

REGO® PM SERIES

Planetary, mixing and kneading machines
– Original operating instructions

REGO® PM 20 from Series I-005
REGO® PM 40 from Series P-034
REGO® PM 60 from Series P-034

REGO® PM 80 from Series Q-014
REGO® PM 100 from Series R-017
REGO® PM 140 from Series T-102

REGO® PM 200 from Series T-102
REGO® PM 140S from Series T-012
REGO® PM 200S from Series T-012



REGO HERLITZIUS



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Typ

Serien Nr.

Baujahr

Spannung (V)

Frequenz (Hz)

Leistung (kW)

Sicherung



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1 Introduction

These operating instructions are intended for

- Operating personnel
- Maintenance staff
- Purchasers

of the **REGO PM** planetary, mixing and kneading machine.

The cleaning, care and maintenance of the machine must only be carried out by authorised persons who have read and understood this operating manual. It is the customer's responsibility to authorise persons to carry out cleaning, care and maintenance.

The operating instructions must always be kept within easy reach near the machine. Particular attention must be paid to:

- all safety instructions in this operating manual
- the general safety and accident prevention regulations
- the safety recommendations issued by trade associations and employers' liability insurance associations

The design of the machine ensures that, when used as intended, it can be set up, operated and maintained without endangering personnel. Before carrying out any set-up, maintenance or repair work, the machine must be switched off by unplugging the mains plug.

REGO HERLITZIUS reserves the right to make technical modifications and improvements to the machine described in this operating manual without prior notice. It is therefore possible that the illustrations may not correspond exactly to the model you are using.

We reserve all copyright to this operating manual and the accompanying drawings and documents.



Installations and repairs not carried out by authorised and qualified specialists, as well as any technical modifications to the machine, will invalidate the manufacturer's warranty and liability.

Qualified specialists are defined as persons who possess the skills and knowledge required for the design and operation of the electrical machine and its installation, and who have completed training in the identification and prevention of potential hazards.

In the event of a fault, please contact Rego Herlitzius to obtain authorised and qualified after-sales service.



QR code: Product registration



Please scan!

By registering, you secure your full warranty entitlement and also benefit from important service advantages.

Why register?

- Full warranty cover: Activate the full warranty cover for your machine.
- Fast support: Should you require assistance, we can help you particularly quickly and accurately thanks to the details you provide.
- Product updates & news: Receive information on relevant product updates, notices or enhancements, if you wish.
- Optimal traceability: Your registration details enable us to process enquiries, maintenance requests and any spare part requirements efficiently.

How registration works:

1. Complete the form in full.
2. Enter the serial number, date of purchase and retailer.
3. Submit the form – and your product is registered.



2.1 General

The planetary, mixing and kneading machine must only be operated, maintained and repaired by authorised, trained and instructed personnel. These individuals must have received specific instruction on potential hazards and the machine's installation.

When selling or hiring out the machine

- , please hand over this operating manual
- draw attention to the safety regulations

Unauthorised modifications or alterations to the machine that could compromise safety are not permitted. The operator is obliged to report any changes to the machine that could compromise safety to **REGO HERLITZIUS** immediately.

Before commencing any cleaning work on the machine, the main power supply must be disconnected and secured against accidental activation.

Non-ionising radiation is not deliberately generated, but is merely emitted as a technical by-product of the electrical equipment (e.g. electric motors, high-voltage power lines or solenoid coils). Furthermore, the machine does not contain any strong permanent magnets. Provided a safety distance (distance between the field source and the implant) of 30 cm is maintained, interference with active implants (e.g. pacemakers, defibrillators) can be ruled out with a high degree of certainty.



2.2 Intended Use

The **REGO PM** planetary, mixing and kneading machine is a technical product intended for use in the workplace and for use by persons aged 14 and over. It is intended exclusively for the production of food doughs in bakeries and kitchens (see **Chapter 3**).

Any use of the machine beyond this, e.g. the production or processing of hazardous substances, such as explosive substances in the chemical industry, is prohibited and requires authorisation. Installation in a hazardous, explosive atmosphere is not permitted.

Intended use also includes compliance with the manufacturer's instructions for installation (see **Section 4.3**), commissioning (see **Section 5**) and maintenance (see **Section 8**).

The **REGO PM** planetary, mixing and kneading machine is not suitable for continuous use. The actual service life depends on the users, the composition of the mixture and the state of maintenance of the machine.



The manufacturer accepts no liability for damage resulting from improper use.

2.3 Symbols

The following symbols are used in these operating instructions and must be observed carefully.



Caution! Safety notice

The “**Caution**” symbol indicates passages of text that are important for the safe operation of the machine. Please read these instructions very carefully.



High voltage!

Warning: dangerous electrical voltage



3 Dimensions and technical data

Machine type	REGO PM 20	REGO PM 40	REGO PM 60	REGO PM 80	REGO PM 100	REGO PM 140(S)	REGO PM 200(S)
Mains voltage V	230	400	400	400	400	400	400
Drive motor kW/min	1.5/1450	3.0/1430	3.0/1430	3.7/970	5.5/960	7.5/730	7.5/730
Max. current A	5.3	7	7	11	15	18.5	20
Protection A	10	16	16	16	20	25	25
Frequency converter kW/V	1.5/230	3.0/400	3.0/400	5.5/400	5.5/400	11/400	11/400
Operating speed ¹ min-	50–450	50–450	50–450	50–450	50–450	50–350	50–350
Emission sound pressure level (A) dB	≤ 70 ± 5	≤ 70 ± 5	≤ 70 ± 5	≤ 70 ± 5	≤ 70 ± 5	≤ 70 ± 5	≤ 70 ± 5
Boiler size r Lite	20	40 / 20	60 / 40	80 / 60	100 / 80 / 60	140	200/140
Dough min. litres	0.5	0.75	1	1.25	1.5	3	4
max. kg	4	8	10	14	20	28	40
Mass min. kg	1	1.5	3	3	3	5	8
max. kg	15	30	50	55	60	115	160
Cream min. kg	1	1.5	3	3	3	5	8
max. kg	10	20	30	40	45	70	96



Dimensions [mm]		REGO PM 20	REGO PM 40	REGO PM 60	REGO PM 80	REGO PM 100	REGO PM 140(S)	REGO PM 200(S)
A		216	270	270	320	320	320	320
B		149	201	201	214	235	235	235
C		-	-	-	598	640	790	790
D		538	566	566	605	605	730	730
E		570	583	583	590	590	805	805
F		280	299	299	-	-	-	-
G _{min}		360	492	492	350	350	340	340
Height	H	1100	1757	1757	1850	1985	1980	1980
Wide foot	BF	625	691	691	658	700	850	850
Width of protective cover BS		-	-	-	-	-	950	950
Depth	T	695	931	931	1240	1240	1440	1440
Foot depth	TF	675	859	859	930	930	1145	1145
Net weight	kg	150	300	300	600	650	860	880
Gross weight of carton (kg)		170	335	335	-	-	-	-
Gross weight of packaging k		-	-	-	650	720	950	970
Gross weight of shipping crate k		215	365	365	680	750	980	1000



3 Dimensions and technical data

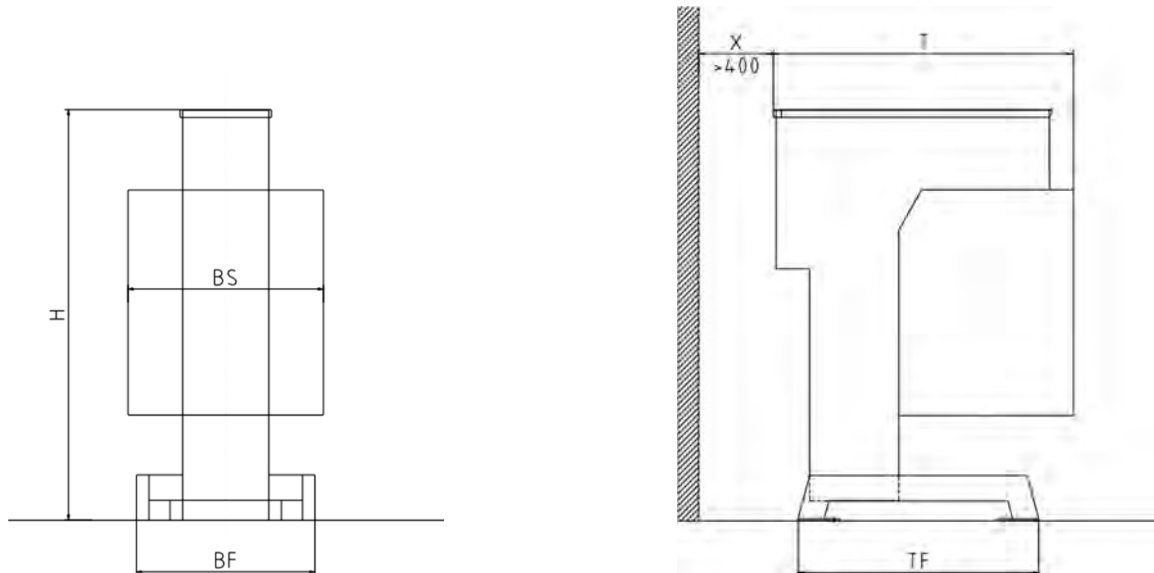


Fig. 1: Machine dimensions REGO PM

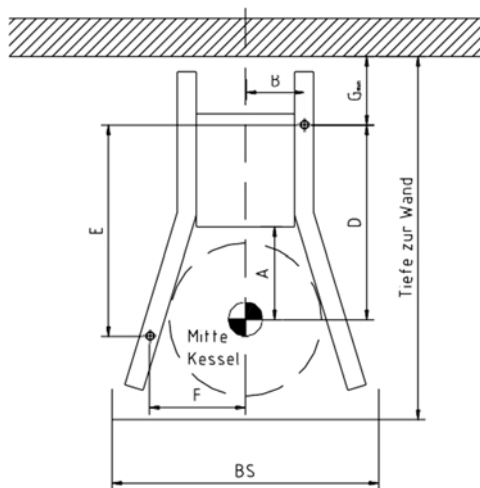


Fig. 2: Installation dimensions REGO PM 20 – PM 40 – PM 100 – PM 60

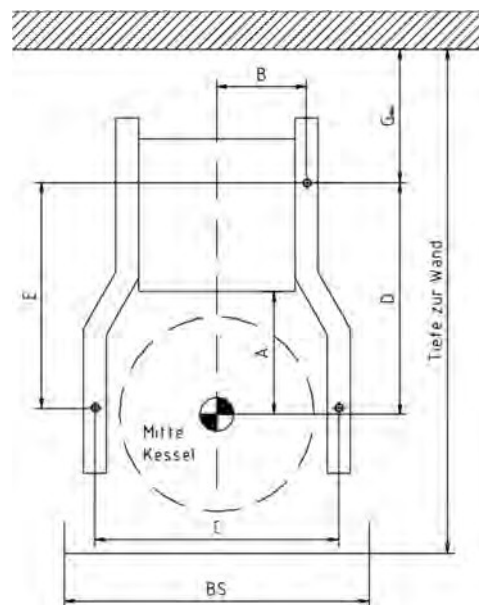


Fig. 3: Installation dimensions for REGO PM 80 PM 140 – PM 200



4 Transport and Installation

4.1 Transport

The machine is delivered bolted onto a disposable Euro pallet, enclosed in a cardboard box or crate.



To ensure safe transport, the machine should be moved to the installation site using a pallet truck or forklift, depending on its weight.

Please note any instructions on the outer carton:



Fragile

Indicates packages containing fragile or delicate contents. Handle the package with care; do not drop it or subject it to impact.



Protect from moisture

Protect parcels from moisture and keep them dry.



Centre of gravity

Be aware of the off-centre centre of gravity. Lift the machine carefully and check whether the load is tilting.

4.2 Unpacking

- Remove the strapping and lift off the cardboard box
- Check the machine order against the delivery note
- Check the machine and accessories (see **Section 6.2: Standard Accessories**) immediately for any transport damage and to ensure they are complete. In the event of damage or discrepancies, please contact REGO HERLITZIUS's customer service department immediately (see **Section 13**)



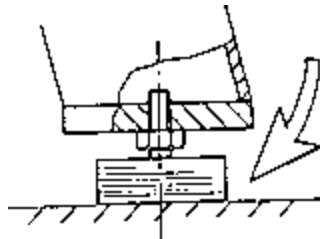
4.3 Installation

When selecting a location, ensure that the machine is not exposed to direct heat or hot vapours. The machine is installed at the site by the manufacturer's service team or by your own staff.

The distance from the wall, X (see Fig. 1, **Chapter 3: Dimensions and Technical Data**), must be at least 40 cm to ensure access for servicing and adequate filter ventilation. To ensure stability, floor-standing machines must be anchored to the floor. The diagonally offset fixing holes can be marked out and drilled using the installation dimensions (see Figs. 2 and 3, **Chapter 3: Dimensions and Technical Data**). The anchor bolts supplied are to be fitted in accordance with the enclosed assembly instructions (see **Chapter 4.4**).

To set up the planetary, mixing and kneading machine, proceed as follows:

- Loosen the fixing bolts on the machine base/Euro pallet (floor-standing machines)
- Lift the machine using a suitable pallet truck or forklift and remove the pallet
- The machine can be slid into its final position through the slotted holes in the machine base (floor-standing machines)
- The machine is fitted with a height-adjustable rubber foot to compensate for uneven floors. To adjust the machine, proceed as follows:



- a Loosen the lock nut
- b Adjust the position by turning the rubber foot
- c Check that the machine is stable and finally retighten the lock nut

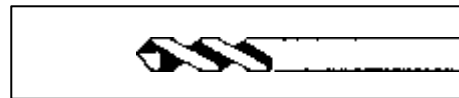
Bench-top machines should be placed on the corresponding work trolleys manufactured by Rego Herlitzius. These are fitted with four castors with locking brakes, which must be engaged before setting up the machine to ensure stability. The table height should be 500 mm (PM20) to achieve an optimal working height.

When disposing of the machine, care must be taken to ensure it is stable. To prevent the machine from tipping over, it should be stored lying flat.



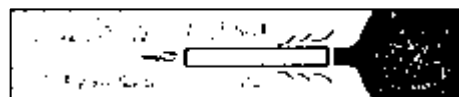
44 Assembly instructions for anchor bolts (for floor-standing machines only:)

1. Drill a hole



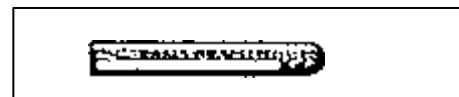
2. Clean the drill hole

Blow out from the deepest part of the drill hole!

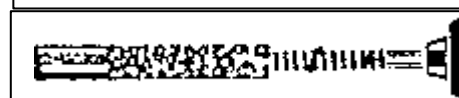


3. Check the composite anchor cartridge

Suitability for use is guaranteed if the glass cartridge is undamaged and its contents flow like honey. Insert the composite anchor into the cleaned drill hole.



4. Insert **the threaded rod** into the hammer drill using the setting tool and, using a combination of hammering and rotating movements (operating speed 250–500 rpm), drive it



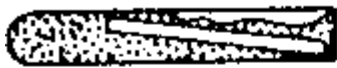
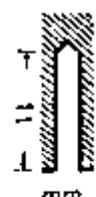
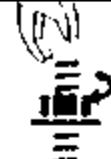
apply firm pressure and drive it into the drill hole up to the mark. Switch off the hammer drill immediately whilst still applying pressure.

Note: Rotating the hammer drill for too long will cause the drill hole to empty, resulting in a faulty installation. Anchors set without a hammer drill – e.g. anchor rods driven in with a hammer – will not achieve a bond and are therefore considered faulty installations. When tightening the nut, the recommended maximum torque must be observed.

5. Allow the synthetic resin mortar **to cure** before subjecting the anchorage point to load – **installations are also possible at low temperatures!**

Immediately after the times specified opposite have elapsed, the nut can be tightened securely (using a socket wrench).

Aushärtezeiten		
Temperatur im Bohrloch	Minimale Aushärtezeit	
	Trockener Beton	Nasser Beton
+35°C	10min.	20min.
+30°C	10min.	20min.
+20°C	20min.	40min.
+10°C	60min.	120min.
+5°C	60min.	120min.
0°C	5h	10h

					
Type	Length mm	Ø M	Ø mm	mm	Nm
M 8	80	M 8	10	80	10
M 10	85	M 10	12	90	20
M 12	95	M 12	14	110	30
M 14	95	M 14	16	120	45
M 16	95	M 16	18	125	60
M 20	160	M 20	25	170	120
M 22	165	M 22	30	190	160
M 24 K	190	M 24	28	210	200
M 27 K	210	M 27	32	250	300
M 30 K	260	M 30	35	280	400
M 24	200	M 24	32	210	200
M 27	250	M 27	35	250	300
M 30	260	M 30	40	280	400



5 Commissioning



Electrical work must only be carried out by an authorised electrician!

Connection instructions



1. Compare the power rating on the type plate with the mains voltage and fuse rating on site



It is essential to observe the following when fusing the supply line:

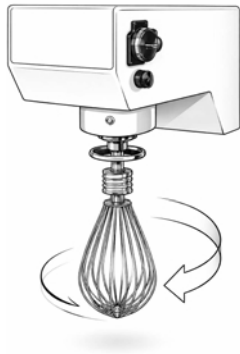
Use the correct fuse rating!

- Neozett screw-in fuse (slow-blow)
 - Class B medium-delay circuit breaker or
 - Class K slow-blow
2. Factory-fitted plugs are connected with the 'right' operating pole. If polarity reversal is required, this must be carried out at the socket and not on the plug (does not apply to PM20).
 3. Plug in the plug.
 4. Check whether the red-and-yellow emergency stop switch is activated. If so, unlock it by turning the mushroom-head pushbutton in the direction of the arrow.
 5. Turn the main switch to operating position **1**.



Every planetary, mixing and kneading machine must be connected to its own RCD switch!

As a residual current device (RCD), a Type A unit must be used for single-phase frequency converters and a Type B unit (all-current sensitive) for three-phase frequency converters.



When the machine is started, the mixing tool rotates anti-clockwise (as viewed from the machine).

The machine must not be operated if the planetary gearbox is leaking, as otherwise gearbox grease may enter the mixture.

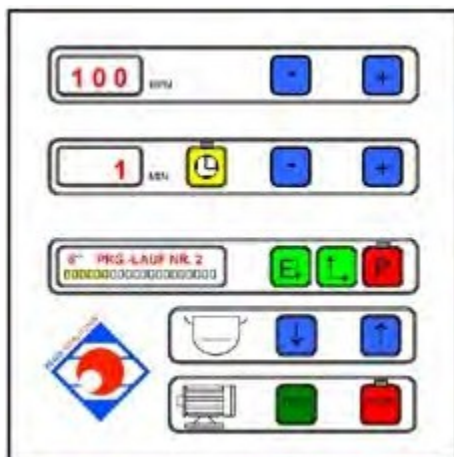


The machine must not be operated without the bowl securely clamped in place!



When the machine is switched off, the mixing tool must come to a standstill within 4 seconds whilst the vessel is empty. This function should be checked monthly.

The following points apply only to machines with automatic height adjustment (REGO PM 40 – PM 200):



6. Raise or lower the vessel by 'tapping' the arrow buttons. **Check that the direction of vessel movement matches the direction of the arrows on the buttons.**
7. If the direction of movement is incorrect, swap two live wires of the power cable at the socket.



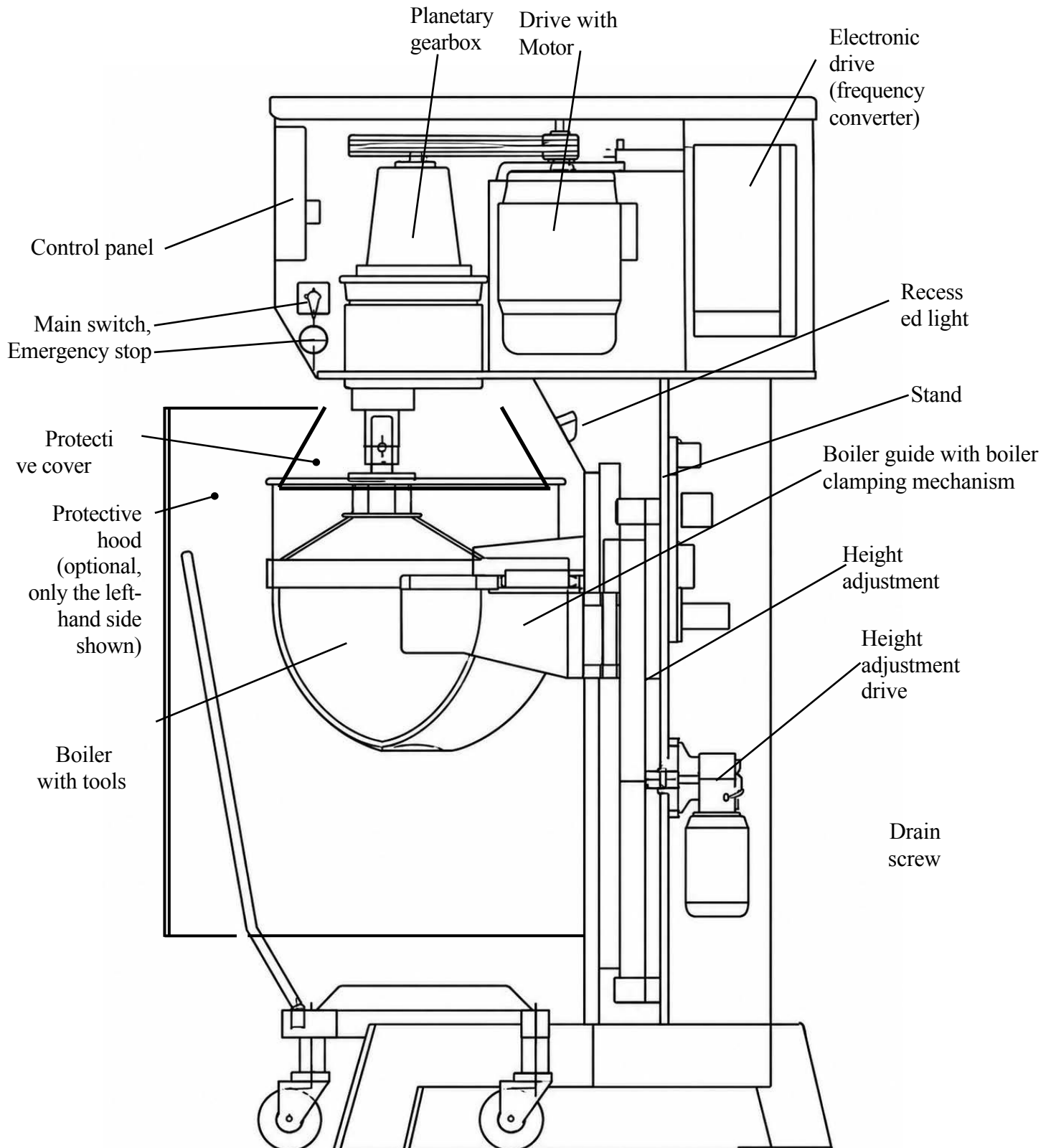
If the boiler is moved in the wrong direction, **the limit switch will be bypassed**. A jam in the upper end position can be resolved by reversing the polarity or resetting the lifting motor. A blockage in the lower end position can be cleared by loosening the drain screw. This can be accessed via an opening in the base plate.



6 s and Operation

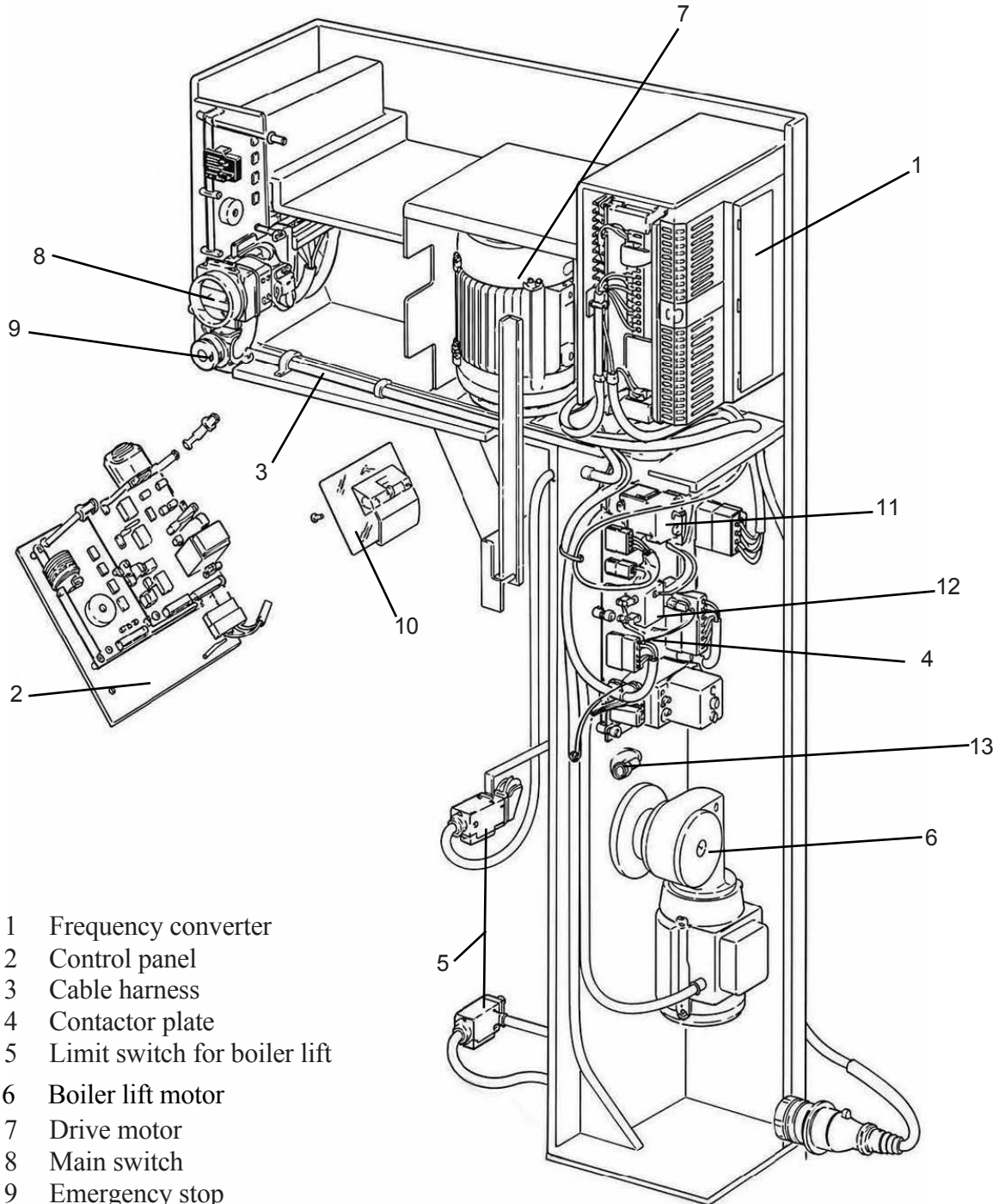
6.1 Machine description

6.1.1 REGO PM 40 – PM 200 floor-standing machines





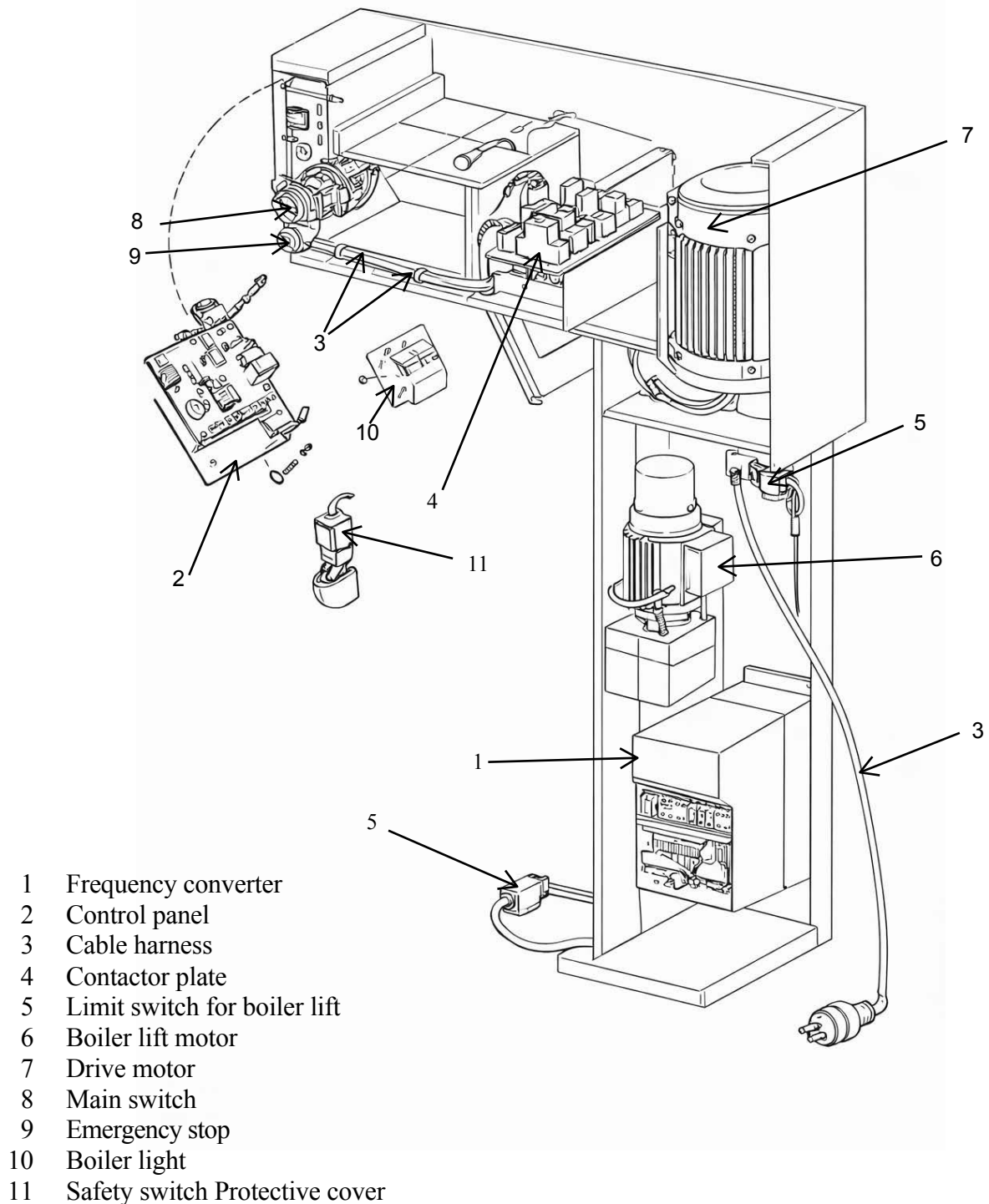
6.1.2 Location of electronic components REGO PM 40 – PM 100



- 1 Frequency converter
- 2 Control panel
- 3 Cable harness
- 4 Contactor plate
- 5 Limit switch for boiler lift
- 6 Boiler lift motor
- 7 Drive motor
- 8 Main switch
- 9 Emergency stop
- 10 Boiler indicator light
- 11 Contactor Drive motor
- 12 Mains filter
- 13 Control fuse

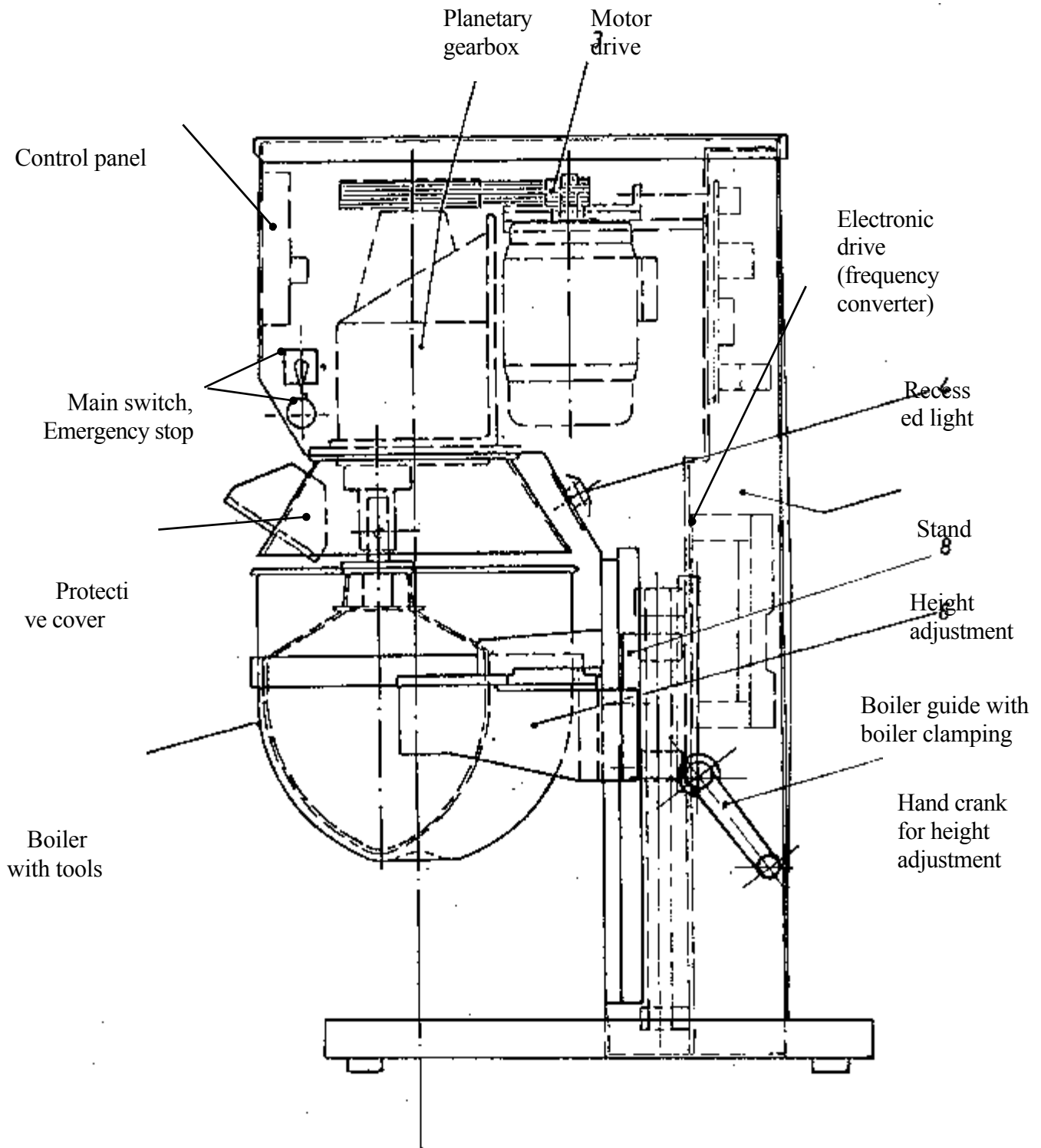


6.1.3 Location of electronic components REGO PM 140(S) and PM 200(S)



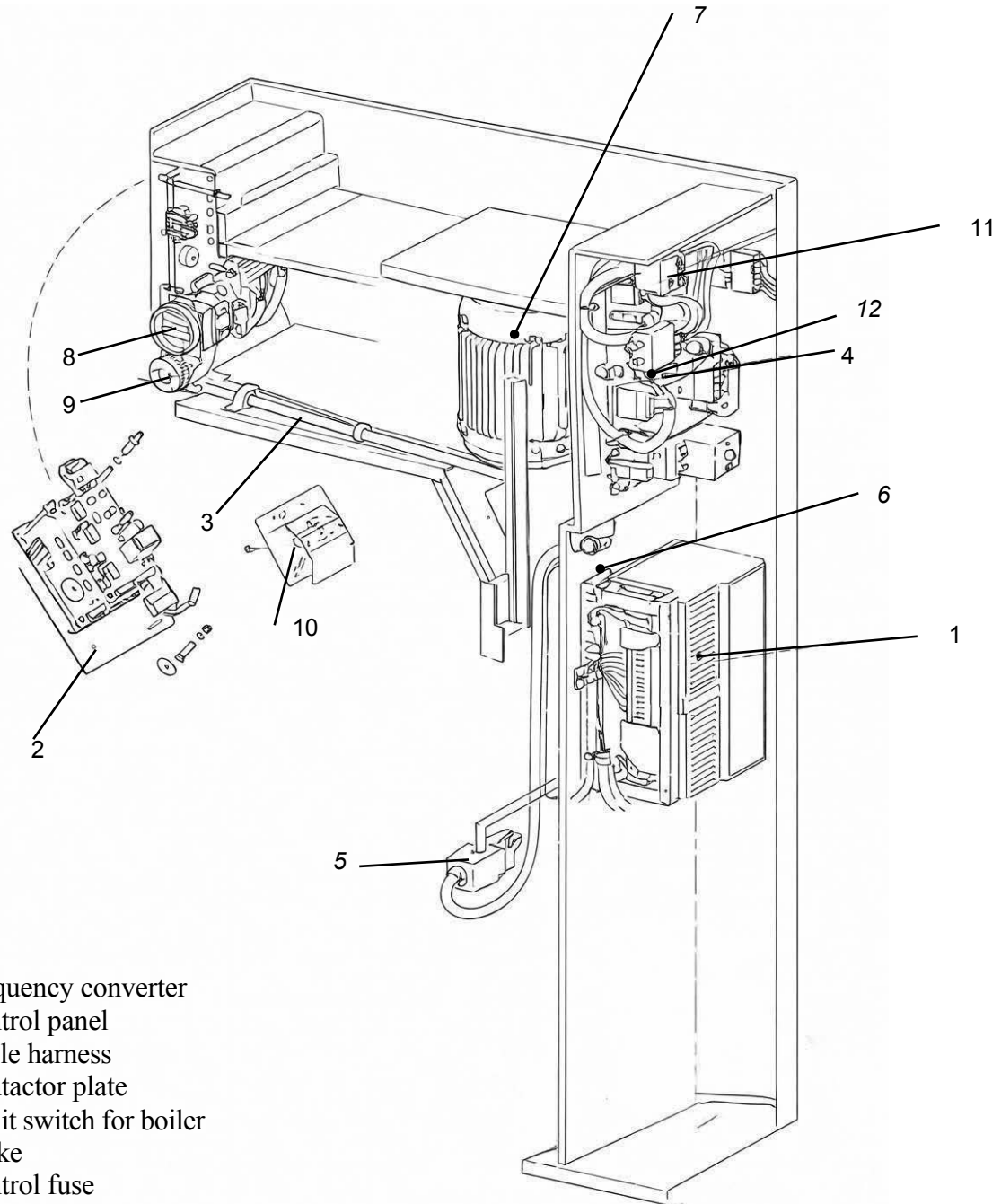


6.1.4 Bench-top machines REGO PM 20





6.1.5 Location of electronic components REGO PM 20



- 1 Frequency converter
- 2 Control panel
- 3 Cable harness
- 4 Contactor plate
- 5 Limit switch for boiler stroke
- 6 Control fuse
- 7 Drive motor
- 8 Main switch
- 9 Emergency stop
- 10 Boiler indicator light
- 11 Contactor Drive motor
- 12 Mains filter



6.2 Standard – Accessories

The mixing machines are fitted with the following accessories as standard:

- 1 planetary bowl
- 1 each: whisk or mixing whisk, flat beater, kneading spiral
- 1 bowl trolley (floor-standing machines only)
- 3 composite anchor cartridges (floor-standing models only)
- Quick guide

6.3 Switching on and off



Main switch

Emergency stop



1. Unlock the red and yellow emergency stop switch by turning it in the direction of the arrow.
2. Turn the main switch to operating position 1.
3. Insert the vessel. (see **Section 6.5: Inserting and clamping the vessel**)

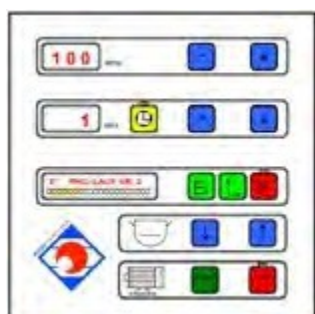


The machine must not be operated without the boiler clamped in place!

4. On versions with a safety guard, this must be closed and locked (see **Section 6.12: Safety guard**).

CAUTION!

Keep body parts away from the working area of the mixing tools. Do not reach into the vessel whilst the machine is running and never lie or sit underneath the vessel. In an emergency, press the emergency stop switch!



5. Move the bowl to its upper end position using the 'Lift Bowl' button or the hand crank (see **Section 6.9: Bowl Lift**). If you have activated the start memory function (see **Section 6.9**), the planetary mixer, stirrer and kneader will run at minimum stirring speed during this process.
6. Press the START button. The speed automatically adjusts to the minimum stirring speed.
7. The mixer can be stopped at any time using the machine stop button.

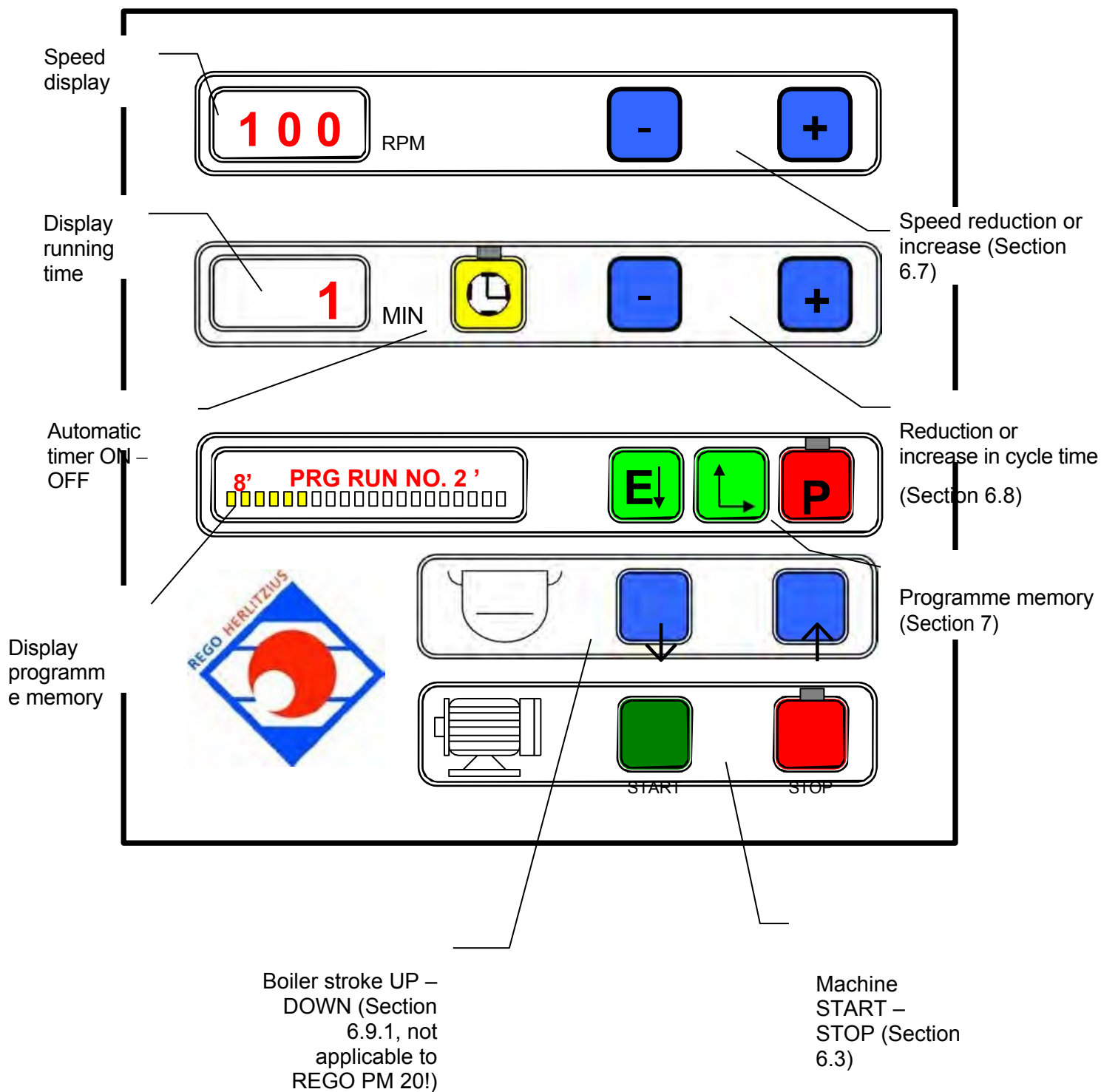




64 Control panel



The membrane keypad on the control panel must be protected from damage at all times!





6.5 Insert the bowl and clamp it in place using the ‘ ’



Move the bowl towards the planetary machine using the bowl trolley (floor-standing machines only) so that the bushing of the bowl clamping ring is positioned over the fixing bolt of the bowl mount. The bowl must be inserted so that the bowl rim is on the inside.



CAUTION!

Keep body parts away from the machine's moving parts.



When the boiler lift is activated, the boiler holder is raised. The fixing pins must engage in the holes in the clamping ring.



Hold down the 'Lift tank' button together with the two-hand control until the system switches off automatically.



The boiler is clamped between the boiler holder and the lower clamp.

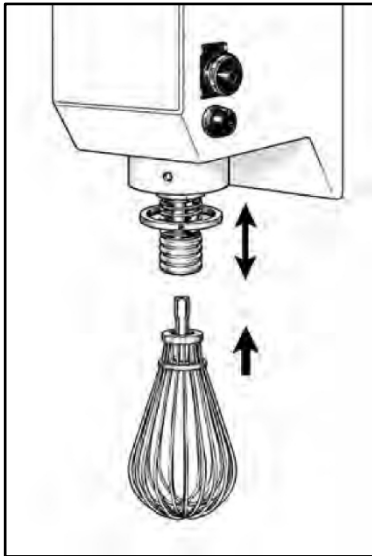


Check that it is securely clamped!

The agitator must only be operated at maximum stirring speed when the vessel is clamped in place.



66 Insert the tool ‘ ’

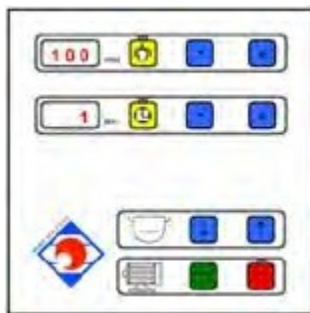


- Slide the clamping sleeve upwards
- Insert the tool shank into the mixing shaft until the locking mechanism clicks into place
- Push the clamping sleeve down
- Check that it is securely in place



Only insert the tool when the machine is at a standstill!
Switch off the main switch!

67 Mixing speed



Increase the stirring speed continuously



Decrease stirring speed continuously

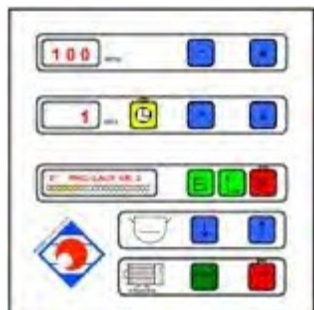


The stirring speed display shows the selected speed setting. When the Start button is pressed, the stirring speed automatically sets to the minimum value of **50**; when the Stop button is pressed, it sets to **0**.

Changes to the stirring speed can be made whilst the machine is running!



6.8 Automatic operation without programme memory



1. Clamp the bowl in place as described in **Section 6.5** and move it to the upper end position. If you have activated the start memory function (see **Section 6.9**), the planetary, mixing and kneading machine will run at minimum mixing speed during this process.
2. Set the desired stirring speed as described in **section 6.7**
3. Set the desired mixing time in minutes using the keypad (+ and – keys)



Automatic timer button



Start machine



Machine stop

4. Activate the automatic mode by pressing the automatic timer button. The stirring speed and stirring time set on the displays are adopted. Automatic mode is indicated by the LED on the automatic timer button lighting up.
5. Start the machine. The preset programme will now run automatically.
6. The mixing time can be adjusted whilst the programme is running. The final minute is counted down in seconds. Once the programme has finished, the original value reappears on the display.
7. Once the programme has run its course, the machine stops automatically. The LED on the stop button lights up and an audible signal indicates the end of the programme.
8. End the programme by pressing the stop button. The planetary, mixing and kneading machine is now ready for manual operation again.

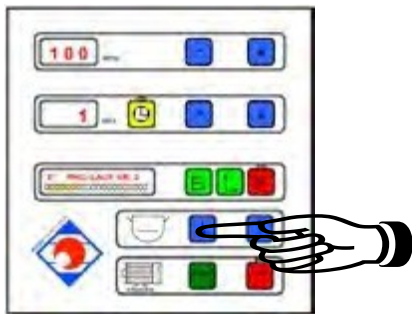
- The programme can be repeated by pressing the automatic timer and START buttons again.



6.9 Bowl lift

The machines are equipped with a *'start memory' function*: if the Start button is pressed twice before the bowl is raised, the planetary mixer, stirrer and kneader will run at the minimum stirring speed whilst the bowl is being raised.

6.9.1 PM 40 – PM 200



To protect the tools and the bowl, the bowl lift is limited by limit switches.

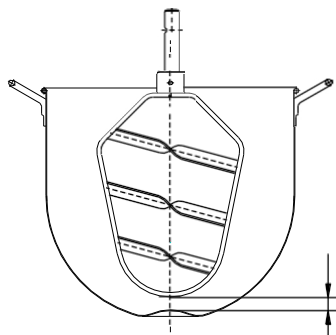


Lower the bowl!

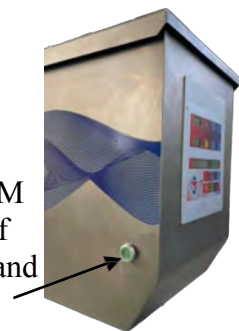
The boiler stroke is switched off by a limit switch when the boiler reaches its lower position.



Lift the boiler!



Two-hand operation: On the PM 40 – PM 200 machines, for safety reasons (risk of crushing), a second switch on the left-hand side of the machine must be pressed simultaneously to lift the boiler.



The system switches off before the tool comes into contact with the base of the boiler.

On machines with a protective hood, the drum can only be raised to the middle position whilst the hood is open. Once the hood is closed, the drum can be raised to its upper end position.

6.9.2 REGO PM 20

The height of the vessel can be adjusted using a hand crank. When the crank is no longer being turned, it locks into a detent and the vessel is secured against slipping. The end positions are secured by mechanical devices. Stirring is enabled via a limit switch.



6.10 Vessel lifting mechanism (not applicable to REGO PM 20)



The boiler lift is driven by a gear motor and can be accessed by removing the rear lower stand cover.

The dedicated motor protection switch is located above the gear motor.

The circuit breaker trips in the event of a motor overload. The circuit breaker resets automatically after a certain period of time

6.11 's electronic drive (frequency converter)



An electronic drive (frequency converter) is located in the upper rear section of the machine frame. The frequency converter has been factory-set and must not be adjusted by the user.

It is not affected by the polarity of the supply cable. It automatically controls the correct direction of rotation of the stirring shaft in every connection.

Please observe the safety instructions when handling frequency converters (see the manufacturer's operating instructions)



Electrical equipment poses a hazard!

The equipment described in **sections 6.10** and **6.11** carries dangerous electrical voltages and controls rotating mechanical parts. Failure to follow the instructions in this operating manual may result in death, serious personal injury or significant damage to property.

Electrical equipment must only be installed, operated, used and maintained by qualified personnel.

Qualified personnel are defined as individuals who possess the skills and knowledge required for the design and operation of electrical equipment and its installation, and who have completed training in the identification and prevention of potential hazards.



6.12 **Protective cover**

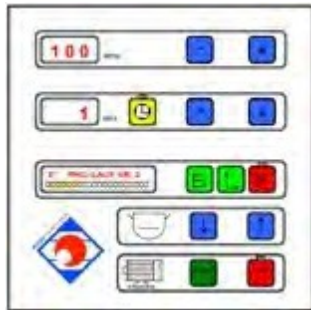
The PM 140S and PM 200S planetary machines are fitted with a safety guard that encloses all rotating machine parts, thereby ensuring the greatest possible protection against injury for operating personnel. For this purpose, a safety switch is fitted to the safety guard, which only permits operation with the mixing tool in motion when the door is correctly closed.



If the safety guard is not functioning correctly, the planetary mixer must not be operated!

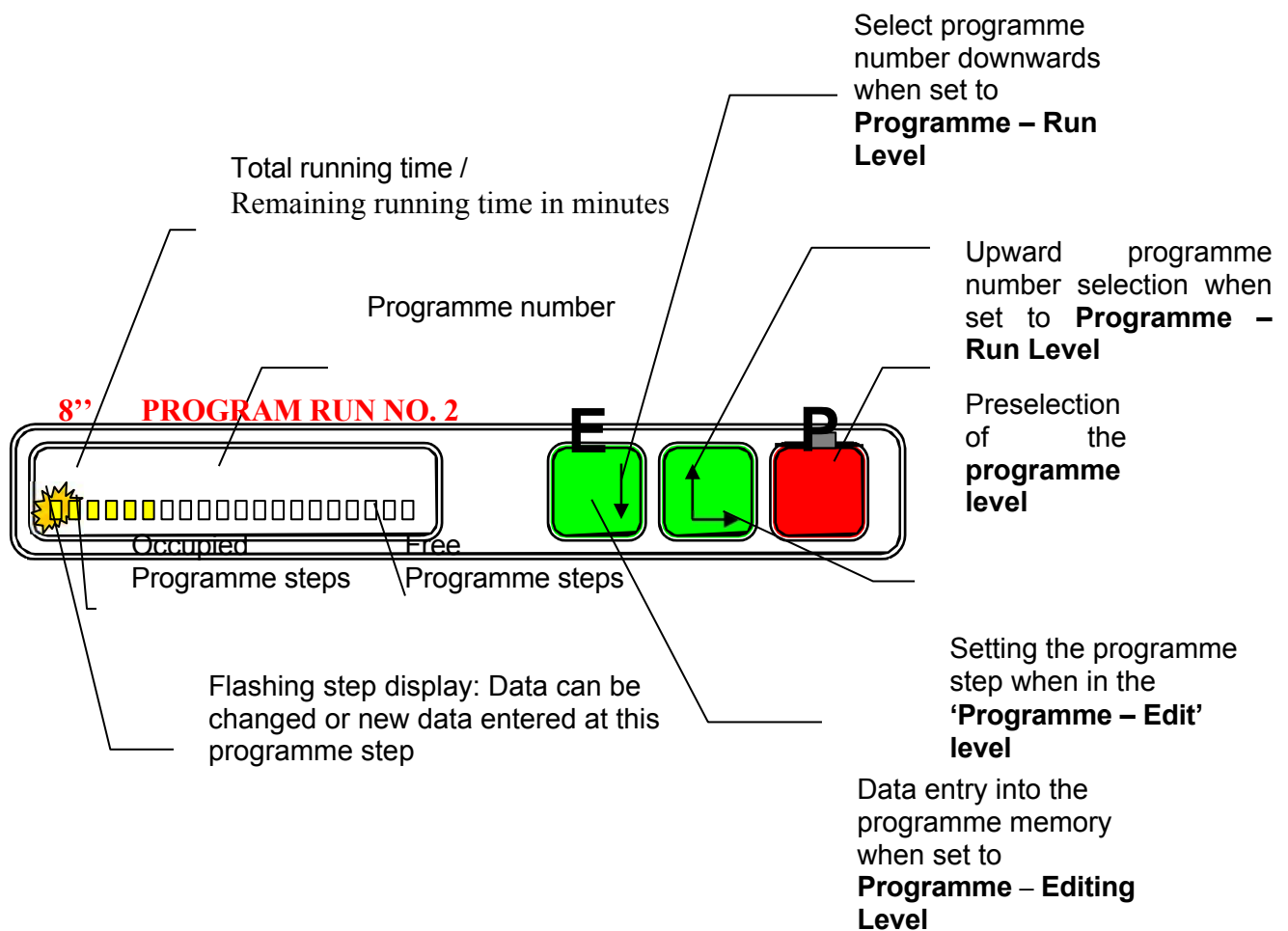


7 Programme storage



Using the memory programming function, 37 programmes can be stored, each with up to 20 programme steps.

Memory programming is included as standard on the REGO PM 40 – REGO PM 200 machines. It is available as an option on the REGO PM 20 machines.



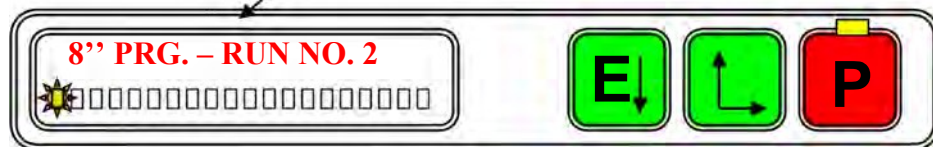


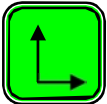
7.1 Programme number preselection

1. Switch on the **main switch** and wait until an audible signal sounds.

2. Use the  key to activate the **programme level**.

The LED display lights up.



3. Using the  and the  - button to select the desired **programme number**.

4. To start the machine, press



5. Once the programme has finished, the machine stops automatically. The LED on the STOP button lights up and an audible signal indicates that **the programme has ended**. The audible signal is silenced by pressing the STOP button.

6. Once the **programme has finished**, exit the programme operation screen by pressing the STOP button again



7. The display goes blank.

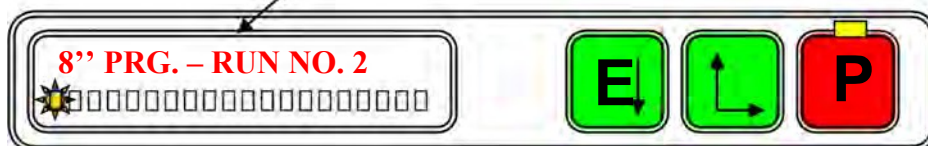


7.2 Creating a programme on the : Machine at a standstill

1. Switch on the **main switch** and wait until an audible signal sounds.

2. Press the  key to activate the **programme run level**.

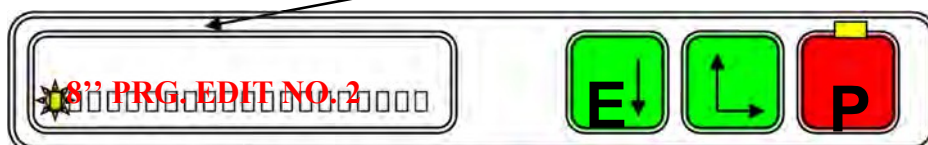
The LED display lights up.



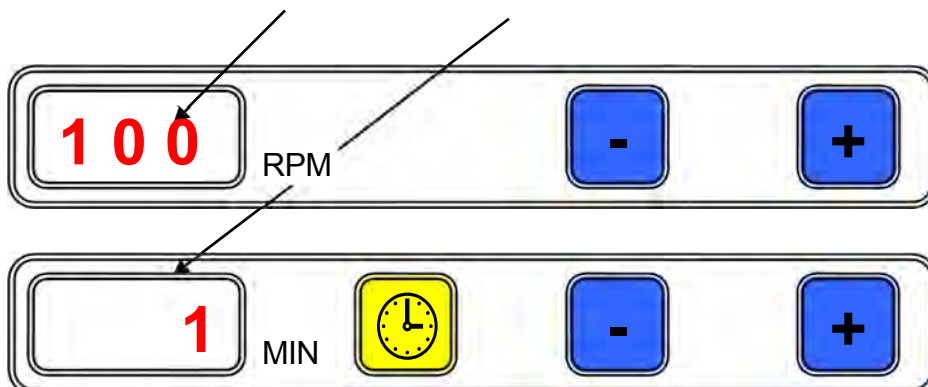
8. Using the  and the  - button to select the desired **programme number**.

You can recognise available programme numbers by the fact that all the step fields light up brightly.

3. Press the  – key to access the **programme editing level** button to activate the programme editing level.



4. Enter the desired **stirring speed** and running **time**

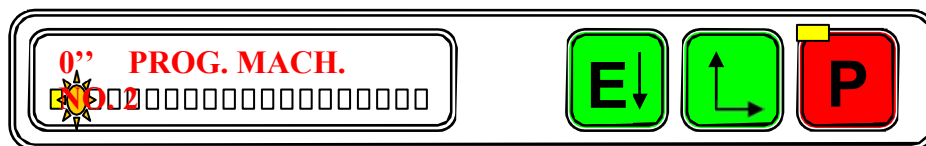




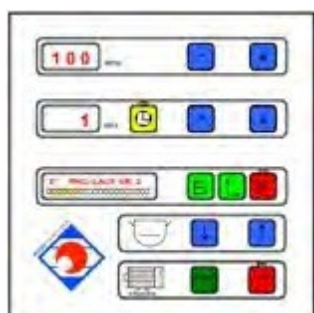
6. Pressing the  – button completes the data entry for the

first programme step.

The first programme step turns off and the flashing indicator jumps to the next available programme step.



- Up to 20 programme steps can be assigned
- Machine pauses can be saved by setting a time and entering a stirring speed of '0'



To programme an indefinite pause, you must press the + / - buttons for the running time simultaneously whilst in programme – editing or learning mode. If an indefinite pause has been programmed, a short beep will sound at this point during programme execution and the LED on the 'Clock' button will flash. To resume the programme, press the 'Start' button.

7. Once the programme has been created, the machine can be started by pressing the  – button. The **programme editing screen** automatically switches to back to the **programme run level**.

8. Each previously saved **programme step** is now executed. The flashing indicator shows which **programme step** is currently active. The stirring speed and running time of the active **programme step** are shown on the displays. The remaining running time is shown on the programme memory display.

9. Once the programme has run through, the machine stops automatically.

The LED indicator on the  – button lights up and an audible signal

signals the **end of the programme**. The beep stops when you press the STOP button again or automatically after 30 seconds.

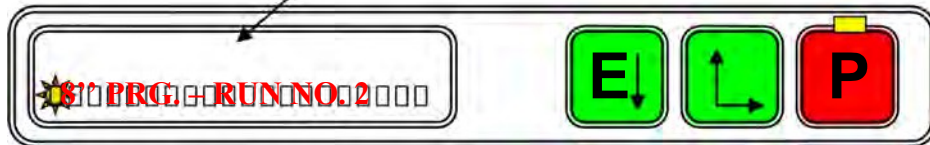


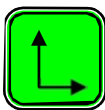
7.3 Programme correction

1. Switch on the **main switch** and wait until an audible signal sounds.

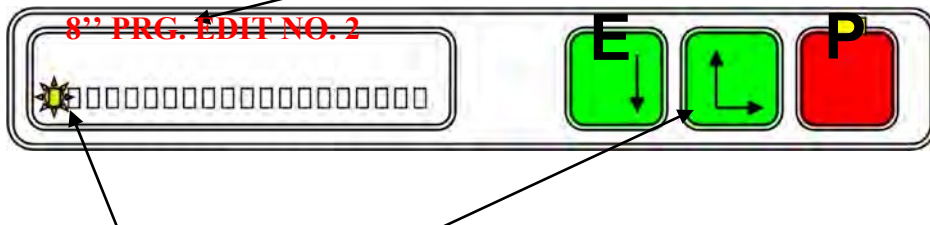
2. Use the  key to activate the **programme run mode**.

The LED indicator lights up.



3. Using the  and the  - key to select the **programme number** to be corrected.

4. Press again to activate it.  – Press the button to access the **programme editing level**



5. Use the arrow key to set the flashing cursor on the **programme step** to be changed.
6. You can now make the desired changes to the stirring speed and running time. The amended data will appear in the relevant displays.

7. Press the  – key to complete data **entry** and save the amended settings are saved to the **programme memory**.

8. The machine can now be restarted using the START button, or you can exit the programme level by pressing the STOP button.

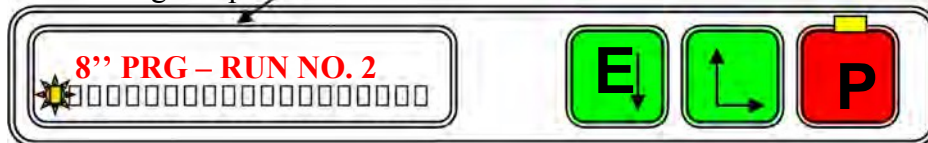


7.4 Programming whilst the machine is running (“Learning mode”)

1. Switch on the **main switch** and wait until an audible signal sounds.

2. Use the  key to activate the **programme run level**.

The LED indicator lights up.

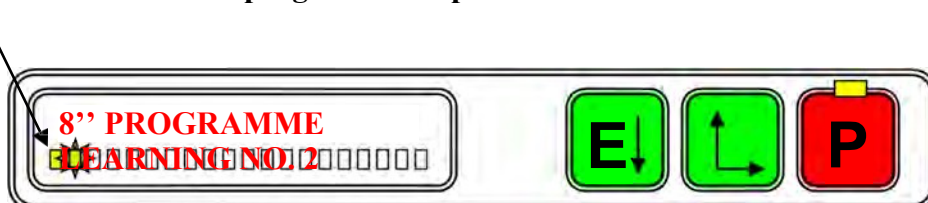


3. Use the  and the  button, select the desired **free programme**. You can recognise free programme numbers by the fact that all the step fields light up brightly.

4. Press the  button to activate the **programme learning mode**.



5. Set the desired **speed** and start the machine using the START button. Pressing the START button simultaneously activates the start of **the running time**. A minimum running time of 1 minute is required to save the programme.
6. If the **speed** is changed, the computer automatically saves the previous stirring speed and running time to the programme memory, and the **flashing indicator** jumps to the next **available programme step**.



7. At the same time, the runtime display is reset. **Speed adjustments** can now be made within 30 seconds. The runtime display shows 0. Once the mass in the boiler has reached its final state, the programme can be terminated by pressing the STOP button. The programme is now saved under the preselected **programme number**.

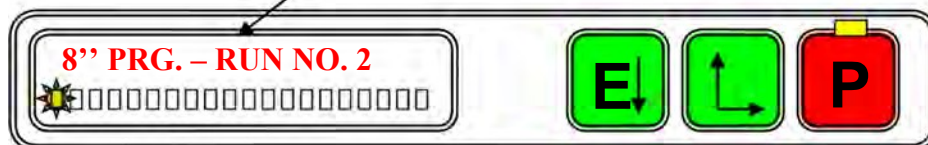


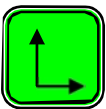
7.5 Deleting programmes ()

1. Switch on the **main switch** and wait until an audible signal sounds.

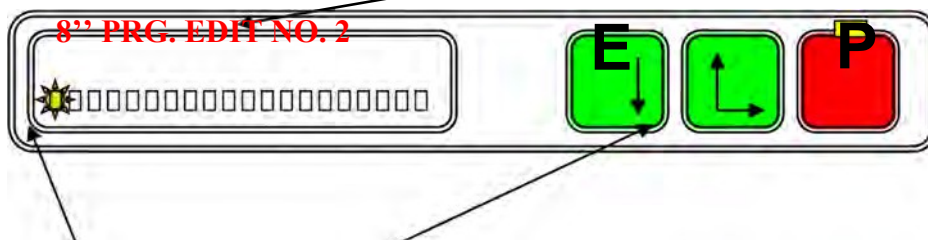
2. Using the  key to activate the **programme selection screen**.

The LED display lights up.



3. Using the  and the  - key to select the **programme number** to be corrected.

4. Press again to activate it.  – Press the button to access the **programme editing level**



5. Use the arrow key to move the flashing cursor to the **programme step** to be **deleted**.



6. Set the mixing speed and running time to “0” using the respective minus buttons.



7. Press the  – button to confirm the deletion.

This procedure allows you to delete individual programme steps or an entire programme. Deleted programme steps can be identified by the dark programme step fields.

8. Exit the **programme – editing mode** using the **STOP** – button.



8 Maintenance and Cleaning



We recommend having a thorough inspection carried out annually by authorised specialists.

8.1 *Lubrication*



Any greases that may come into contact with food are food-grade. Please use only Castrol Optileb GR UF 1 for lubricating your beater and mixer, in accordance with the enclosed data sheets.



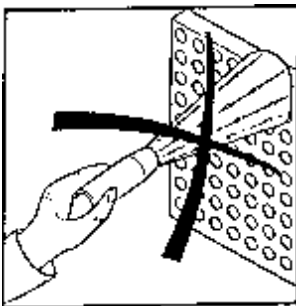
8.2 Filter replacement (REGO PM 40 – PM 100 only)



The filter should be replaced depending on the level of soiling and at the latest after 6 months at the latest. To do this, proceed as follows

- Open the filter housing
- Remove the filter mat
- Insert the new filter mat
- Close the filter housing again

8.3 Cleaning the machine



No!



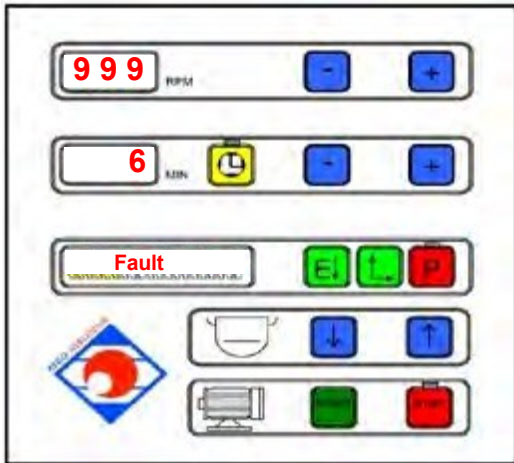
Unplug the machine!

When cleaning all parts of the machine (in particular the boiler, tools and all parts inside the protective cover), use only lukewarm water or a mild soapy solution; under no circumstances should you use harsh or abrasive cleaning agents or solvents. Do not rinse the machine with a water jet, hose, spray nozzle or high-pressure cleaner.

Please grease any bare parts with a food-grade grease after cleaning (do not use cooking oil!).



9 Faults



In the event of a fault, the Stop LED lights up and a beep sounds. The beep can be silenced by pressing the Stop button.

The fault code 999 appears in the Speed display. An error code number is shown in the Running Time display. On machines with a **Programme Memory display**, an error message may also appear.

If the fault cannot be rectified, please contact **REGO HERLITZIUS Customer Service (Chapter 13)**.



9.1 Minor faults that can be rectified by the operator

Code	Error message	Possible cause	Solution
7	Start button is stuck	The Start button was held down for too long.	Switch the main switch off and then on again.
8	Lift button is stuck	Only for machines with two-hand operation: The side lift button is stuck.	Release the lift button, switch the main switch off and then on again.
9	Emergency stop activated!	The emergency stop button has been pressed.	Release the emergency stop button.
10	The button is stuck	The 'Raise' or 'Lower' buttons have been held down for too long.	Switch the main switch off and then on again.
-	Boiler not at top position	The upper limit switch has not yet been activated when the "START" has not yet been activated.	Move the kettle further upwards; the stirring tool will start to rotate.
-	Bowl at the bottom	The "START" button is pressed twice, but the vessel is still in the lower end position.	Continue raising the kettle; the stirring tool will start to rotate.
-	Hood open	The protective hood limit switches have not been activated.	Lock the protective cover in place; check the status of the limit switches

Fault	Possible cause	Remedy
<i>The machine does not start after pressing the START button</i>	The upper boiler limit switch has not been activated	Check the switch status
	The drive motor is overloaded due to the boiler being overfilled	Reduce the fill level
	The safety guard limit switches have not been activated	Check the switch status



9.2 Faults to be rectified by qualified personnel at



CAUTION!

Troubleshooting must only be carried out by trained qualified personnel. Before working on the machine, ensure the power supply is disconnected – **unplug the mains plug!**

Code	Error message	Possible cause	Remedy
1-5	Internal Error	Hardware fault!	You must contact customer service!
6	Upper sensor faulty	The upper boiler limit switch has not been activated.	The upper limit switch is faulty, there is a wiring fault, or the lifting mechanism is faulty.
7	Start button is stuck	The start button is faulty.	Replace the control panel.
8	Lift button is stuck	Only for machines with two-hand operation: The side lift button is faulty or there is a wiring fault.	Replace the lift button, check the wiring.
10	Lift button stuck	The 'Raise' and 'Lower' buttons are faulty.	Replace the control panel.
11	Fault	There is a fault in the frequency converter.	See Section 6.11 or the separate operating instructions for the frequency converter – Chapter: Faults – Causes – Troubleshooting.
12	Motor protection – lifting	The motor temperature of the lifting gear is too high or it is jammed.	See Section 6.10
13	Upper sensor faulty	Upper (centre) and lower limit switches activated simultaneously.	Wiring fault, limit switch has come loose
14		Motor temperature from fan too high, fan blocked.	Check fan, check fan wiring.



Fault	Possible cause	Remedy
<i>The main switch cannot be switched on</i>	1 or 3-phase supply voltage is not fully present	Measure the supply voltage – check the supply fuse
	Defective switching mechanism	Replace the main switch
<i>After switching on the main switch, the RCD on site trips.</i>	- The wrong RCD switch has been fitted, or the machine does not have its own RCD - Leakage current too high	- Connect the machine to its own RCD switch (see Chapter 5: Commissioning) - Measuring the leakage current
<i>After switching on the main switch, the fuses on the supply line will trip</i>	During initial commissioning: unsuitable or outdated circuit breakers (fast-acting trip characteristic), particularly with 230V appliances	Check the circuit breakers; use circuit breakers with a medium-speed or slow-speed tripping characteristic See Chapter 5: Commissioning
	Faulty main switch	Replace the main switch
	Faulty input rectifier in the frequency converter	- Unplug the mains plug - Wait approx. 10 minutes - Replace the frequency converter
<i>The stop button on the control panel lights up immediately after switching on the machine or whilst processing batches</i>	Fault caused by a control panel error (e.g. following improper cleaning)	Replace the control panel
	Fault caused by a faulty cable connection or frequency converter	Check all cable connections and plugs, and the frequency converter thoroughly
<i>Failure of the digital speed and time display on the control panel</i>	No power supply to the feed cable	- Check the voltage using a meter (not a phase tester) - Check the supply fuse, mains plug, main switch and emergency stop button
	- Component fault on the control panel - Water damage caused by improper cleaning	Replace the control panel
	Failure of a fuse element (630mA fast-acting or 400mA medium-acting glass tube fuse) on the machine	- Open the fuse box on the right-hand side panel - Remove the fuse, check it and replace it if necessary



Fault	Possible cause	Remedy
<i>The bowl lift function cannot be operated via the push-buttons</i>	Push-button on the control panel is faulty	Replace the control panel
	Power supply via the supply cable is not fully present; contactor K has not energised	Check the supply circuit fuse, measure the voltage, check the mains plug, check the contactor coil
	The lift motor's circuit breaker has tripped: the motor is overloaded or the boiler lift was operated in the wrong direction	- Check the motor windings if necessary - Clear the obstruction in the boiler lift mechanism (see section 6.10)
	Limit switch contacts for the boiler lift limit are faulty	Test the contacts for continuity and replace if necessary
	Lifting gear motor defective	Replace the lifting gear motor
<i>The boiler stroke is not stopped when the limit switch is activated</i>	During initial commissioning of the machine, the boiler stroke direction does not correspond to the push-buttons	See Chapter 5: Commissioning
<i>The machine does not start after pressing the START button</i>	Power supply via the supply cable is not fully present	Check the supply cable fuse, measure the voltage, check the mains plug
	Lower boiler limit switch defective (audible signal when START is pressed)	Replace the limit switch
	Start signal from the control panel / frequency converter is missing	Check the cable connection – replace the control panel
	Drive motor V-belt broken or loose	Replace or retension the V-belt
	Damaged motor winding in the drive motor	Replace the drive motor
	Drive shaft is jammed	Replace the drive shaft

Once assembly work on the machine frame has been completed, the cover plates must be reattached to the machine body using the appropriate fixing bolts and nuts.



9.3 Safety devices

- **Protective cover / guard:** A defective or damaged protective cover or guard must be replaced immediately with a new one, as otherwise operational safety can no longer be guaranteed!
- **Limit switches:** Machines with automatic bowl lifting are controlled by limit switches, ensuring that the bowl cannot move beyond its end positions. The upper limit switch is also used to enable stirring.

Item No. 000158292: Limit switch IS + IÖ

- **Safety switch:** On machines fitted with a protective cover, the safety switch monitors that the cover is correctly closed.

Item No. 000155521: Magnetic safety switch with 3.5 m cable

No. 000155492: Coded magnet

Item No. 000411819: Solenoid switch monitoring 24V DC

- **Emergency stop switch**

Item No. 000157245: Emergency stop mushroom-head pushbutton, Ø40, single-pole

- **ATV320 frequency converter**

Item No. 000340134 (REGO PM 200, PM 140 from serial no.: T-102-xxx): 11.0 kW 380–480 V
Item No. 000340134 (REGO PM 200S, PM 140S from serial no.: T-012-xxx): 11.0 kW 380–480 V
Item no. 000340132 (REGO PM 100 from serial no.: R-017-xxx): 5.5 kW 380–480 V

Item No. 000340132 (REGO PM 80 from serial no.: Q-014-xxx): 5.5 kW 380–480 V

Item No. 000340130 (REGO PM 40, PM 60 from serial no.: P-034-xxx): 3.0 kW 380–400 V

- **FR-D720S frequency converter**

Part No. 000149574 (REGO PM 20): 1.5 kW 200–240 V



Faulty safety devices must be repaired immediately by an authorised electrician!

Use only original spare parts from

Rego Herlitzius!

Repaired machines must only be put back into operation once they have been fully reassembled.

Risk of injury!



10 Tools



Schlagbesen



Rührbesen



Kreuzrührer



Flachrührer



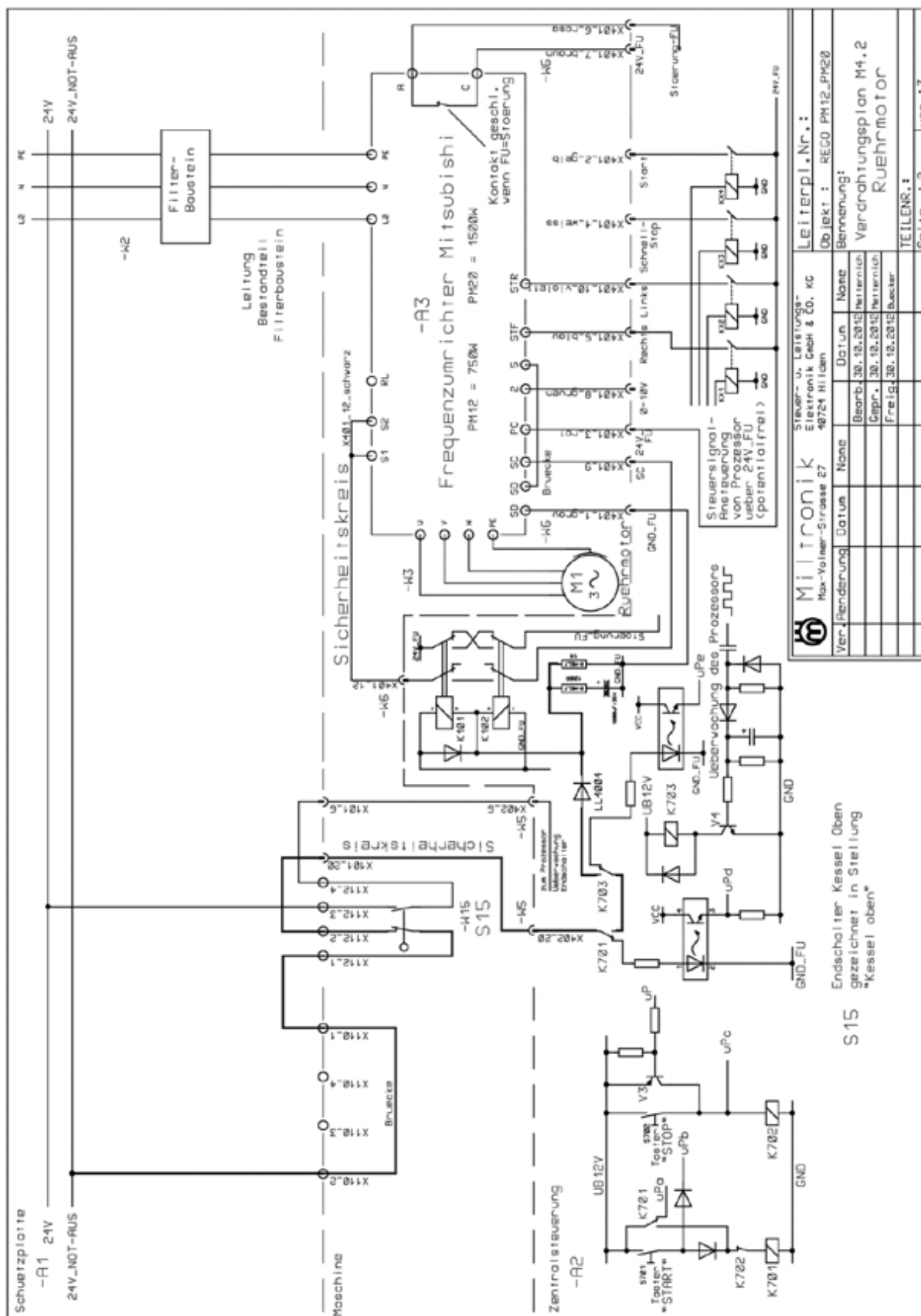
Knetspirale

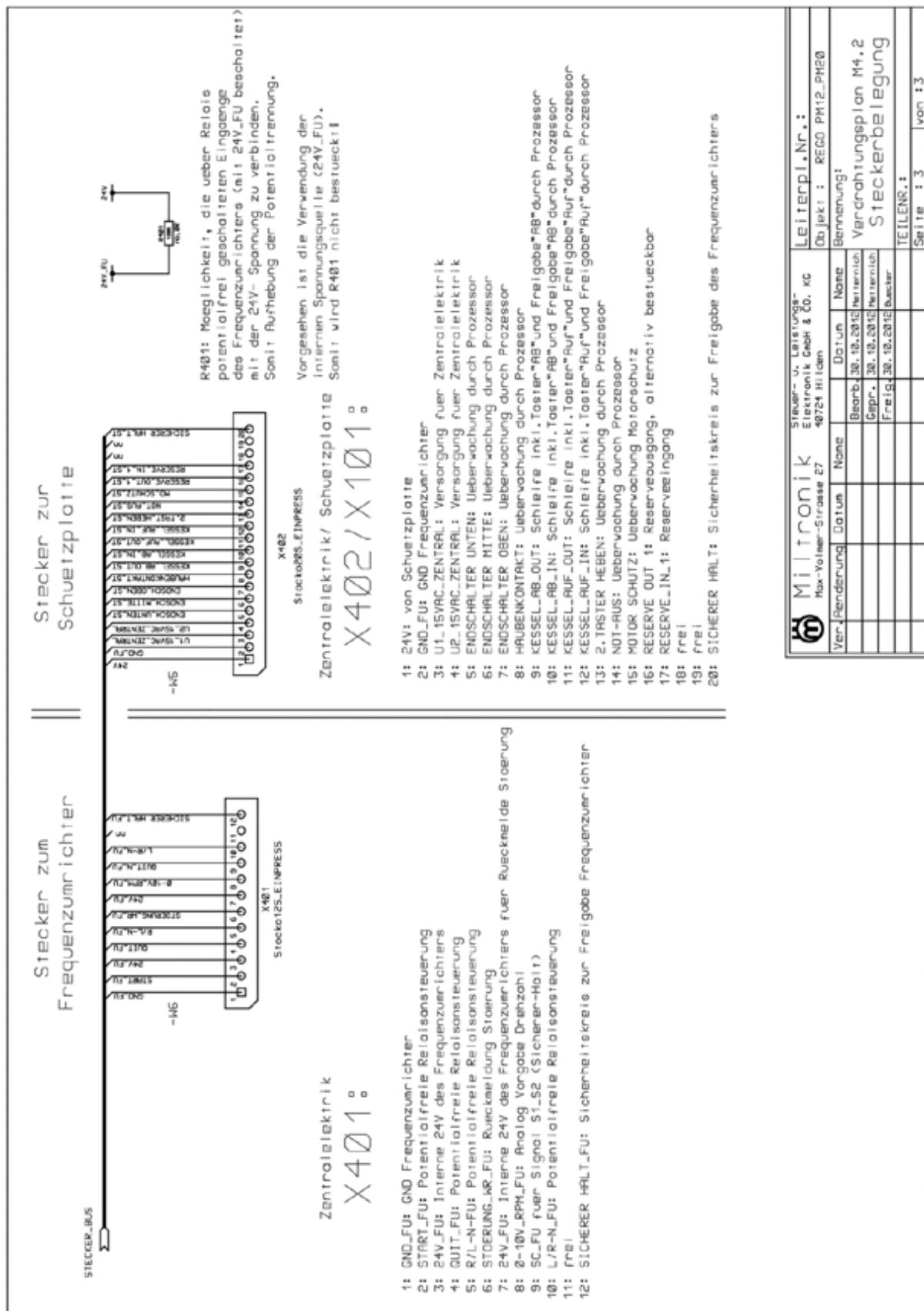


Abstreifer

Please ensure that you only use original tools from
REGO HERLITZIUS:

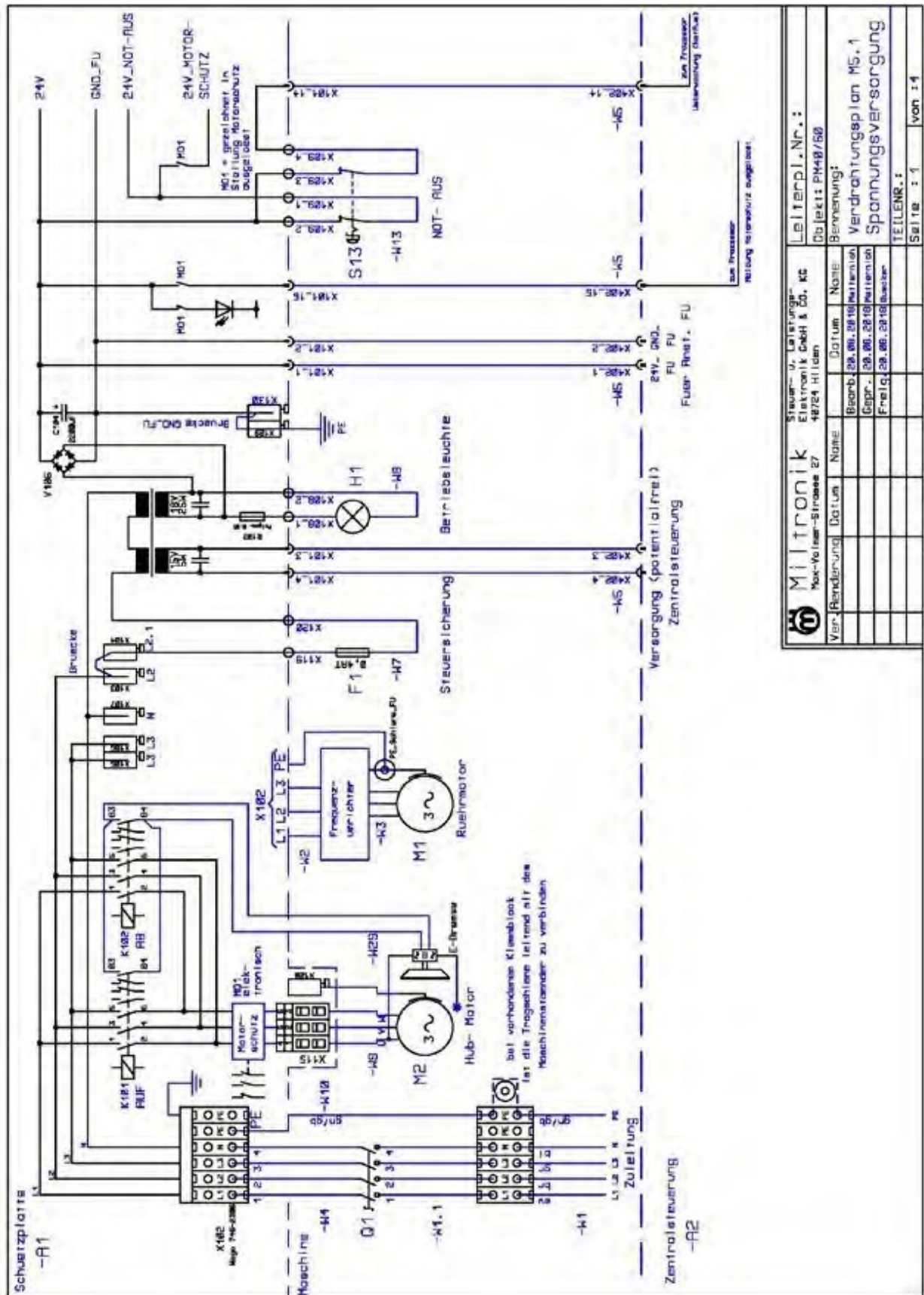
- Whisk.....for light mixtures
- Whisk.....for medium-consistency mixtures
- Cross-shaped beaterfor medium-consistency mixtures
- Flat beater.....for heavy mixtures
- Kneading spiral.....for kneading dough
- Scraper.....for removing the dough
from the bowl wall

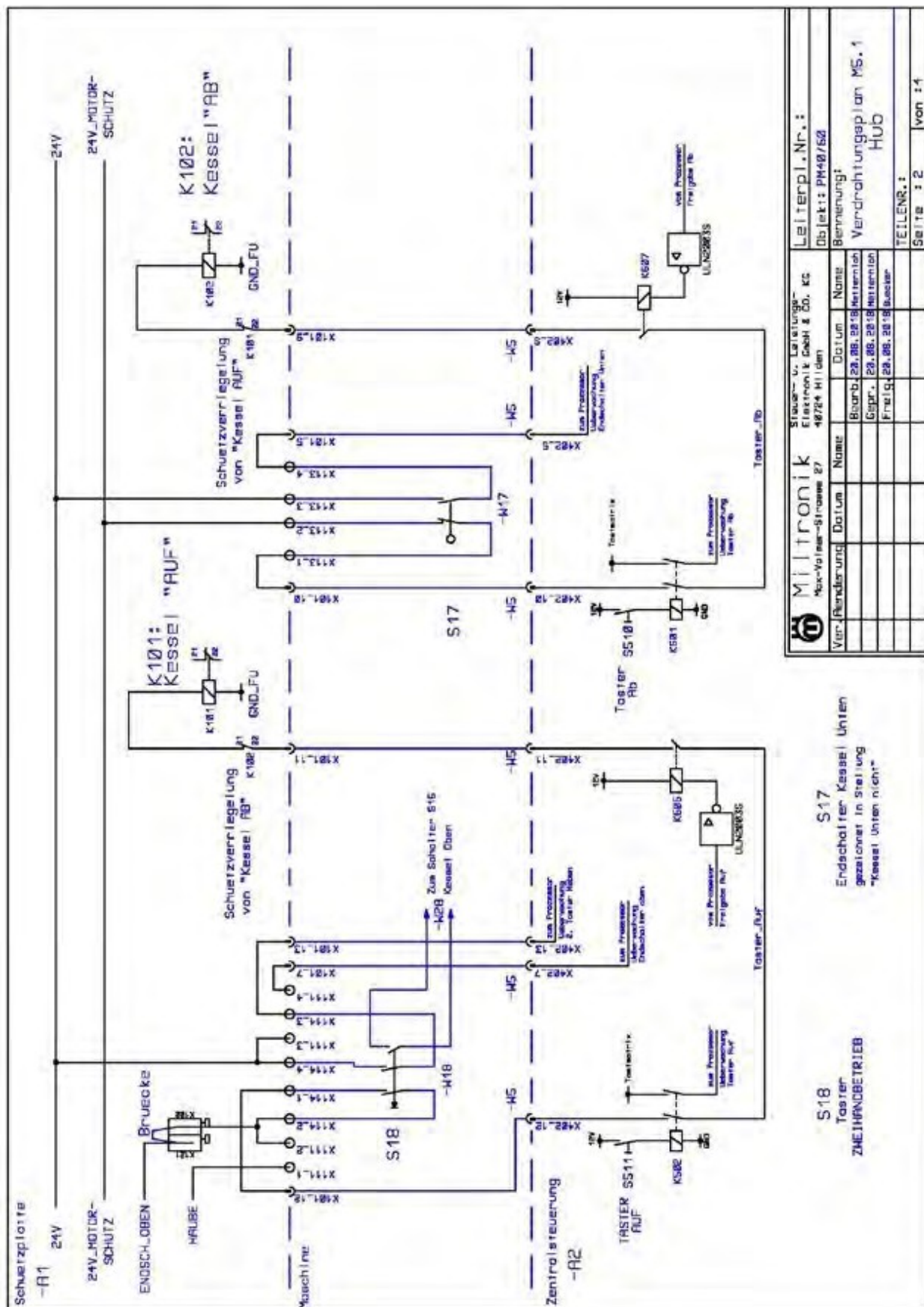


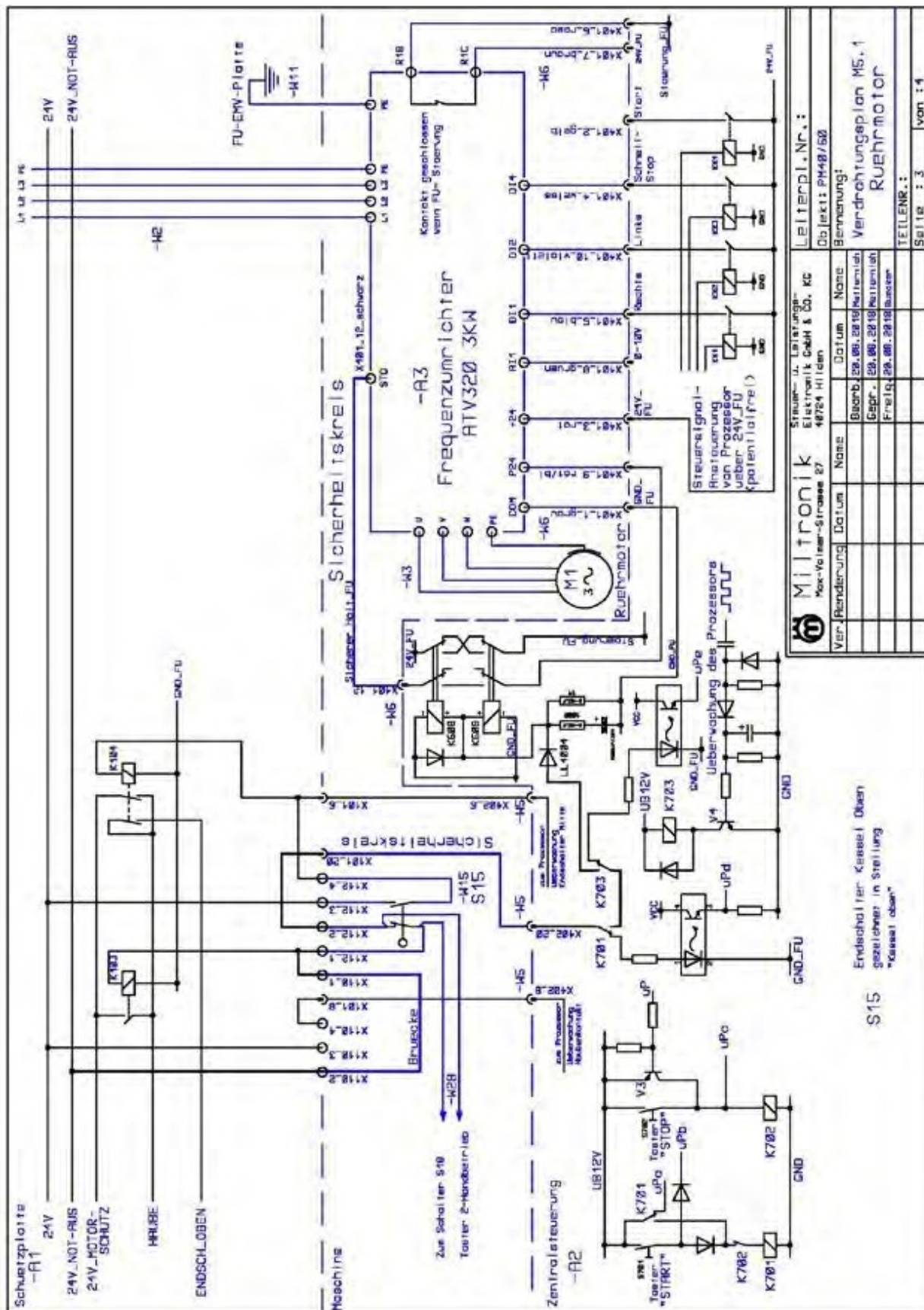


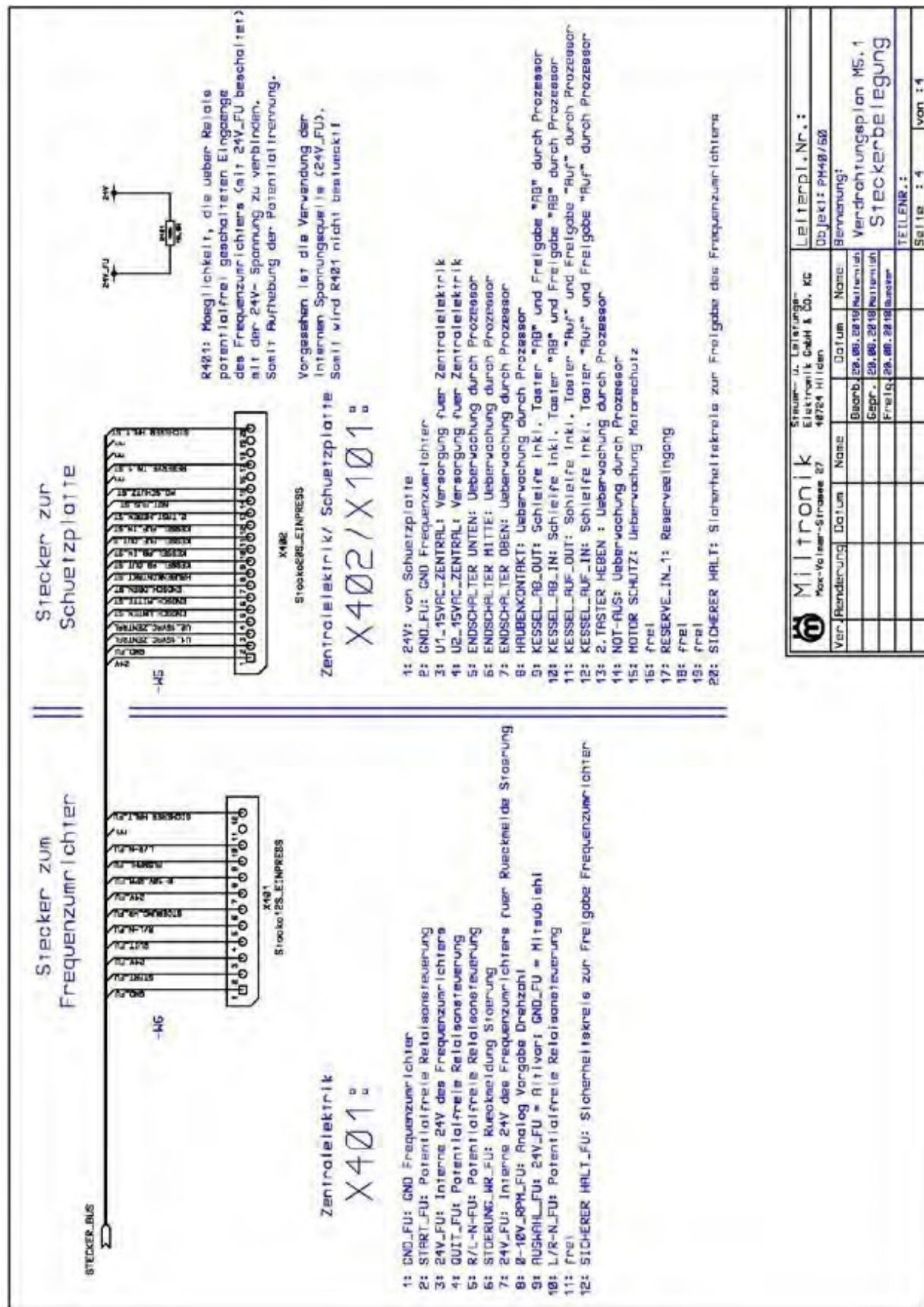


11.2 REGO PM 40 – 60 from serial number P-034- xxx



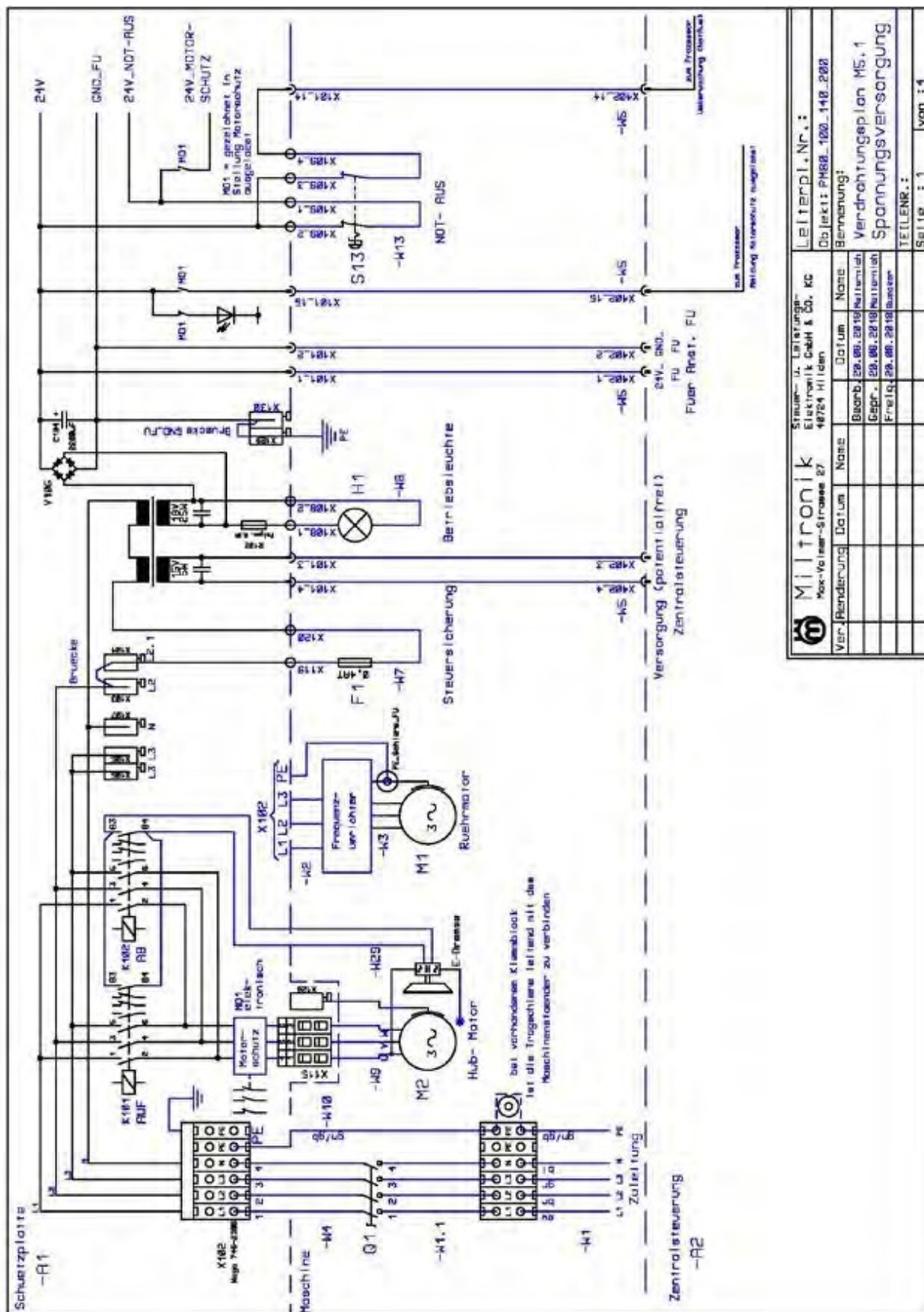


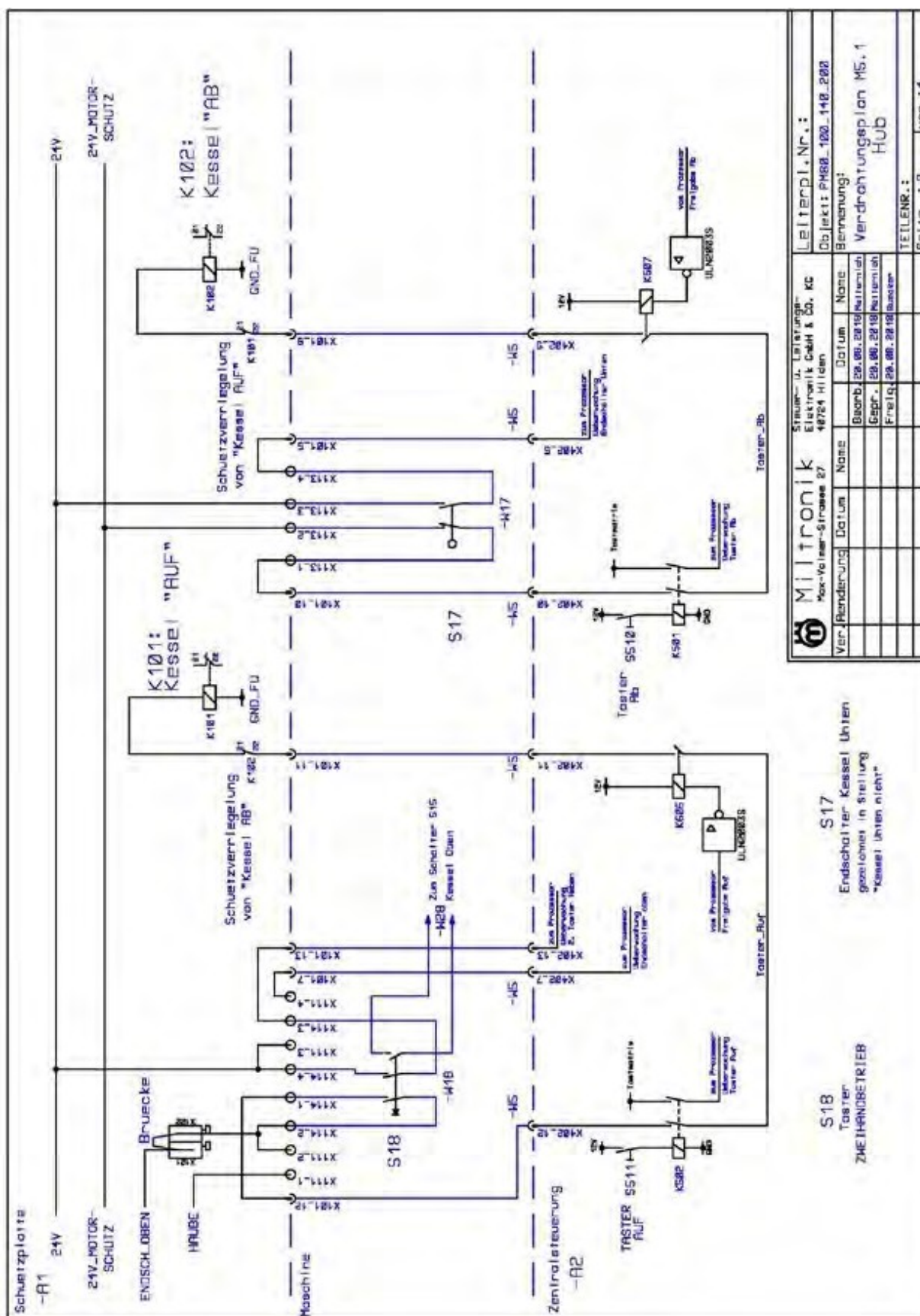


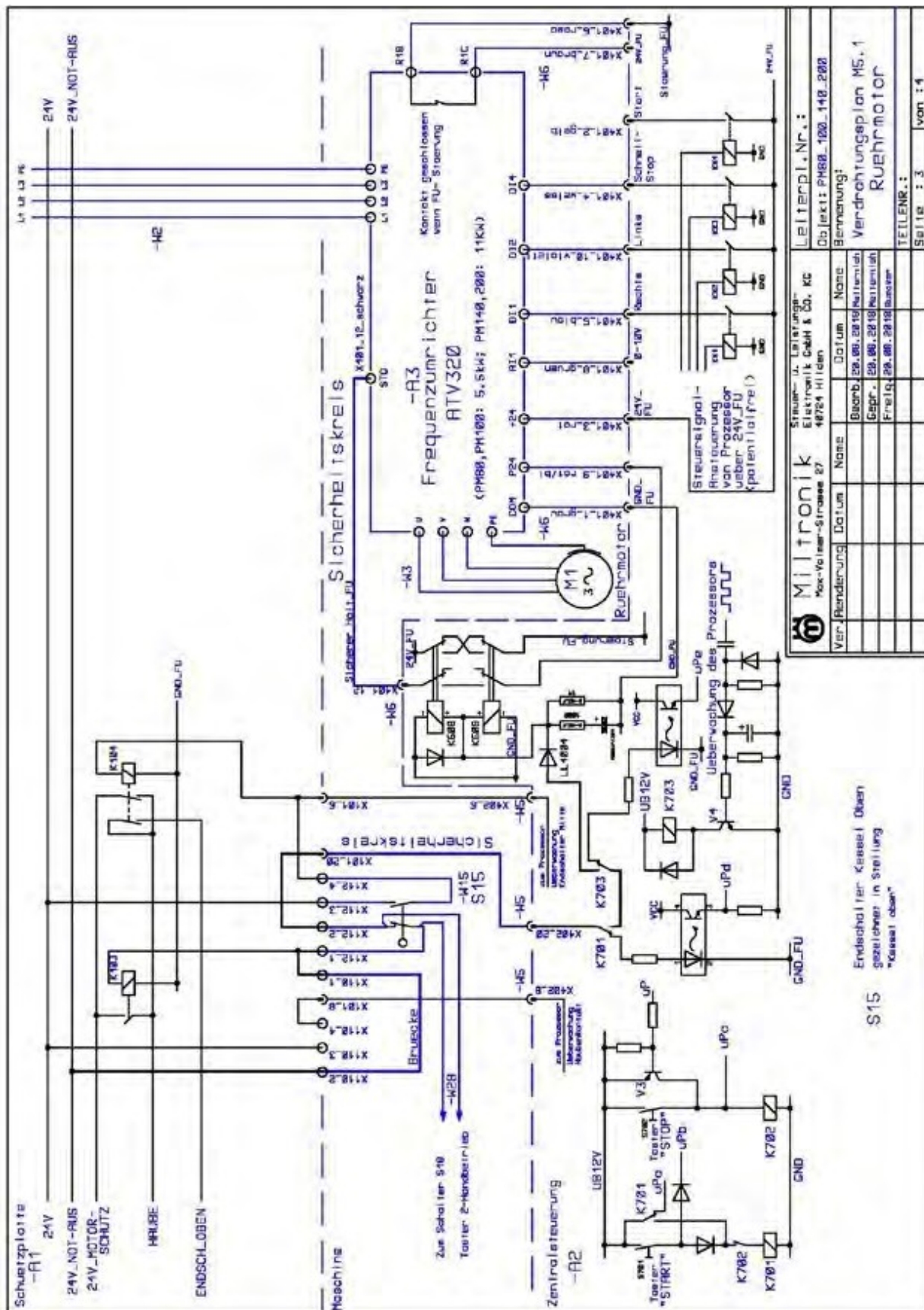


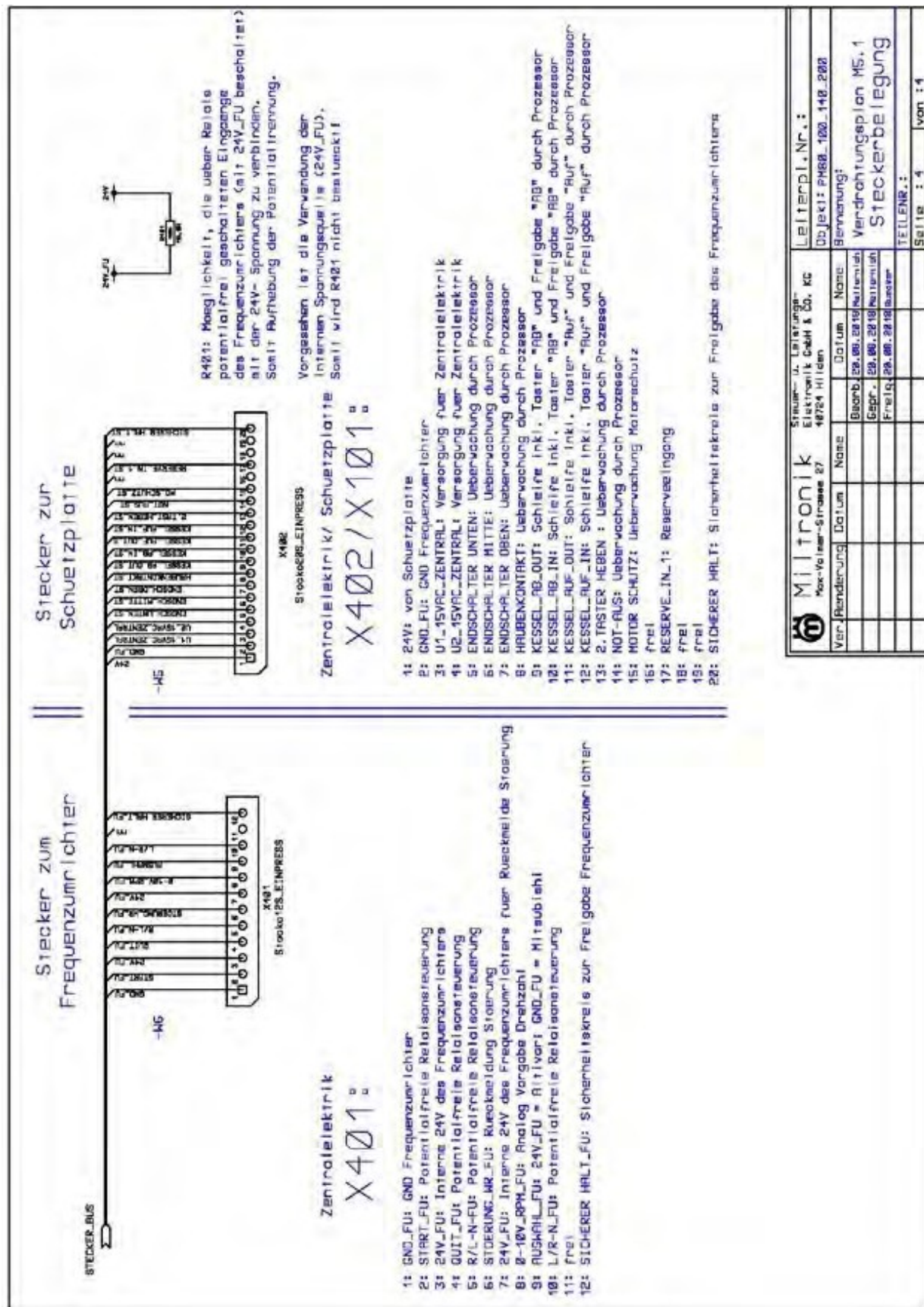


11.3 REGO PM 80 - 200 (from serial nos.: Q-014-xxx, R-017-xxx, T-102-xxx)



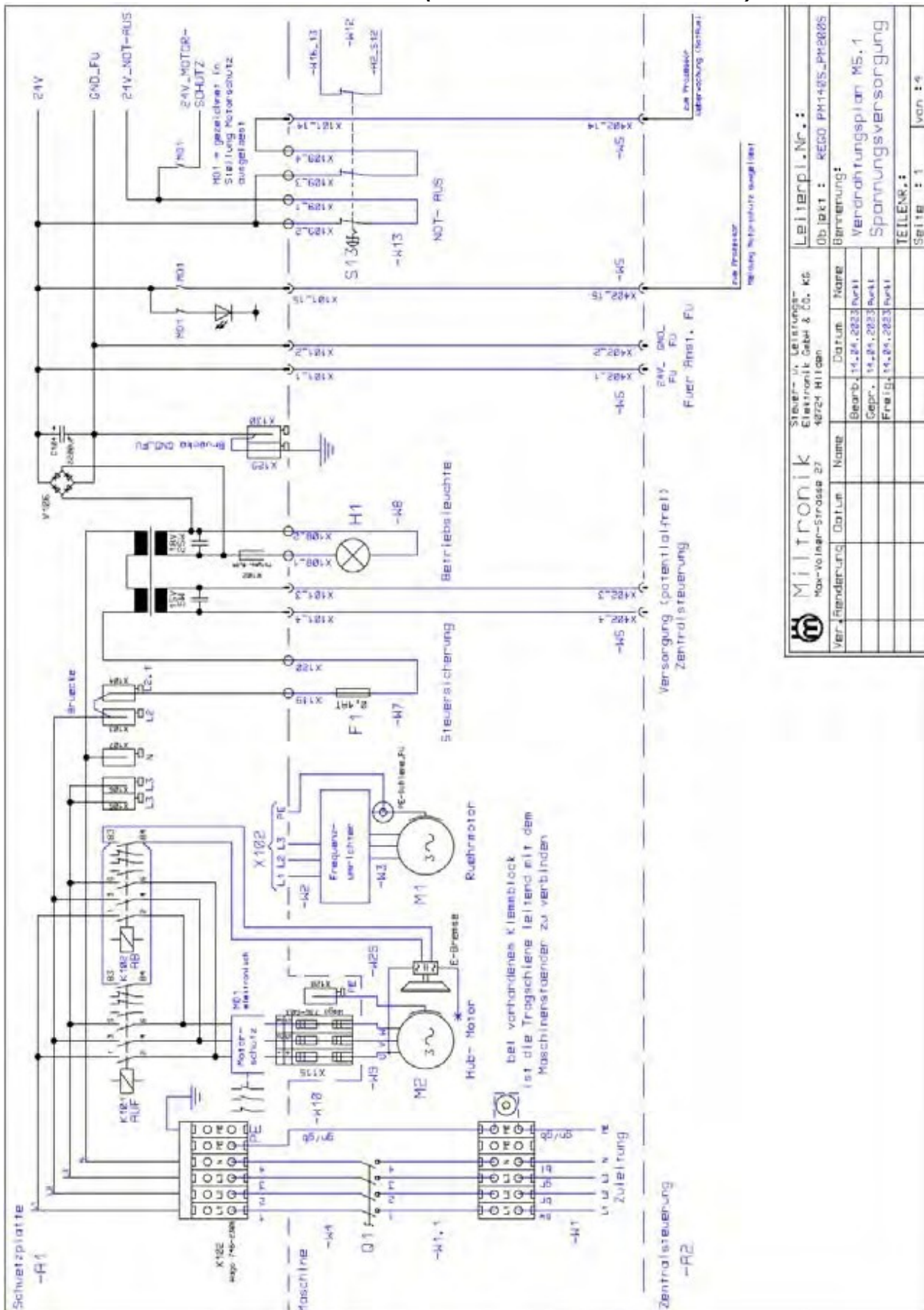


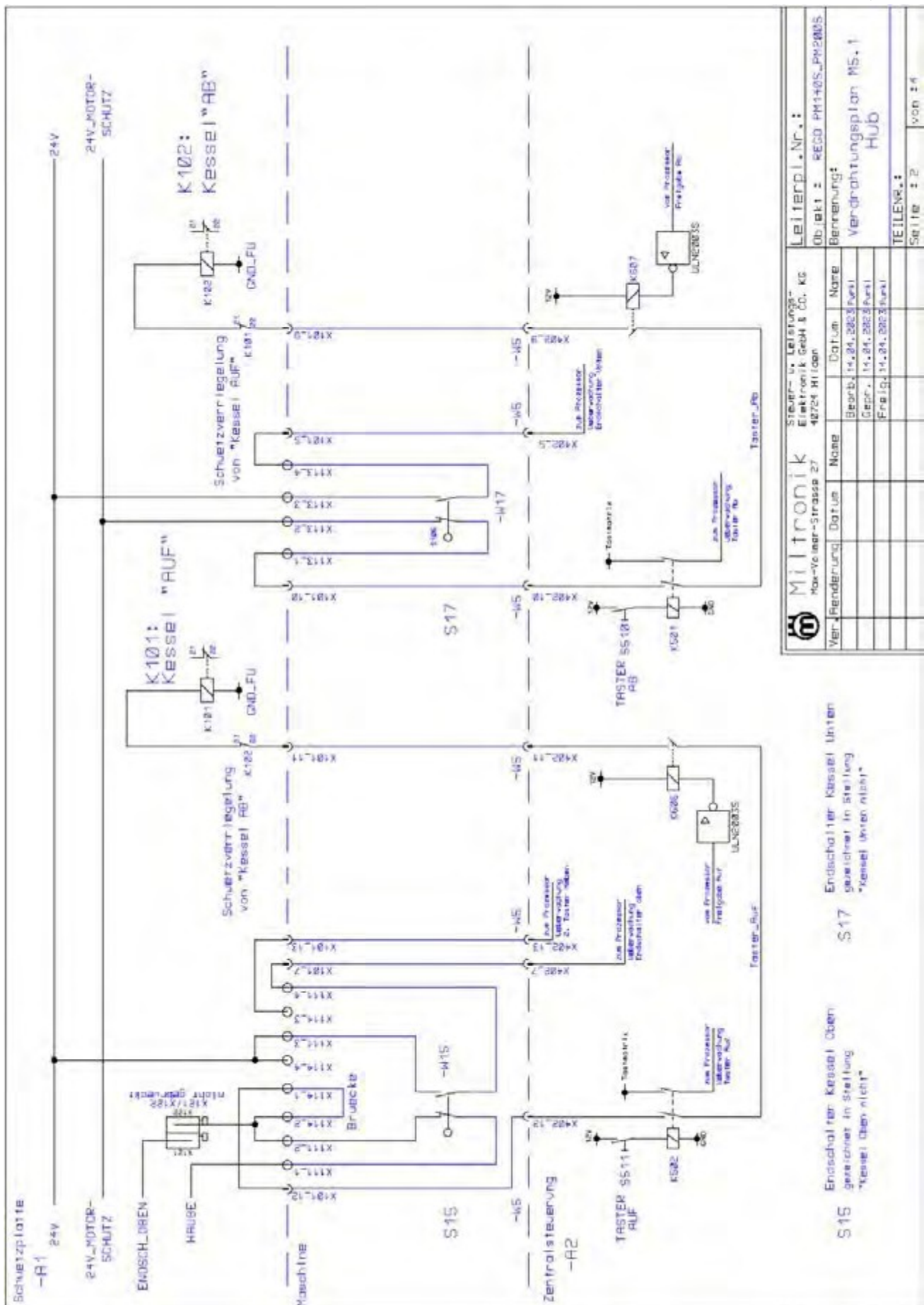


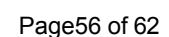


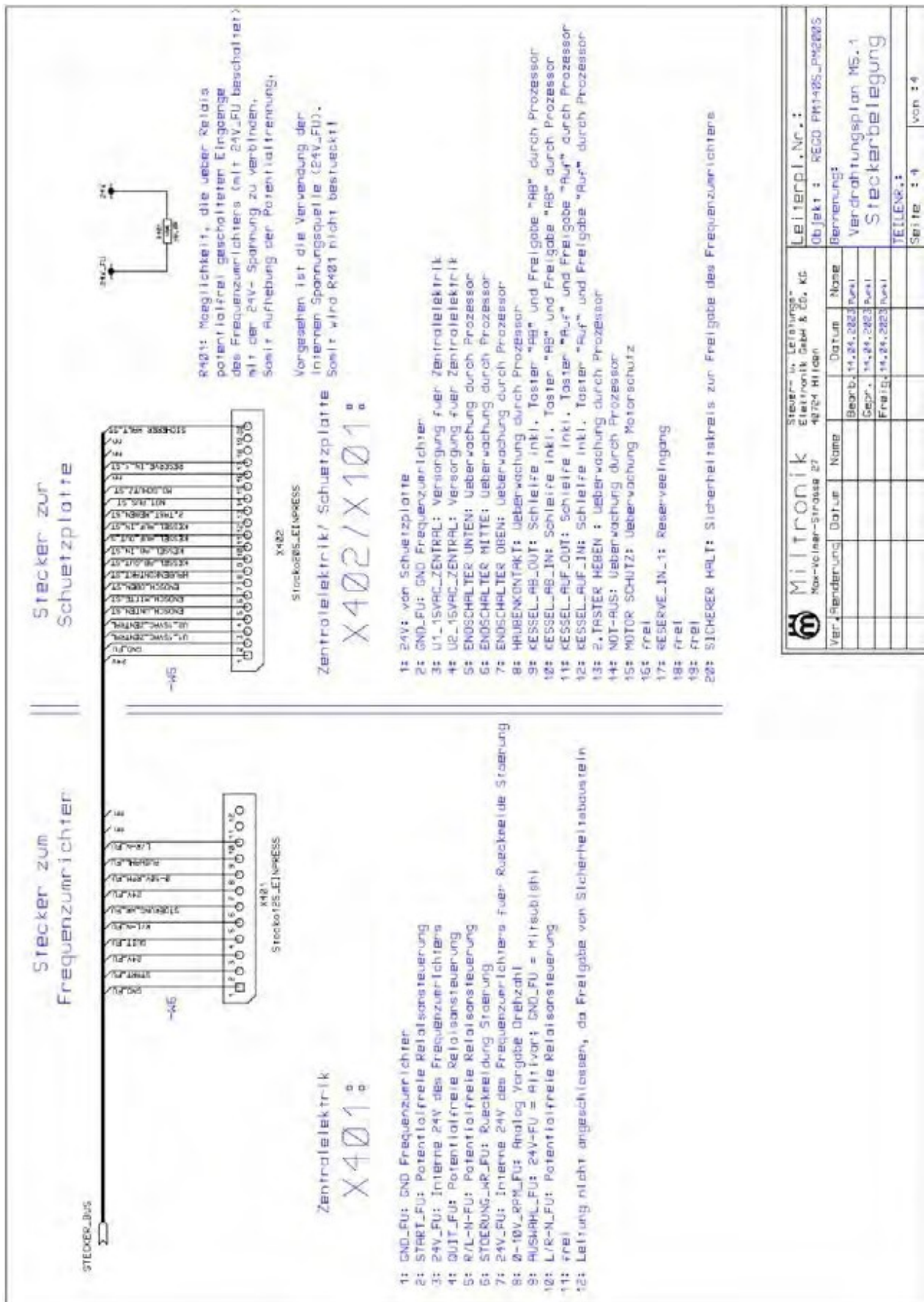


11.4 REGO PM 140S and PM200S (from serial no.: T-012- xxx)











12 Certificates

12.1 Handover Certificate



Please sign and return a copy of this report to us after the machines have been handed over so that you can be added to our customer service records.

This machine has been delivered to you and the following checklist items have been carried out as part of the handover:

1. Installation of the machine

Type.....

Machine No.

2. Is the direction of rotation correct? ☐

3. Do the safety devices work properly? ☐

4. Operating the machine

Memory programming..... ☐

Switching on and off ☐

Boiler stroke ☐

Inserting and clamping the die ☐

Inserting the tool ☐

Stirring speed ☐

Automatic mode ☐

Bowl lift gear ☐

Frequency converter ☐



5. Maintenance and cleaning

Lubrication ☐

Filter cleaning ☐

Cleaning the machine ☐

6. Troubleshooting explained?..... ☐

7. Accessories

Tools ☐

Heating ☐

Protective cover ☐

Operating instructions ☐

Induction / Explanation carried out by: Name: Signature: Date:	Customer: Name: Signature: Street: Town/city: Telephone:
---	---



REGO HERLITZIUS
Bakery and confectionery machinery



Original EC Declaration of Conformity

We hereby declare that the design of the:

<i>Description</i>	Mixer
<i>Type:</i>	PM 60, 80, 100, 140 and 200
<i>Serial No.:</i>	_____
<i>Year of manufacture:</i>	_____

complies with the following relevant regulations, which were in force on the issue date stated below:

EU Directive 2006/42/EC	Machinery
EU Directive 2014/30/EU	Electromagnetic compatibility

Harmonised standards applied, in particular:

Type A: EN ISO 12100:2011-03
Type B: EN ISO 13857:2008-06 EN 60204-1:2011-01 EN 13849-1:2008-12
 EN 61000-6-2:2006-03 EN 61000-6-4:2011-09 EN 55011:2011-04
Type C: **EN 1672-2:2020-04** **EN 454:2010-10**
 EN ISO 14159:2020-07

Name of the authorised representative for documentation: Peter Prüll
Address of the authorised representative: see manufacturer's address

Wuppertal, 11 June 2024

Holger Protte
[Managing Director]

REGO HERLITZIUS GmbH
Hatzfelder Straße 115
D-42281 Wuppertal
Tel: +49 - 202 / 269200-10
Email: mail@rego-herlitzius.com



REGO HERLITZIUS

Bakery and confectionery machinery

Certificate of Conformity for Food Contact Materials

REGO HERLITZIUS GmbH, as the manufacturer or distributor of food processing machinery, hereby certifies that materials and articles which, when used as intended, may come into contact with foodstuffs, comply with the general requirements of

Regulation (EC) No 1935/2004 of 2021 on materials and articles intended to come into contact with food.

This applies to the following machines

<i>Description</i>	Planetary, mixing and kneading machines
<i>Type:</i>	PM 40; 60; 80; 100; 140; 200; 140S; 200S

in contact with food via the following materials and articles:

Materials and articles in contact with food	Material designation	Group of materials and articles
Kettles, stirring tools	X6Cr17 (1.4016) X5CrNi18 (1.4301) X8CrNiS18 (1.4305) X2CrNi19 (1.4306) X10CrNi18 (1.4310)	Stainless steel
Scraper blade	Tekalen A6000	Plastic
Protective cover	Plexiglas Resist	Plastic

A separate declaration of conformity is available for plastics¹: yes ☒ no ☐

Wuppertal, 1 August 2025

Place, Date

Holger Protte
[Managing Director]

¹ These include, amongst others, elastomers, silicones and ion-exchange resins
are not considered to be plastics in this context

REGO HERLITZIUS GmbH
Hatzfelder Straße 115
D-42281 Wuppertal
Tel: +49 - 202 / 269200-10
Email: mail@rego-herlitzius.com



13 Customer Service

We wish you every success with your new machine:



REGO HERLITZIUS GmbH
Bakery and confectionery machinery

Hatzfelder Straße 115 – 42281 Wuppertal –
Germany

 +49(0)202 / 269200-10

mail@rego-herlitzius.com

www.rego-herlitzius.com

REGO HERLITZIUS is committed to continuing to support your machine in the future. Should any faults occur, please notify your dealer or contact us directly. We will assist you as quickly as possible. Please provide us with the following information in the event of complaints or customer service requests:

- Machine type
- Serial number
- the name of the dealer from whom you purchased your machine

14 October 2020

FDA Compliance Confirmation

Regarding silicone edge protection with metal tape

Dear Business Partner,

As the manufacturer of the silicone profile with metal tape, No. 44268 (your item no. 392125 / our item no. 384023FDA), we can confirm that the material we use

complies with FDA CFR 21 Part 1772600 and BFR

XV. Please do not hesitate to contact us if you have

any questions. Yours faithfully

REXIO GmbH & Co. KG,

on behalf of

Jörg Rick
-Sales Manager-

Rexio GmbH & Co KG
Lindenallee 28a
D-24784 Westerrönfeld

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Email: post@rexio.de
Website: www.rexio.de

D-U-N-S® number: 341056832

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Managing Director:
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Förde Sparkasse
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BIC: NOLADE21KIE

Bayrische Hypo- u. Vereinsbank AG
IBAN: DE28 2003 0000 0636 7266 30
BIC: HYVEDEMM300

Klübersynth UH1 14-151

Synthetic grease for the food and pharmaceutical industries



Benefits for your application

- Reduces the risk of premature bearing failure thanks to its excellent corrosion protection
- Prevents insufficient lubrication thanks to its good flow properties in centralised lubrication systems
- Suitable for use across a wide operating temperature range thanks to its soft consistency
- Certified to NSF ISO 21469 – supports compliance with hygiene requirements in your manufacturing facility. Further information on the ISO 21469 standard can be found on our website www.klueber.com

Your requirements – our solution

Klübersynth UH1 14-151 has been specially developed for the food and pharmaceutical industries. Klübersynth UH1 14-151 offers effective wear protection, high water resistance, good corrosion protection and high ageing and oxidation stability.

Klübersynth UH1 14-151 is NSF H1 registered and therefore complies with FDA 21 CFR § 178.3570. The lubricant has been developed for incidental contact with products and packaging in the food, cosmetics, pharmaceutical and animal feed industries. The use of Klübersynth UH1 14-151 helps to increase the reliability of your production processes. However, we also recommend carrying out a risk analysis, e.g. HACCP.

Areas of application

On machinery and equipment in the food and pharmaceutical industries, Klübersynth UH1 14-151 should preferably be used at lubrication points where technically unavoidable contact with food cannot be ruled out. We

recommend, however, that all lubrication points in this area be lubricated with Klübersynth UH1 14-151 to avoid any adverse effects caused by lubricant contamination.

This special grease is intended for the lubrication of rolling and plain bearings, lifting cylinders, joints, guide rods, cam discs, etc.

Application instructions

Klübersynth UH1 14-151 is applied using a brush, spatula, grease gun and grease cartridge, or via centralised lubrication systems.

Before using Klübersynth UH1 14-151 in place of other greases, the bearings must be cleaned and relubricated. Provided the two greases are miscible, the grease can be replaced by relubrication.

Safety Data Sheets

You can request the latest safety data sheets from our website at www.klueber.com. They are also available from your personal contact.

Packaging	Klübersynth UH1 14-151
370 g cartridge	+
1 kg tin	+
5 kg hobbock	+
25 kg hobbock	+
50 kg hobbock	+
180 kg drum	+

Klübersynth UH1 14-151

Synthetic grease for the food and pharmaceutical industries



Product Specifications	Klübersynth UH1 14-151
Item number	096037
Chemical structure, consistency agent	Aluminium complex soap
Chemical composition, oil type	Ester oil, synthetic hydrocarbon oil
Colour range	beige
Structure	Homogeneous
Operating temperature, lower limit	-45 °C
Operating temperature, upper limit	120 °C
NSF H1 registration number	056354
Density, Klüber method: PN 024, 20°C	approx. 0.89 g/cm ³
NLGI class, DIN 51818	1
Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit	310 0.1 mm
Work penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit	340 0.1 mm
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 100°C	approx. 22 mm ² /s
Kinematic viscosity of the base oil, DIN EN ISO 3104 / DIN 51562-1 / ASTM D445 / ASTM D7042, 40°C	approx. 150 mm ² /s
Flow pressure, DIN 51805-2, -45°C	≤ 1400 mbar
Drop point, DIN ISO 2176 / IP 396	≥ 250 °C
Rotational speed characteristic (n x dm)	approx. 500,000 mm/min
Minimum shelf life from date of manufacture – when stored in dry, frost-free conditions and in the original, unopened containers – approx. 24 months	

Klüber Lubrication – your global specialist

We are passionate about innovative tribological solutions. Through personalised support and advice, we help our customers to succeed – worldwide, across all industries and in all markets. With sophisticated engineering concepts and experienced, competent staff, we have been meeting the growing demands for high-performance and cost-effective speciality lubricants for over 90 years.

Klüber Lubrication München GmbH & Co. KG /
Geisenhausenerstraße 7 / 81379 München / Deutschland /
Telefon +49 89 7876-0 / Telefax +49 89 7876-333.

The information contained in this document is based on our general experience and knowledge at the time of publication. It is intended to provide the technically experienced reader with guidance on possible applications. However, the information does not constitute a warranty of properties nor a guarantee of the product's suitability for any specific application. It does not relieve the user of the obligation to test the selected product in the intended application beforehand. All information is provided as a guide, based on the lubricant formulation, the specified application and the application technology. Depending on the nature of the mechanical, dynamic, chemical and thermal stresses, lubricants' technical properties change in response to pressure and over time. These changes may affect the function of components. We generally recommend a personalised consultation and, upon request and where possible, are happy to provide samples for testing. Klüber products are subject to continuous development. Klüber Lubrication therefore reserves the right to amend all technical data in this document at any time and without prior notice.

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Optileb GR UF range

Speciality greases that are physiologically safe, NSF H1 registered

Description

Castrol Optileb GR UF (previously known as the Castrol Obeen UF range) are light-coloured, natural-coloured speciality greases. They are physiologically safe and NSF H1 registered. Castrol Optileb GR UF greases are therefore particularly suitable for use in the food and beverage industry, as well as in the pharmaceutical sector, where there is a direct risk of the lubricant coming into contact with the product or its packaging.

Application

Castrol Optileb GR UF 00 is suitable for gearboxes and gear motors lubricated with fluid grease, as well as for centralised lubrication systems in filling plants, packaging stations and carton folders. Castrol Optileb GR UF 1 is suitable as a tap, sealing and bearing grease, for the long-term lubrication of rolling and plain bearings, and for fillers, bottle washers, labellers, cappers, filling machines, conches and cyclones.

Application notes

The lubrication specifications of the plant or machine manufacturers must be observed. Operating temperature range: -40 °C to +140 °C

Advantages

- Physiologically harmless, NSF H1 registered
- Odourless, tasteless and colourless
- Resistant to cold and hot water
- Very easy to pump
- Good corrosion protection properties

Technical data

Characteristic	Method	Unit	Optileb GR UF	
			00	1
Colour/Appearance	Visual	-	whitish to amber, transparent	
Base thickener	-		aluminium complex	
Base oil	-	-	Synthetic base oil	
NLGI consistency class	DIN 51818	-	00	1
Walk penetration Pw 60	DIN ISO 2137	1/10 mm	420	320
Dropping point	DIN ISO 2176	°C	+195	+225
Corrosion protection for copper, 24 h, +100 °C	DIN 51811	Corrosion grade	1b	
SKF-Emcor Distilled water	ISO 11007	Corrosion grade	0/1	
Water resistance	DIN 51807-1	Grade	0–90	

Subject to standard manufacturing tolerances.

The product range designation was changed in 2015. The old product range designation was Castrol Obeen UF range.

Optileb GR UF range

20 May 2021

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Castrol Germany GmbH, Überseeallee 1, 20457 Hamburg
040 303352300
www.castrol.com



BENEFIT FROM OUR STRENGTHS:

- Close collaboration with our customers and partners
- Over 90 years' experience – first hammer mill in 1926
- User-friendly and innovative products
- Reliable service with quick response times
- Head office in Wuppertal (North Rhine-Westphalia) with a global sales and dealer network
- Covering the entire value chain, including development, manufacturing, quality control, marketing, sales and service

Hatzf
elder
Straß



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