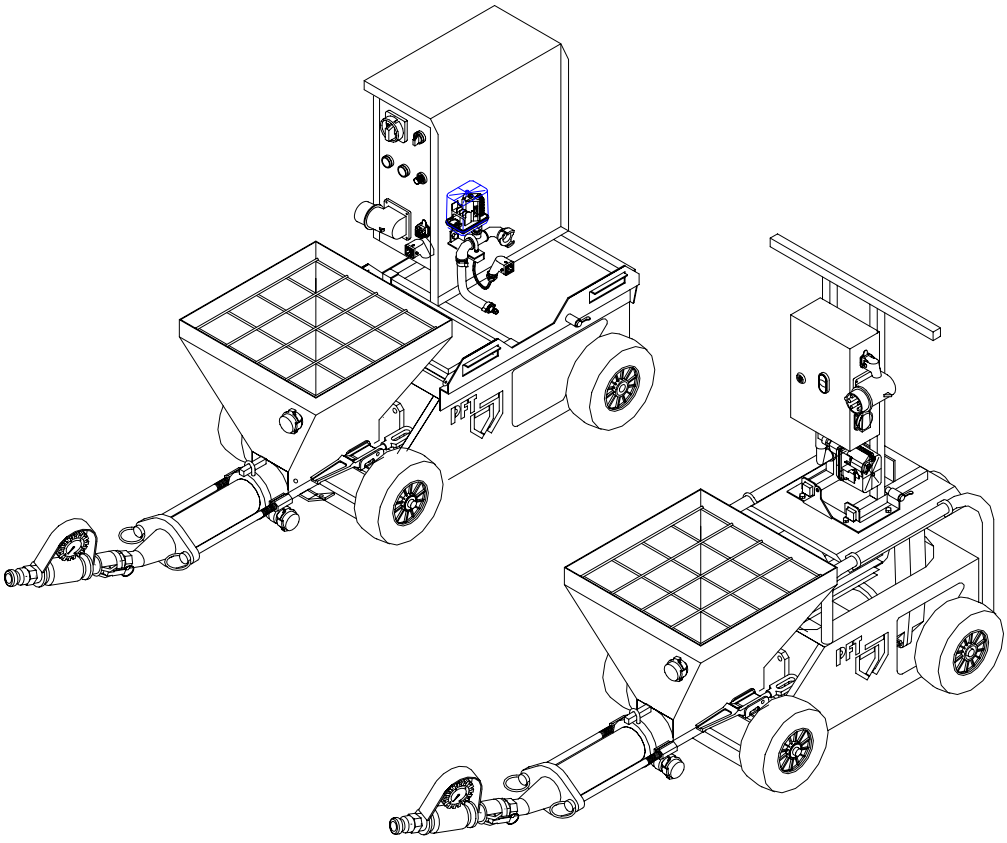
MANUAL AND SPARE PART LIST
(Item number of the operating instructions 00 07 51 11)

CONVEYING PUMP
N2FU/N2V



WE KEEP THINGS MOVING

Dear PFT Customer,

Congratulations on your purchase. You have made a wise choice, because you appreciate the quality of a brand from a company with a name that has exemplified quality.

The **PFT N2V** mixing pump uses state-of-the-art technology. It was designed in a task-optimised way so that it can be a trustworthy aid for rough construction site conditions.

These operating instructions should always be stored and kept at hand at the machine's application site. They give you information on the various functions of the system. Study the operating instructions thoroughly before starting the machine, as we accept no liability for accidents or damage to the machine caused by incorrect operation.
The **PFT N2V** conveying pump will be a trustworthy aid, if it is operated correctly and handled with care.

Initial inspection after delivery

An important task of all technicians delivering the **PFT N2V** conveying pump is the inspection of the machine settings at the end of the first spraying. The factory settings can be changed during the first operation. If these changes are not corrected in time, immediately after run-in, then operating problems can be expected.

After putting the **PFT N2V** conveying pump into service and giving appropriate instructions, after about two hours, the technician must always carry out the following checks / make the following settings:

1. Pump pressure, backpressure
2. Remote control switch

WARNING!

The enclosed guarantee card must be sent in – no card, no guarantee!

Contents **04/2004**

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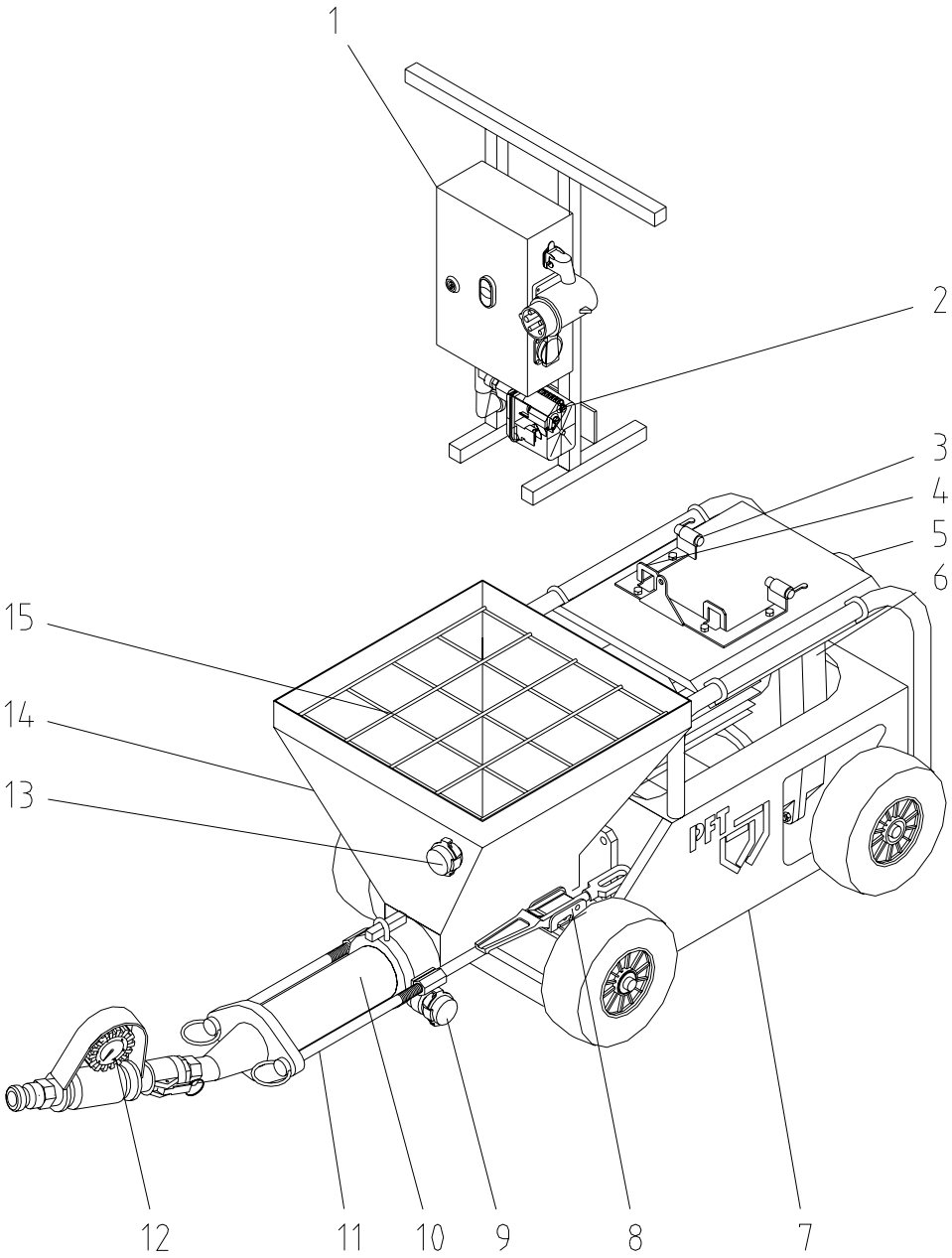

1 Control unit
2 Pressure control
3 Rotary bolt
4 Control unit bracket
5 Gearbox speed regulation
6 Gearbox 3 KW
7 Frame
8 Snap lock
9 Cleaning hole
10 Twister pump unit D 6-3
11 Tie rods
12 Mortar pressure gauge
13 Bypass connection
14 Material hopper
15 Protective grille

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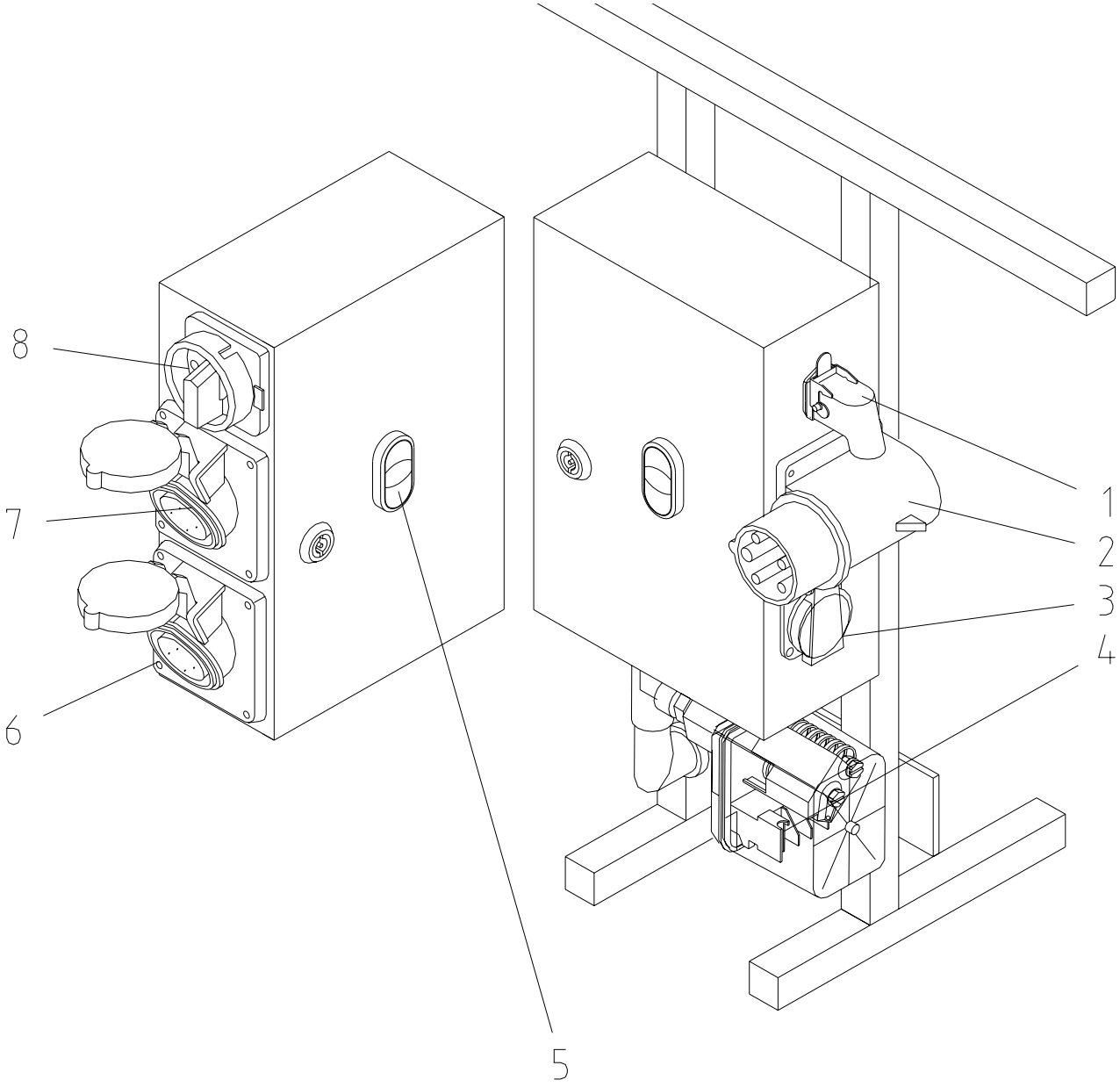

1 Remote control connection
2 Main current connection from site distributor
3 Permanent current socket 230 V
4 Pressure control
5 On/off button
6 Gearbox connection
7 Compressor connection
8 Main reversing switch

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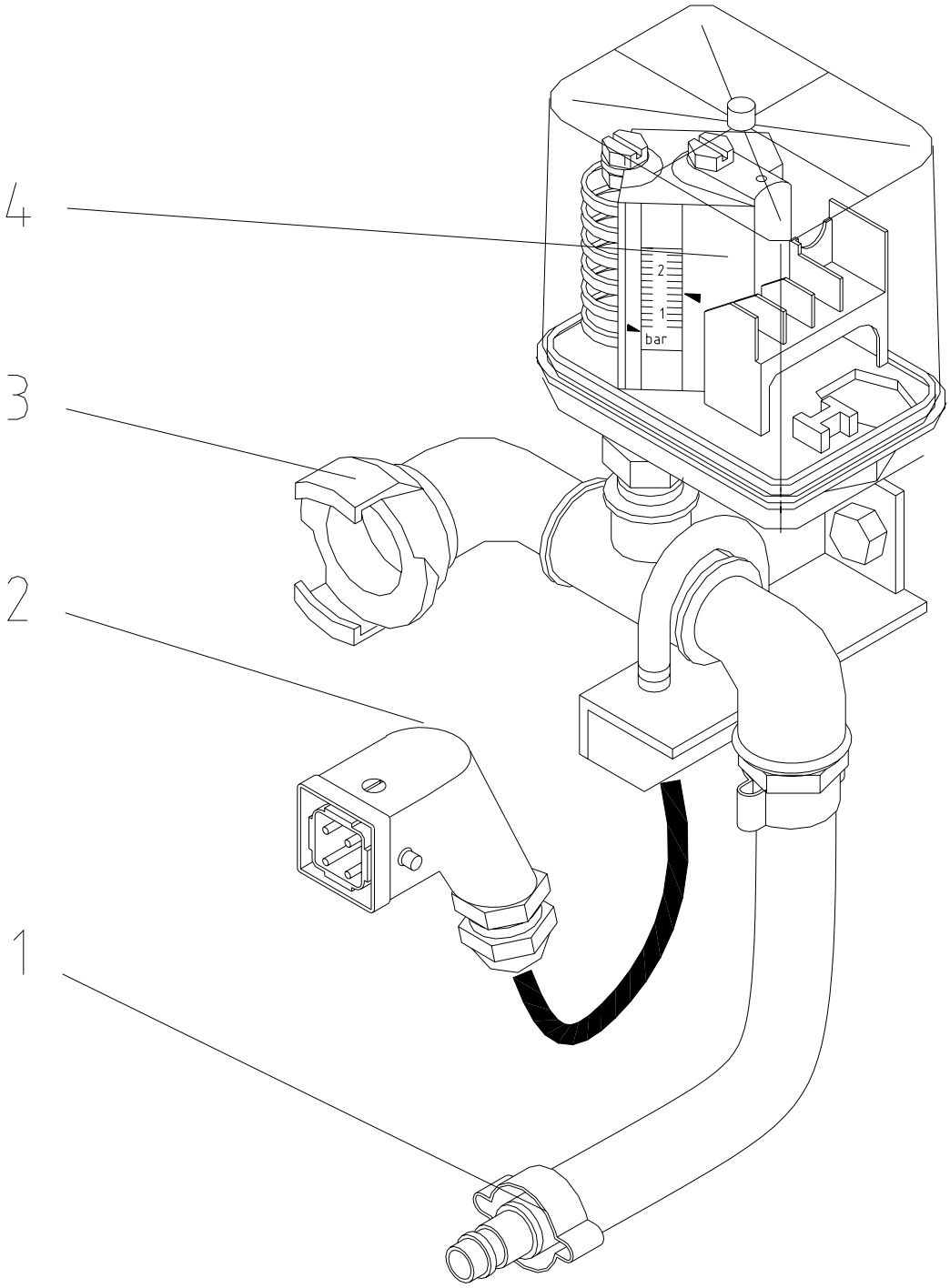

1 Air from compressor
2 Pressure control connection to the remote control socket
3 Air to the spraying gun
4 Air safety switch type FF4-4 0.22-4 bar

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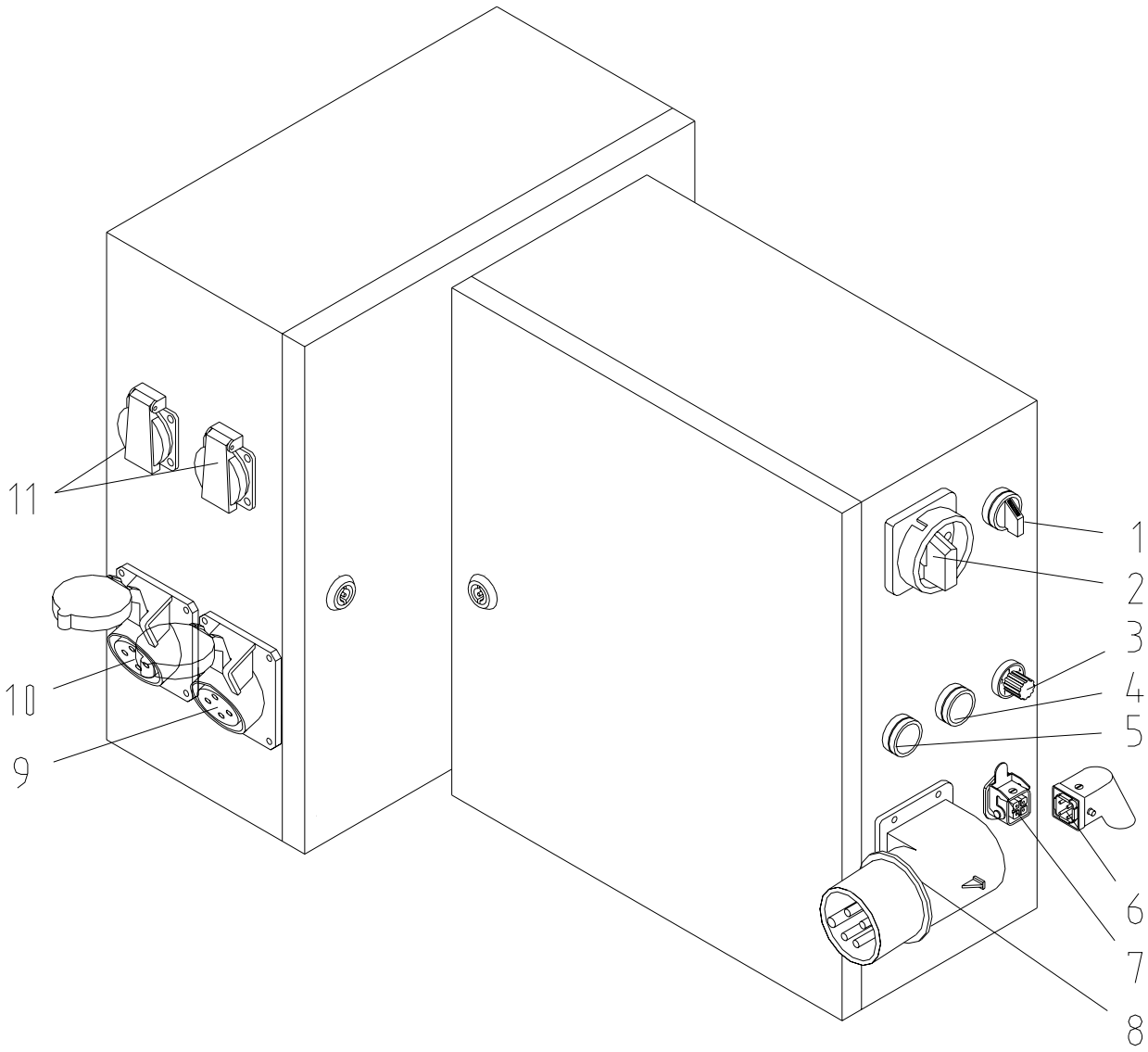

1	Backwards – 0 – forwards	6	Blind plug for remote control socket
2	Main switch	7	Remote control / pressure control connection
3	Speed adjustment	8	Main power connection
4	Fault display lamp	9	Pump motor connection
5	Operation display lamp	10	Compressor connection
		11	Permanent current socket 230 V

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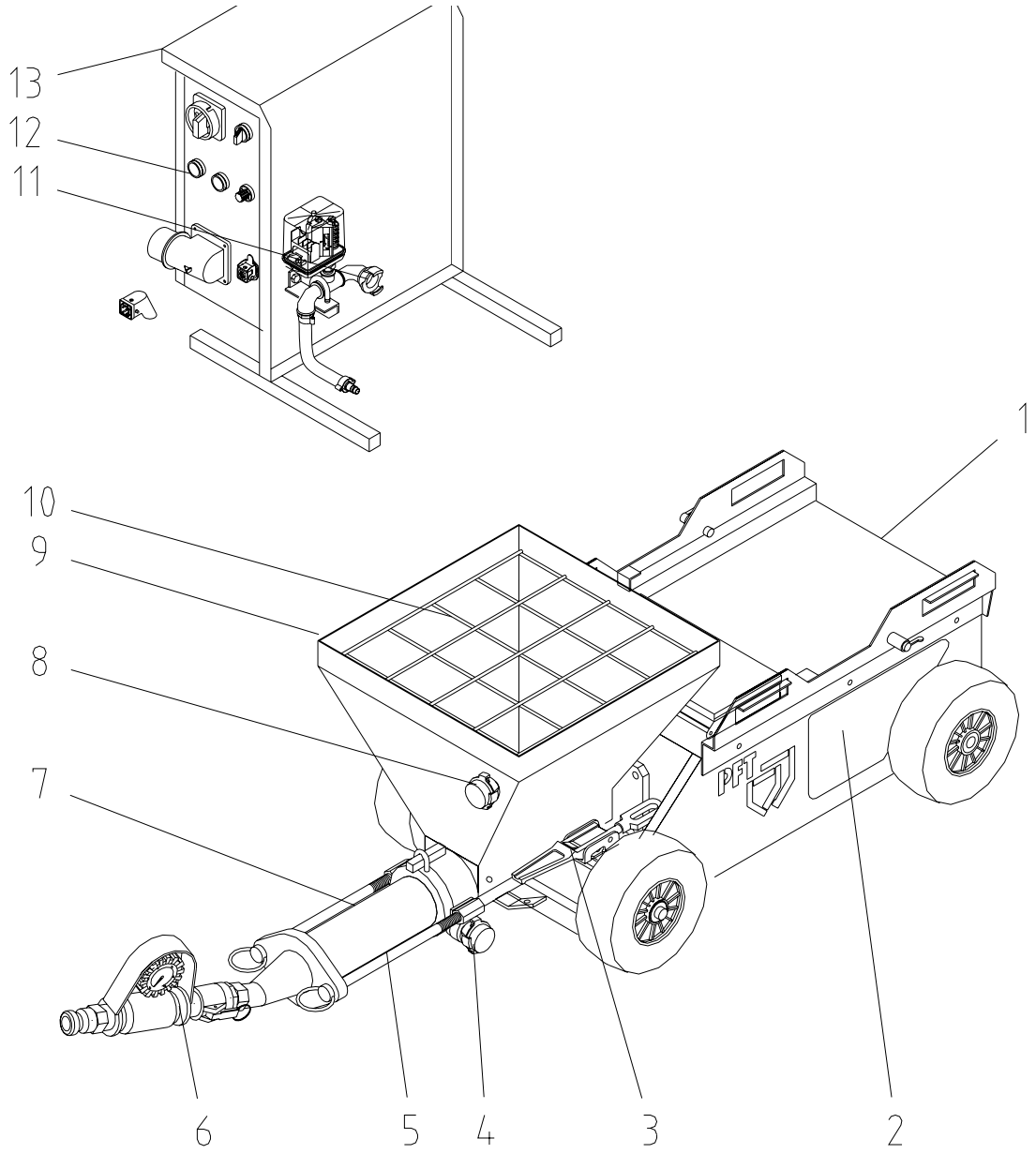

1 Frame
2 Gearbox
3 Snap lock
4 Cleaning hole
5 Twister pump unit D 6-3
6 Mortar pressure gauge
7 Tie rods
8 Bypass connection
9 Material hopper
10 Protective grille
11 Pressure control
12 Control box
13 Complete control unit

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The **PFT N2V** conveying pump is a small conveying small for applying finishing coats of up to 3 mm, water-based paints, concrete primer and similar materials using a spraying gun, paint gun or wool fleece roller.

Please observe the processing guidelines of the material manufacturer.

The machine consists of portable single components of small, handy dimensions and light weight that allow fast, convenient transport.

When operating the machine, the following aspects must be observed:

1. Connection distributor box* – control box
2. Connection control box – compressor
3. Connection air hose – spraying gun / paint gun
4. Connection pressure flange – mortar pressure gauge
5. Connection mortar pressure gauge – mortar hose
6. Connection mortar hose – spraying gun / paint gun

*If the N2 FU 400 is connected, the distributor box must be equipped with an FI safety switch sensitive to all currents. If this is not the case, a PFT intermediate distributor, type no. 00021223 can be used.

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The following terms and symbols are used in this manual for particularly important information:

NOTE:

Special information for running the machine efficiently.

WARNING!

Special information, regulations and restrictions concerning the prevention of damage.

WARNING!

The machine should only be used if it is in technically perfect condition and in compliance with the regulations. Pay attention to safety and the operating instructions. It is especially important to immediately rectify all faults which could impair safety. Proper machine operation includes following the instructions in the operating manual and complying with the inspection and maintenance conditions.

In order to make operating our machines as easy as possible for you, we would like to briefly inform you of the most important safety regulations. If you comply with these regulations, you will be able to use our machine in a safe and quality-assuring manner for a long time to come.

WARNING! 

When the power supply is switched on, no supply lines may be connected or disconnected or signals checked.

The DC condenser of the frequency converter is also still charged when the power supply is switched off. To avoid the danger of injury to personnel or damage to equipment, the frequency converter must be disconnected from the mains before maintenance work is performed. Please wait at least five minutes until all LEDs have stopped glowing.

A voltage withstand check may not be conducted on any component of the frequency converter. The frequency converter contains semi-conductors which are not suitable for such voltages. The control unit may not be removed when the power supply is switched on. In addition to this, the circuit boards may not be touched when the frequency converter is connected to the mains.

1. Follow all safety instructions and danger warnings on the machine. Ensure that all instructions are kept legible.
2. Inspect the machine for visible damage and defects at least once every shift! If you notice any safety-threatening alterations to the machine or its operating behaviour, stop the machine immediately and notify your supervisor.
3. Do not attempt to modify the machine in any way which may impair its safety without first consulting your machine dealer! This also applies to the installation of unchecked “safety devices”.
4. All spare parts must comply with the technical requirements of the manufacturer. This is guaranteed for all original PFT parts.
5. Only trained or authorised personnel should operate the machine. Clearly define all lines of responsibility for operation, equipping, service and maintenance.
6. Personnel undergoing training should only be allowed to operate the machine under the supervision of experienced personnel.
7. All electrical work should be carried out by a qualified electrician or by trained personnel under the supervision of a qualified electrician and should comply with electro-technical regulations.
8. Observe all instructions for turning the machine on and off. Watch control lamps for signals.
9. If the machine is completely switched off for maintenance and repair work, it must be ensured that it cannot be switched back on accidentally (for example, lock the main switch and remove the key, or attach a warning sign to the main switch).
10. Before cleaning the machine with a water jet, seal all openings through which water could enter, thereby impairing the safety and proper functioning of the machine (electric motors and control boxes). After cleaning, remove all covers.
11. Only use original fuses with the prescribed ratings.
12. Control box must be closed during operation.
13. Disconnect the machine from any external energy source before you relocate it, even if you are only moving it a short distance. Prior to putting the machine back into service, it should be connected to the mains correctly.
14. Set up the machine on stable and horizontal ground and secure it against unintentional movements.
15. Lay out the conveying lines safely. Do not rest them on sharp edges!
16. Depressurise all conveying systems before opening conveying lines!

17. When unblocking hoses, stand away from the machine to avoid injury through high-pressure discharges of mortar. Always wear safety goggles. No other persons should be near the machine.

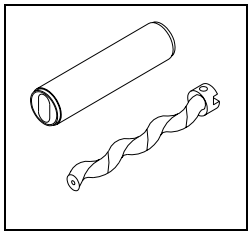
18. If the permanent noise level exceeds 85 dB(A), appropriate noise protection devices must be provided.

19. If required, wear the following protective clothing while spraying: safety goggles, safety shoes, safety clothing, gloves, protective skin cream and respirator mask.
20. Have the machine inspected by a qualified person. This should happen at least once a year.

PFT N2V/N2 FU 400 PUMP SYSTEM

The PFT N2V/N2 FU 400 is equipped as standard with a maintenance-free pump system.

NOTE:



Rotor and stator are subject to wear and must be inspected on a regular basis and replaced if necessary.

Pressure

The PFT N2V/N2 FU 400 pump unit should attain a pressure of at least 15 - 20 bar and a backpressure of approx. 6 - 8 bar when the machine is switched off.

Checking the conveying pressure and backpressure

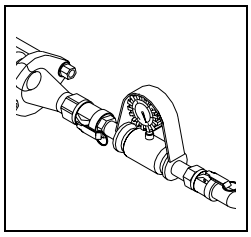
- Fill the material hopper of the pump with water
- Connect the 10 m conveying hose
- Connect the mortar pressure gauge
- to the hose end of the spraying gun with the tap
- Open the tap
- Switch on the machine until water emerges from the spraying gun (bleeding the hose)
- Shut the tap
- Let pump run against pressure until there is no more increase in pressure
- If the required pressure of 15 - 20 bar is no longer attained, the pump must be replaced
- Check the backpressure

During installation/removal of the pump unit, the following must be observed:

- The power connection must be disconnected during assembly.
- A new rotor and a new stator need to be run in; real pressure values can only be determined after the first spraying.
- Pump components which neither attain the required conveying pressure nor maintain the required backpressure are worn out and must be replaced.

WARNING!

The use of a mortar pressure gauge is absolutely imperative according to the safety regulations of the Builder's Guild.



PFT mortar pressure gauge

Some advantages of the mortar pressure gauge:

- Exact regulation of correct mortar consistency
- Constant monitoring of correct conveying pressure
- Early detection of clogging or overloading of pump motor
- Establishes zero pressure
- Contributes significantly to the safety of operating personnel
- Durability of pump components

NOTE

1. Rotor/stator **D 6-3** can be used up to 30 bar operating pressure.
2. The minimum conveying distance depends mainly on how the mortar flows. Heavy, coarse-grained mortar does not flow easily. Fluid mortars, filling compounds and paint flow easily.
3. Use thicker mortar hoses if you exceed an operating pressure of 30 bar.
4. To avoid machine breakdowns and excessive wear on pump motor, pump shaft and pump, always use original PFT spare parts such as

   PFT rotors / PFT stators / PFT pump shafts / PFT mortar pressure hoses.

   These components are compatible with one another and form a single constructive unit together with the machine. If you do not follow these recommendations, you will not only lose your warranty rights, but the quality of the mortar you are producing will also suffer.

WARNING!

The N2 FU 400 may only be connected to power supplies with an FI safety switch sensitive to all currents, e.g. PFT intermediate distributor item no. 00 02 12 23.

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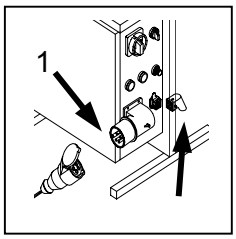
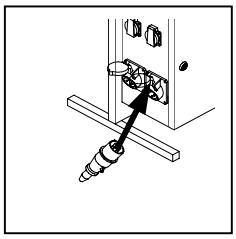


N2 FU 400V start-up

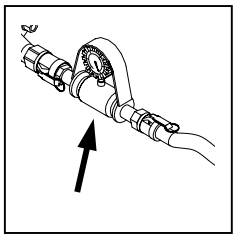
Connect the power connection (1) to the power supply (1) 400 V, 32 A fuse with

FI safety switch 30 mA sensitive to all currents

Pull the blind plug (2)



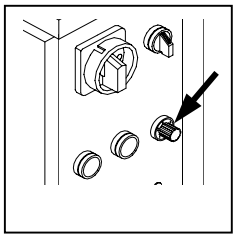
Connect the pump motor



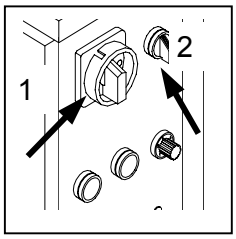
Connect the mortar pressure gauge

Connect the material hose to the mortar pressure gauge

Fill the material hopper with mortar

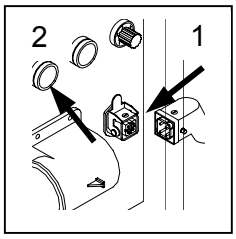


Set the speed to minimum



Main switch (1) **ON**

Turn the selection switch (2) to the forwards position

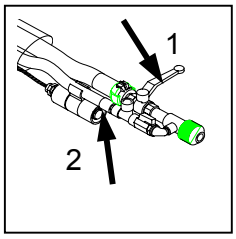


Insert blind plug (1) machine runs

Control lamp (2) glows

or connect remote control

and



Open tap (1)

Switch on machine using remote control (2)

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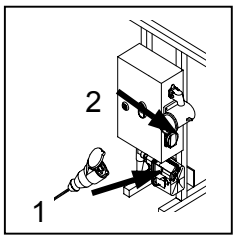
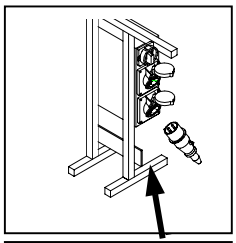


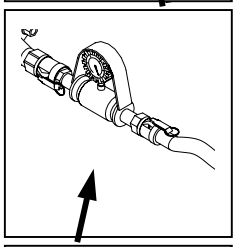
N2V start-up

Connect the power connection (1) to the power supply (1) 400 V, 32 A fuse with FI safety switch 30 mA

Pull the dummy plug (2)



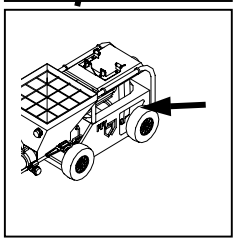
Connect the pump motor



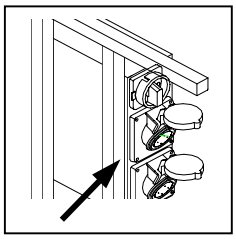
Connect the mortar pressure gauge

Connect the material hose to the mortar pressure gauge

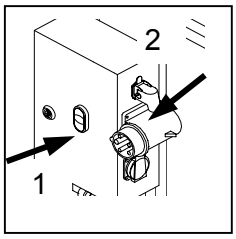
Fill the material hopper with mortar



Set the speed to minimum



Main reversing switch **ON**

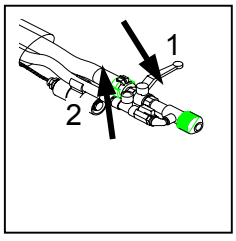


Operation (1) **ON**

Plug in blind plug (2), machine runs

or connect remote control

and



Open tap (1)

Switch on the machine using remote control (2)

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WARNING!

When work is interrupted, first switch the machine off using the remote control and then close the tap on the spraying gun or the paint roller. Start up the system in reverse order.

WARNING!

Leave the speed at a minimum level, as otherwise the conveying pressure in the material hose becomes too high.

WARNING!

The green ON button must always be pressed if the control box was without power.

Never let the pump run dry.

WARNING!

The protection grille of the material hopper may not be removed while the machine is being set and the **PFT N2V/N2 FU 400** conveying pump is in operation.

Before starting the spraying or pumping process, all hoses must be rinsed with water and then completely emptied. The hoses must be then lubricated with lime milk if necessary (depending on the manufacturer's specifications).

The **PFT N2V/N2 FU 400** conveying pump can be loaded with a screw mixer (e.g. HM 2002, HM 2006, HM 22 / 24, HM 106, HM 200, HM 5, HM 6, etc.) or from ready-mixed containers.

Interruption of work

NOTE

Depending on the material, longer interruptions should be avoided as the material may solidify in the pump and hoses. The manufacturer's guidelines should be observed at all times (processing time, weather influences such as sun and heat, etc.).

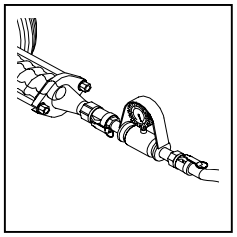
It is recommended to clean the pump prior to longer interruptions.

Every interruption of the spraying procedure results in minor irregularities of the mortar consistency. This normalises itself however, as soon as the machine has been working for a short while.

WARNING!

In accordance with the safety regulations of the Builder's Guild, all personnel clearing hoses should wear safety goggles and should position themselves in such a way as to avoid injury through discharged mortar. No other persons should be near the machine.

Clearing blockages

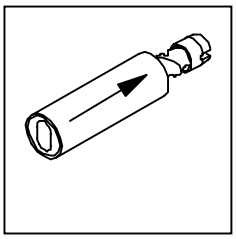


- Allow the pump motor to run in reverse for a short while until the mortar pressure gauge shows no pressure is present (change the direction of rotation with the main reversing switch or with the stop for air tap switch on the N2 FU 400).
- Cover the pressure flange with fabric reinforced film or similar material.
- Loosen the tie rods on pressure flange lightly so that residual pressure is released.
- Release the hose coupling.
- Clean the hose.

There are various ways of removing residual mortar:

- Insert a water hose into the mortar hose and rinse out the solid mortar.
- Push out or soften the mortar in the hose with a long steel rod. Do not damage the mortar hose during this. Even if the damage is only slight, the damaged hose must be replaced immediately by a new one.

Measures to take in the case of a power failure



The mortar hoses must be cleaned immediately. Cleaning can be done at the water mains. To do this, connect the mortar hose to the mains supply with a cleaning adapter. Force the mortar out by opening the water valve and then clean with water-soaked sponge balls. Repeat this process twice.

Remove the pump, press the screw out of the stator and clean in carefully. Then clean the entire pump, reassemble it and prepare it for operation.

WARNING!

Depressurise all mortar hoses before opening the mortar hose couplings. This can be done by changing the direction of rotation of the pump mortar.
The **mortar pressure gauge must show "0".**

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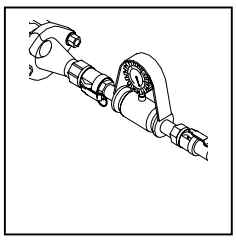


- Empty material hopper.
- Run pump motor briefly in reverse (to reduce pressure).
- The mortar pressure gauge must show 0 bar.
- Switch off the machine and pull out the power cable from the mains connection.
- Disconnect and clean the hoses.
- Dismantle the spraying gun and clean it.
- Clean air nozzles.
- Clean the hoses incl. the mortar pressure gauge using the water mains supply and water soaked sponge balls.
- Completely empty the hoses.

NOTE:

The corresponding sponge balls must be used separately for different hose diameters.

- Repeat this procedure several times if required.

NOTE:

Clean the machine with a sponge, brush and water.

Do not clean with a high pressure cleaner or steam cleaner as water can penetrate into the bearings, switches, sockets, plugs etc. and damage the system.

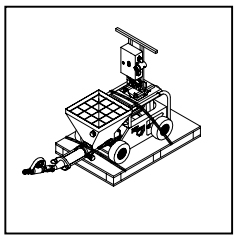
- Clean the material hopper.
- Empty the dirty water via the cleaning opening.
- Rinse the pump with clean water.
- Rinse out the pressure flange.

Maintenance

Oil sealing unit oil level check

The oil level must be checked every day on the inspection window of the oil sealing unit (1/2 height).

If required, top up with motor oil 10 W 40.
Otherwise the **PFT N2V/N2 FU 400** conveying pump requires no maintenance.



Transport

Only transport the **PFT N2V/N2 FU 400** secured to a Euro pallet.

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How can problems with the PFT N2V/N2 FU 400 be avoided or quickly rectified?

Fault	Cause	Solution
Machine does not start	*Operation with remote control*	
	- Power supply okay?	
	- Correct connection to the site power distributor?	
	- FI safety switch activated?	Use an FI switch sensitive to all currents
	- Operation ON button pressed?	
	Control lamp glowing?	
	- Operation ON contactor defective?	
	- Display lamp lights up?	
	- Fine fuse defective?	
	- Pump jammed?	Free pump by running in reverse
	Operation with compressor	
	- Air flow monitor set incorrectly?	
	- Air regulation valve on the spraying gun closed / blocked	Open / clean
	- Air nozzles in the spraying gun blocked	Clean air holes
Machine switches of during operation	- Motor overloaded by too rigid material	Set thinner consistency, clean the machine and start up again
	- Motor overloaded by too long conveying path / high conveying pressure	Select a larger hose cross section or shorten conveying path
Motor does not switch off when the remote control is activated	- Remote control of remote control extension cable defective	Replace or repair parts

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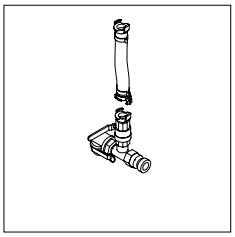


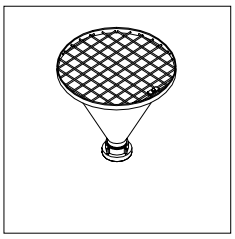
Concrete primer spraying equipment

20 16 25 00 Concrete primer fine sieve N2/N2V

00 05 37 58 Concrete primer spraying gun with spray head II

20 21 43 00 Material hose 10 m cpl. Geka coupling

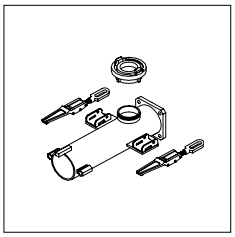
20 45 69 29 Remote control cable 25 m cpl.



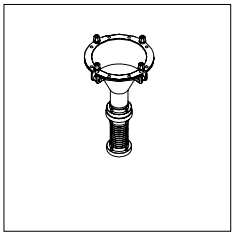
20 17 64 00 Bypass N2/MS 1 concrete primer processing

20 17 63 00 Material hopper F2 cpl.

20 17 62 00 Protection grille F2

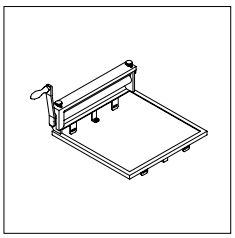


20 17 61 00 Pump tube F2

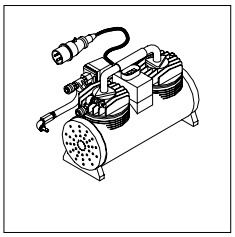


20 60 01 10 Delivery hopper NW 250 cpl. with quick connections and coupling B

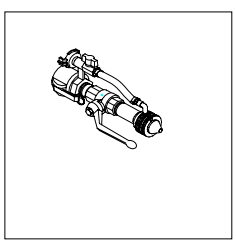
20 21 44 00 Spiral hose, flexible D 75 x 500 mm



20 17 66 00 Bag squeezer for N2



20 13 00 02 Compressor K2 with automatic switch-off device



20 19 59 00 Spraying gun reinforcing fine and reinforcing mortar

00 05 37 58 Concrete primer spraying gun with spray head II

20 19 63 00 Spraying gun 35 mm with nozzle tube 12 mm cpl.

00 02 03 88 JETSET complete

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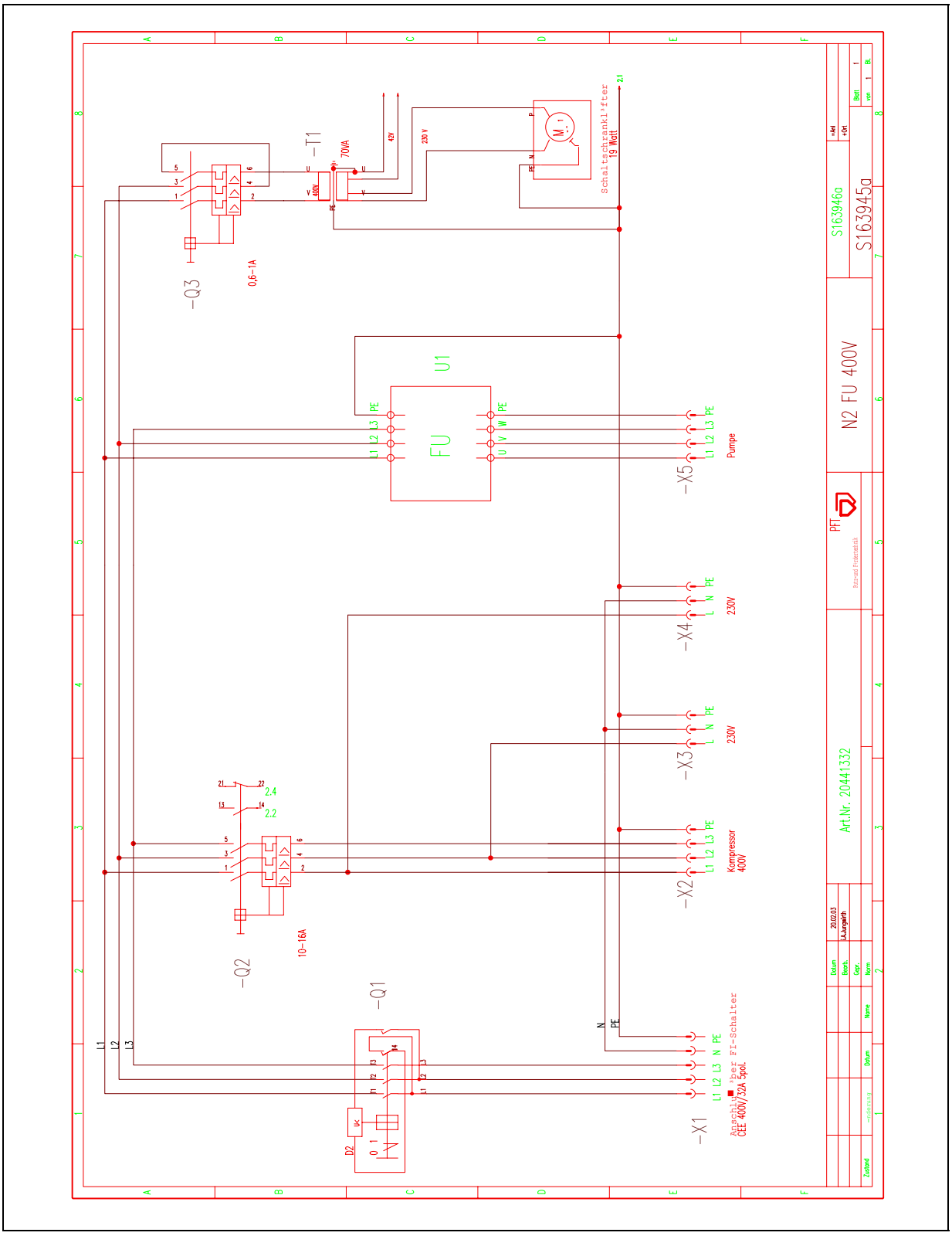
N2 FU 400V circuit diagram

04/2004



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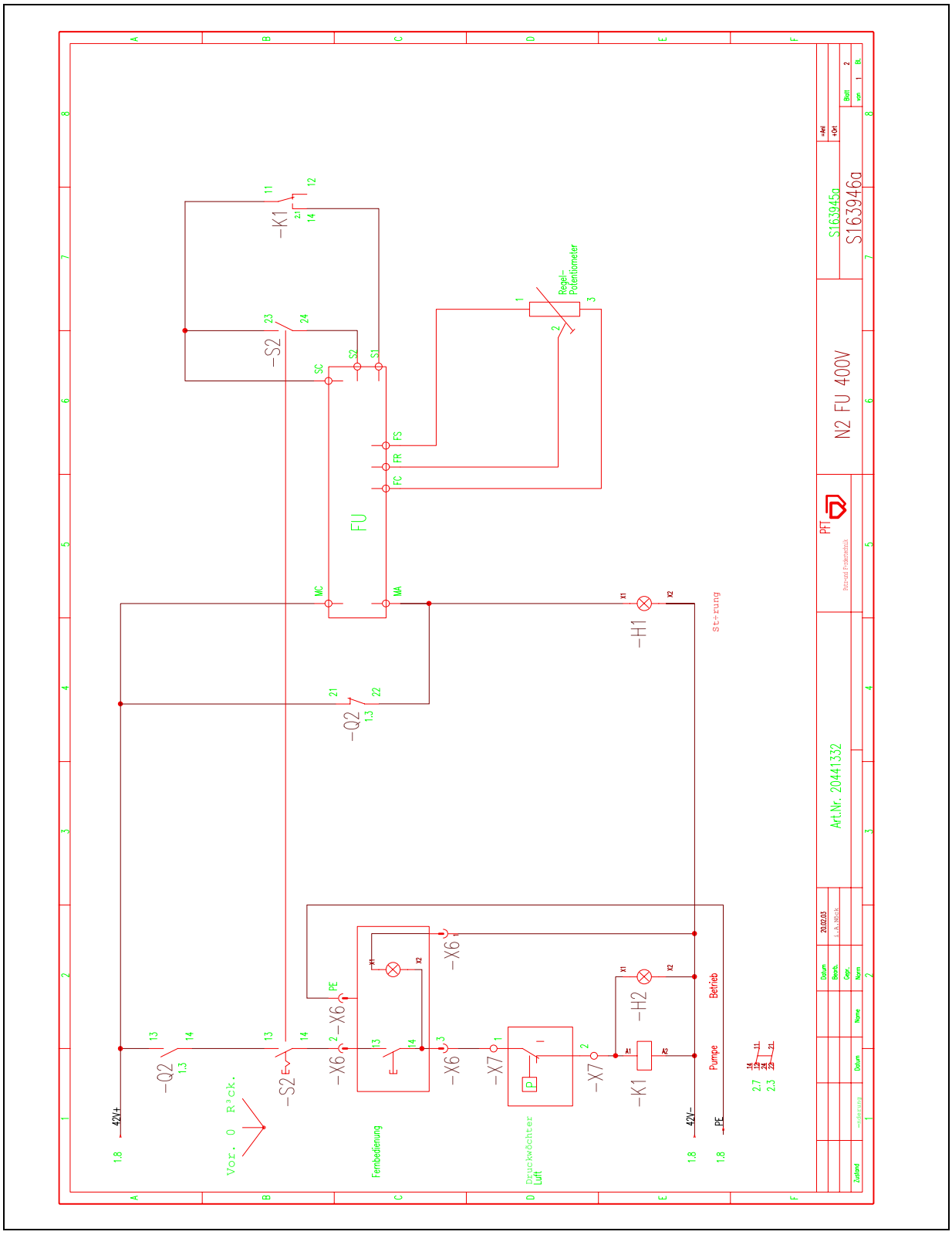

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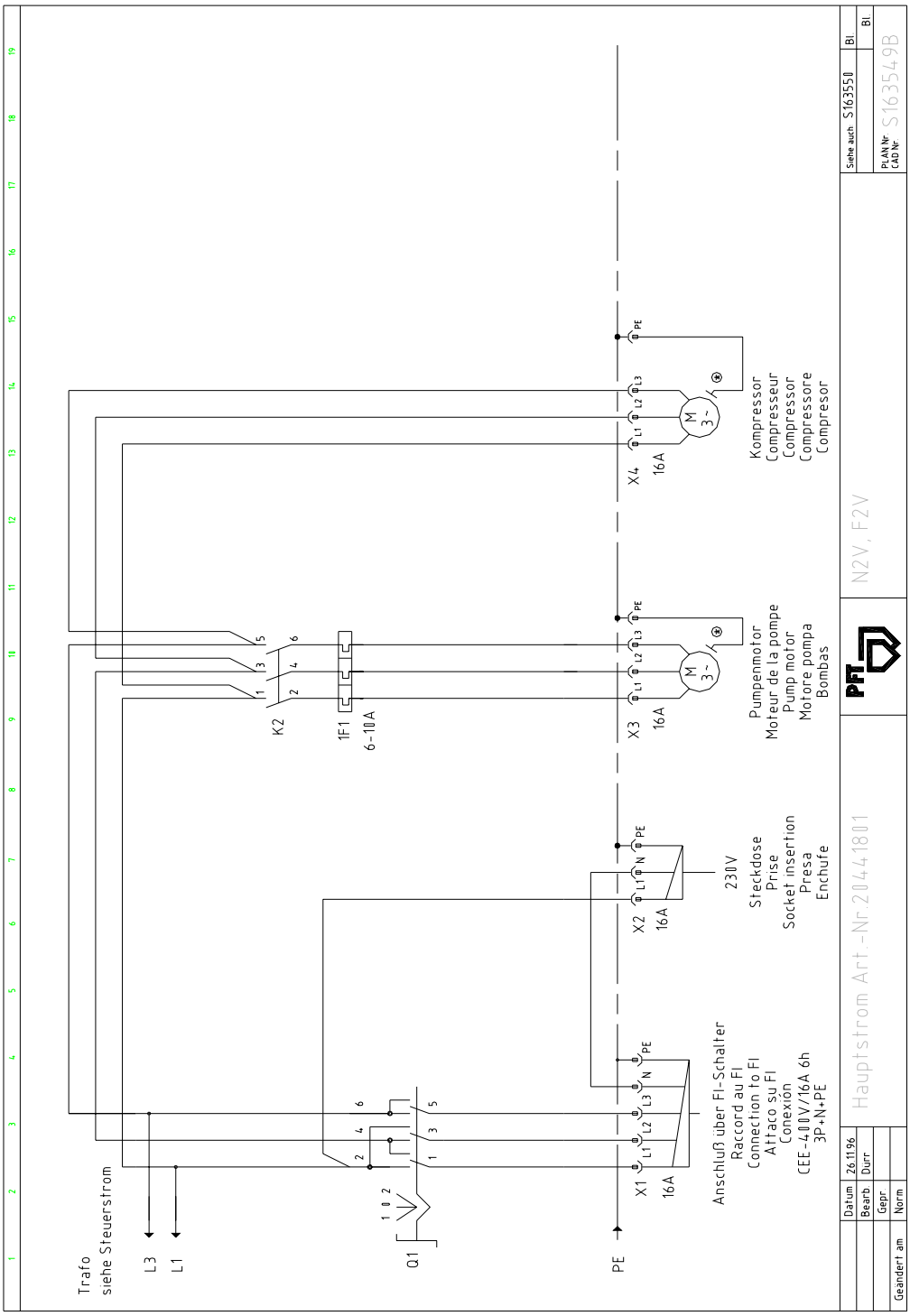

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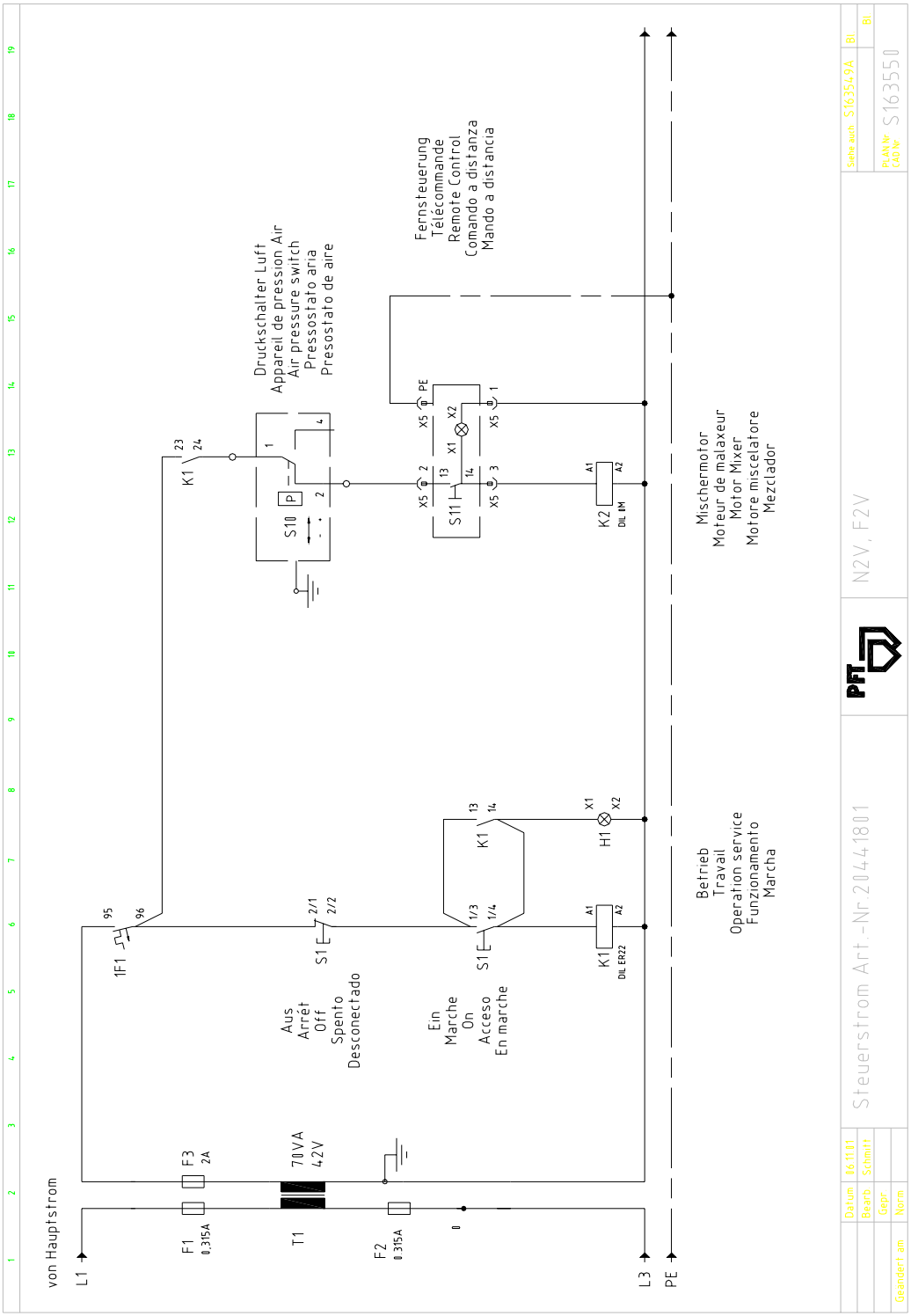
Druckschalter Luft
Appareil de pression Air
Air pressure switch
Presostato aria
Presostato de aire
Fernsteuerung
Télécommande
Remote Control
Comando a distanza
Mando a distancia
Mischermotor
Moteur de malaxeur
Motor Mixer
Motore miscelatore
Mezclador
Betrieb
Travail
Operation service
Funzionamento
Marcha
Aus
Arrêt
Off
Spento
Desconectado
Ein
Marche
On
Acceso
En marche
von Hauptstrom
L1
L3
PE
F1
F2
F3
T1
70VA
42V
K1
K2
S1
S10
S11
H1
1F1
N2V, F2V
Steuerstrom Art.-Nr.20441801

Description	German	Other languages
H1	Störung	Derangement Fault Guasto Interrupcion
H2	Betrieb (Steuerung Ein)	Travail Operation service Funzionamento March
X1	CEE 400 V 32 A 6 h 5polig Anschluß über FI 30 mA	Raccord au FI Connection to FI Attaco su FI Conexion
X2	Kompressor	Compresseur Compressor Compressore Compresor Compressor
X3	Kompressor	Compresseur Compressor Compressore Compresor
X5	Pumpenmotor	Moteur de la pompe Pump motor Motore pompa Bombas
X6	Fernsteuerung	Télécommande Remote control Comando a distanza Mando a distancia Afstandsbediening
X7	Druckschalter Luft	Appareil de pression Air Air pressure switch Pressostato aria Presostato de aire

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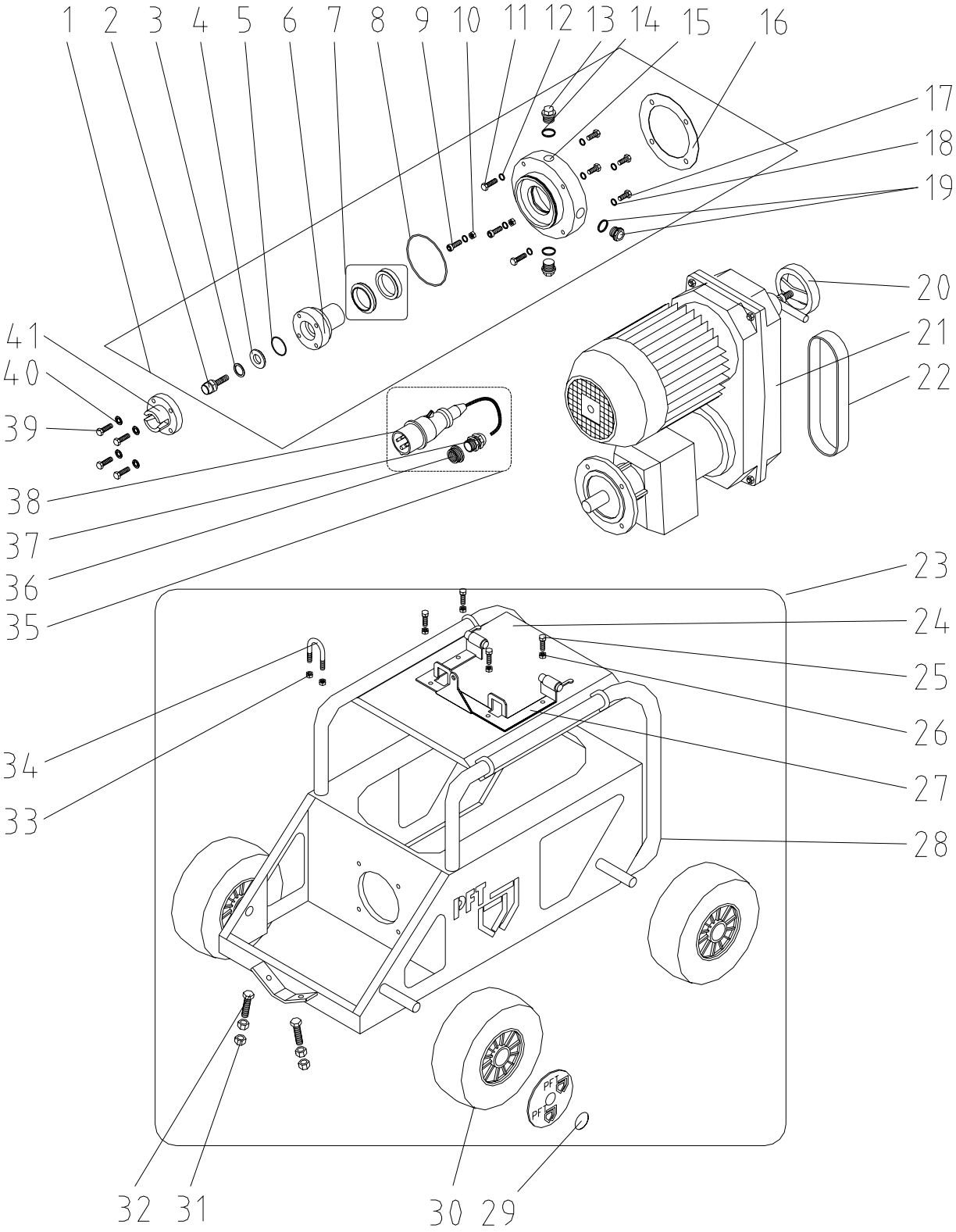

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N2V gearbox replacement parts list **04/2004**

Item	Qty	Item no.	Article description
1	1	20 14 40 30	Oil sealing unit for UP cpl shaft 25 mm
2	1	00 00 91 92	Centring screw 57 mm
3	1	20 10 26 01	Gasket USIT TM 120 NBR 28 x 20.7 x 1.5
4	1	20 14 40 72	Sealing disk D39 x 20 T5
5	1	20 14 40 71	O-ring 35 x 2 DIN 3770-NBR 70
6	1	20 17 55 31	Collar D=25 mm for UP
7	1	20 14 40 31	Ring gasket (set) oil sealing unit UP
8	1	20 14 40 13	O-ring 102 x 5 DIN 3770-NBR 70
9	2	20 20 97 03	Hex socket cylinder screw M8 x 30 DIN 912 zinc-plated
10	2	20 20 64 00	Hex nut M8 DIN 934 zinc-pl.
11	2	20 20 78 10	Hex screw M8 x 25 DIN 933 zinc-plated
12	4	20 20 91 00	Spring washer B 8 DIN 127 zinc-plated
13	2	20 20 58 80	Screw 1/2" DIN 910
14	2	20 10 26 01	Gasket USIT TM 120 NBR 28 x 20.7 x 1.5
15	1	20 14 40 35	Sealing housing UP
16	1	20 12 16 07	Paper seal D160 x d110 x 0.5
17	4	20 20 78 10	Hex screw M8 x 25 DIN 933 zinc-plated
18	4	20 20 91 00	Spring washer B 8 DIN 127 zinc-plated
19	1	20 14 40 32	Oil inspection window R 1/2" with seal
20	1	20 14 42 01	Hand wheel VARIO gearbox SK12
21	1	20 14 42 00	Gearbox VARIO, 3 kW 70-280 RPM
22	1	20 14 42 02	V-belt VARIO gearbox SK12
23	1	20 17 55 20	Frame cpl. F2/N2, Vario 3 kW
24	1	20 17 57 03	Roof frame F2V/N2V
25	4	20 20 87 01	Hex screw M8 x 16 DIN 933 zinc-plated
26	4	20 20 72 00	Nut M8 DIN 985 zinc-plated
27	1	20 17 55 50	Manifold frame holder UP
28	1	20 17 55 30	Frame F2/N2, Vario 3kW
29	4	20 20 86 03	Fast catch with cap 20s x N 2 7
30	4	00 00 82 54	Spare wheel 230x85 cover RAL2004
31	4	20 20 69 00	Hex nut M12 DIN 934 zinc-plated
32	2	20 20 59 00	Hex screw M12 x 50 DIN 933 zinc-plated
33	8	20 20 72 00	Nut M8 DIN 985 zinc-plated
34	4	20 20 99 85	Round steel rod M8x3/4"x43 zinc-pl.
35	1	20 42 41 19	Motor connection cable 5.0 m with CEE plug 4 x 16 A 6 h red, ring eyelet 4 mm
36	1	20 43 15 00	Reduction piece PG 21-16
37	1	20 43 09 30	Connector skintop PG 16
38	1	20 42 79 00	CEE plug 4 x 16 A 6 h red no. 252
39	4	20 20 78 10	Hex screw M8 x 25 DIN 933 zinc-plated
40	4	20 20 93 14	Washer A 8.4 DIN 6798 zinc-plated
41	1	20 17 67 00	Hauling bracket for N2/N2V, F2/F2V

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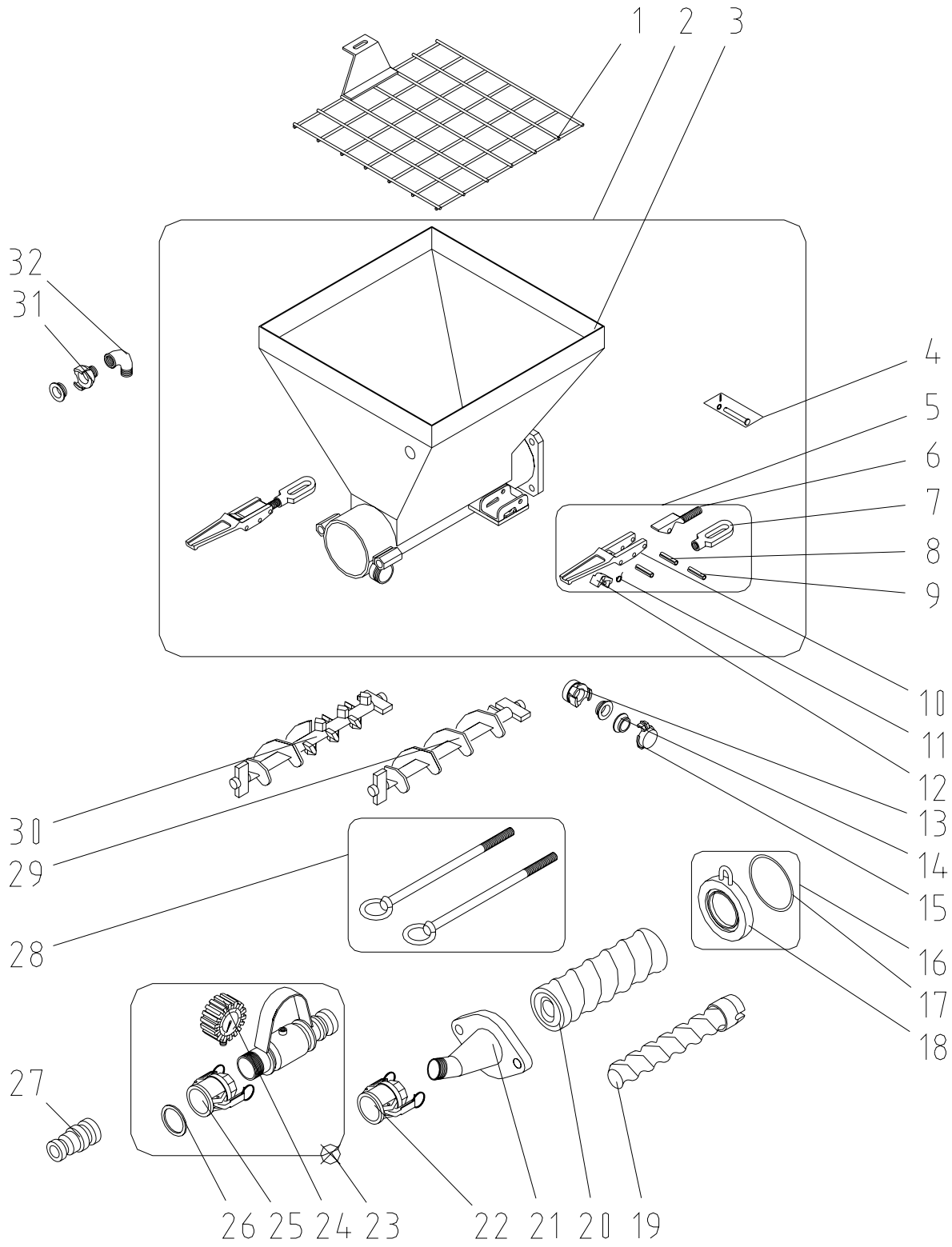

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Material hopper subassembly replacement parts list **02/2003**

Item	Qty	Item no.	Article description
1	1	20 17 60 00	Protection grille N2 VA with lug
2	1	20 17 59 01	Material hopper N2 without protection grille
3	1	20 17 59 08	Material hopper N2 f 4 kW motor RAL2004
4	1	20 20 85 22	Cotter bolt D8 H11x58x54
5	1	20 10 08 01	Snap lock with catch
6	1	20 20 99 74	Screw for snap lock
7	1	20 20 99 71	Nut for snap lock M14x1.5
8	1	20 20 85 19	Dowel pin 8x40 DIN 1481
9	1	20 54 76 02	Dowel pin 5x36 DIN 1481
10	1	20 10 08 03	Lever snap lock
11	1	20 10 08 04	Return spring
12	1	20 10 08 02	Locking device snap lock
13	1	20 20 16 30	Geka coupling 1 ¼" IG
14	1	20 20 17 00	Gasket Geka coupling (pack of 50 parts)
15	1	20 20 16 50	Geka coupling blind plug
16	1	20 17 52 07	Suction flange D pump UP with O-ring
17	1	20 10 42 30	O-ring for suction flange 117 x 5
18	1	20 17 52 05	Suction flange D pump UP for O-ring
19	1	20 11 30 00	Rotor D6-3
20	1	00 00 88 62	Rotor twister D 6-3
21	1	20 11 87 02	Pressure flange D pump, 1 1/4" AG, ZP3/UP
22	1	20 20 07 90	Coupling 35M part 1 1/4" IG with gasket
23	1	20 21 72 00	Mortar pressure gauge 35 mm
24	1	20 21 61 10	Gauge 0-100 bar filled with glycerine 1/4" bottom, D = 63 mm
25	1	20 20 07 90	Coupling 35M part 1 1/4" IG with gasket
26	1	20 20 07 15	Gasket 35M component
27	1	20 20 03 30	Reducer coupling 35 V-25 V part LW24
28	1	20 11 87 10	Tie rods M16 x 340 mm with eyelets (set = 2 pieces)
29	1	20 21 72 00	Mortar pressure gauge 35 mm
29	1	20 12 08 10	Pump shaft for GXE, T2E
30	1	20 17 24 09	Pump shaft UP
31	1	20 20 09 00	Geka coupling 1/2" AG
32	1	20 20 36 10	Curved section 1/2" IG-AG no. 92 zinc-pl.

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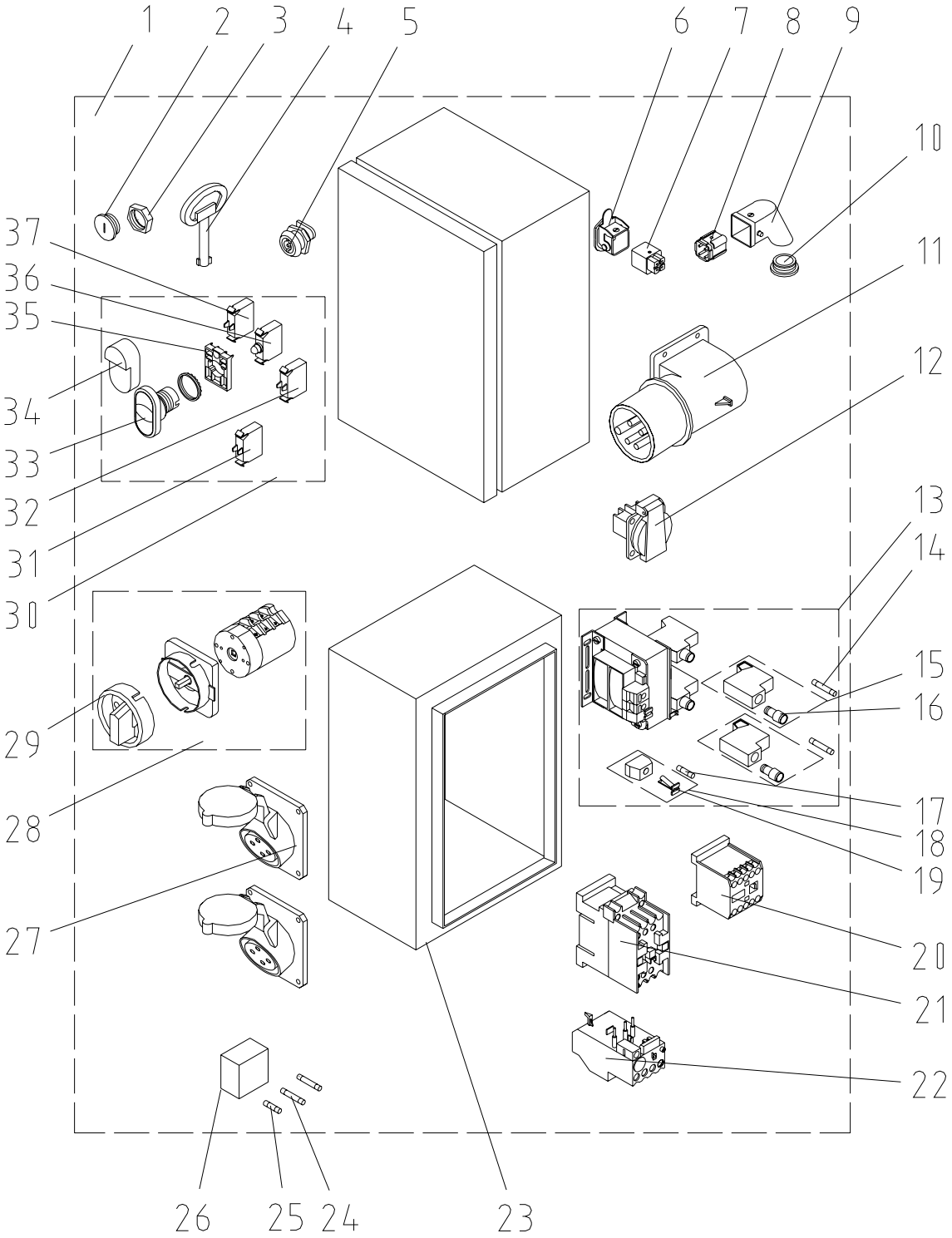

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N2V control box subassembly spare parts list **04/2004**

Item	Qty	Item no.	Article description
1	1	20 44 18 01	Control box N2V, F2V
2	2	00 04 38 26	Stopper M16x1.5 plastic
3	3	00 04 11 43	Nut skintop M16 x 1.5
4	1	20 44 45 00	Key for control box
5	1	00 03 62 49	Lock control box (two-way key bit)
6	1	20 42 86 04	Housing 4/5-pin, HAN 3 A/HA 4
7	1	20 42 86 07	Female insert 4-pin, HAN 3 A
8	1	20 42 86 06	Male insert 4-pin HAN 3 A
9	1	20 42 86 05	Socket box 4- + 5-pin angled
10	1	20 43 12 00	Stopper PG 11
11	1	20 42 52 00	CEE device plug 5 x 16 A 6 h red no. 379
12	1	20 42 72 00	Safety panel mounted socket 16 A blue
13	1	00 02 21 38	Transformer unit 400 V/42 V 70 VA NEW
14	1	20 41 90 80	Fine fuse 5 x 30, 0.315 A
15	1	20 41 92 50	Safety fuse TRKS 4/1-SI (5x30)
16	1	00 00 73 72	Fuse insert holder / black
17	1	20 41 90 21	Fine fuse 5 x 20, 2,0A, slow-blow
18	1	20 41 92 30	Safety fuse grey 20 mm fuse
19	1	00 00 73 73	Fuse insert holder angular/orange
20	1	20 44 72 00	Automatic plumb level DIL ER22, 42 V
21	1	20 44 71 00	Automatic plumb level DIL 0M 42 V
22	1	20 44 94 00	Motor control relay 6-10 A type: Z00
23	1	00 02 20 98	Empty control box housing N2/N2V RAL7032
24	2	20 41 90 70	Fine fuse 5 x 30, 0.5 A
25	1	20 41 90 21	Fine fuse 5 x 20, 2.0 A, slow-blow
26	1	00 02 22 25	Foamed rubber fuse block
27	2	20 42 66 00	CEE panel mounted socket 4 x 16 A 6 h red no.1467, flange 92 x 100
28	1	20 45 52 00	Main reversing switch
29	1	20 45 52 01	Toggle for main reversing switch item 455200
30	1	00 05 59 54	Light switch On/Off cpl. M22
31	1	00 05 38 36	Contact element 1 opener M22
32	1	00 05 38 86	LED – resistor – series element for 42 V
33	1	00 05 38 32	Light switch On/Off double press
34	1	00 05 38 31	Membrane, square for double press switch IP 67 M22-T-DD
35	1	00 05 38 34	Fixation adapter for switch elements
36	1	00 05 38 81	Light element white 12-30 V
37	1	00 05 38 35	Contact element, 1 closer M22

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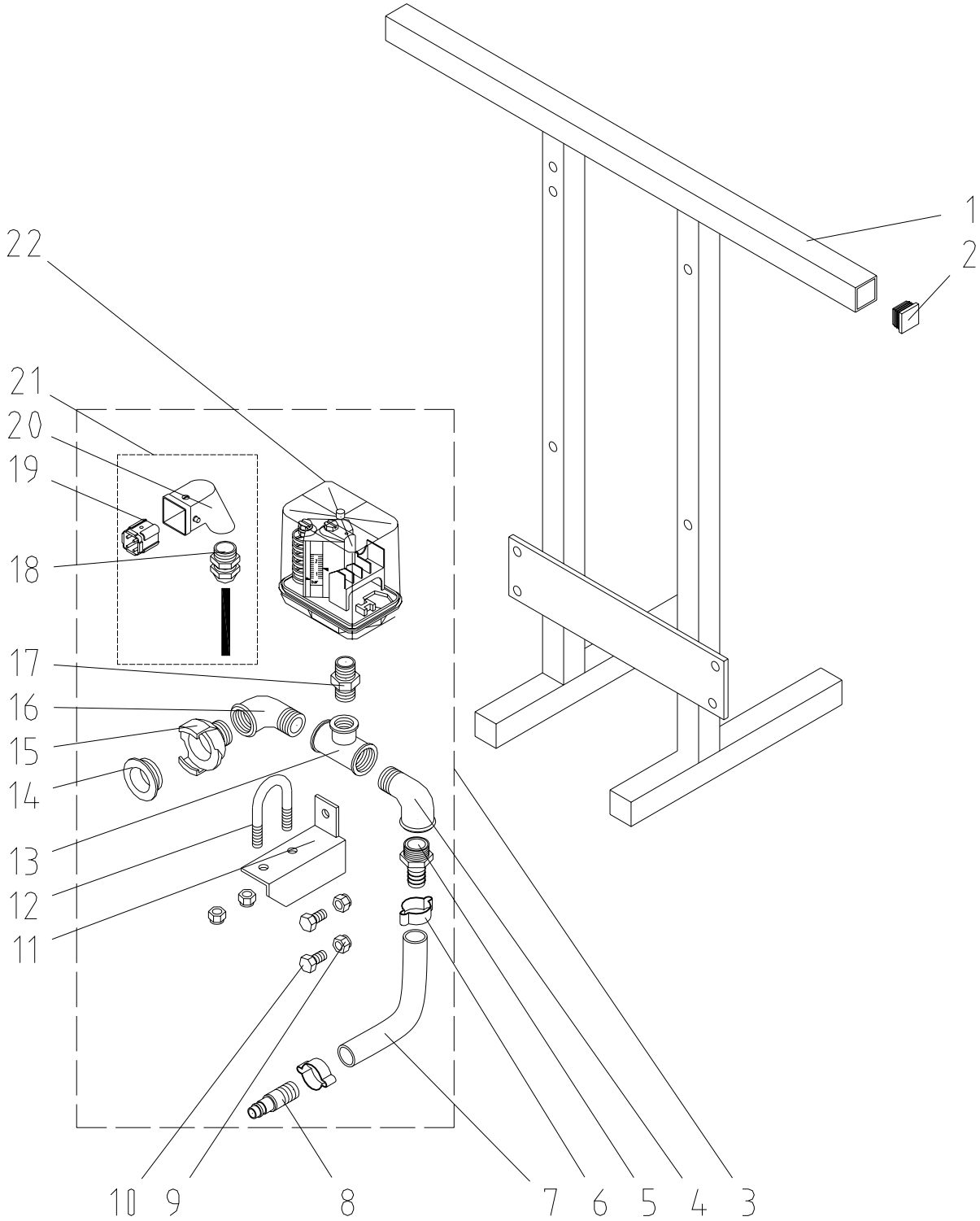

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Item	Qty	Item no.	Article description
1	1	20 54 51 19	Manifold frame
2	6	20 44 47 00	Cap (PVC) 25 x 25
3	1	20 17 30 00	Pressure control EWO-/Geka coupling
4	1	20 20 36 10	Curved section 1/2" IG-AG no. 92 zinc-pl.
5	1	20 19 04 10	Hose screw joint 1/2" AG socket 1/2"
6	2	20 20 25 00	Hose clip 20-23 VPE=10ST
7	1	20 21 37 00	Water/air hose 1/2" x 2000 mm
8	1	20 20 21 00	EWO coupling V component 1/2" socket
9	4	20 20 72 00	Nut M8 DIN 985 zinc-pl.
10	2	20 20 87 01	Hex screw M8 x 16 DIN 933 zinc-pl.
11	1	20 54 51 05	Bracket for manifold
12	1	20 20 99 85	Bail M8 x 3/4" x 43 zinc-pl.
13	1	20 20 43 02	T-piece 1/2" IG 3/8" IG 1/2" IG no.130 zinc-plated
14	1	20 20 17 00	Gasket Geka coupling (pack of 50 parts)
15	1	20 20 09 00	Geka coupling 1/2" AG
16	1	20 20 36 10	Curved section 1/2" IG-AG no. 92 zinc-pl.
17	1	20 20 37 10	Double nipple, hexagonal 3/8" no. 280 zinc-plated
18	1	20 43 09 05	Connector skintop PG 11 with nut
19	1	20 42 86 06	Male insert 4-pin HAN 3 A
20	1	20 42 86 05	Socket box 4- + 5-pin angled
21	1	20 44 76 33	Connection cable safety switch ZP3/MONOJET
22	1	20 44 76 01	Air safety switch type FF4-4 0.22-4 bar

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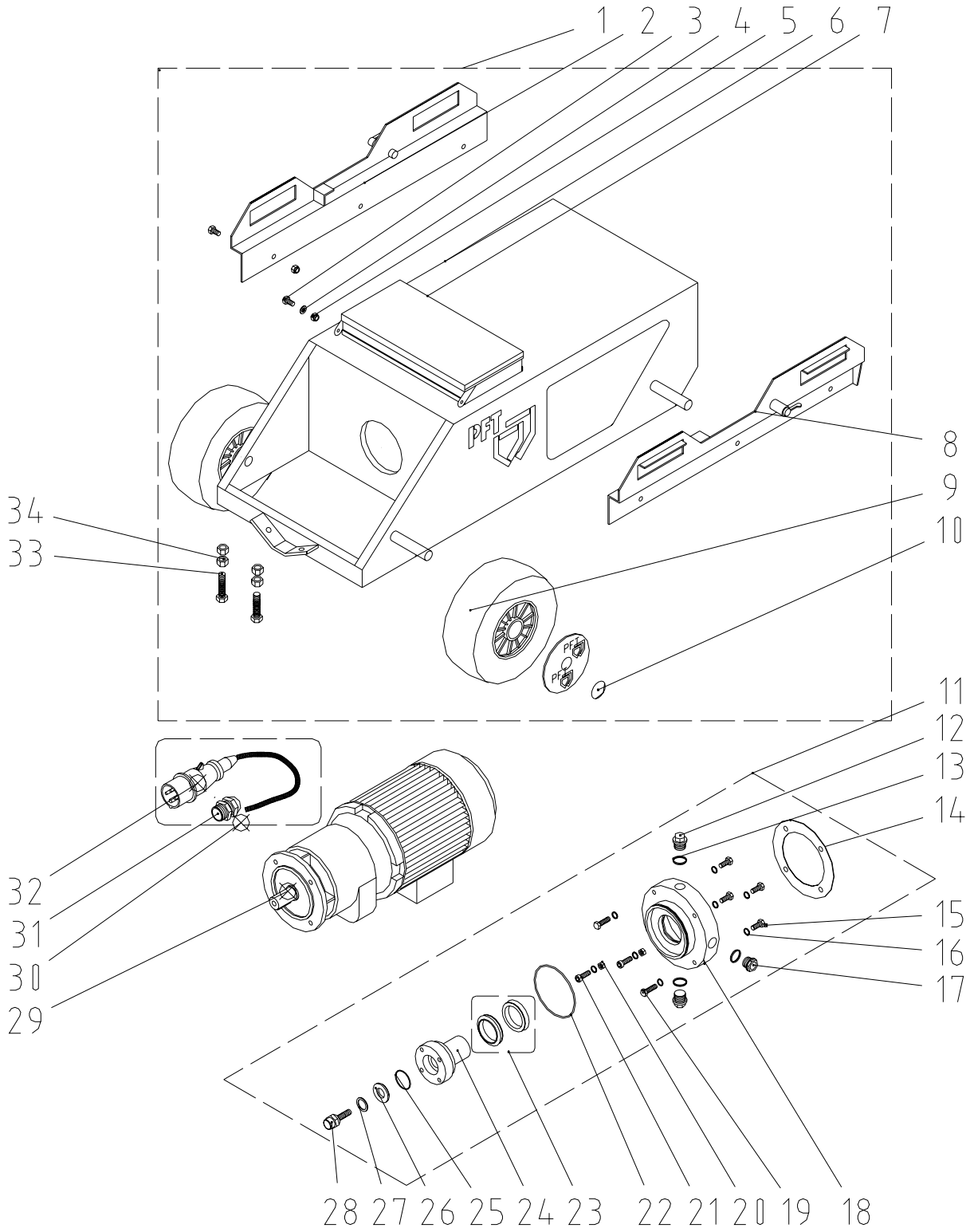

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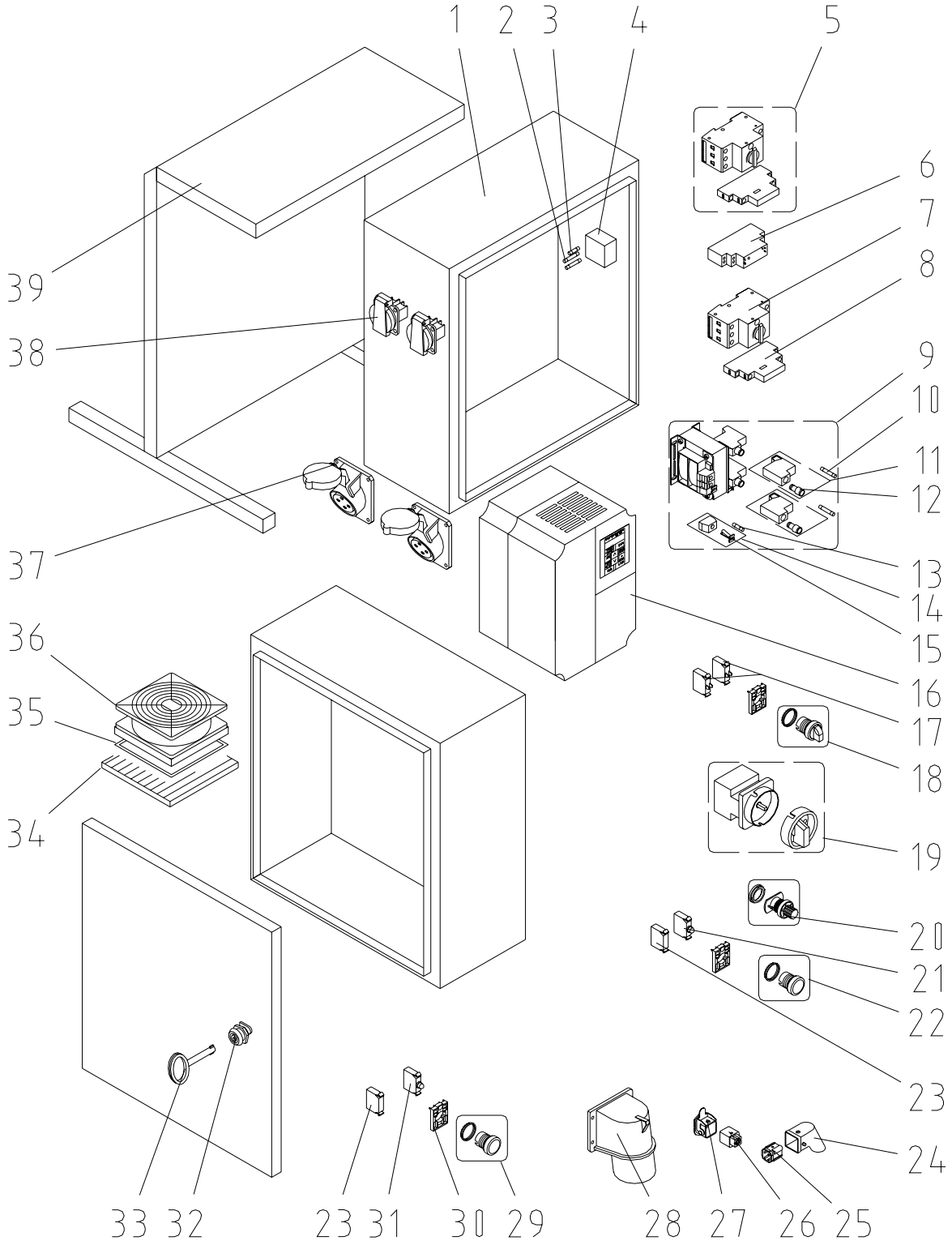
Item	Qty	Item no.	Article description
1	1	20 17 55 00	Frame cpl. F2/N2/T 2 length 885 mm
2	1	20 17 55 52	Bracket, left manifold frame T 2 E 2004
3	8	20 20 87 01	Hex screw M8 x 16 DIN 933 zinc-pl.
4	2	20 20 93 13	U disc B 8.4 DIN 125 zinc-plated
5	8	20 20 72 00	Nut M8 DIN 985 zinc-pl.
6	1	20 17 55 01	Frame F2/N2/T 2 885 mm RAL2004
7	1	20 17 57 02	Tool kit cover for UP RAL2004
8	1	20 17 55 51	Bracket right manifold frame T 2 E 2004
9	4	00 00 82 54	Spare wheel 230x85 cover RAL2004
10	4	20 20 86 03	Fast catch with cap 20 s x N 2 7
11	1	20 14 40 25	Oil sealing unit UP D=30 x 60
12	2	20 20 58 80	Screw 1/2" DIN 910
13	3	20 10 26 01	Gasket USIT TM 120 NBR 28 x 20.7 x 1.5
14	1	20 12 16 07	Paper seal D160 x d110 x 0.5
15	6	20 20 78 10	Hex screw M8 x 25 DIN 933 zinc-plated
16	8	20 20 91 00	Spring washer B 8 DIN 127 zinc-plated
17	1	20 14 40 32	Oil inspection window R 1/2" with seal
18	1	20 14 40 35	Sealing housing UP
19	2	20 20 78 10	Hex screw M8 x 25 DIN 933 zinc-plated
20	2	20 20 64 00	Hex nut M8 DIN 934 zinc-pl.
21	2	20 20 97 03	Hex socket cylinder screw M8 x 30 DIN 912 zinc-plated
22	1	20 14 40 13	O-ring 102 x 5 DIN 3770-NBR 70
23	1	20 14 40 31	Ring gasket (set) oil sealing unit UP
24	1	20 17 55 32	Collar D=30 mm for UP overall length 73 mm
25	1	20 14 40 71	O-ring 35 x 2 DIN 3770-NBR 70
26	1	20 14 40 72	Sealing disk D39 x 20 T5
27	1	20 10 26 01	Gasket USIT TM 120 NBR 28 x 20.7 x 1.5
28	1	20 14 40 75	Centring screw
29	1	20 13 97 03	Gearbox 5.5 kW 180 rpm at 50 Hz/216 rpm at 60 Hz
30	1	20 42 41 20	Motor connection cable 5.0 with CEE plug 4 x 16 A 6 h red ring eyelet 5 mm
31	1	00 04 11 27	Connector skintop M20 x 1.5
32	1	20 42 79 00	CEE plug 4 x 16 A 6 h red no. 252
33	2	20 20 59 00	Hex screw M12 x 50 DIN 933 zinc-pl.
34	4	20 20 69 00	Hex nut M12 DIN 934 zinc-plated



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Item	Qty	Item no.	Article description
1	1	00 04 12 69	Empty control box housing N2 FU 400 RAL7032 400 x 400 x 210 mm
2	2	20 41 90 70	Fine fuse 5 x 30, 0.5 A
3	1	20 41 90 21	Fine fuse 5 x 20, 2.0 A, slow-blow
4	1	00 02 22 25	Foamed rubber fuse block
5	2	00 00 93 71	Motor protection switch 0-16 PKZM 10-16 A
6	1	20 44 81 20	Switching relay 42 V 2 changer
7	1	00 04 25 99	Motor protection switch 0.63-1 A PKZM 0-1
8	1	00 02 14 01	Auxiliary contact NHI-11-PKZO
9	1	00 02 21 38	Transformer unit 400 V/42 V 70 VA NEW
10	2	20 41 90 80	Fine fuse 5 x 30, 0.315 A
11	2	20 41 92 50	Safety fuse TRKS 4/1-SI (5x30)
12	2	00 00 73 72	Fuse insert holder / black
13	1	20 41 90 21	Fine fuse 5 x 20, 2.0 A, slow-blow
14	1	20 41 92 30	Safety fuse, grey 20 mm fuse
15	1	00 00 73 73	Fuse insert holder angular/orange
16	1	00 04 70 89	Frequency converter 400 V 3 Ph 7.5 KW
17	2	00 05 38 35	Contact element, 1 closer M22
18	1	00 05 38 78	Selector switch toggle /sensing 0 latching M22
19	1	00 01 99 92	Main switch type S1 013/HS-F3-D-RG 400 V
19	3	20 45 59 03	Fixation adapter
20	1	00 03 63 41	Potentiometer 4.7 KOHM with drive
21	1	00 05 38 79	Illuminated element, red 12-30 V
22	1	00 05 38 75	Indicator lamp attachment, red
23	2	00 05 38 86	LED – resistor – series element for 42 V
24	1	20 42 86 05	Socket box 4- + 5-pin angled
25	1	20 42 86 06	Male insert 4-pin HAN 3 A
26	1	20 42 86 07	Female insert 4-pin, HAN 3 A
27	1	20 42 86 04	Housing 4/5-pin, HAN 3 A/HA 4
28	1	20 42 51 00	CEE panel mounted plug 5 x 32 A 6 h red no.391
29	1	00 05 38 74	Indicator lamp attachment yellow M22
30	3	00 05 38 34	Fixation adapter for switch elements
31	1	00 05 38 81	Light element white 12-30 V
32	1	00 03 62 49	Lock control box (two-way key bit)
33	1	20 44 45 00	Key for control box
34	2	00 03 63 23	Outlet filter for control box
35	2	00 03 94 56	Gasket set IP54 for filter fan
36	2	00 03 63 22	Filter fan 230 V AC f. control box 150 x 150 mm
37	2	20 42 66 10	CEE panel mounted socket 4 x 16 A 6 h red no. 144, flange 71 x 87
38	1	20 42 72 00	Safety panel mounted socket 16 A blue
39	1	20 54 51 21	Manifold frame ZP 3/HM 5 low model RAL2004

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	N2 FU 400V item no. 20 17 13 35	N2 V item no. 20 17 13 32
Drive	Gearbox 5.5 kW, 400 V three phase, 25-70 Hz	Vario motor 3.0 kW, 400 V three phase, 50 Hz
Motor speed	90 - 250 RPM	50 - 340 RPM
Frequency	25-70 Hz	50 Hz
Motor power consumption	3-phase 12 A	3-phase 6.7 A
Electrical connection	400 V three phase	400 V three phase
Fuse protection	3x32 A slow-blow	3x32 A slow-blow
Pump output	max 4-13 l/min	max 3-20 l/min
Pumping distance*	approx. 40 m	approx. 30 m
Working pressure	max. 30 bar	max. 30 bar
Filling height	590 mm	590 mm
Volume material hopper	approx. 50 l	approx. 50 l
Overall length	1600 mm	1560 mm
Overall width	600 mm	600 mm
Overall height	590 mm	700 mm
Overall weight	162 kg	150 kg
Motor with frame	100 kg	95 kg
Control unit	25 kg	18 kg
Constant sound level	63 ± 1 dB(A)	63 ± 1 dB(A)

* Depending on mortar quality, consistency, pumping height and mortar hose diameter.

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Suggested tests for open conveying pumps, e.g. SWING, N2, ZP3

Inspector: _____ Type: _____

Date of inspection:_____ Signed:_____ Serial no.: _____

Subassembly		Component	Condition Visual inspection	Mainte-nance required	Function	Remarks
1	**Material hopper / Frame**	Frame				
		Locking castor (SWING only)				
		Castor				
		Cleaning opening				
		Protection grille fastening				
		Protection grille				
		Type plate / frame number				
		Handle / locking device				
2	**Pump unit**	Motor				
		Motor connection box				
		Motor connection cable				
		Hauling bracket				
		Pump shaft				
		Rotor / stator / clamp				
		Suction flange				
		Pressure flange				
		Mortar pressure gauge				

Suggested tests for open conveying pumps, e.g. SWING, N2, ZP3

Inspector: _____ Type: _____

Date of inspection:_____ Signed:_____ Serial no.: _____

Subassembly		Component	Condition Visual inspection	Mainte-nance required	Function	Remarks
3	**Control box**	Control box condition				
		Functional check				
		Warning sticker				
		Main switch (single phase)				
		Main reversing switch				
		Grounding wire system				
		Motor protection switch				
		Automatic protection				
		Fine fuse				
		Control box seal				
		Control lamps				
		Cable connections				
		Blind plugs				
4	**Air manifold (SWING only)**	Couplings ewo				
		Air quantity switch				

Suggested tests for open conveying pumps, e.g. SWING, N2, ZP3

Inspector: _____ Type: _____

Date of inspection:_____ Signed:_____ Serial no.: _____

Subassembly		Component	Condition Visual inspection	Mainte-nance required	Function	Remarks
5	Accessories	Power cable				
		Mortar pressure hoses				
		Spraying guns				
		Air hose				
		Remote control				
6	General notes	Type plates				
		Circuit diagrams				
		Manual and spare part list				

WE KEEP THINGS MOVING

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