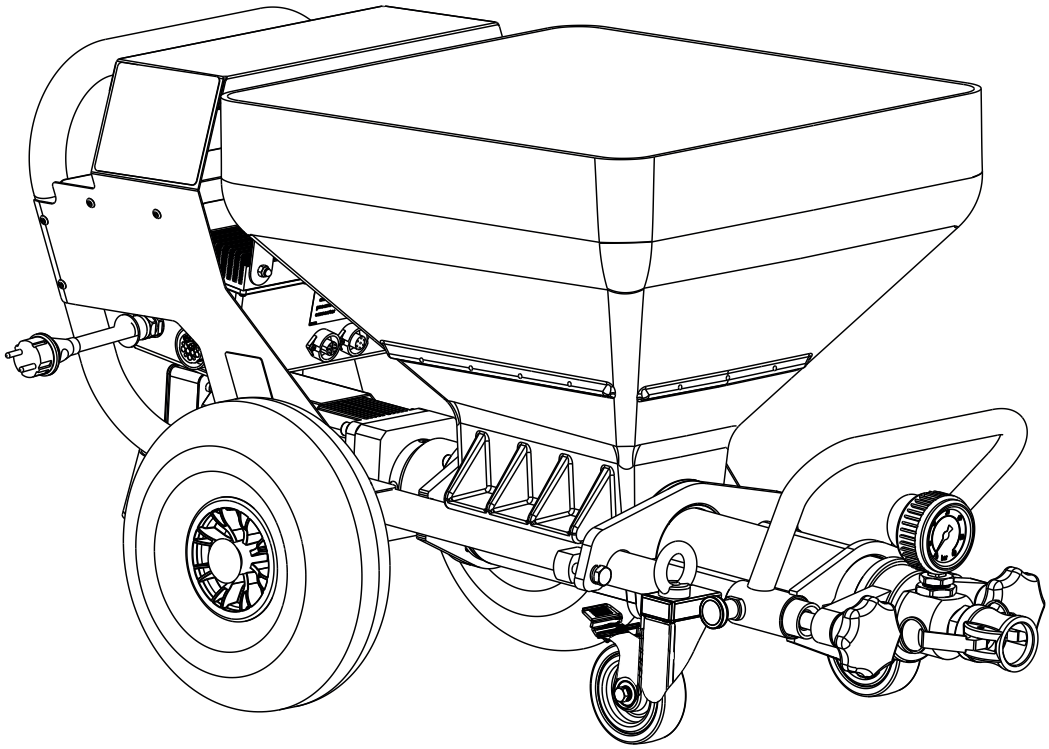
WAGNER

Service manual
with electrical repair instructions
for electrically instructed persons
of the J. Wagner GmbH

PC 1030



2369648 B
08 / 2021

Warning!

Mortar spraying machines develop high spraying pressures.

	**Attention – Danger of injury!**
1	**Never reach into the spray jet with your fingers or hand!** **Never point the spray lance at yourself or other persons!** **Coating materials are caustic or irritating!** **Protect your skin and eyes!**
2	**The following points are to be observed in accordance with the operating manual before every start-up:** 1. Observe the permissible pressures. 2. Check all the connecting parts for leaks.
3	**Instructions for regular cleaning and maintenance of the machine are to be observed strictly.** **Observe the following point before any work on the machine and at every working break:** 1. Observe the curing time of the coating material. 2. Depressurize the spray lance and mortar hose. 3. Switch off the suction pump.

Ensure safety!

Contents

SERVICE MANUAL

ELECTRICAL REPAIR INSTRUCTIONS

1 SAFETY REGULATIONS

The following sources are just a sample of those containing safety requirements for mortar conveyors:

a) **DIN EN 12001: 2004-05, Conveying, spraying and placing machines for concrete and mortar - Safety requirements; German version; German version EN 12001:2003**

The following specifications are to be observed in particular to handle mortar spraying machines safely:

Usage of the mortar spraying machine

The mortar spraying machine PlastCoat 1030 may only be used to process the coating materials described on page 38. **Any other usage is not allowed.**
Proper usage also includes the observance of the operating manual and the observance of the inspection and maintenance conditions. Always keep the operating manual on hand at the point of use of the mortar spraying machine.
The mortar spraying machine PlastCoat 1030 may only be operated with a manometer. Only the mortar hose specified by the manufacturer may be used.
Use only marked mortar hoses with at least 40 bars operating pressure.

Protection of persons

In order to protect eyes, skin and the respiratory organs: **Wear safety goggles, protective clothing, gloves, possibly use protective skin cream and respiratory equipment**. Do not decouple the mortar hose as long as it is under pressure. Watch the manometer! Wear safety goggles! Do not point the spray lance at persons!
In order to protect your ears **wear ear protection.**
Wear safety shoes when transporting the machine or working with it.
People not needed to assist with machine installation, assembly or operation, must keep away from the machine.
The PC 1030 is equipped with an EMERGENCY STOP switch for emergencies.

Breathing masks

Make a breathing mask available to the processor in order to protect against mineral dust. Refer to the regulations of the German employer's liability insurance association ("Berufsgenossenschaft") "Rules for the use of breathing masks" (BGR 190) and "Processing coating materials" (BGV D25).
Connection to the mains network only via a special feeding point, for example via a distribution board for construction sites, with residual current protective device with INF ≤ 30 mA.
Avoid soiling of the socket for the remote control at the control unit.

	**Risk of injury from escaping material. Before switching on, always check that the material tap on the spray lance is closed. Close material tap whenever stopping work.**
	**Never operate the mortar spraying machine if the rotor is exposed or if the container has been removed. Do not reach into the rotor when it is moving. Risk of crushing. Caution if you have long hair. Only wear close-fitting clothes at work. Do not insert objects or body parts through the protective grid. Risk of crushing when folding in the handles, assembling the pump unit and connecting the mortar hose.**

Cleaning and maintenance

Never decouple mortar hose or disassemble machine when under pressure. Note pressure reading on pressure gauge.
When performing maintenance work, always switch off mortar spraying machine, disconnect mains plug and ensure it cannot be plugged back in by mistake.
Do not spray down the motor and control unit of the mortar spraying machine with a water-jet, high-pressure cleaner or high-pressure steam cleaner. Danger of short-circuits caused by water ingressing.

Electrical equipment

Work on the machine's electrical equipment may be carried out only by a qualified electrician. The electrical equipment is to be checked regularly. Eliminate faults such as loose connections or scorched cables.

Keep the label on the mortar spraying machine clean and legible.

	**Whenever the machine is automatically brought to a standstill or during power failure, immediately move the selector switch to "A" to prevent the machine starting back up again unintentionally. There is a danger of injury.**

Mortar hose

	**Danger of injury through leaking high-pressure hose. Wear and tear and links as well as usage that is not appropriate to the purpose of the device can cause leakages to form in the mortar hose. Liquid can be injected into the skin through a leakage.**

Mortar hoses must be checked thoroughly before they are used.
Replace any damaged mortar hose immediately.
Never repair defective mortar hoses yourself!
Avoid sharp bends and folds: the smallest bending radius is about 80 cm.
Do not drive over the mortar hose. Protect against sharp objects and edges.
Never pull on the mortar hose to move the device.
Do not twist the mortar hose.
Lay the mortar hose in such a way as to ensure that it cannot be tripped over.

	Only use WAGNER original-mortar hoses in order to ensure functionality, safety and durability.

	The risk of damage rises with the age of the mortar hose. Wagner recommends replacing mortar hoses after 6 years.

2 IMPORTANT INFORMATION ON PRODUCT LIABILITY

An EU directive valid since 01.01.1990 specifies that the manufacturer is only liable for his products if all the parts originate from the manufactured or are approved by him, and if the units are mounted and operated properly. If accessories or spare parts from third parties are used, liability can be partially or completely inapplicable. In extreme cases the responsible authorities can prohibit the use of the entire unit (German industrial employer's liability insurance association and factory inspectorate).
With original WAGNER accessories and spare parts, compliance with all safety regulations is guaranteed.

3 TECHNICAL DATA

	PlastCoat 1030
Voltage:	230 V~, 50/60 Hz
Fusing:	16 A time-lag
Device supply cable:	5 m long, 3 x 2.5 mm^2
Motor output P_1:	2.3 kW
Max. convey capacity (water):	10, 15, 20 l/min (depending on the rotor/ stator)
Max. operating pressure:	40 bar
Max. granular size:	K6 mm
Dimensions L x W x H:	1150 x 550 x 620 mm
Container capacity:	50 l
Weight (PlastCoat 1030):	60 kg
Weight (Spray lance):	2.1 kg
Max. tyre pressure:	2.5 bar
Degree of protection:	IP 54
Max. sound pressure level:	70 dB (A)*
Atomizing air connection:	Rapid action coupling DN 7.2 mm
Max. atomizing air pressure:	10 bar
Minimum required compressed air volume:	320 l/min
Max. mortar hose length:	40 m (and 2.5 m hose whip)
Max. delivery height:	20 m

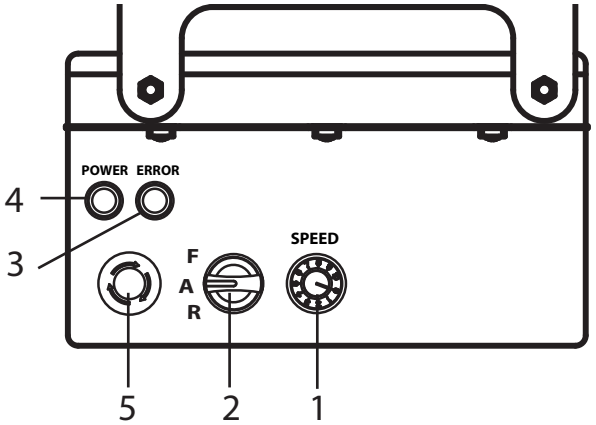
* Place of measurement: 1 m distance from unit and 1.60 m above reverberant floor.

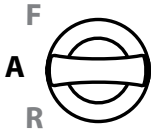
4 REQUIRED TOOLS AND AUXILIARY MATERIAL

Designation	Order no.
Pump sliding means	9992824
Loctite 243	9992511

5 OPERATING ELEMENTS AND DISPLAYS ON DEVICE

1 Delivery volume controller 0-10
2 Selector switch for operating mode
3 Indicator light (Error)
4 Operating light (Power)
5 EMERGENCY STOP switch



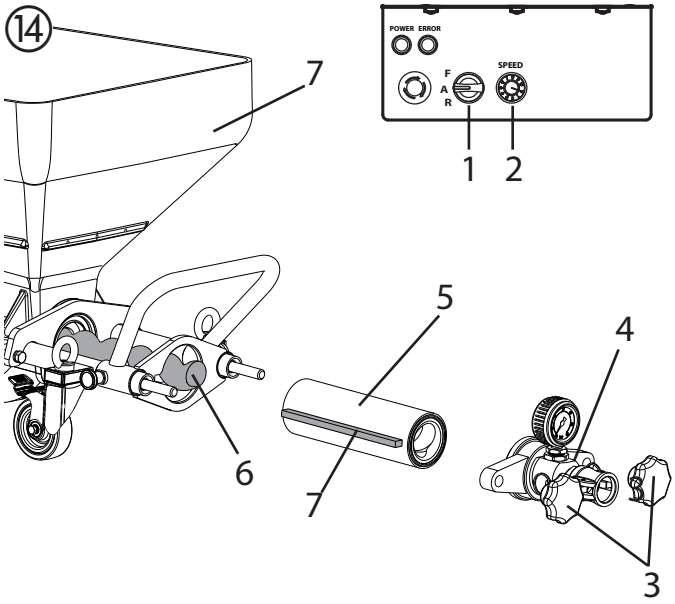
	"A" position = automatic Basic setting for control with an automatic spray lance
	"F" position = manual activation Switches on the mortar spraying machine. This setting is required for: • disassembling the pump unit
	"R" position = reverse gear This setting is required for: • relieving pressure on the mortar hose • assembling the pump unit

6 REPLACING THE STATOR

Dismantling

⚠	**Mortar spraying machine must be depressurised.** **If necessary, set the selector switch briefly to "R" (reverse).** **Watch the manometer –> 0 bar.** **Wear safety goggles.**

⚠	**Disconnect external controls. Disassembly may only be carried out by the person who controls the machine.** **Never operate mortar spraying machine with an exposed rotor.** **Do not reach into the rotor when it is moving. Risk of crushing.** **Caution if you have long hair. Only wear close-fitting clothes at work.**



- Move selector switch (fig. 14, 1) to "A" and set delivery volume controller (2) to „0".
- **Disconnect mains plug.**
- Loosen the star screws (3) and remove the outlet unit (4).
- Set delivery volume controller (2) to 1 or 2.
- **Connect mains plug to mains power supply.**
- Move the selector switch (1) to position „F". As soon as the stator (5) is released from the rotor (6), set the selector switch to „A".
- Remove the stator (5) completely.
- **Disconnect mains plug.**

Clean the outlet unit

Clean the outlet unit (4) with a jet of water and a suitable bottle brush.
Clean the container (7) with a jet of water and a suitable brush.
Clean the protective grid with a radiator brush.

Also clean the rotor (6) and stator (5) thoroughly with water and, if necessary, using a brush.

Then spray rotor (6) and stator (5) and with a suitable pump lubricant.
Keep the thread of the pump housing and the pump tube clean so that leaking after the assembly is avoided.

Mounting

ⓘ	If the machine is down for a longer period of time, the stator can become set at the rotor. Therefore, if the stator has been in storage for a longer period of time, do not mount it until you are about to begin work.

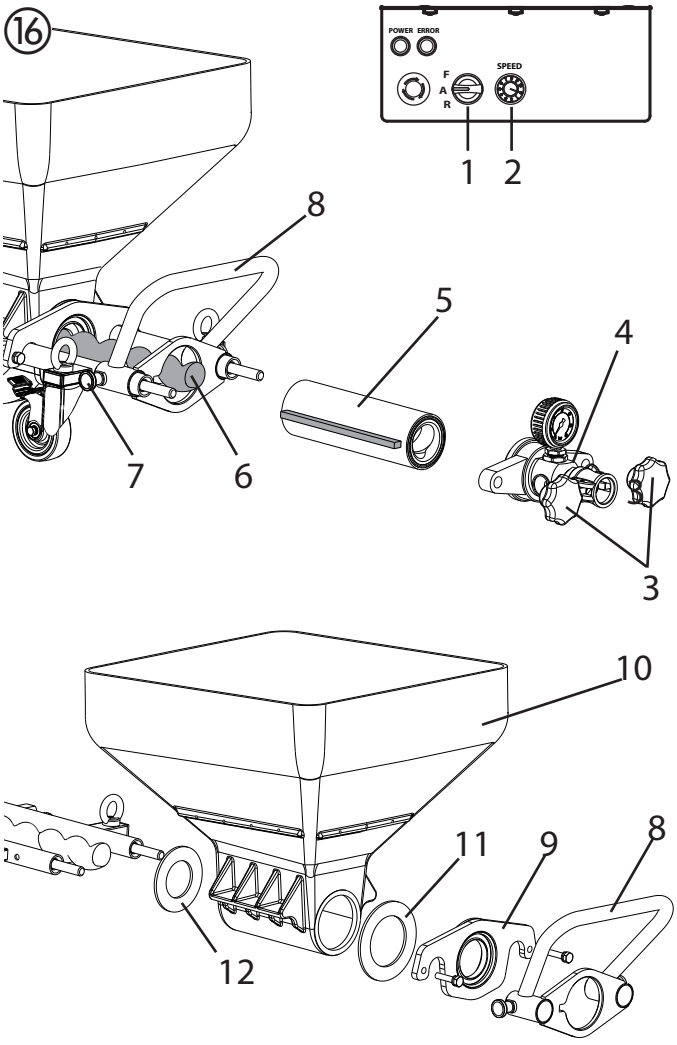
Assembly, see chapter 6.2.2

6.1 SHAFT SEAL

i	Check the seals on the PC 1030 every month.

- Move selector switch (fig. 16, 1) to "A" and set delivery volume controller (2) to „0".
- **Disconnect mains plug.**
- Loosen the star screws (3) and remove the outlet unit (4).
- Set delivery volume controller (2) to 1 or 2.
- **Connect mains plug to mains power supply.**
- Move the selector switch (1) to position „F". As soon as the stator (5) is released from the rotor (6), set the selector switch to „A".
- Remove the stator (5) completely.
- **Disconnect mains plug.**
- Pull out the two locking pins (7) and remove the anti-twist lock (8).
- Remove the flange (9) with a 17-wrench.
- Remove the container (10).
- Check the seal (11) and replace if necessary.
- Clean the shaft seal (12).
- Check the rotor (6) and replace if necessary (see chapter 9.5).

⑯

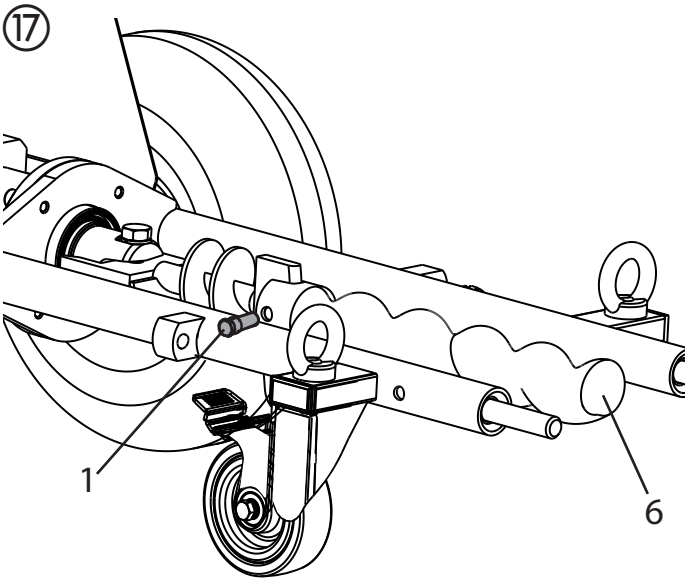


7 ROTOR REPLACEMENT (FIG. 7)

- Loosen fixing screw (1) and remove old rotor (6).
- Fit new rotor with new fixing screw.
- Glue fixing screw with Loctite 243.

⚠	Note: use Loctite 243 only.

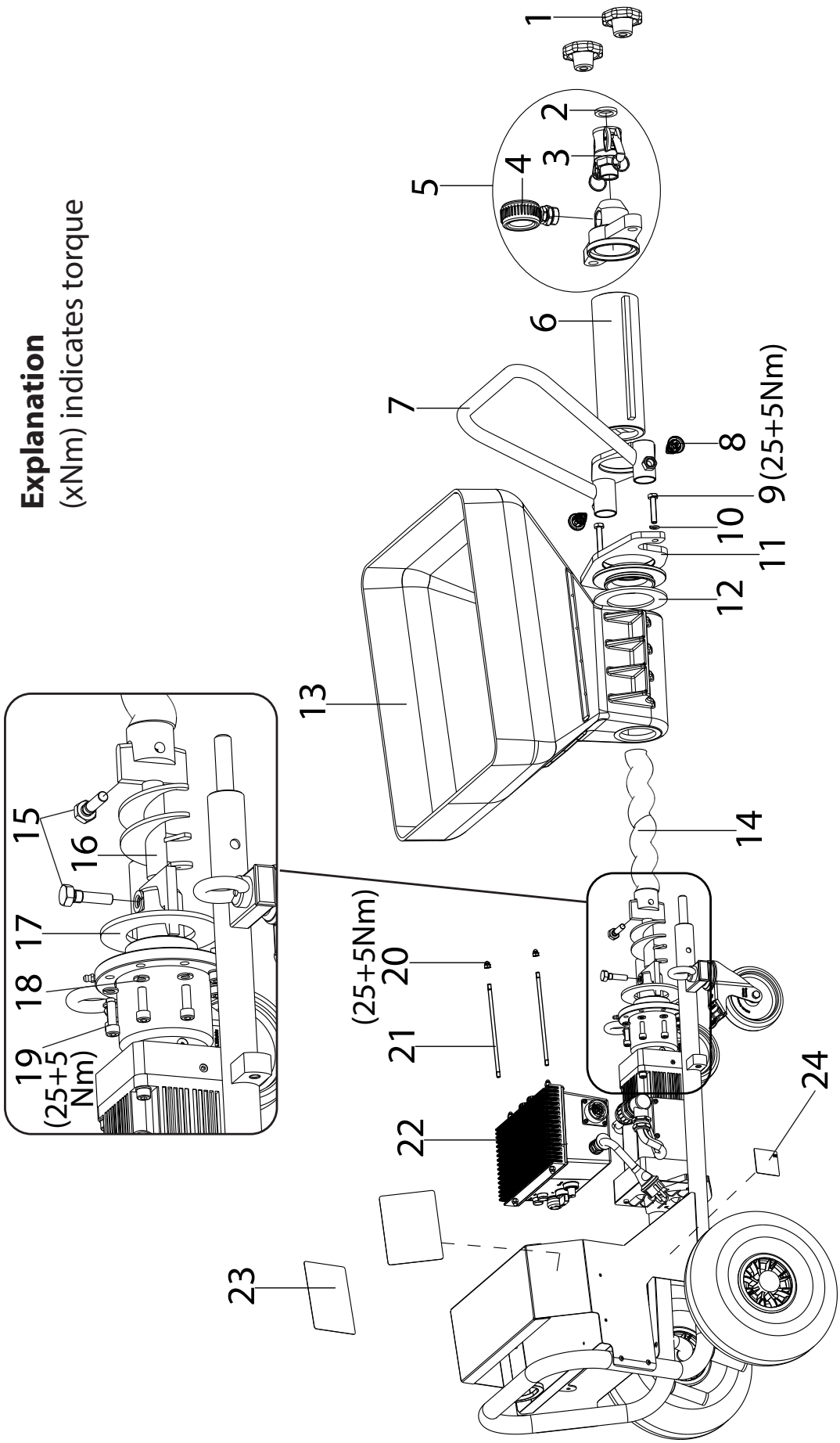
⑰



8 SPARE PARTS LIST FOR PLASTCOAT 1030

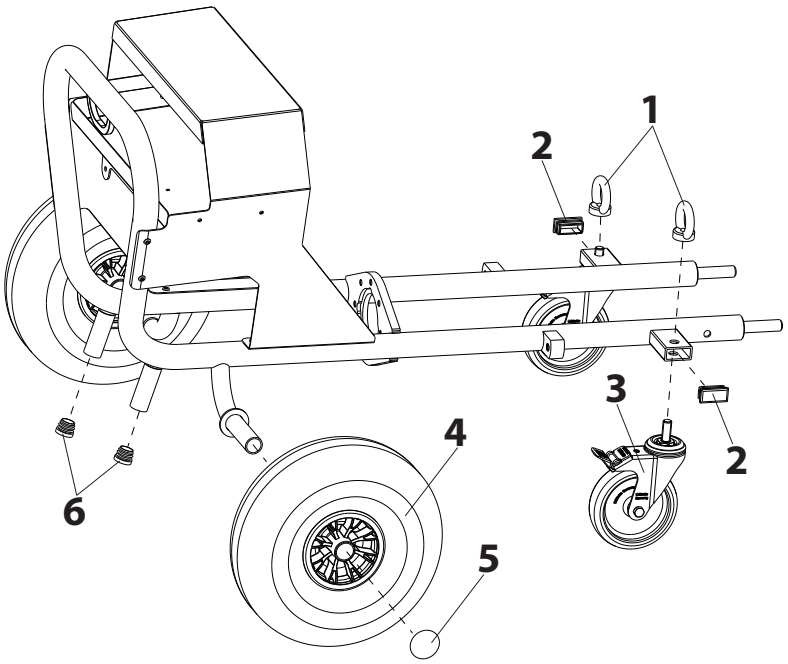
ITEM	ORDER NO.	DESIGNATION
1	9990368	Star knob nut (2)
2	0342314	Sealing
3	2305009	Coupling complete
4	2313 540	Pressure gauge complete
5	2373608	Outlet unit cpl.
6	348315	Pump casing
7	2361120	Anti-twist lock for stator
8	2368779	Catch (2)
9	9900247	Hexagon head screw (2)
10	9921507	Spring washer (2)
11	2360857	Retaining plate for stator
12	2360707	Rubber seal, flange
13	2357594	Receptacle
14	348316	Rotor
15	348324	Screw (2)
16	2360651	Feeder shaft
17	2360706	Rubber seal, motor
18	9921501	Spring washer (4)
19	9900313	Cylinder head screw (4)
20	9910708	Cap nut (4)
21	2310491	Connecting bolt (2)
22	2373606	Controller PC-1030 complete
23	2365723	Label PC 1030 (2)
24	2364373	Rating Label PC-1030

The number in brackets gives the total quantity of a component in the assembly.
The order number corresponds to one piece.
Therefore, please also specify the quantity that you require when ordering.

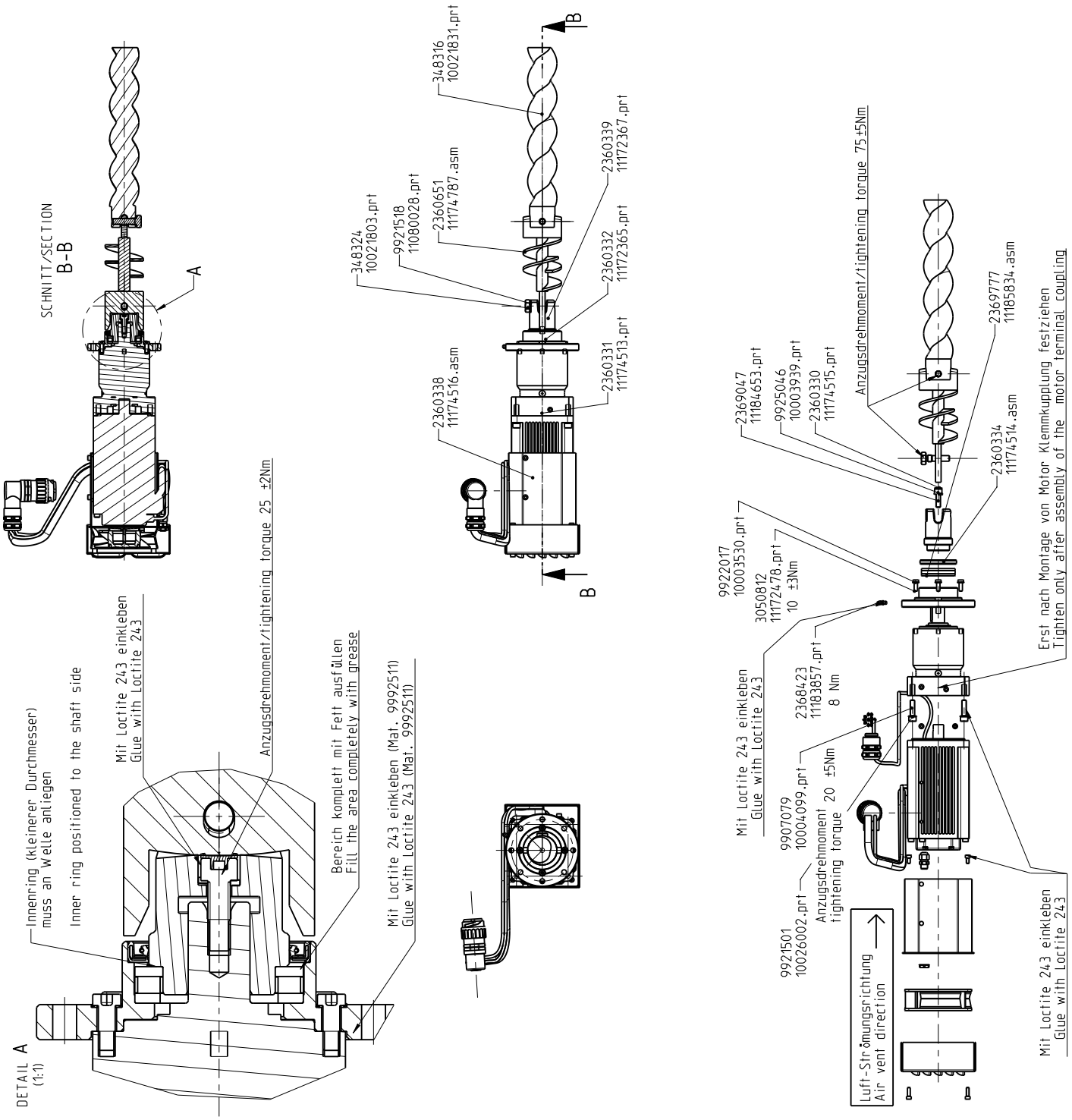

Explanation
(xNm) indicates torque
1
2
3
4
5
6
7
8
9 (25+5Nm)
10
11
12
13
14
15
16
17
18
19 (25+5 Nm)
(25+5Nm) 20
21
22
23
24

8.1 SPARE PARTS LIST FRAME

ITEM	ORDER NO.	DESIGNATION
1	3142039	Ring nut M12
2	3069013	Square head plug
3	2367604	Guide pulley
4	348349	Wheel
5	9994902	Wheel cap
6	2309787	Protective cap



9 DRIVE ASSEMBLY PLAST COAT 1030

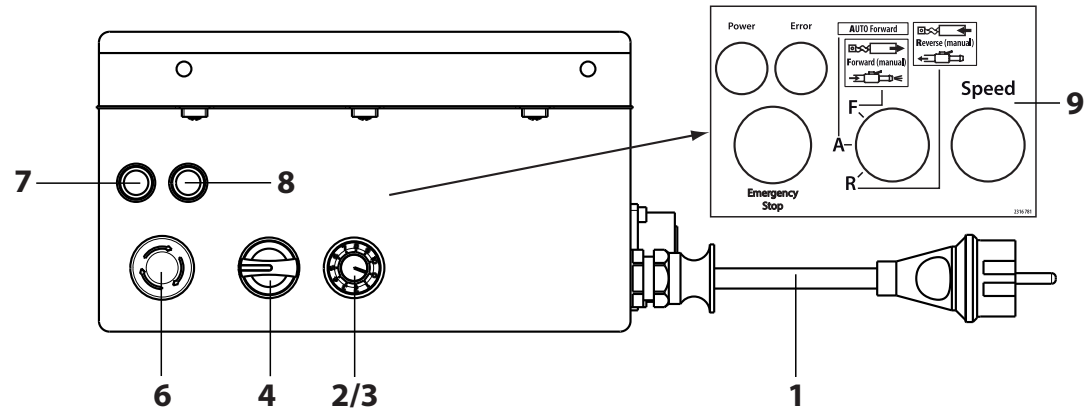


10 SPARE PARTS LIST CONTROLLER

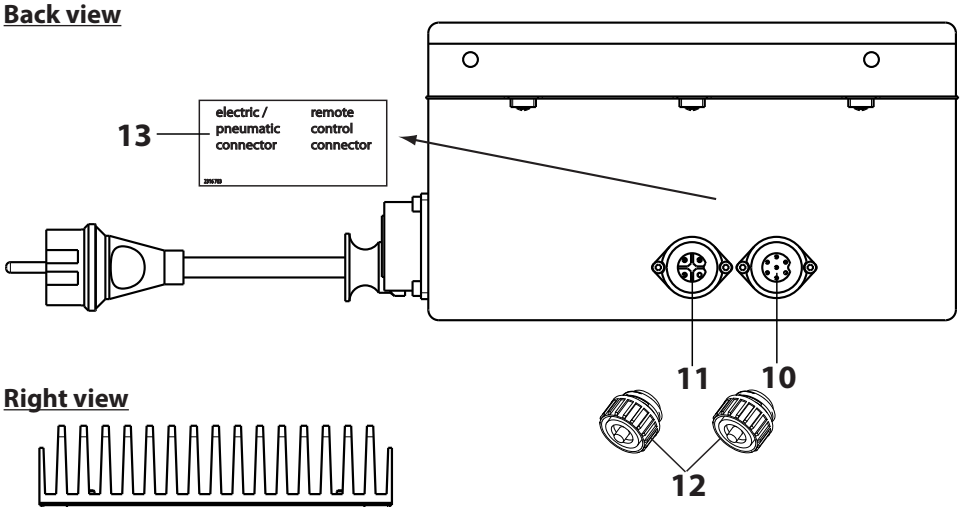
ITEM	ORDER NO.	DESIGNATION
1	2362391 2365766	Mains cable assy. (EU) Mains cable assy. (China)
2	2362393 2308410	Potentiometer assy.
3	2315 462	Control knob for potentiometer
4	2315416 2308475	Switch
6	2313 743	Emergency stop switch
7	2313 481	Signal lamp (green)

ITEM	ORDER NO.	DESIGNATION
8	2313 482	Signal lamp (red)
9	2316 781	Adhesive label (front)
10	2313 485	Coupler plug six-pole
11	2313 486	Coupler plug three-pole
12	2311 685	Cap
13	2316 783	Adhesive label (back)
14	2313 823	Female receptacle

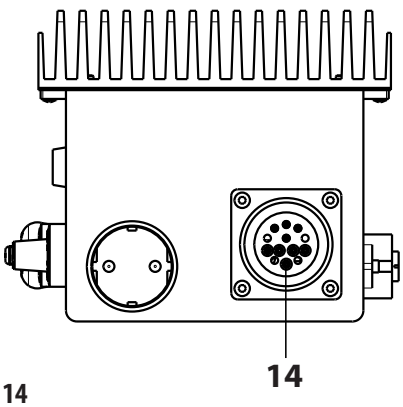
Front view



Back view



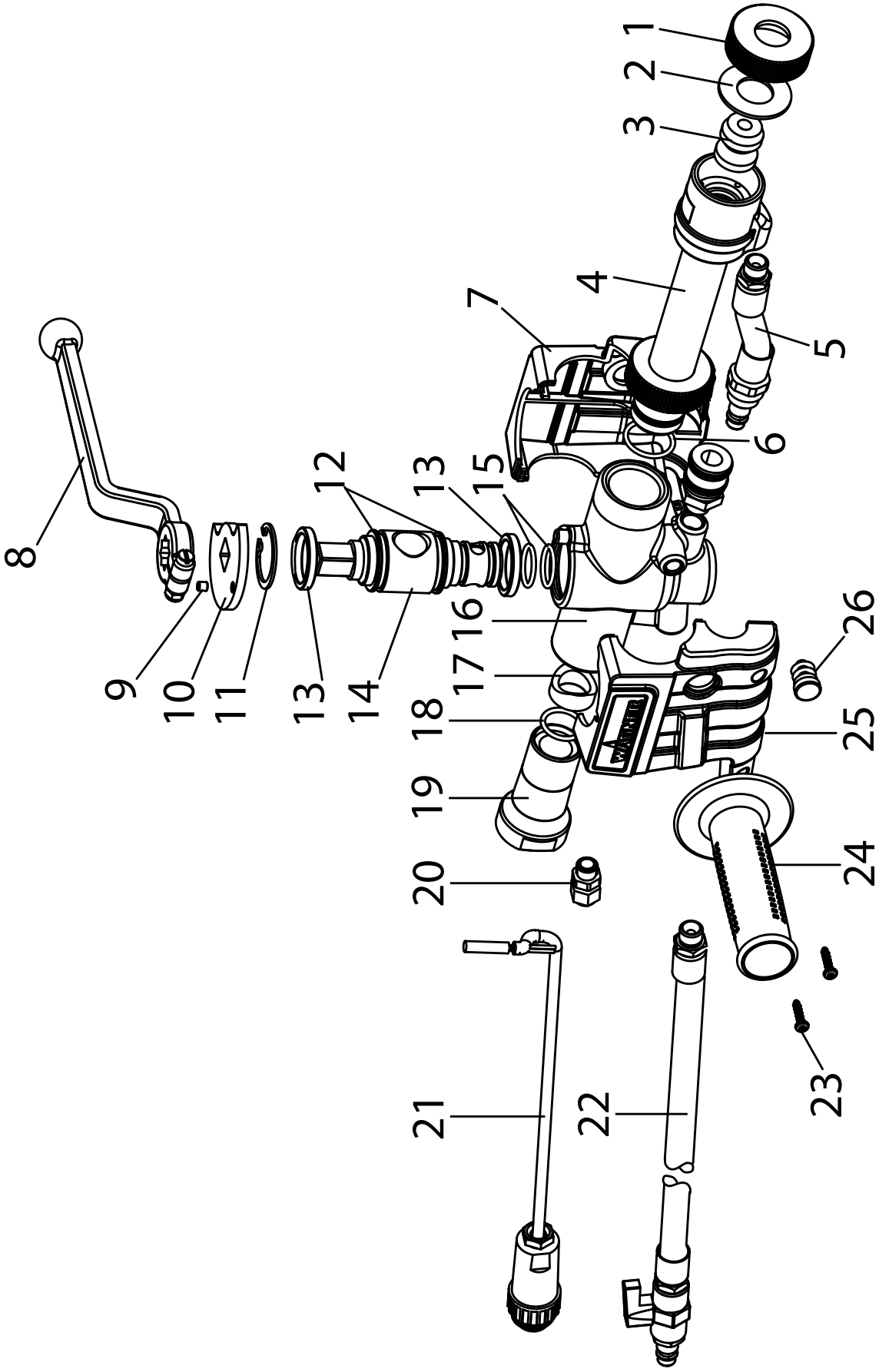
Right view



11 SPARE PARTS LIST NEW PNEUMATIC AND AUTOMATIC SPRAYLANCE (2334 115, 2334 116)

ITEM	PART NO.	DESIGNATION
	2334 115	Automatic spray lance
	2334 116	Pneumatic spray lance
	2322 199	Complete spray head (composed of positions 1-6)
1	2321 045	Union nut
2	0342 350	Sealing washer
3	0268 781	Texture tip 8 (standard)
4	2343 086	Material tube for spray lance
5	2322 194	Air hose of spray head *
6	2322 488	O-ring 25 x 2,5
7	2323 764	Housing component, left
8	2319 220	Lever
9	2322 363	Magnet
10	2319 228	Turn restrictor
11	9999 360	Retaining ring
12	2336 552	O-ring 30x 2,8 (2 pcs)
13	2322 179	Slide bush
14	2319 230	Closing cylinder
15	2336 553	O-ring 20x 2,5 (2 pcs)
16	2334 155	Lance body
17	2319 231	Seal washer
18	2319 233	O-Ring 20,29 x 2,62
19	2320 770	Hose connection
20	3156 823	Cable fitting (Automatic version only)
21	0348 216	Reed sensor, cpl. (Automatic version only)
22	2329 900	Air hose *
23	2336 554	Oval-head screw (2)
24	2324 716	Hand-grip
25	2323 782	Housing component, right
26	2336 221	Stoppers (2)

* Glue with Loctite 243

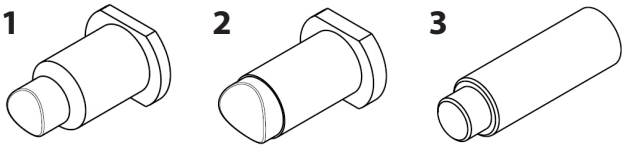

1
2
3
4
5
6
7
8
9
10
11
12
13
13
14
15
16
17
18
19
20
21
22
23
24
25
26

12 REPLACEMENT OF SEALS AND O-RINGS OF THE NEW LANCE

2338828 Assembly tools for the new PC lance

Content of the kit

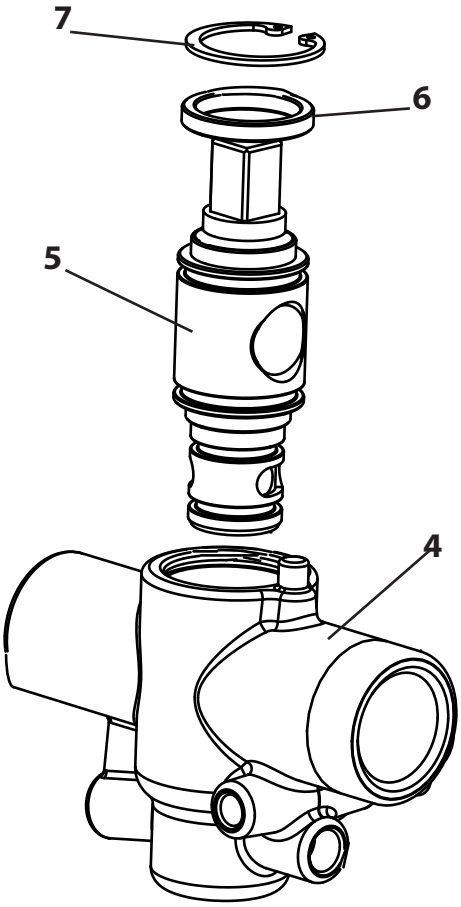
1, 2 Guiding tools for inserting the closing cylinder
3 Inserting tool for the seal 2319 231

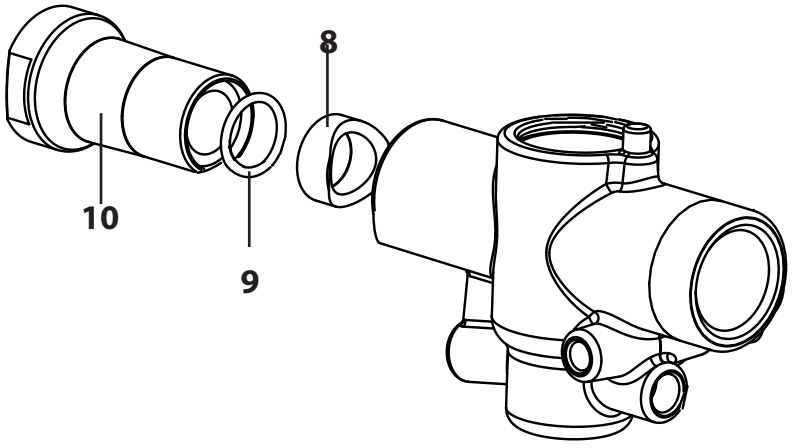


Assembly of the closing cylinder and new o-rings

i	**Attention! The inside of the lance body must be clean. Otherwise it's possible that the closing cylinder can't be assembled.**

1. Insert both guiding tools (1 and 2) in the front and back side of the lance body (4). Make sure that these parts are in line with the shape of the closing cylinder.
2. **Lubricate closing cylinder (5) and all seals and o-rings.**
3. Insert the closing cylinder (5) with the help of the guiding tools (1 and 2) into the lance body. **Attention: Avoid damage to the o-rings due to the sharp edges.**
4. Fully press the closing cylinder to the bottom of the lance body with the help of a bench vice.
5. Countersink the slide bush (6) with the help of a hammer and a chisel until the groove for the retaining ring is visible.
6. Secure the closing cylinder with the retaining ring (7).
7. Insert the seal washer (8) with the inserting tool (3) into the lance body.
8. Lubricate o-Ring (9) and insert it into the hose connection (10). Insert the hose connection completely into the lance body.
9. Secure the thread with Loctite 243 (blue).





1 BASIC PRINCIPLES

1.1 ELECTRICALLY INSTRUCTED PERSON

In order to carry out work on electrical systems and equipment, a person must at least have training as an electrically instructed person.

However, an electrically instructed person is not authorised to autonomously set up, modify or repair electrical systems and equipment. Such tasks may only be performed under the direction and supervision of a skilled electrician.

The electrically instructed person must be trained on all systems and equipment. This training is carried out by the senior skilled electrician, who highlights the hazards and special features. The senior skilled electrician also ensures that the requirements and guidelines in respect of UVV, VDE and EN standards have been complied with.

All electrically instructed persons must receiving training at least once a year on the hazards, safe handling and correct conduct in relation to electrical systems.

Documents and work instructions must also be made available to electrically instructed persons. These must relate to the exact machine type and indicate potential hazards and special features. The work instructions must include safe and correct replacement of a connecting cable, for example.

1.2 SKILLED ELECTRICIAN FOR DEFINED TASKS

In order to autonomously carry out work on electrical systems and equipment, a person must have training as a skilled electrician for defined tasks.

However, the skilled electrician for defined tasks must also, like the electrically instructed person, be trained on all systems and equipment. This training is carried out by the senior skilled electrician, who highlights the hazards and special features. The senior skilled electrician also ensures that the requirements and guidelines in respect of UVV, VDE and EN standards have been complied with.
It is also necessary for a responsible skilled electrician to assume professional responsibility.

1.3 LEGAL FOUNDATIONS

Once a system and its equipment has been repaired, modified or set up, it must not constitute any hazard for users and their environment. To ensure that safety can still be guaranteed, an annual inspection is required for mobile systems and equipment.

1.4 WHICH TESTS MUST BE PERFORMED

A test in accordance with the guidelines of BGV A3 **must** be performed and verified. This test must be performed on all electrical equipment, even if "only" a mechanical repair has been carried out.

Contents of BGV A3: The test as per BGV A3 is divided into a visual and a metrological test.

Visual inspection:	- Protective conductors (protection class I)
	- Insulating parts
	- Housing
	- Connecting cables
	- Typeplate
	- Machine-specific components
Metrological test:	- Short-circuit test
	- Protective conductor resistance (RSL)
	- Equivalent leakage current (IEA)
	- Insulation resistance (Riso)
	- Functional test

Attention! If one of the above-specified criteria cannot be fulfilled, then the test is **considered a failure.**
If the customer refuses the necessary repair, he must be informed in writing to this effect. Clear reference must be made to the fact that safe operation of the system cannot be assured. This must be counter-signed by the operating company.
You must fulfil this obligation as you, as an expert, will be required to produce evidence in the event of damage.

1.5 FIVE SAFETY RULES

The Five Safety Rules are more than just rules. They are the precondition for working on electrical systems and appliances. Please take these rules seriously - they are essential for your safety.

Isolation

Isolation means all-pole disconnection of a system from live parts.
All live cables must be disconnected at all poles at the place of work before starting work. This can be done by means of main switches, expert removal of fuses, disconnection of plug connectors etc.

Protecting against restarting

In order to prevent inadvertent restarting of a system on which work is being carried out, restarting must be prevented reliably and safely. For example the unscrewed fuse elements can be replaced with lockable disabling elements or circuit-breakers can be masked with adhesive film. A "Please do not switch on - work in progress" sign can also be affixed. For appliances which are connected to the network by a plug connector, it is sufficient to store the unplugged connector on the machine in such a way that it cannot be mixed up with another connector. In addition, the connector must always be kept in the worker's immediate vicinity.

Verification of safe isolation from the supply

Verification of safe isolation from the supply in low-voltage networks, i.e. systems with operating voltages below 1000 V, must only be carried out using devices or equipment suitable for this purpose. A two-pole measuring instrument must be used. The voltage detectors used must comply with the respective rated voltage and must be tested before and after verification of safe isolation from the supply. I.e. the function of the detectors must be tested on a reliable live source.

Earthing and short-circuiting

After ensuring safe isolation from the supply, the conductors and earthing must be connected together with short-circuit-proof earthing and shorting jumpers. With this measure, the upstream overcurrent protective devices trigger and the system is immediately isolated in the event of inadvertent restoration of power. It should be noted that earthing is carried out first, then short-circuiting.

Cover or shield any adjacent live parts.

Often inadmissible approach to adjacent live system parts cannot be easily prevented. In such cases these system parts must be protected against accidental contact by permanent and securely fitted insulating covers.

1.6 CATEGORISATION OF PROTECTION CLASSES

Legal basis
In electrical engineering, protection classes enable the categorisation and identification of electrical equipment (for example, devices and installation components) in relation to the existing safety measures for protection against electric shock.
The protection classes are defined for all electrical equipment in DIN EN 61140 (VDE 0140-1).
A distinction is made between four protection classes for electrical equipment. Symbols are provided in order to identify equipment with the relevant protection class. These symbols are defined in IEC 60417. The use of safety precautions in the different classes of electrical equipment is described in DIN EN 61140 (VDE 0140-1):2007-03, section 7.

Protection class 0
There is no special protection against electric shock in addition to the basic insulation. Connection to the protective conductor system is not possible. Appliances with this protection class are not permitted in Germany and Austria. This protection class will not be included in any international standards in future. There is no symbol for protection class 0.

Protection class I 

All electrically conductive housing parts of the equipment are connected to the protective conductor system of the fixed electrical installation, which is at earth potential. Mobile appliances in protection class I have a plug connector with a protective conductor contact or an earthing pin plug. These must be executed so that the protective conductor connection is established as the first connection on plugging in. It must also be ensured that in the event of damage the protective conductor connection is disconnected last. The connecting cable entry into the appliance must be mechanically strain-relieved

Protection class II 

Equipment in protection class II has reinforced or double insulation around live parts, so that no conductive parts can be live even in fault conditions. This is also referred to as total insulation. Appliances in protection class II do not have a protective conductor contact.

Protection class III 

Appliances in protection class III operate with safety extra-low voltage (SELV).
Safety extra-low voltage means voltages that do not exceed 50 V AC (alternating voltage) or 120 V DC (direct voltage). This voltage must be generated by a safety transformer as per DIN VDE 0570-2-6 or EN 61558-2-6 for a mains-operated appliance.
Safety extra-low voltage taken from batteries or accumulators belongs to protection class III without the need for further measures.

1.7 EXPLANATION OF ELECTRIC VARIABLES AND COMPONENTS

Dimensional unit	Arithmetic unit	Explanation
A	I	Electric current in ampere
V	U	Electric voltage in volts
KV	U	Electric voltage in kilo-volts
VA	S	Apparent electric power
W	P	Electric power in watts
KW	P	Electric power in kilowatts
KWh	P	Electric power in kilowatt hours
Ω	R	Electric resistance in ohms
KΩ	R	Electric resistance in kiloohms
MΩ	R	Electric resistance in megaohms

Designation	Explanation
L1	External conductor
L2	External conductor
L3	External conductor
N	Neutral conductor
PE	Protective conductor
3~	Threephase AC voltage

1.8 EXPLANATION OF ELECTRICAL TERMS

Rated current
The rated current In is the rated value for a system, a power circuit or electrical equipment.

Operating current
The operating current Ib is the current that must flow during uninterrupted operation.

Overcurrent
Overcurrent is any current that exceeds the permissible current loading.
Overcurrent is the generic term.
Overload current is an overcurrent that occurs in an electrically fault-free power circuit.
Short-circuit current is an overcurrent that can occur due to an error.

Operating voltage
The operating voltage is the voltage present between the conductors during full function.

External conductor
External conductors are live conductors.

Neutral conductor
A neutral conductor is connected to the neutral point and star point, and is capable of contributing to the transmission of electrical energy.

Protective conductor
A protective conductor is necessary for certain protective measures against shock currents, in order to establish an electrical connection to one of the following parts.
- exposed conductive part of the electrical equipment
- external conductive parts
- earth electrodes, equipotential bonding

Earth fault
An earth fault is an electrical connection between an external conductor or neutral conductor to the protective conductor.

Interwinding fault
An interwinding fault is a short in a winding of the motor. This winding has a different resistance to the other windings.

PEN conductor
A PEN conductor is an earthed conductor which performs the function of protective conductor and neutral conductor simultaneously.

Active part (of an electrical system)
An active part is a live part of an electrical system or device (e.g. fuses, terminals, switches, capacitors, etc.) through which current flows during normal operation

Emergency switch, emergency stop
This switch is identified by its colouring (red on yellow) and serves to stop hazardous states or hazardous movements. The emergency switch does not serve for switching during normal operation or isolation in accordance with the Five Safety Rules (1.5).

Isolation
This is the disconnection of a system or its equipment from all sources.

Basic insulation
This is the insulation of active parts during normal operation to protect against direct contact.

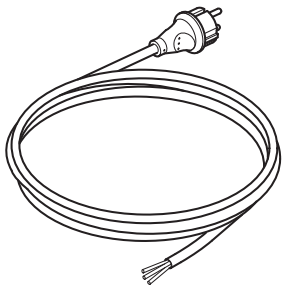
Direct contact
This is direct contact between an active part of an electrical system (an external conductor/phase) and the human body in normal operation.

Indirect contact
This is indirect contact between an active part and the human body due to an existing insulation fault. The housing of an electrical device which is not live under normal conditions is contacted (fault).

2 FUNCTIONAL TEST WORK INSTRUCTION

2.1 FUNCTIONAL TEST OF CORD SET

1. Ensure safe isolation from the supply before commencing work.
2. A multimeter or test buzzer should be used for testing. The function should be checked first of all.
3. Attach a measuring lead to one of the two pins on the connector.
4. Attach the second measuring lead to one of the device terminals N (blue) or L1 (brown). If no tone is audible or if the measuring device indicates an infinitely high resistance, the measuring lead must be attached to the other terminal, as it is not possible to tell to which pin the respective wire is connected on the earthing pin plug. If a tone is now audible or if the measuring device actuates, this wire is ok. Move the connecting cable in order to rule out a defective contact; if no interruption is discernible, this wire is ok. Repeat with the other wire N (blue) or L1 (brown).
5. Repeat point four in order to verify the functionality of the protective conductor (green/yellow). This is only necessary for equipment class I. See chapter 4.3
6. If an interruption or defective contact is found in one of the wires, then the wire is defective.
7. The defective component must be made inoperative in order to prevent further use.



2.2 FUNCTIONAL TEST OF THE CAPACITOR

1. Ensure safe isolation from the supply before commencing work.
2. An insulation resistance tester (e.g. Metriso 500) must be used for the measurement.
3. The capacitor must be electrically isolated from the device. To do this, disconnect the plug connector on the capacitor.
4. Set the measuring device (Metriso 500) to measuring range III.
5. Connect the two test probes of the measuring device to the two terminal lugs on the capacitor.
6. To start the measurement, press the test button on the handle.
7. The measuring device deflects fully, then after approx. 20 sec. the pointer begins to wander to the left. The measurement is only complete when the pointer has moved all the way to the left (zero deflection).
8. Now disconnect the measuring device from the capacitor and switch to the Volt (V=) position.
9. After approx. two minutes, reconnect the test probes to the capacitor (point 5). The display begins to wander from right (full deflection) to left (zero deflection).
10. If a deviation is found at point seven, for instance if the pointer remains at full deflection (right) or zero deflection (left) for more than a minute, then this capacitor is defective.
11. The defective component must be made inoperative in order to prevent further use.

2.3 FUNCTIONAL TEST OF SWITCHES/BUTTONS

1. Ensure safe isolation from the supply before commencing work.
2. A multimeter or test buzzer should be used for testing. The function should be checked first of all.
3. First disconnect all electrical connections at the switch or button.
4. With the switch in the 0 position, all of the switch connections must be checked against each other. If a continuity is found, the switch is defective.
5 In position I of the switch the superimposed switch connections must have continuity. If no continuity is found, the switch is defective.
6. The defective component must be made inoperative in order to prevent further use.

2.4 FUNCTIONAL TEST OF EARTHING CONTACT SOCKET

1. Ensure safe isolation from the supply before commencing work.
2. First perform a visual inspection of the socket for damage.
3 If no mechanical damage is found, work through chapter1.5 (The Five Safety Rules) in the reverse order.
4. A two-pole measuring instrument should be used to check the electrical functionality. If a multimeter is used, it should be set to V~ or VAC.
5. Now check the voltage present between L1 and N. If this is 230 V AC then the voltage between L1 and PE must also be checked.
6. If a deviation is found in point 2 or point 5, there is a defect.
7. The defective component must be made inoperative in order to prevent further use.

2.5 FUNCTIONAL TEST OF THE MOTOR OVERCURRENT PROTECTION SWITCH

1. Ensure safe isolation from the supply before commencing work.
2. First perform a visual inspection of the motor protection switch for damage.
3. A multimeter or test buzzer should be used for testing. The function should be checked first of all.
4. Connect one test probe of the test buzzer to terminal N and the second one to terminal U1/Z1.
5. Now switch the motor overcurrent protection switch on and off two or three times. The buzzing tone sounds when the switch is at one; no buzzing tone should be audible in the OFF position.
6. Now connect the test probes to terminals L1 and U2. Repeat point 5 as a check.
7. If a deviation is found in relation to point 5 or 2, there is a defect.
8. The defective component must be made inoperative in order to prevent further use.

2.6 FUNCTIONAL TEST OF THE THREEPHASE MOTOR

1. Ensure safe isolation from the supply before commencing work.
2. A multimeter should be used for testing; this must be set to ohm (Ω) and tested.
3. In order to obtain a reliable and meaningful measurement, all cables of the motor must be disconnected first of all. Note down the connection plan.
4. In order to determine an interwinding fault, the Y/Δ jumpers must be removed. Note down the connection plan.
5. Measure all motor cables to the housing; if a continuity is found, then the motor has an earth fault and is defective.
6. Measure all three windings individually; they must present the same resistance. If a deviation of ≥ 2.0% is found, the motor has an interwinding fault and is defective.
7. If the motor is equipped with a thermal link, this must be tested for continuity. If no continuity is present or a resistance of ≥ 5Ω is present, the motor is defective.

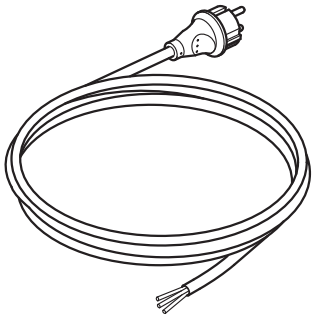
2.7 FUNCTIONAL TEST OF AC MOTOR

1. Ensure safe isolation from the supply before commencing work.
2. A multimeter should be used for testing; this must be set to ohm (Ω) and tested.
3. In order to obtain a reliable and meaningful measurement, all cables of the motor must be disconnected first of all. Note down the connection plan.
4. Measure all cables to the housing; if a continuity is found, then the motor has an earth fault and is defective.
5. Measurement of the individual windings is not possible, as they are internally bridged.
6. If the motor is equipped with a thermal link, this must be tested for continuity. If no continuity is present or if a high resistance is present, the motor is defective.

3 REPAIR WORK INSTRUCTION

3.1 REPLACING A CORD SET

1. Ensure safe isolation from the supply before commencing work.
2. Remove the old cable, noting the contact configuration.
3. Strip new cord set to desired length, taking care not to damage the insulation of the wires.
4. Shorten conductors N (blue) and L1 (brown) by 1.5 cm, to ensure that when there is a tensile load on the cable, the protective conductor (yellow/green) is disconnected from the machine last.
5. Press on the wire end ferrules, to ensure secure contact.
6. Install strain relief in order to prevent the connecting cable from being pulled out. Make sure that the strain relief is not excessively tightened, which could cause the cable to shear off.
7. Ensure secure contact when connecting the individual wires.
8. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality.
9. The defective component must be made inoperative in order to prevent further use.



3.2 REPLACING A 400 V CORD SET

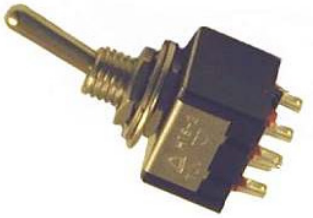
1. Ensure safe isolation from the supply before commencing work.
2. First of all loosen the strain relief until the cable can be freely moved.
3. Disconnect the defective cable, noting the exact pin assignment.
4. Strip the new cable to the desired length, taking care not to damage the insulation of the individual wires.
5. First shorten wires L1, L2, L3 and N by 1.5 cm. This ensures that when there is a tensile load on the cable, the protective conductor (PE) is disconnected last.
6. Now strip the individual wires to the desired length.
7. Now press the wire end ferrules on, making sure that the wires terminate flush with the sleeve and that no individual wires protrude.
8. Now connect the cable in accordance with the pin assignment noted in point 3. Make sure that secure contact is achieved.
9. Now tighten the strain relief - but not too much, as this could cause the cable or an individual wire to shear off.
10. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality. See chapter 1.4

3.3 REPLACING THE CAPACITOR

1. Ensure safe isolation from the supply before commencing work.
2. Remove the wires (plug connector on capacitor).
3. Loosen the fixing nut on the front of the capacitor.
4. Remove the capacitor.
5. Now install and connect the new capacitor in the reverse order.
6. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality. See chapter 1.4.
7. The defective component must be made inoperative in order to prevent further use.

3.4 REPLACING SWITCHES / BUTTONS

1. Ensure safe isolation from the supply before commencing work.
2. Remove the individual wires at the switch, noting the contact configuration.
3. Remove the switch, noting its installation position.
4. Install the new switch.
5. Establish the electrical connection, observing the contact configuration of point 2.
6. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality. See chapter 1.4
7. The defective component must be made inoperative in order to prevent further use.



3.5 REPLACING THE EARTHING CONTACT SOCKET

1. Ensure safe isolation from the supply before commencing work.
2. Loosen the fastening screws and remove the socket from the housing.
3. Loosen and remove all cables at the earthing contact socket, noting the contact configuration.
4. Establish the electrical connection to the new earthing contact socket, ensuring correct and safe contacting.
5. The earthing contact socket can now be re-installed in the housing.
   Pay attention to the installation position of the socket. This must ensure the best possible splash protection, even in operating status.
6. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality.
7. The defective component must be made inoperative in order to prevent further use.

3.6 REPLACING THE MOTOR PROTECTING SWITCH

1. Ensure safe isolation from the supply before commencing work.
2. Mark the individual wires with the relevant terminal designation of the motor protecting switch, in order to prevent mix-up.
3. Now disconnect all electrical connections from the motor protecting switch.
4. The motor protecting switch can now be removed.
5. Now install the new motor protecting switch and restore the electrical connection.
6. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality.
7. In order to prevent further use of the defective motor protecting switch, it must be made unserviceable and disposed of.

3.7 REPLACING THE THREEPHASE MOTOR

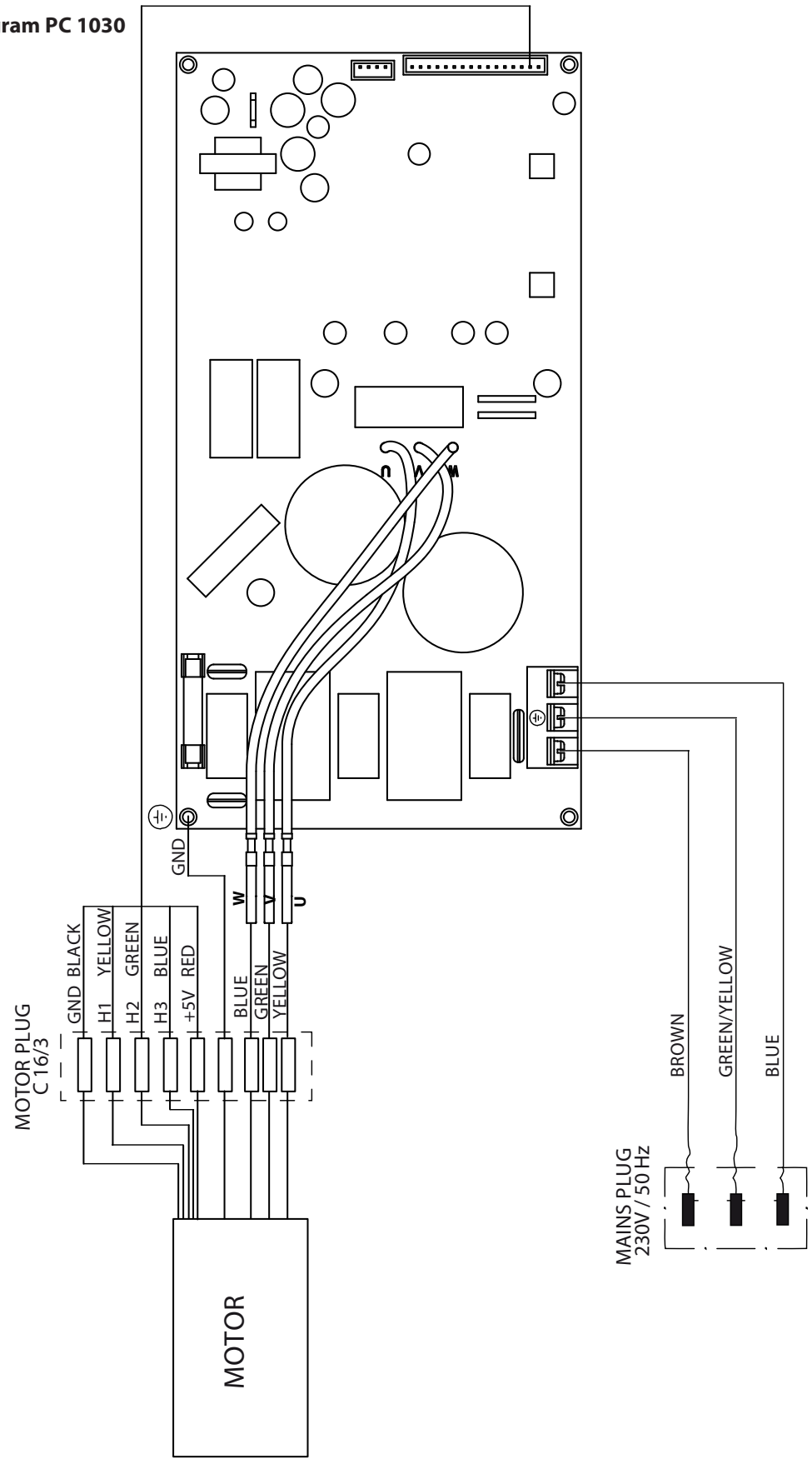
1. 1. Ensure safe isolation from the supply before commencing work.
2. First disconnect the defective motor, noting the exact pin assignment.
3. Now replace the motor.
4. Ensure correct positioning of the Y/Δ jumpers on the motor terminal board.
5. Observe the pin assignment noted in point 2 when connecting the individual wires. Make sure that secure contact is achieved.
6. After completing the repair a measurement in accordance with BGV A3 must be carried out.
7. If the direction of rotation of the motor is incorrect, external conductors L1 and L2 and U and V must be swapped over.
8. In order to exclude further use of the defective motor, all wires must be disconnected directly at the motor.
9. After completing the repair a measurement in accordance with BGV A3 must be carried out, in order to ensure electrical safety and functionality See chapter 1.4

3.8 REPLACING THE AC MOTOR

1. Ensure safe isolation from the supply before commencing work.
2. First disconnect the defective motor, noting the exact pin assignment.
3. Now replace the motor.
4. Observe the pin assignment noted in point 2 when connecting the individual wires.Also ensure secure contact when connecting the wires.
5. After completing the repair a measurement in accordance with BGV A3 must be carried out.
6. In order to exclude further use of the defective motor, all wires must be disconnected directly at the motor.

4 MACHINE-SPECIFIC DOCUMENTS

4.1 Connection diagram PC 1030



WAGNER

EUROPA-SERVICENETZ / EUROPEAN SERVICE NETWORK / RÉSEAU DE SERVICE APRÈS-VENTE EN EUROPE
RETE DI ASSISTENZA EUROPEA / EUROPA – SERVICENETWERK

A
J. Wagner Ges.m.b.H.
Ottogasse 2/20
2333 Leopoldsdorf
Österreich
Tel. +43/ 2235 / 44 158
Telefax +43/ 2235 / 44 163
office@wagner-group.at

B
WSB Finishing Equipment
Veilinglaan 56-58
1861 Meise-Wolvertem
Belgium
Tel. +32/2/269 46 75
Telefax +32/2/269 78 45
info@wagner-wsb.nl

CH
Wagner International AG
Industriestrasse 22
9450 Altstätten
Schweiz
Tel. +41/71 / 7 57 22 11
Telefax +41/71 / 7 57 22 22
wagner@wagner-group.ch

D
J. Wagner GmbH
Otto-Lilienthal-Straße 18
D-88677 Markdorf
Postfach 11 20
D-88669 Markdorf
Deutschland
Tel.: +49 / 75 44 / 505 -1664
Fax: +49 / 75 44 / 505 -1155
wagner@wagner-group.com
www.wagner-group.com

CZ
E-Coreco s.r.o.
Na Roudné 102
301 00 Plzeň
Czechia
Tel. +420 734 792 823
Telefax 420 227 077 364
info@aplikacebarev.cz

DK
DVA A/S
Marielundvej 48 C
2730 Herlev
Denmark
Tel. +45 70 234 239
info@dva.dk
www.dva.dk

E
Makimport Herramientas, S.L.
C/ Méjico nº 6
Pol. El Descubrimiento
28806 Alcalá de Henares (Madrid)
Tel. 902 199 021/ 91 879 72 00
Telefax 91 883 19 59
ventas@grupo-k.es
info@grupo-k.es

F
Euromair Antony
S.A.V. Ile-de-France
12-14, av. F. Sommer
92160 Antony
Tel. 01.55.59.92.42
Telefax +33 (0) 1 69 81 72 57
conseil.paris@euromair.com

F
Euromair Distribution
Siège Social / S.A.V. Sud
343, bd. F. Perrin
13106 Rousset Cedex
Tel. 04.42.29.08.96
Telefax 04.42.53.44.36
conseil@euromair.com

RU
Импортёр:
ООО «ВинТех рус»
143960 МО, г. Реутов, улица
Железнодорожная, д. 11, кв./оф. V
Телефон: +7 (499) 705-11-31
Почта: hello@wagner.ru
Сайт: www.wagner.ru

GB
Wagner Spraytech (UK) Limited
Innovation Centre
Silverstone Park
Silverstone
Northants NN12 8GX
Great Britain
Tel. 01327 368410
enquiries@wagnerspraytech.co.uk

I
Wagner S.p.A.
23868 Valmadrera (Lc)
Via Santa Vecchia, 109
Italia
Tel./Fax 0341 210100 (centralino)

wagner_it_va@wagner-group.com

NL
WSB Finishing Equipment BV
De Heldinnenlaan 200,
3543 MB Utrecht
Netherlands
Tel. +31/ 30/241 41 55
Telefax +31/ 30/241 17 87
info@wagner-wsb.nl

S
Orkla House Care AB,
Tallvägen 6
564 23 Bankeryd,
Sweden
Tel. +46 36 376300
Info@orkla.se

Изготовитель:
Дж. Вагнер Гмбх,
Отто-Лилентал, 18
Д-88677 Маркдорф, Германия
www.wagner-group.com

www.wagner-group.com