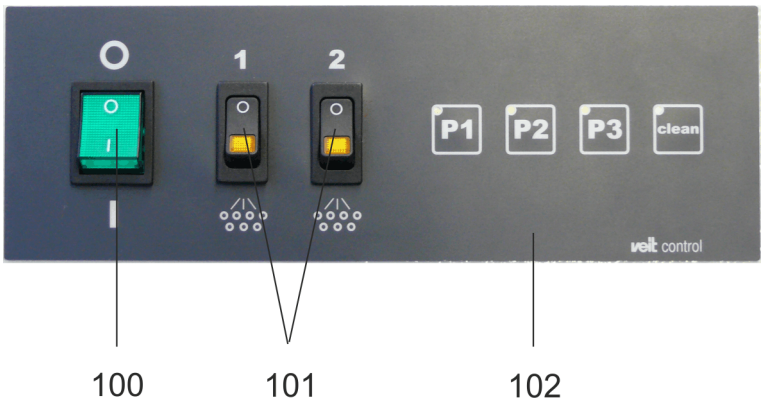

Fig. 17: Control panel (spare part)

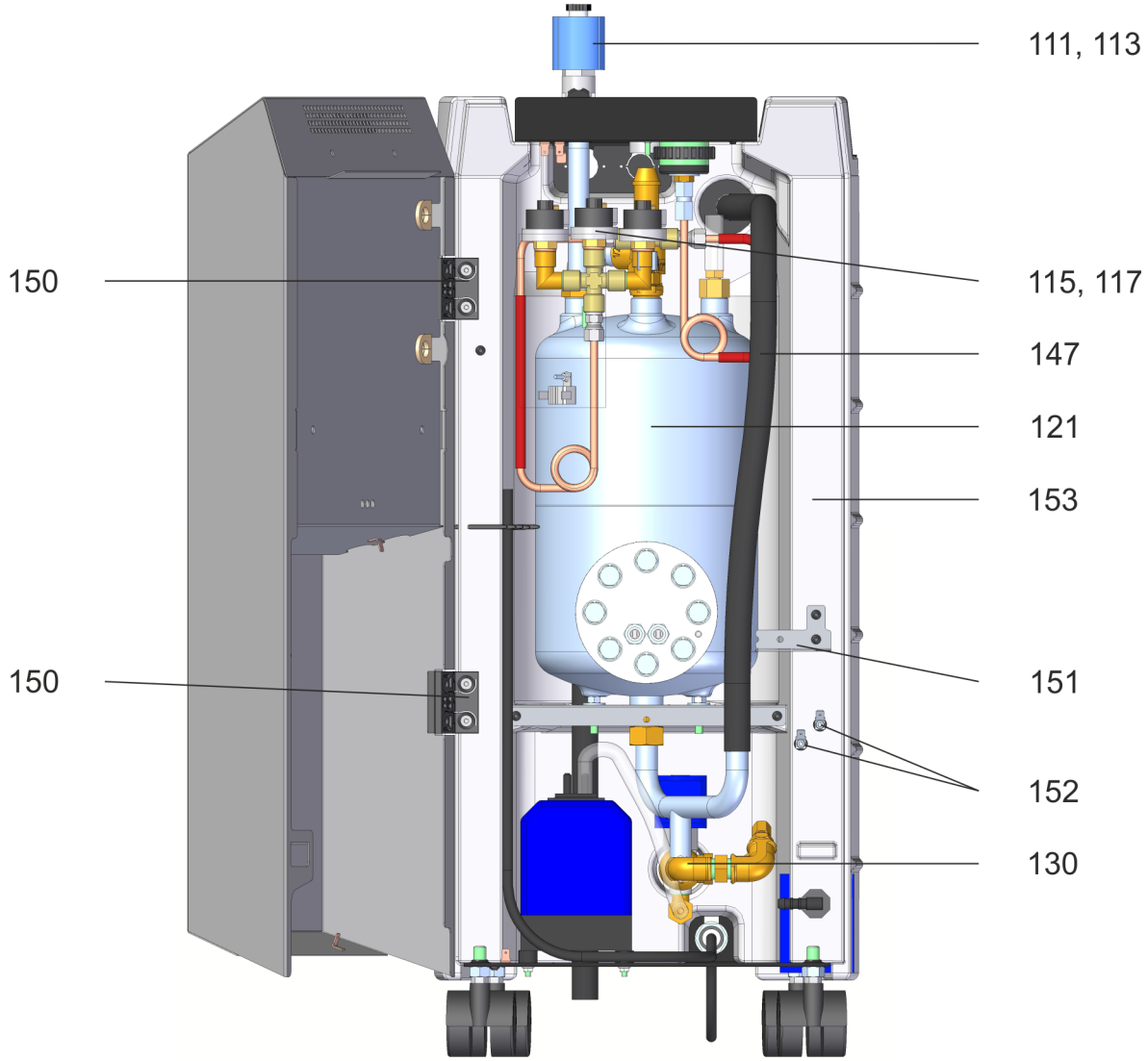

Fig. 18: Device overview – spare parts inside the device

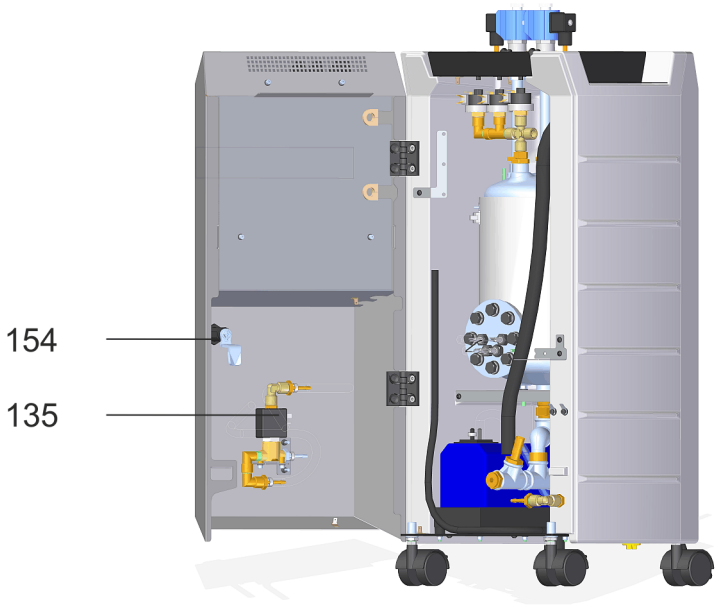

Fig. 19: Device overview – spare parts on the inside of the door

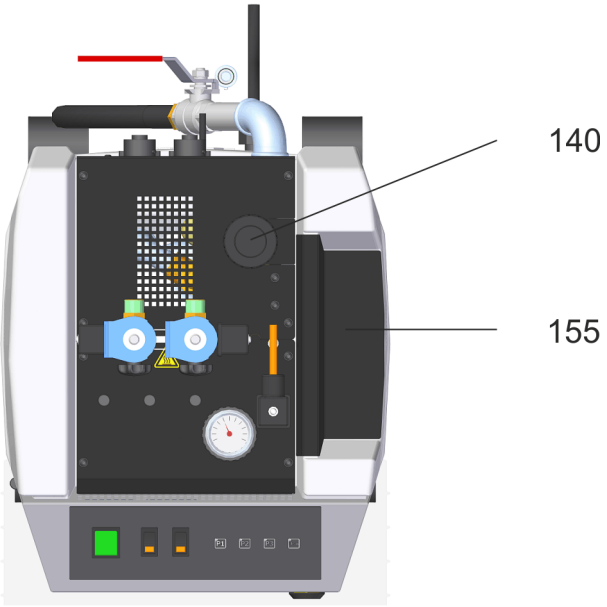

Fig. 20: Device overview – spare parts on the upper part of the device

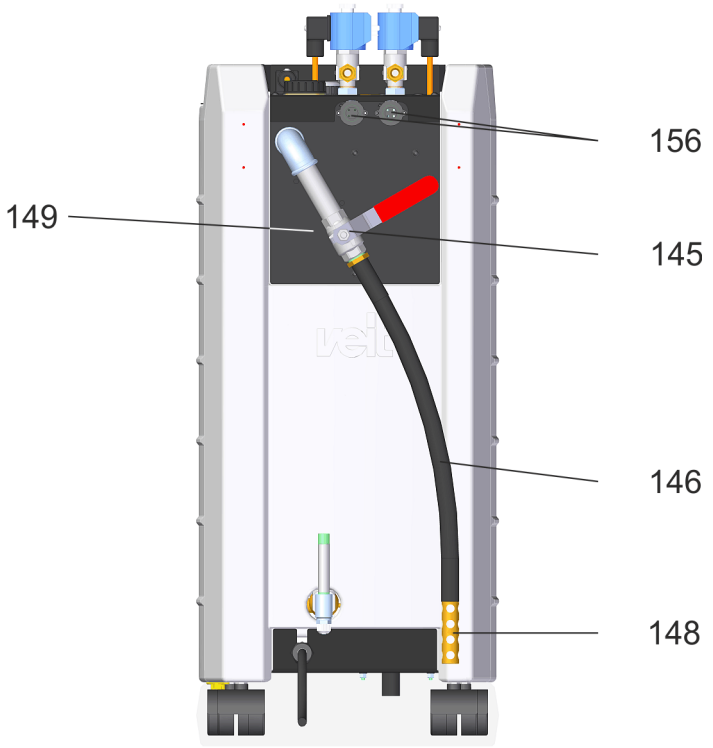

Fig. 21: Device overview – spare parts on the rear side of the device

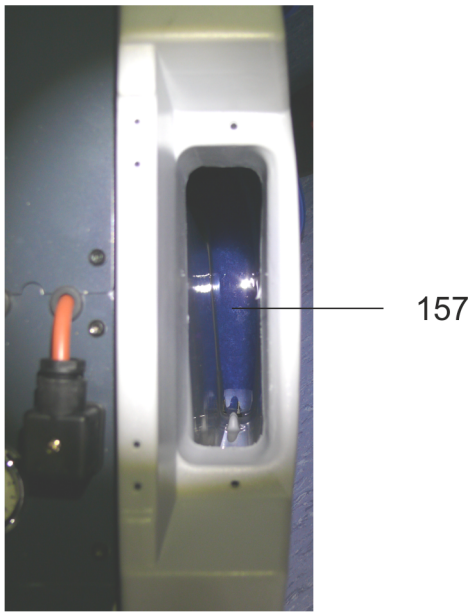

Fig. 22: Spare part: filter for feedwater tank

Pos. 110, spare part: valve, complete

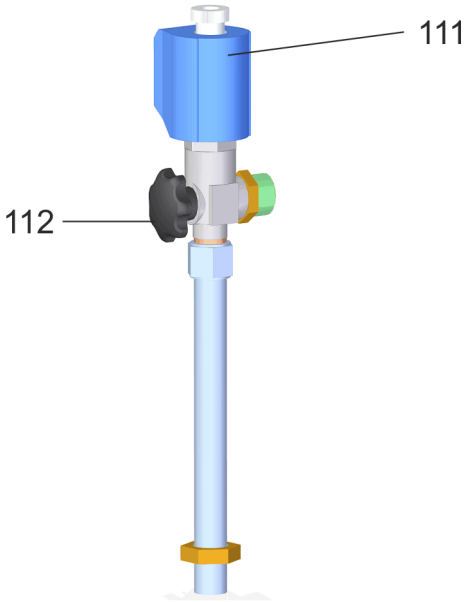

Fig. 23: Spare part: valve

Pos. 115, spare parts: pressure assembly 1 pressure level

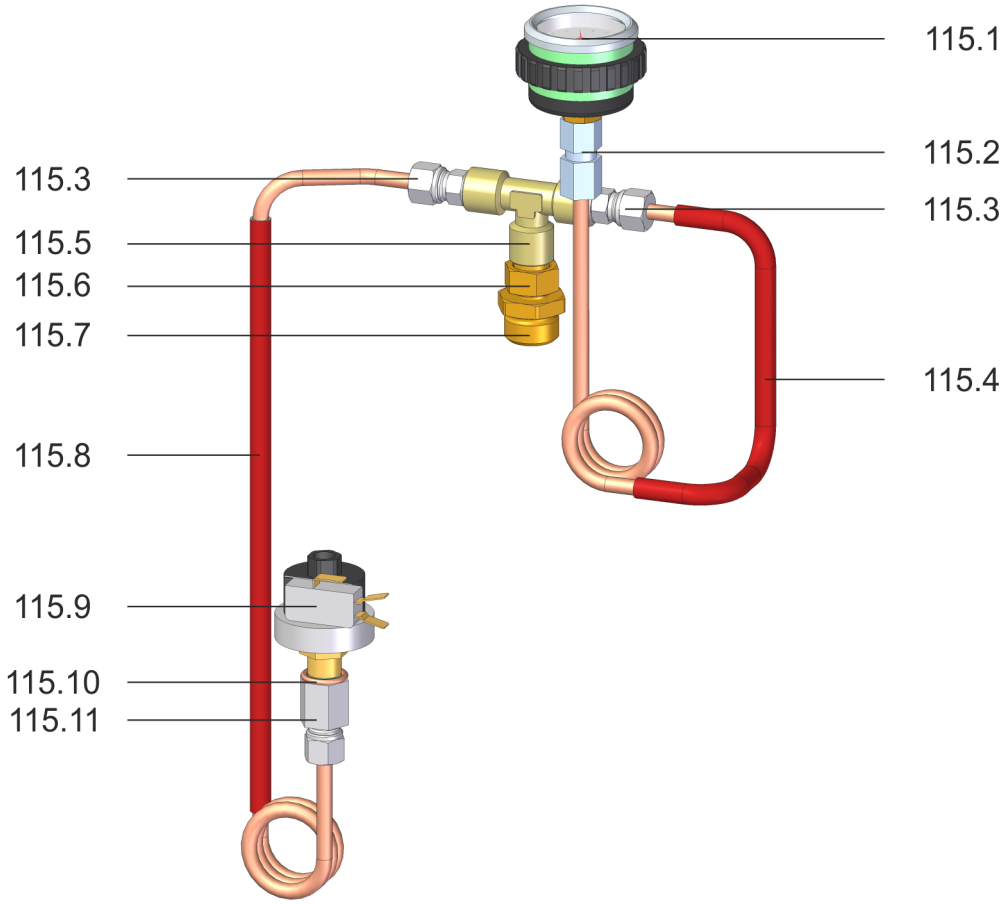

Fig. 24: Spare parts: pressure assembly 1 pressure level

Pos. 117, spare parts: pressure assembly 3 pressure levels

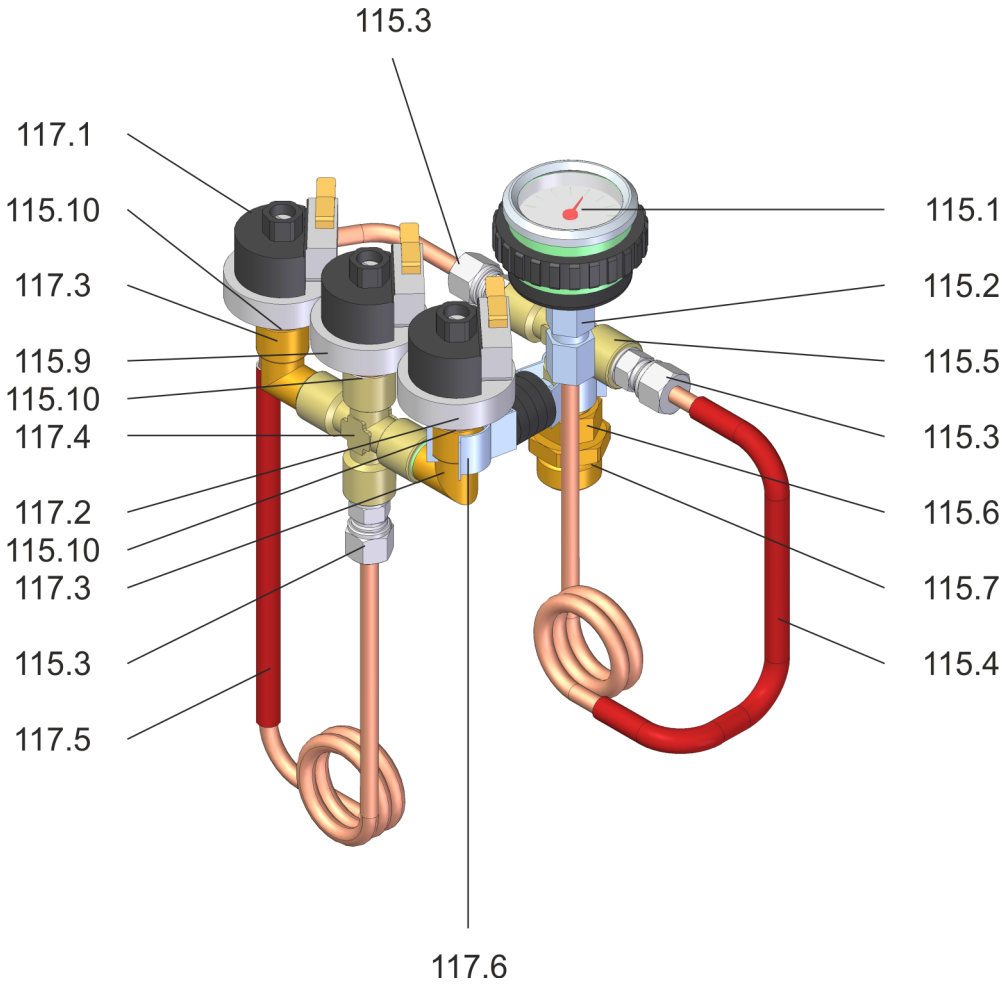

Fig. 25: spare parts: pressure assembly 3 pressure levels

Pos. 121, spare part: boiler

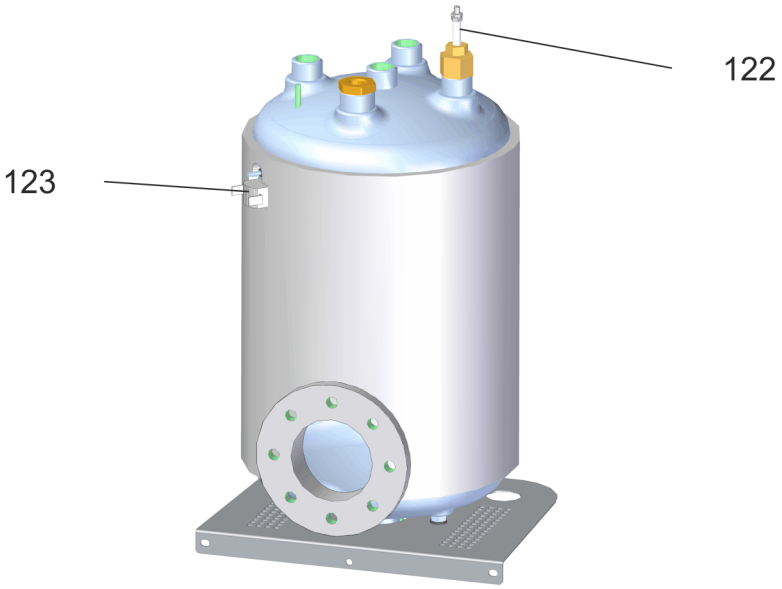

Fig. 26: Spare part: boiler

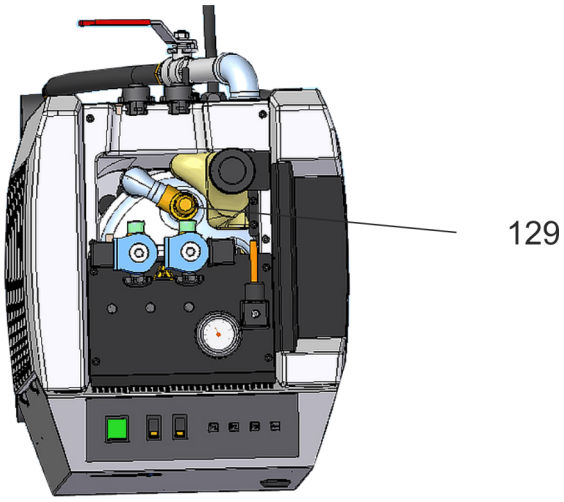

Fig. 27: Spare part: safety valve

Pos. 125, spare parts: heating

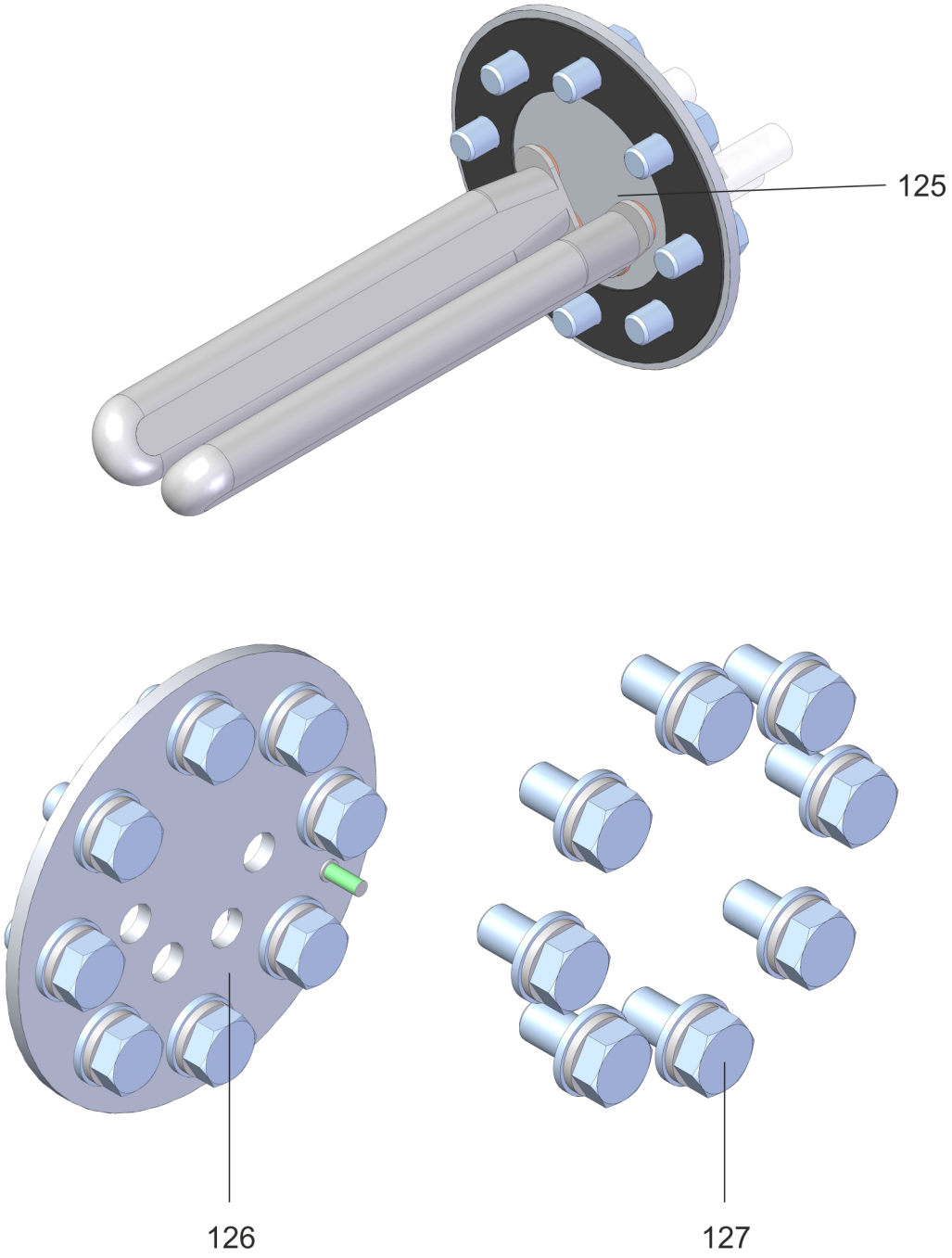

Fig. 28: spare parts: heating

Pos. 130, spare parts: filling/blow-down assembly

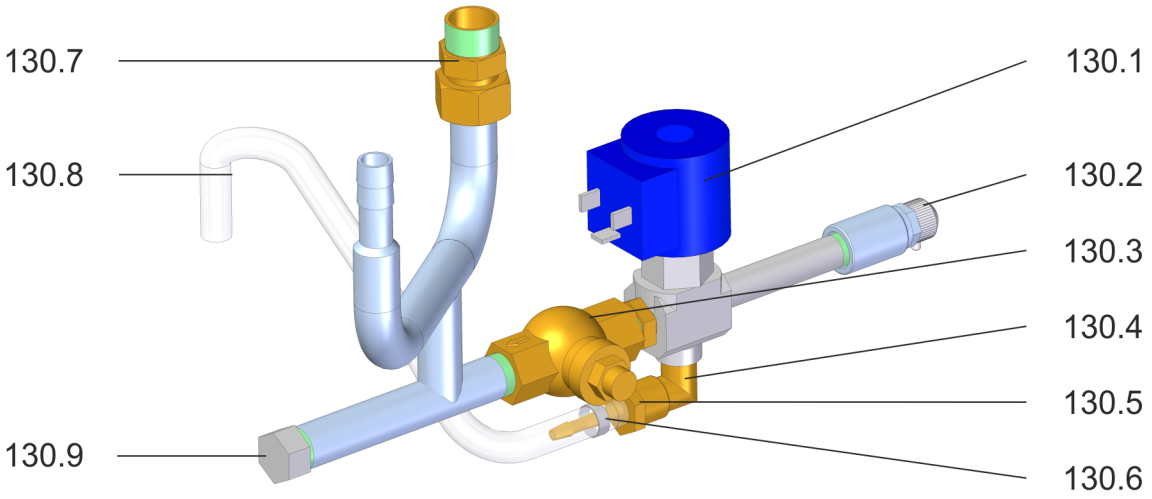

Fig. 29: spare parts: filling/blow-down assembly

Pos. 135, spare parts: filling/blow-down assembly for cleaning version

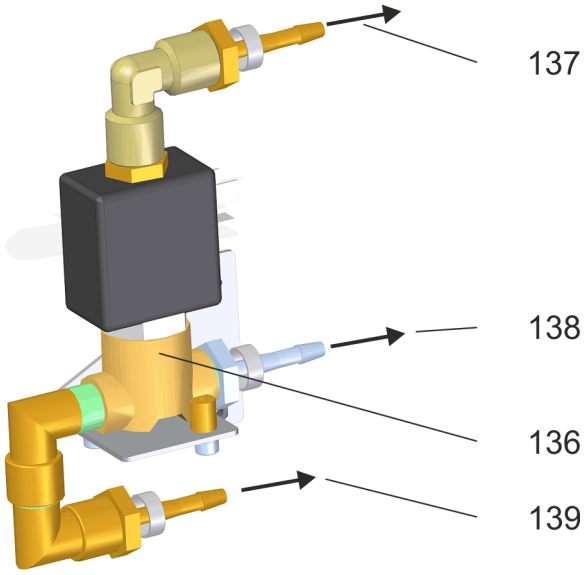

Fig. 30: Spare parts: filling/blow-down assembly for cleaning version

Pos. 140, spare part: cleaning tank

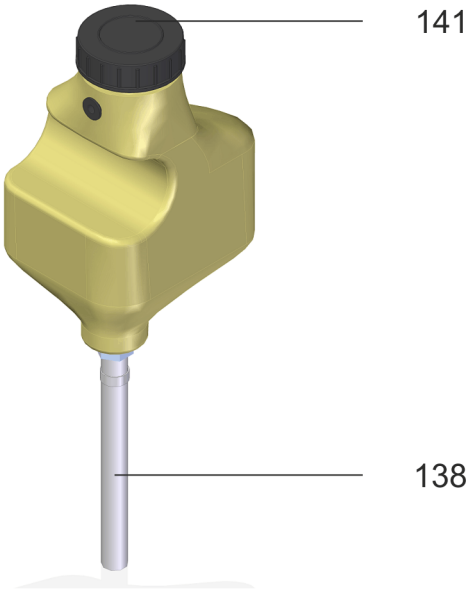

Fig. 31: Spare part: cleaning tank

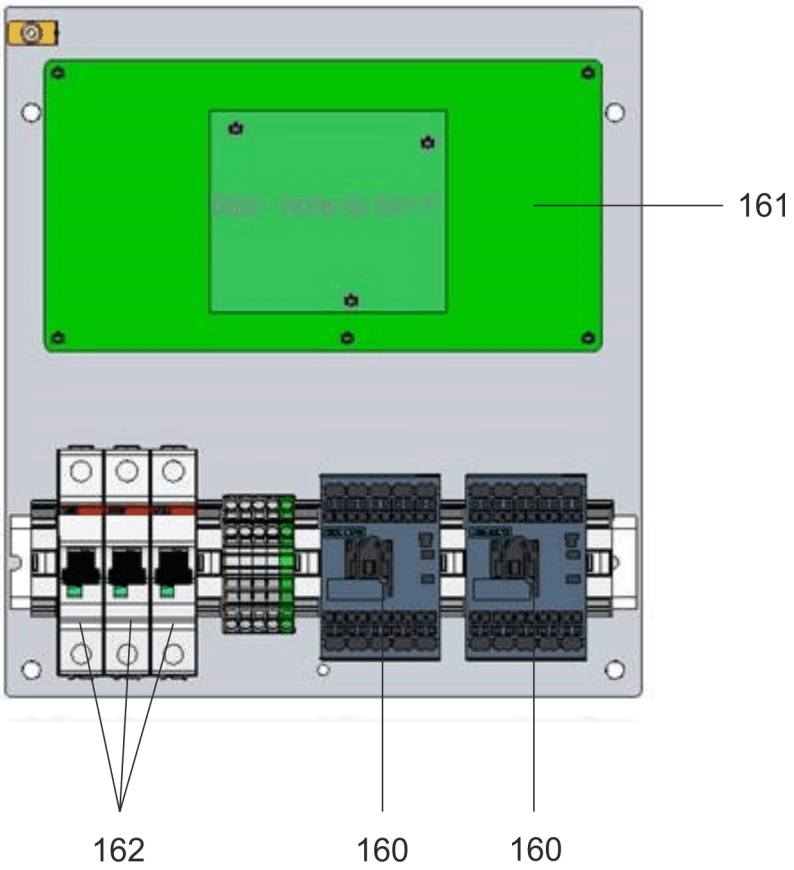

Fig. 32: Spare part: mounting plate

(*) Equipment identification

Tab. 12: Spare parts

Position	Article number	Designation	EID (*)
100	4791450010	Appliance switch, green rocker	S1
101	9290650540	Off switch with yellow indicator lamp	S2/S3
102	150571	Operating foil Cleaning SG67 For cleaning version only	
111	9290650180	EMV I single NW 2.8 200-254V	Y1/Y2/Y3/Y5
	9290650610	EMV I, NW 2.8 WITHOUT SPINDLE	Y1/Y2/Y3/Y5
	423323018G	Plunger, complete (3 pcs.)	Y1/Y2/Y3/Y5
	4283210000	Coil 200-254 V / 50-60 Hz	Y1/Y2/Y3/Y5
	4233230130	Stuffing box + spindle + sealing	Y1/Y2/Y3/Y5
112	4282010090	Rotary switch / solenoid valve	Y2/Y3
113	4280310070	3-pos. cable socket	Y2/Y3/Y5
115	168972	ET pressure assembly 1 pressure level	
115.1	9290650150	Pressure gauge 0-10 bar, dm 40, R 1/8	
115.2	9412010500	GAV 6MM X R 1/8" Zn	
115.3	9412010010	6MM-R1/4" GEV	
115.4	170014	Cu-tube for pressure gauge with insulation	
115.5	150041	Tee I-1/4" I-1/4" I-1/4" MS	
115.6	KM60012	Fitting MS 1/4"A	
115.7	151921	Reduction nipple A-1/2" I-1/4" MS	
115.8	170638	ET Cu-tube for pressure controller single	
115.9	151352	Pressure controller 3.5-4 bar	N2
115.10	9270120170	Copper seal filled 13.0x18x2.0	
115.11	9412010540	GAV 6MM X R 1/4" Zn	

Position	Article number	Designation	EID (*)
117	168973	ET pressure assembly 3 pressure levels	
115.1	9290650150	Pressure gauge 0-10 bar, dm 40, R 1/8	
115.2	9412010500	GAV 6MM X R 1/8" Zn	
115.3	9412010010	6MM-R1/4" GEV	
115.4	170014	Cu-tube for pressure gauge with insulation	
115.5	150041	Tee I-1/4" I-1/4" I-1/4" MS	
115.6	KM60012	Fitting MS 1/4"A	
115.7	151921	Reduction nipple A-1/2" I-1/4" MS	
115.9	151352	Pressure controller 3.5-4 bar	N2
115.10	9270120170	Copper seal filled 13.0x18x2.0	
117.1	151351	Pressure controller 2.5-3 bar	N1
117.2	151353	Pressure controller 4.5-5 bar	N3
117.3	9411020320	1/4"I-1/4"A Winkel 90°	
117.4	149152	Kreuzstück 1/4" I MS	
117.5	168979	Assembly group pressure assembly 3 pressure levels	
117.6	170020	Clamp assembly group 3-fold	
121	154669	ET, assembly, boiler, SG67	
122	4236510130	Electrode, M14 l = 190 mm	B1
123	153329	Temperature limiter / heat stop	FT1
129	130536	Safety valve	
125	170596	ET heating 2.2 kW, comp. H-flange,seal,screws	
	170597	ET heating 4.4 kW, comp. H-flange,seal,screws	
	170598	ET heating 6.6 kW, comp. H-flange,seal,screws	
	4236010160	Copper seal for DE-heating	
126	4236540210	ET heating flange 2.2 kW, with screw set	
	4236540220	ET heating flange 4.4 kW, with screw set	
	4236540230	ET heating flange 6.6 kW, with screw set	
127	170589	Screw set	
130	154942	Assembly, filling and blow-down, SG67	

Position	Article number	Designation	EID (*)
130.1	9290650610	EMV I, NW 2.8 WITHOUT SPINDLE	
	423323018G	Plunger, complete (3 pcs.)	
	4283210000	Coil 200-254 V / 50-60 Hz	
	4233230130	Stuffing box + spindle + sealing	
130.2	4231270030	Vent valve 1/4	
130.3	4310020190	Check valve R 3/8	
130.4	9411020320	1/4"I-1/4"A Winkel 90°	
130.5	9270620060	Hose nozzle R1/4" DM6X33 mm	
130.6	2191110040	Hose clamp, 8-12 mm, Zn	
130.7	9412010140	18mm-G1/2" GEV	
130.8	144574	Hose, PVC, with insert, dm 6 x 3	
130.9	154978	Cap	
135	154671	ET, assembly, filling and blow-down, cleaning	
136	153247	3/2-way solenoid valve	Y4
137	9270530040	Hose, PVC, with insert, dm 6 x 3	
	2191110040	Hose clamp, 8-12 mm, Zn	
138	111365	High-pressure hose, Teflon core	
	2191110040	Hose clamp, 8-12 mm, Zn	
139	9270530040	Hose, PVC, with insert, dm 6 x 3	
	2191110040	Hose clamp, 8-12 mm, Zn	
140	154663	ET, assembly, cleaning container, SG67	
138	111365	High-pressure hose, Teflon core	
	2191110040	Hose clamp, 8-12 mm, Zn	
141	151068	Cover for cleaning tank	
145	163265	ET kit, ball valve, SG67	
146	9270530020	Hose 1/2'', rubber	
147	2311110020	Hose clamp, 12-20mm, V2A	
148	4236520180	Diffuser / retrofit kit	
149	163266	Replacement kit, ball valve, SG67	
150	149918	Hinge	

Position	Article number	Designation	EID (*)
151	149756	Locking plate for door lock	
152	154664	ET, water level m. tank, SG67	
153	149797	Housing	
154	152219	Lock	
155	149750	Cover plate for inlet opening	
156	4400000370	Special small socket, 4-pos.	X3/X4
157	154895	Filter for feedwater tank	
	155007	PE, repair sticks, SG67	
	150785	Raised countersunk screw, 4 x 14	
160	151764	Contactor 3RT2016	K1/K2
161	157755	PCB, SG67, 2.2 kW/4.4 kW/6.6 kW	A1
	157756	PCB, SG67 C	A1
	KE00063	Fine-wire fuse 1 AT	A1: F1/F2
	160168	Fine-wire fuse 80 mAT	A1: F3/F4
	163235	Fine-wire fuse 250 mAT	A1: F5/F6
162	9290751510	Circuit breaker B16A	F1/F2/F3
	9290750380	Circuit breaker B32A 220 V version	

Spare parts for SEM pump

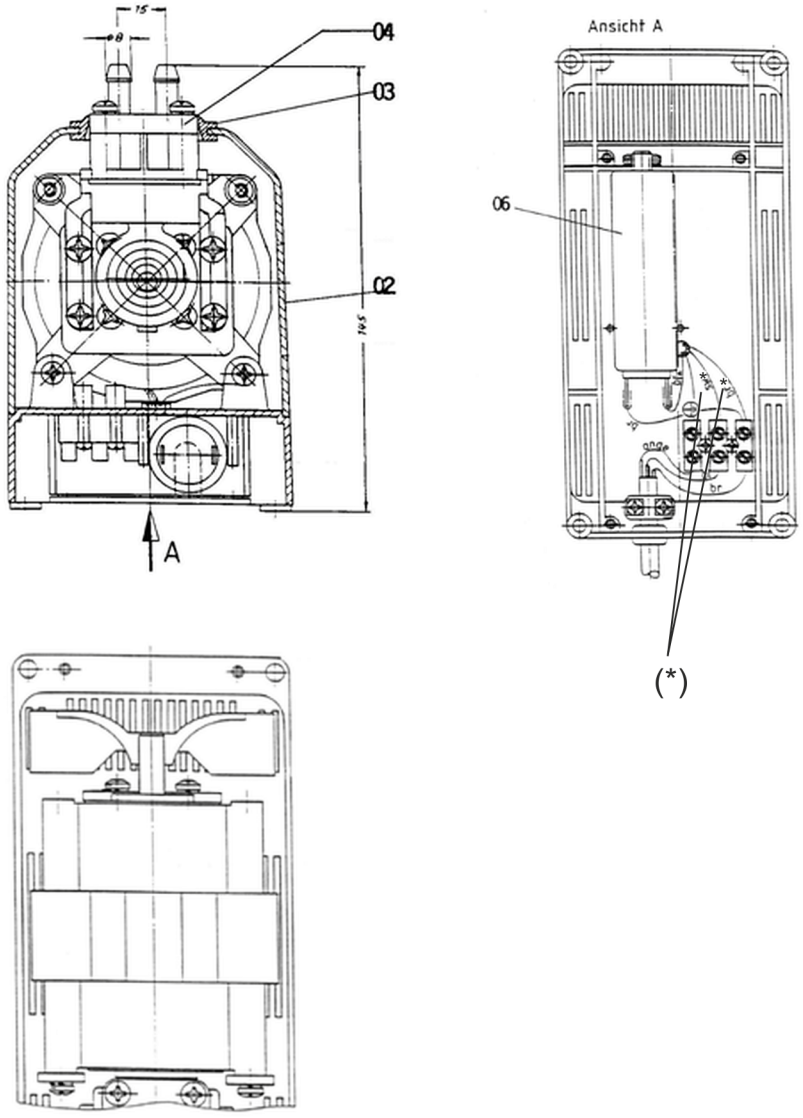

Fig. 33: SEM pump

(*) These connection wires are striped!

Tab. 13: Spare parts for SEM pump

Position	Article number	Designation	Identifier on circuit diagram
	4230580290	SEM pump, 200-240 V, 50/60 Hz, ET	M1
	4230580360	Spare parts package for SEM pump (1 x diaphragm, 2 x spring, 2 x ball)	
2	4230570350	Cover hood / SEM pump	

Position	Article number	Designation	Identifier on circuit diagram
3	4230570360	Seal / cover for SEM pump	
4	4230580320	Pump unit / SEM pump	
6	9280150430	Capacitor / SEM pump	

11.2 Circuit diagram

11.2.1 Circuit diagram 2.2 kW

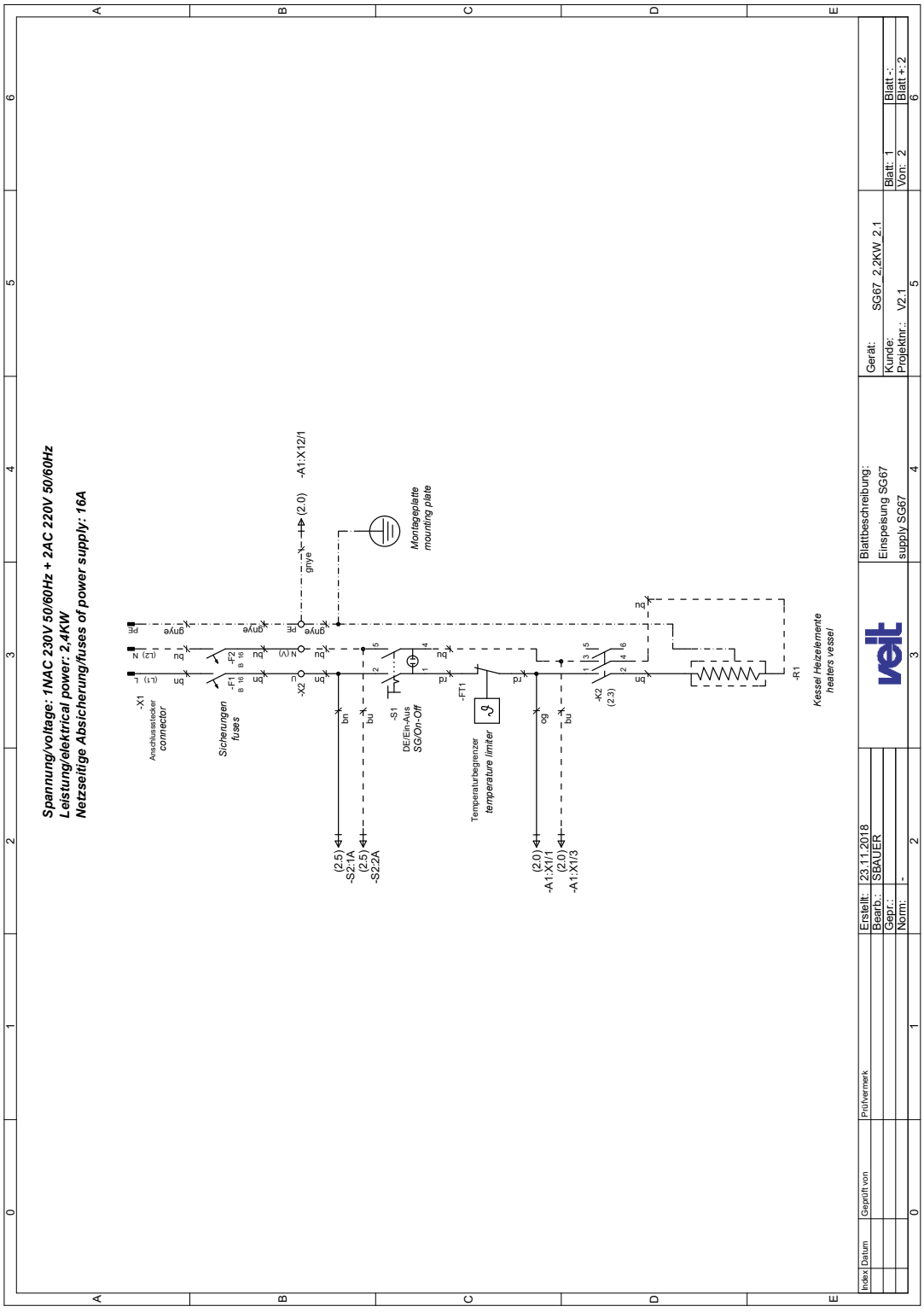

Fig. 34: Circuit diagram_2.2kW_2_1_page 1

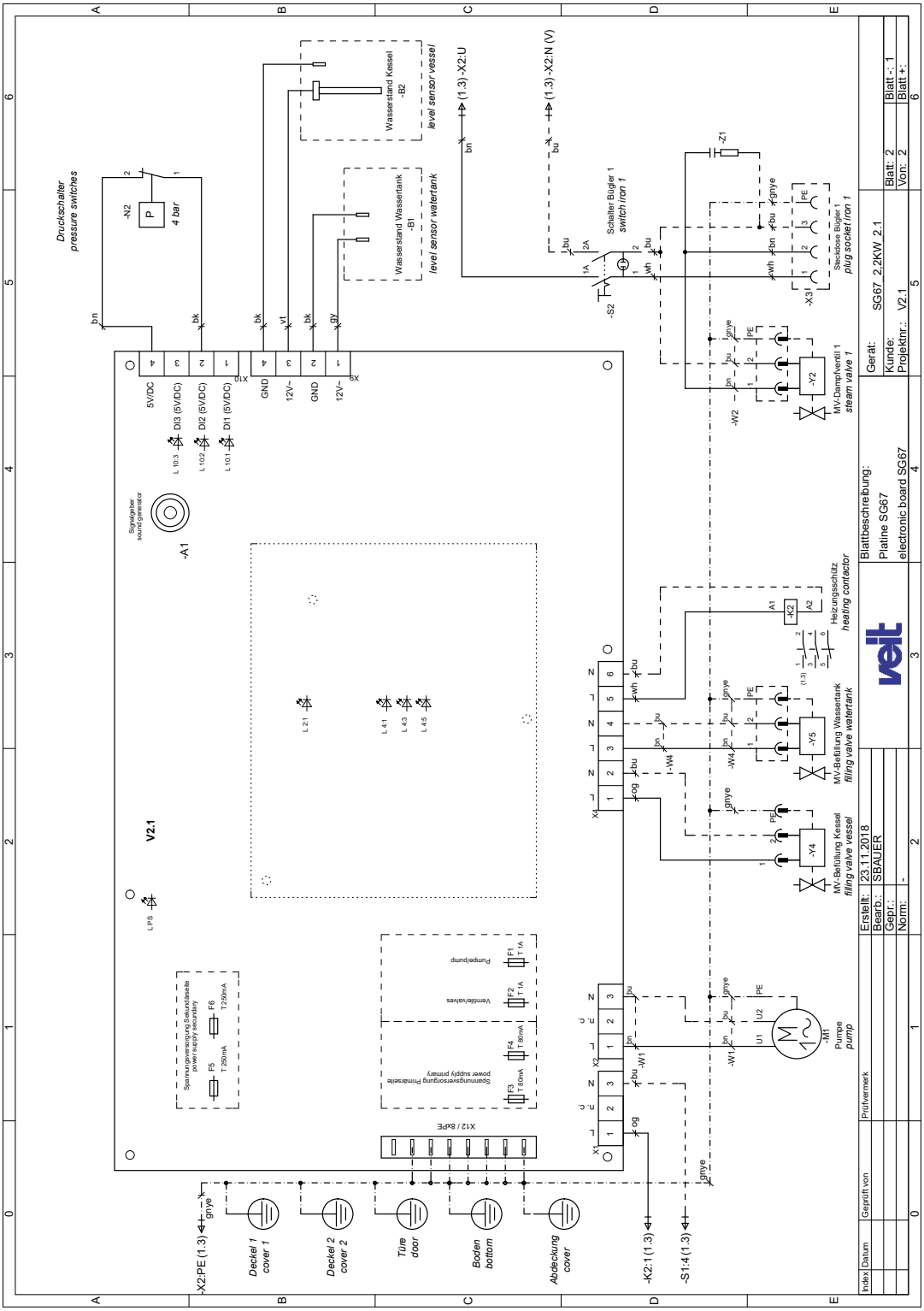

Fig. 35: Circuit diagram_2.2kW_2_1_page 2

11.2.2 Circuit diagram 4.4 kW cleaning

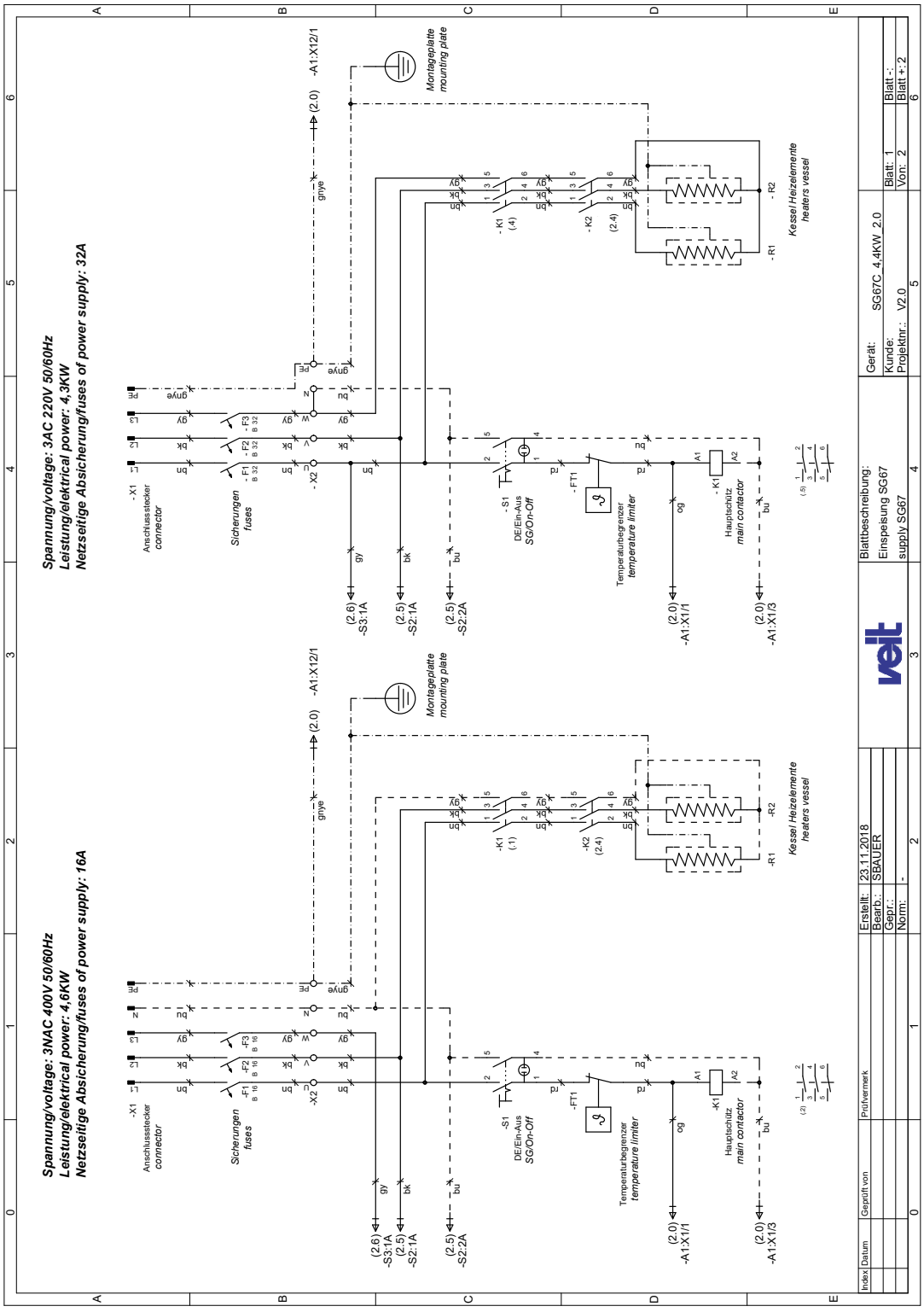

Fig. 36: Circuit diagram_4.4kW_cleaning page 1

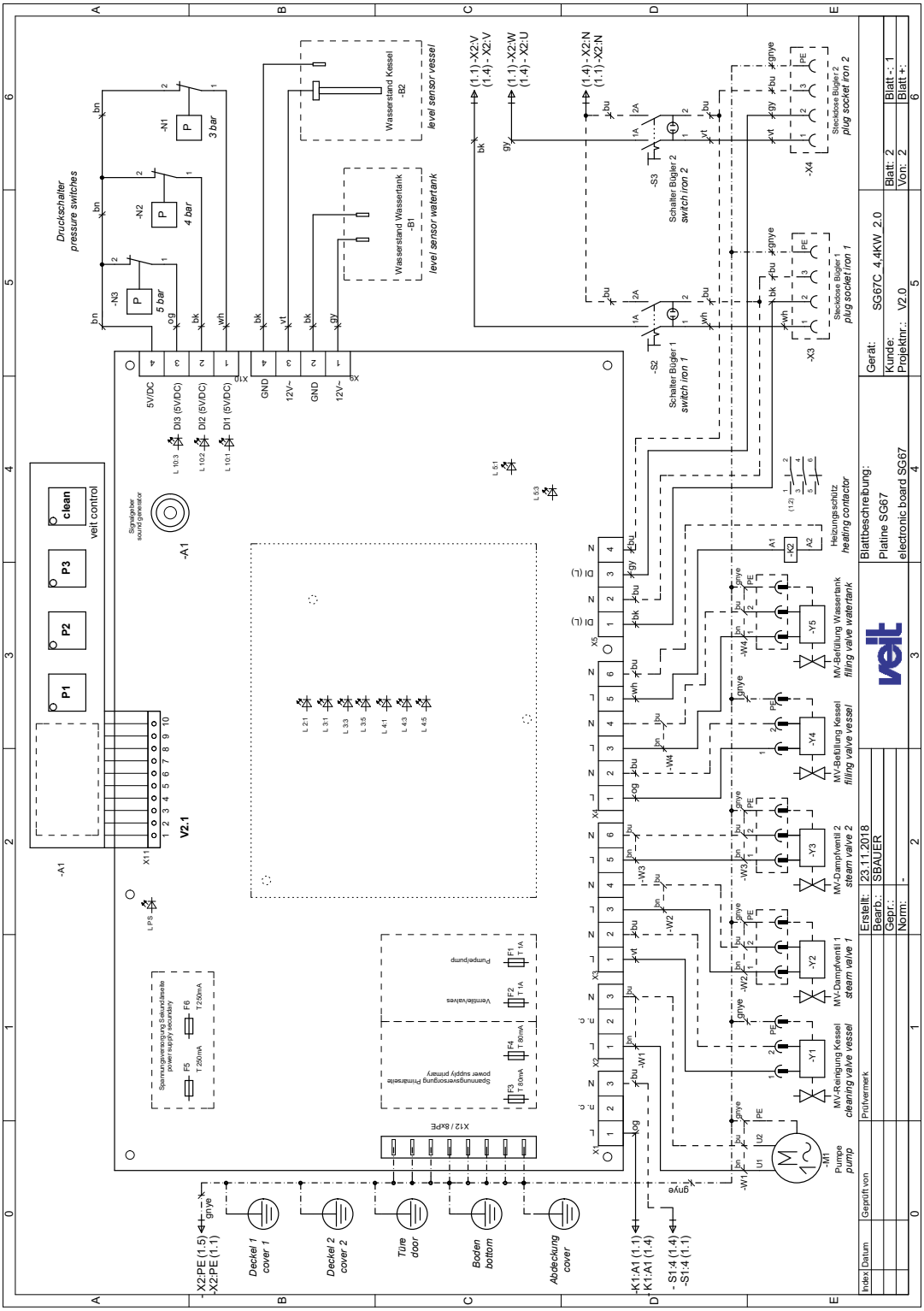

Fig. 37: Circuit diagram_4.4kW_cleaning page 2

11.2.3 Circuit diagram 4.4 kW

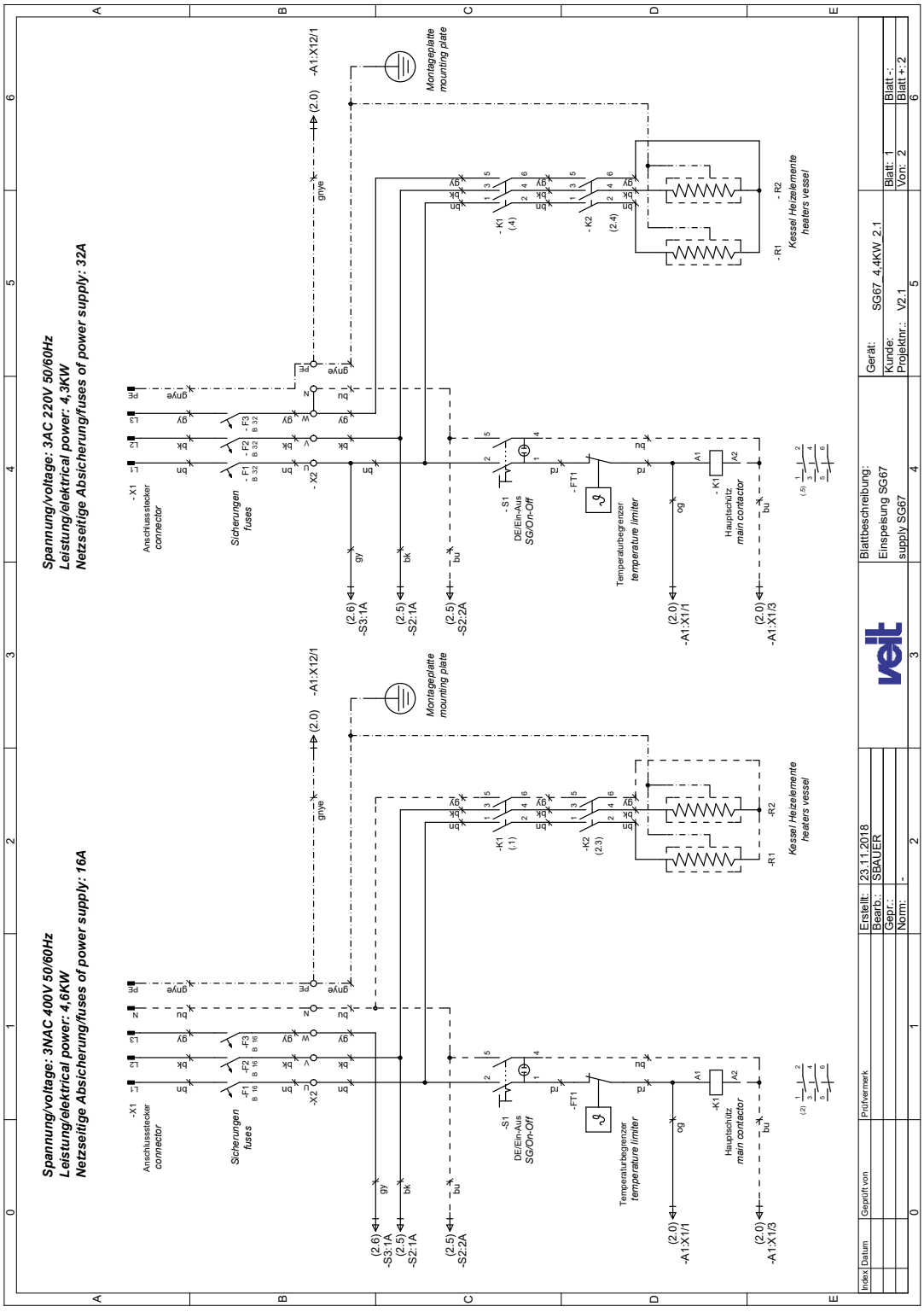

Fig. 38: Circuit diagram_4,4kW_2_1_page 1

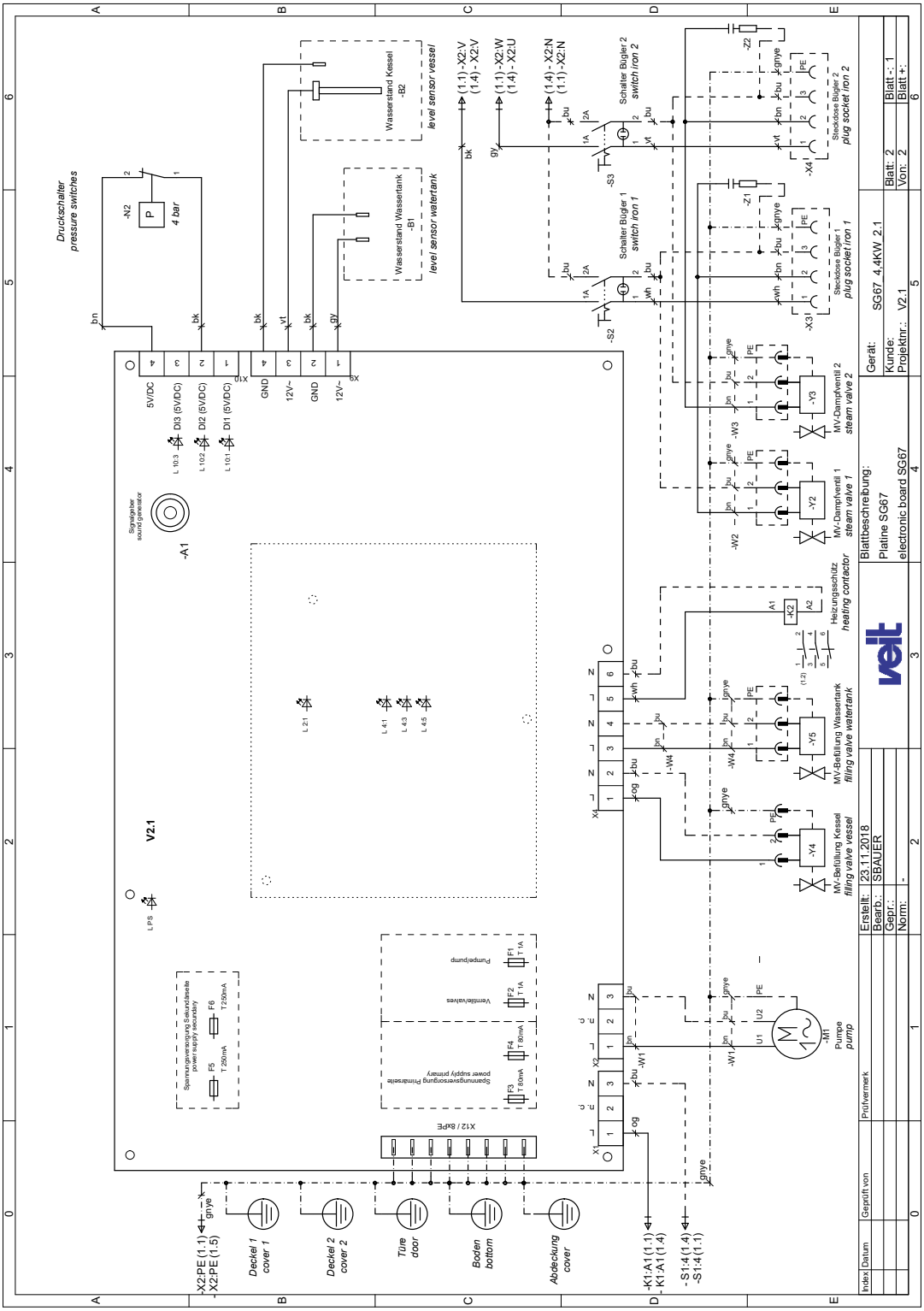

Fig. 39: Circuit diagram_4,4kW_2_1_page 2

11.2.4 Circuit diagram 6.6 kW

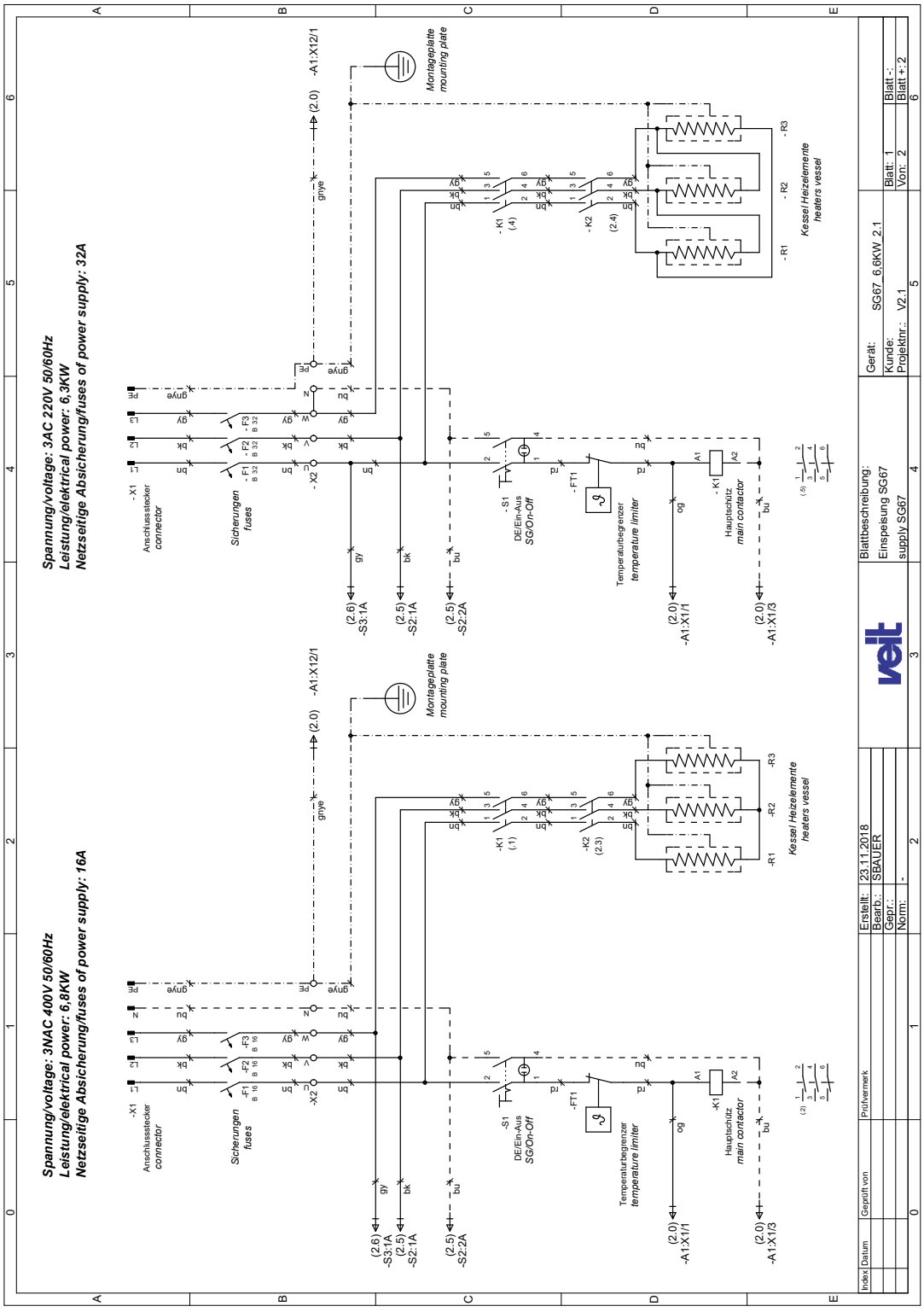

Fig. 40: Circuit diagram_6,6kW_2_1_page 1

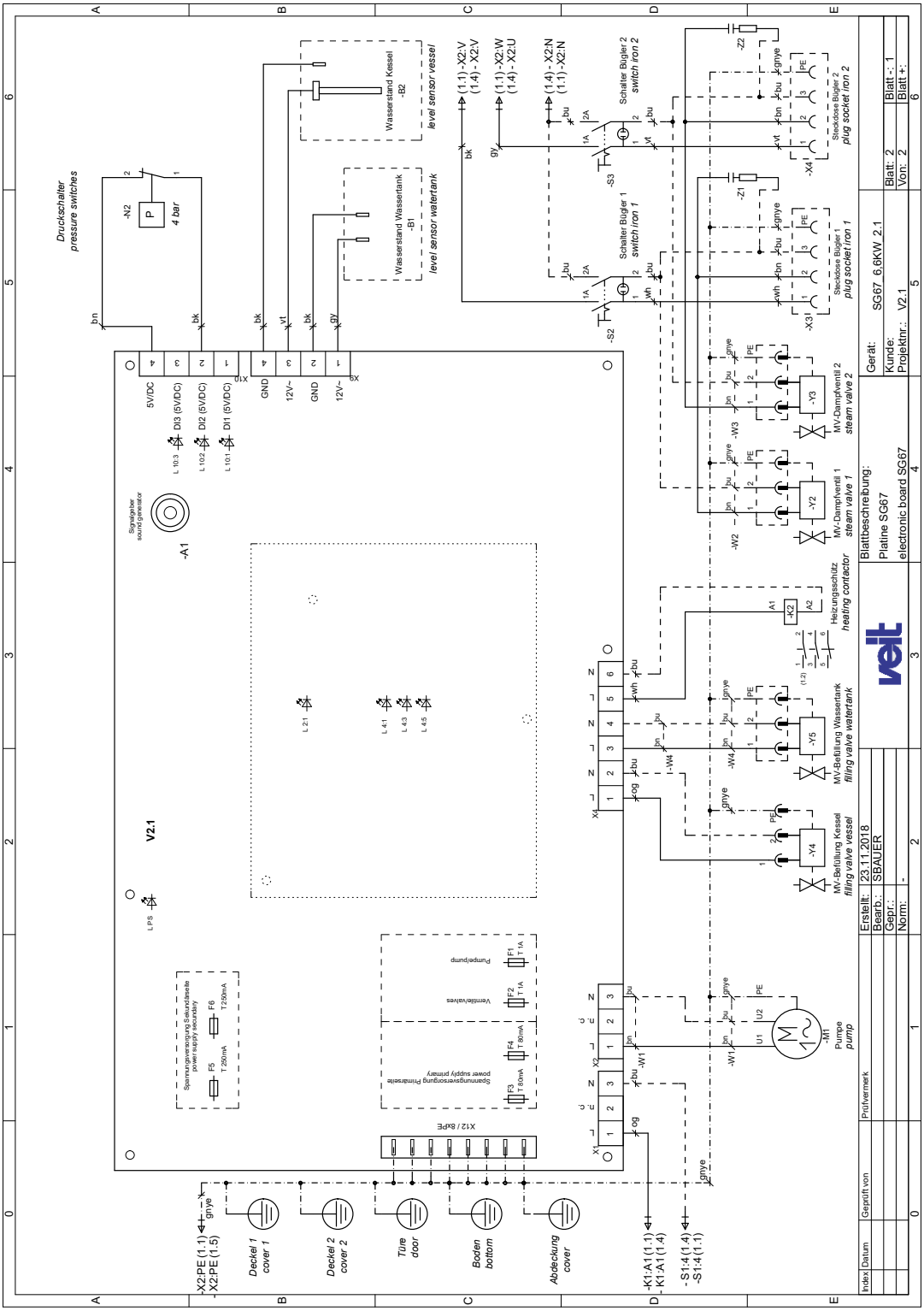

Fig. 41: Circuit diagram_6,6kW_2_1_page 2

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