GB

Hot water - High pressure cleaner

895
1165

3x 400V / 50Hz
3x 220V / 60Hz

Operating instructions
Read and conform before use

Description

Dear Customer

We would like to congratulate you on your new hot water high pressure cleaner, and to thank you for buying it!

The following pages contain information about the machine in order to familiarise you with it and facilitate its use.

The machine is a professional cleaning aid in all cleaning tasks, eg:

- Facades
- Vehicles of all types
- Containers
- Paving slabs
- Stables
- Machinery
- Removal of old paint, etc.

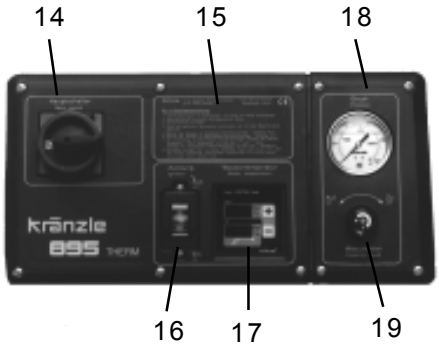
Technical specifications	therm 895	therm 1165	therm 895	therm 1165
Operating pressure fully adjustable	30 - 195 bar	30 - 165 bar	30 - 195 bar	30 - 165 bar
Admissible excess pressure	220 bar	180 bar	220 bar	180 bar
Water consumption	430 - 895 l/h	430 - 1.165 l/h	430 - 895 l/h	430 - 1.165 l/h
Hot water output	30 - 90 °C	30 - 90 °C	30 - 90 °C	30 - 90 °C
Continuous steam phase	max. 140 °C	max. 140 °C	max. 140 °C	max. 140 °C
High pressure hose	10 m	10 m	10 m	10 m
Heating oil consumption	5,9 kg/h	6,8 kg/h	5,9 kg/h	6,8 kg/h
Electrical rating:	400V/50Hz/11A	400V/50Hz/11A	3x220V/60Hz/ 11A	3x220V/60Hz/11A
Input	P1: 5,5 kW	P1: 5,5 kW	P1: 5,5 kW	P1: 5,5 kW
Output	P2: 5,0 kW	P2: 5,0 kW	P2: 5,0 kW	P2: 5,0 kW
Weight	220 kg	220 kg	220 kg	220 kg
Dimensions whitout reel in mm	800x1200x1050	800x1200x1050	800x1200x1050	800x1200x1050
Sound level accord. to DIN 45635 (auf Arbeitsplatz bez.)	86 dB	88 dB	86 dB	88 dB
Recoil to lance	ca. 20 N	ca. 22 N	ca. 20 N	ca. 22 N
torque	ca. 22 Nm	ca. 24 Nm (assumed length of lance: 1,9 m)	ca. 22 Nm	ca. 24 Nm

Admissible deviation to values ±5% according to VDMA sheet 24 411

Description

Construction and Function

1 Water inlet connection filter
2 Power cable
3 Winder for cable
4 Suction hose for detergent
5 High pressure hose
6 Spray gun
7 Spray pipe attachment
8 Storage bin for spray gun and pipe
9 Brake
10 Storage bin for accessories
11 Fuel tank
12 Filler aperture for fuel
13 High pressure outlet
14 Fuel drainage screw



14 Master switch
15 Brief operating instructions
16 Heating switch
17 Thermostat
18 Manometer
19 Detergent dispensing valve

Water and Detergent/Caring Agent System

The water flows into a tank. A float valve regulates the water intake. The water is then directed to the safety spray pipe under pressure from the high pressure pump. The high pressure spray is formed through this nozzle on the spray pipe.
The high pressure pump can draw a detergent/caring agent at the same time and mix this with the spray.

Only open the dispensing valve when the chemical filter is immersed in the liquid.

The user must follow the respective environmental, refuse and water protection rules!

Pressure control and safety facilities

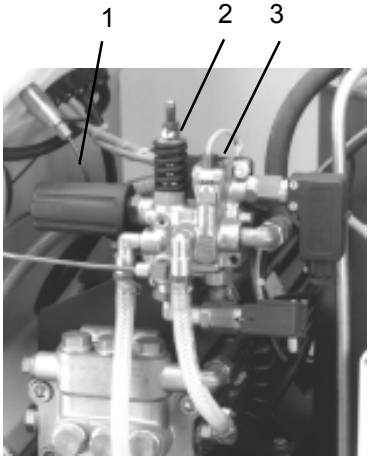
The pressure control valve allows full adjustment of the quantity and pressure of the water.

The safety valve protects the machine from excessive pressure and cannot be adjusted beyond the admissible operating pressure. The setting nuts are sealed with lacquer.

The flow controller switches off the oil burner if the water level is too low, thus preventing the heating chamber from overheating.

There is a temperature sensor in the chimney as an additional precaution against the combustion chamber overheating. This device switches the combustion motor, the ignition transformer and the magnetic valve off as soon as the exhaust temperature rises above 250°C.

The unlocking button for the temperature cut-out is located on the console at the combustion chamber below the ignition transformer.



1 Handwheel for pressure adjustment
2 Safety valve
3 Flow controller

The system must be left for approx. 15 minutes before the unlocking button may be pressed.

Call customer service if the temperature cut-out actuates repeatedly.

Replacements, repairs, new adjustments and sealing operations may only be performed by trained personnel.

Flame monitor

The system is fitted with a flame monitor.

The flame monitor prevents fuel being injected if combustion is not taking place.

There is a temperature sensor in the exhaust chimney of the combustion chamber, and it is connected to the central electronic control circuit.

The burner is switched off if the temperature in the chimney has not reached 100°C within 37 seconds of the burner being started, or if the exhaust gas temperature drops below 100°C for longer than 2 seconds while the engine is in operation. The magnetic fuel valve is cut-out. The message "FLA" for flame monitor is shown on the display of the control panel.

Call customer service if the system cuts out repeatedly because of the flame monitor.

Motor protection switch

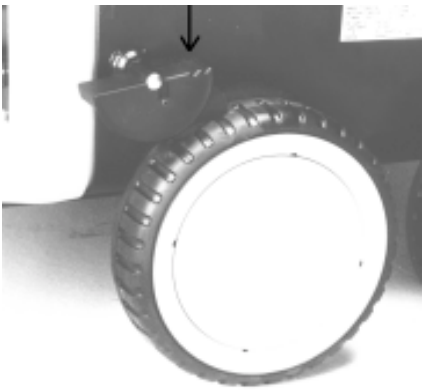
The pump motor is protected from overload by a motor protection switch. This switch cuts out the motor in the event of overload. If the motor cuts out repeatedly, locate and eliminate the cause of the fault.

Replacement and inspection work may only be performed by trained personnel.

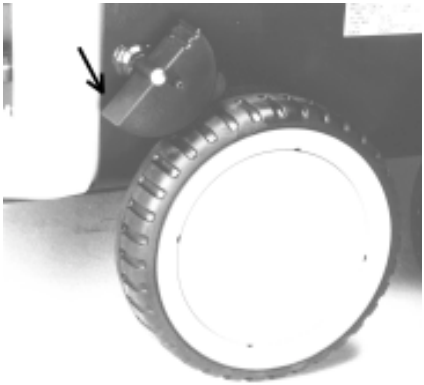
Brake

The Kränzle therm is fitted with a brake that prevents the machine from rolling away on flat ground.

Always apply the brakes firmly when working with the machine !!!



Brakes applied



Brakes not applied

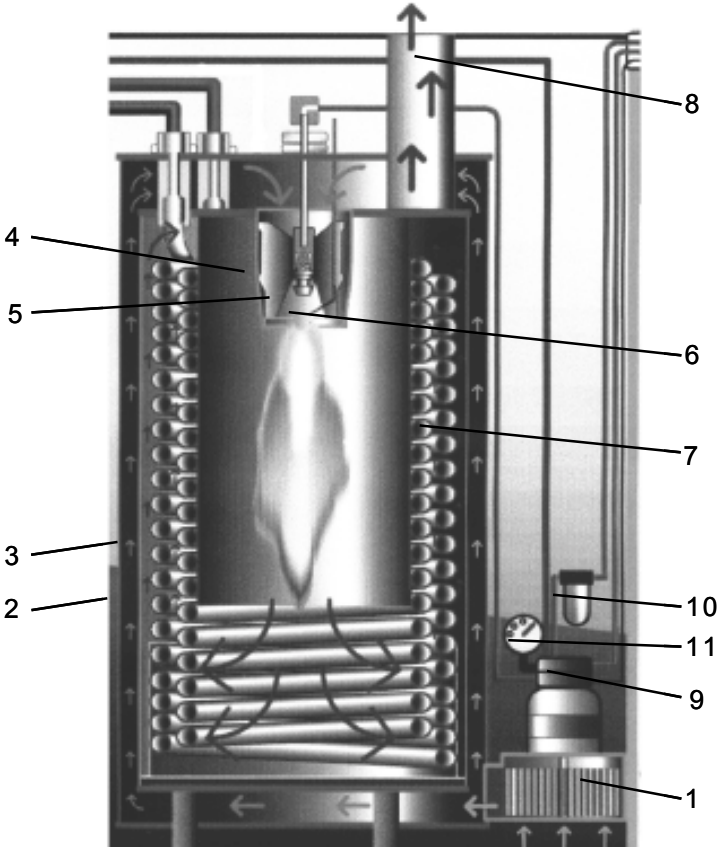
Heat exchanger

The heat exchanger is heated by a high pressure fan heater. A ventilator (1) draws in the cold, fresh air from the bottom end of the machine and forces it upwards between the outer mantle (2) and the inner mantle (3). In the process, the fresh air is pre-heated and the inner and outer mantles are cooled. The pre-heated air is pressed through a mixing unit (4). Here a finely atomised fuel is injected via a nozzle (5) and mixed with the air. The electrodes (6) located below then ignite the fuel-air mixture.

The flame burns from top to bottom, turns round and the hot gas flows past the heating element (7) on its way back up. The burned gases collect in the exhaust chamber and are emitted from the chimney(8).

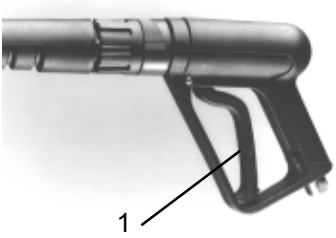
The water is forced through a heating element by the high pressure pump. Hot air flows around this, as described above.

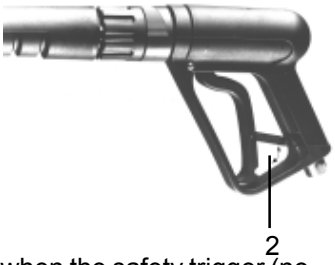
The fuel pump (9) draws the oil through a filter (10) and pumps it to the injector nozzle. The surplus quantity of fuel flows straight back into the tank. The oil pressure is shown on the fuel manometer (11).



Description

Spray pipe with spray gun





The spray gun only allows the machine to be operated when the safety trigger (no. 1) is pulled.

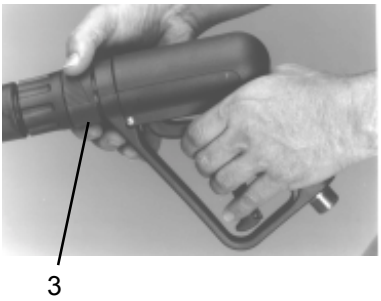
The spray gun can be used when the safety trigger is pulled. The liquid is then pumped up to the nozzle. Spray pressure builds up and quickly reaches the selected operating pressure.

When the trigger is released the gun is closed, which prevents any further liquid from coming out of the spray pipe.

The recoil resulting from the gun being closed opens the pressure control valve in the machine. The pump remains switched on and pumps the circuit with reduced overpressure. When the gun is opened (trigger pressed) the pressure control valve closes and the pump starts to operate again at the selected pressure.

If the gun is closed for longer than 20 seconds, the machine switches off. The pump then restarts automatically when the gun is re-opened, provided the master switch is on.

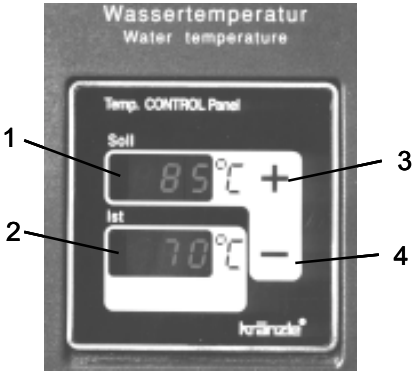
After completing work with your Kränzle therm , or if work is interrupted, the safety catch (no. 2) must be applied. This makes it impossible to press the trigger by accident.



The spray gun has bulit-in pressure regulation. If the red ring on the handgrip (item 3) is turned to the right the pressure reduces, and it increases if turned to the left. But the manometer will still indicate the pressure set on the control valve.

The spray gun is a safety device. Repairs may only be performed by trained personnel. If spare parts are required, use only those approved by the maker.

Thermostat



The thermostat controls the temperature of the spray water. The target temperature is set using two press-buttons (nos. 3 + 4) and can be read from the top display (no. 1). If a button is held down for longer, the target temperature setting increases quickly in increments of 5°C.

The last temperature setting used remains stored after the machine is switched off and automatically becomes the default temperature when the machine is switched back on.
The current spray temperature can be read from the bottom display (no. 2).

When the machine is switched on, both displays show the figure "888" for approx 1 second to check the functioning of the units.

The thermostat also monitors the fuel level in the tank by means of a float switch. If the fuel level falls below the minimum required quantity, the thermostat switches the oil burner off and the word "OIL" blinks in the target temperature display window (no. 1). If the top display shows the letters "FLA" this indicates a malfunction in combustion.

Safety information

IMPORTANT!

For safety reasons, the master switch must be put in the "0" position (ie, the power must be switched off) after the washing process has been completed.

At the start of the washing process the high pressure stream must be directed for at least 30 seconds at the object being cleaned. It is possible for the water content (approx. 5 l) of the combustion chamber to discolour during periods of disuse.

Safety Information

Important!!!

The machine must be disconnected from the power supply when servicing work is being carried out. The master switch should be in position "0" and the plug out of the socket.

The machine may only be used by persons who have received the necessary training.

* Never operate the machine without supervision.
* The water spray can be dangerous. It should never be directed at people, animals, electrical apparatus or the machine itself.
* Never direct the spray at power sockets.
* Parts of the machine interior and parts of the gun and lance become hot when hot water is used. Leave the cover of the machine closed when using the machine and do not touch the metallic parts of the gun and lance.
* Children must not be allowed to use high pressure cleaning equipment.
* Do not damage the cable or repair it incorrectly.
* Do not pull the high pressure hose if there are kinks or loops in it. Make sure that the hose is not damaged on sharp edges.
* Persons operating the machine should wear the necessary protective clothing, ie, water-proof clothing, rubber boots, safety goggles, headwear etc.
* The high pressure spray can generate a high level of noise. If noise exceeds the maximum allowed levels, users and others in the vicinity must wear suitable ear protection.
* The high pressure spray causes recoil and additional twisting movement if the gun is angled. The gun must therefore be held firmly with both hands.
* Do not close off the exhaust aperture on the topside of the machine. Do not bend over this aperture and do not put your hands inside it. **Exhaust gases are very hot!**
* Do not clamp down the trigger of the gun. Apply the safety catch after use, in order to prevent accidental spraying.
* Do not spray against matter containing asbestos or other hazardous substances.
* Never spray liquids containing solvents, such as paint thinner, petrol, oil, or anythng similar. **Note the specifications of the additive makers!** The seals in the machine are not resistant to solvents. The spray vapour of solvents is highly inflammable, explosive and poisonous.
* The machine may not be set up and used in rooms where there is a danger of fire or explosion. The machine may not be used underwater.
* Air is required for combustion, and exhaust fumes are generated. If the machine is used in closed rooms, make sure that the exhaust fumes can escape and that there is adequate ventilation.

Description

Electrical connection

The voltage given on the specification plate must match the mains voltage.

The machine is supplied with a power cable and plug.

The plug must be connected to a properly installed electrical socket with earthing and have a 30 mA FI fault current safety switch. The socket must have a neutral 16A fuse on the mains side.

If an extension cable is used, it must have an earth line that is properly connected to the plug connections. The lines in the extension cable must have a cross section of at least 1,5 mm². The plug connections must be of spray protected design and may not lie on a wet surface. (If the extension cable is longer than
10 m the minimum cross section is 2,5 mm²)

Important!

Extension cables that are too long cause a drop in the voltage and thus interruptions in operation. If you are using a cable drum, the cable must always be fully unwound.

Quick operating instructions

are also on the machine.

1. Connect the high pressure hose with the spray gun and lance to the machine.

2. Connect the water supply and turn on the tap.

3. Connect to the electrical supply.

4. Switch on the machine with the spray gun open and start the washing procedure.

5. When using the machine as a cold water high pressure cleaner:
ignition "OFF"

6. When using the machine as a hot water high pressure cleaner:
ignition "ON"

7. When using the machine as a hot water high pressure cleaner: preselect the water temperature ("target" temperature) using the "+" und "-" buttons. The current water temperature is shown in the "ACTUAL" display field.

8. A blinking "OIL" display on the temperature control panel indicates that there is less than the minimum required quantity of heatng oil, and that the oil tank must be refilled.

High pressure hose line and spray equipment

The high pressure hose line and spray equipment supplied with the machine are made of high quality material specially adapted for the operating conditions of the machine, and are properly marked.

If spare parts are required, only properly marked components approved by the maker should be used. High pressure hoses and spray equipment must be connected so that they are pressure-tight. The high pressure hoses should not be driven over, pulled excessively or twisted. Do not pull the hose over sharp edges, since this will invalidate the warranty.

Commissioning

* Secure the machine by applying the brake.
* Open the right cover of the machine (without chimney) and check the oil level of the high pressure pump.
  Do not start the machine if there is no oil in the sight glass.
  Fill oil if necessary.
* Fill the fuel tank with light heating oil prior to use.

Use EL heating oil or diesel fuel only

Unsuitable fuels, such as petrol, may not be used (danger of explosion)

Water connection

Connect the machine to a water tap using a hose of at least 1/2" and turn on the tap.

The water tank in the machine fills up. When the tank is full, the built-in float valve closes the water inlet.

Use clean water only!

Follow the instructions of the local water supply utility.

Connection of the machine to drinking water mains must be in accordance with DIN 1988.

High pressure connection

Connect the high pressure hose to the handgun.

Unwind the hose so that it is free of loops and connect it to the handgun and the machine.

Check that all screw-type connections are pressure-tight.

Commissioning

Electrical connection

Check that the master switch is off (position "0").
Connect the power cable to a properly installed electrical socket with earthing and a 30 mA FI fault current safety switch. The socket must have neutral 16A fusing on the mains side.

Switching on the machine

- Switch off the ignition.
- Set the pressure control valve to maximum pressure and close the detergent valve
- Open the gun and switch the master switch on.

The high pressure pump now presses the air out of the lines, and after a short time the high pressure spray forms and the operating pressure is reached.

The machine is fitted with a Total-Stop-System. If the gun is closed for longer than approx 20 seconds, the machine switches off automatically. The machine restarts automatically when the gun is re-opened, provided that the master switch is on..

Usage as a cold water high pressure cleaner

- Leave the ignition "OFF"
- Start cleaning

Usage as a hot water high pressure cleaner

- Set the target temperature on the thermostat using the "+" and "-" buttons.
- Switch the ignition "ON"

  The oil burner starts to work. The water is heated up and kept at the temperature you have set. The current water temperature is shown in the "ACTUAL" display field.

Usage with detergents

- Wait until the pump has pressed the air out of the lines
- Put the chemical filter into a container of detergent
- Open the detergent valve.

  The pump now draws detergent in and mixes it with the high pressure spray.
- Set the desired concentration of detergent.

Decommissioning

In the interests of the environment and to keep expenditure down, we recommend sparing use of detergent. Please observe the recommendations of the detergent manufacturer.

After using detergents, rinse the machine for approx 2 minutes by pressing the trigger of the spray gun.

Adjusting the pressure

- There are two ways to adjust the working pressure:

1. Using the pressure control valve (see page 4) directly on the control and safetyblock
   * Turn the handwheel (page 4; no. 1) to the left to decrease pressure.
   * Turn the handwheel to the right to increase pressure.
2. Using the pressure control in the handgun (see page 7)
   * Turn the red ring to the left to decrease pressure.
   * Turn the red ring to the right to increase pressure.

Decommissioning

- Switch off the master switch (position "0")
- Pull the plug out of the power socket.
- Turn off the water supply.
- Open teh gun until the pressure is gone.
- Lock the gun
- Disconnect the water hose.
- Slacken the connections of the high pressure hose and gun and unscrew the high pressure hose from the machine.

Anti-Freeze Protection

The machine is normally still partially filled with water after work has been completed. It is therefore necessary to take special precautions to protect the machine from frost.

- Completely empty the machine of water.

  Disconnect the machine from the water supply and switch off the ignition. Switch on the master switch and open the gun. The pump now presses the remaining water out of the heating element.
  Do not allow the machine to run for longer than a miniute without water.

- Fill the machine with anti-freeze

  If the machine is not in use for lengthy periods of time, it is advisable to pump anti-freeze into the machine, especially in winter..

However, the best protection against frost is to keep the machine in a place that is safe from frost.

Care and Maintenance

Care and maintenance is required to keep the machine in good working order, and to allow you to enjoy the machine for as long as possible..

IMPORTANT!!!

Always remove the plug before working on the machine!

What to do!

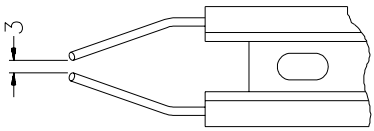
- weekly, or after approx 40 hours of operation

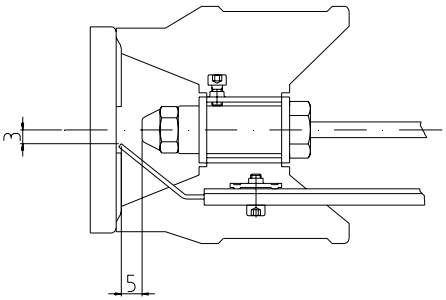
* Check the oil lebel on the housing of the high pressure pump
  If the oil level is too low, top up with oil until the sight glass is full.
  Change the oil if it has a grey or whitish appearance. The oil should be disposed of responsibly.
* Check the filter in front of the float valve in the water tank and the fuel filter in front of the magnetic valve. Clean the filters if necessary..

- Yearly, or after approx 500 hours of operation

* Desulphurise and clean the heating element.
* Check the oil burner and ignition system
  Clean the oil nozzle, oil filter, magnetic valves and filter, clean and adjust the ignition transformer, ignition cable and ignition electrodes and replace defective parts

Adjusting ignition electrodes

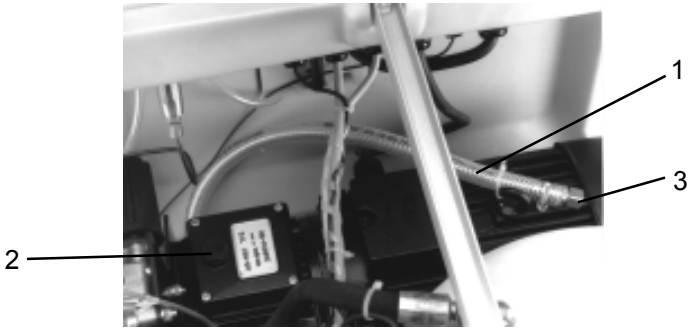




Changing the oil

The oil of your high pressure pump should be changed after approx 40 hours of operation or if it has a grey or whitish appearance..

To do this, take the oil drainage hose (1) from the inside of the machine and open the oil filler cap (2) on the top side of the oil reservoir. Open the bung (3) at the end of the hose. Drain off teh oil and dispose of it responsibly. Close the end of the hose.
Refill with oil until the sight glass is full.



Type of oil: Formula RS (Castrol) or semi-synthetic motor oil
Quantity: 1,0 l

Fuel System

Your fuel may contain particles of dirt, or impurities may get into the tank during refuelling. Check the tank for impurities on a regular basis. Clean the tank when necessary

Empty the fuel tank using the drainage screw at the bottom of the tank. Clean the tank and fuel lines.

Replace the drainage screw.

Detergent and dirty fuel must be disposed of responsibly.

Decalcifying the heating element

Calcified machines use an unnecessary amount of energy because the water can only be heated slowly and the excess pressure valve feeds a part of the water back into the pump.

Calcified machines can be recognised by increased pipeline resistance.

Check pipeline resistance by disconnecting the high pressure lance from the gun and switching the machine on. A full jet of spray emerges from the gun. The machine must be decalcified if the pressure shown on the manometer is greater than 25 bar.

CAUTION!!!

Decalcifiers are caustic!

Observe the instructions for usage and accident prevention. Wear protective clothing to prevent the decalcifying agent from contacting your skin, eyes and clothing (eg, gloves, safety mask etc.)

Proceed as follows to decalcify the machine:

* Unscrew the high pressure hose from the machine and decalcify these separately
* Put the detergent suction hose into a container of decalcifying solution.
* Set the dispenser valve to the maximum concentration.
* Switch on the machine.
* Hold the gun in a separate container and press the trigger.
* Wait for about a minute until the decalcifier comes out of the gun (recognisable by its whitish colour)
* Switch off the machine and allow the solution to act for about 15-20 minutes.
* Switch the machine back on and rinse it through with clear water for about 2 minutes.

Now check whether pipeline resistance is back to an acceptable level. Repeat the decalcifying process if the pressure without the high pressure lance is still above 25 bar.

Inspections

Rules, directives, inspections

* Inspections performed by Kränzle
  - measurement of earth line resistance
  - measurement of voltage and current
  - inspection of tension consistency with +/- 1530 V
  - pressure check of heating element at 300 bar
  - visual and functional check as per the inspection sheet provided
  - exhaust fukme analysis(see test strips provided)

* Guidelines for liquid sprayers

  The machine conforms with the "Guidelines for liquid sprayers"). These guidelines are issued by the organisation of trade associations and may be obtained from Carl Heymann-Verlag KG, Luxemburger Str. 49, 50939 Köln.
  These guidelines specify that this machine is to be inspected by qualified personnel whenever necessary, but no less than once every 12 months.
  These inspections must be recorded in the inspection log at the end of this manual.

* Pressure container and steam boiler directives

  Kränzle high pressure cleaning equipment conforms to the pressure container and steam boiler directive. No construction approval, notification of licence and takeover inspection are required. The water capacity is less than 10l.

* Duties of owner

  The owner is to ensure before the sprayer is used that all safety-relevant components are in a serviceable condition. (Eg, safety block, hose and electric cables, spray equipment etc).

* Emission control legislation

  With stationary installation, the emission levels of the machine must be checked once a year by a qualified organisation or person according to German law.
  The first inspection must be carried out four weeks after the machine is commissioned. The owner is responsible for having the inspection performed.

Troubleshooting

IMPORTANT!!!

Always remove the plug before working on the machine!

Multi-function thermostat

The thermostat has several functions.

Display	Possible cause	Action
"Err OFF"	Temperature of over 170° at the sensor	The burner does not switch off properly. Check thermostat, thermocouple and klixon and renew if necessary
"Err 2"	Sensor broken	Check that the sensor plug (2-pole plug on back of thermostat) is properly engaged and contacted.Follow the sensor cable to the end.
"OIL"	Fuel tank empty	Refill EL heating oil
"FLA"	Combustion defect	1) check fuel filter, clean if necessary 2) check ignition electrode and burner setting and adjust or replace if necessary 3) check fuel pump and magnetic valve 4) Check the ignition transformer
"E 1"	Memory error. Target value can be set but not saved	Replace thermostat at the next opportunity and send in for repair. Target value must be reset each time the machine is switched on.
"E 4" "E 5"	Memory loss	Replace thermostat and send in for repair
"888" not displayed when machine is switched on	Defective display unit	Replace thermostat and send in for repair

Troubleshooting

Malfunctions without display

Malfunction	Possible cause	Action
Machine fails to start	No electrical voltage at machine	Check power supply and cables
	Master switch defective	Check and replace if necessary
	Motor protection switch actuated	Eliminate cause of overload
	Press switch (S3 or S5) defective	Check and replace if necessary
	Motor protection (K3) switch defective	Check and replace if necessary
High pressure pump runs but burner fails to ignite	Set water temperature reached	Increase target water temperature, open gun with machine on until water temperature drops
	Pre-ventilation time not yet elapsed	Hold gun open for approx 5 seconds
	Ignition switched off	Ignition switch "ON"
	Fuel tank empty, "OIL" display at thermostat	Refill fuel
	Thermostat defective	Check and replace if necessary
	Ignition switch defective	Check and replace if necessary
	Float switch in fuel tank defective	Check and replace if necessary
	Fuel filter dirty	Check and clean if necessary
	Fuel nozzle defective	Check and replace if necessary
	Flow controller (S2) has switched off	Check water inflow; clean filter in water tank
	Contact of flow controller defective or incorrectly set	Readjust, check, replace
	Ignition contacts incorrectly set or burned out	Readjust, check, replace

Troubleshooting

Malfunction	Possible cause	Action
High pressure pump operates but burner fails to ignite	Ignition cable defective	Check and replace if necessary
	Ignition transformer defective	Check and replace if necessary
	Burner motor (M2) defective	Check and replace if necessary
	Coupling between burner motor and fuel pump defective	Check and replace if necessary
	Fuel pump defective	Check and replace if necessary
	Fuel magnetic valve (Y1) dirty or defective	Clean, check, replace if necessary
	Press switch (S3) or (S5) defective	Check and replace if necessary
	Contactor (K3) defective	Check and replace if necessary

Diagnosis using light diodes on control panel

The location of the diodes on the control panel is shown on page 27.

IMPORTANT!

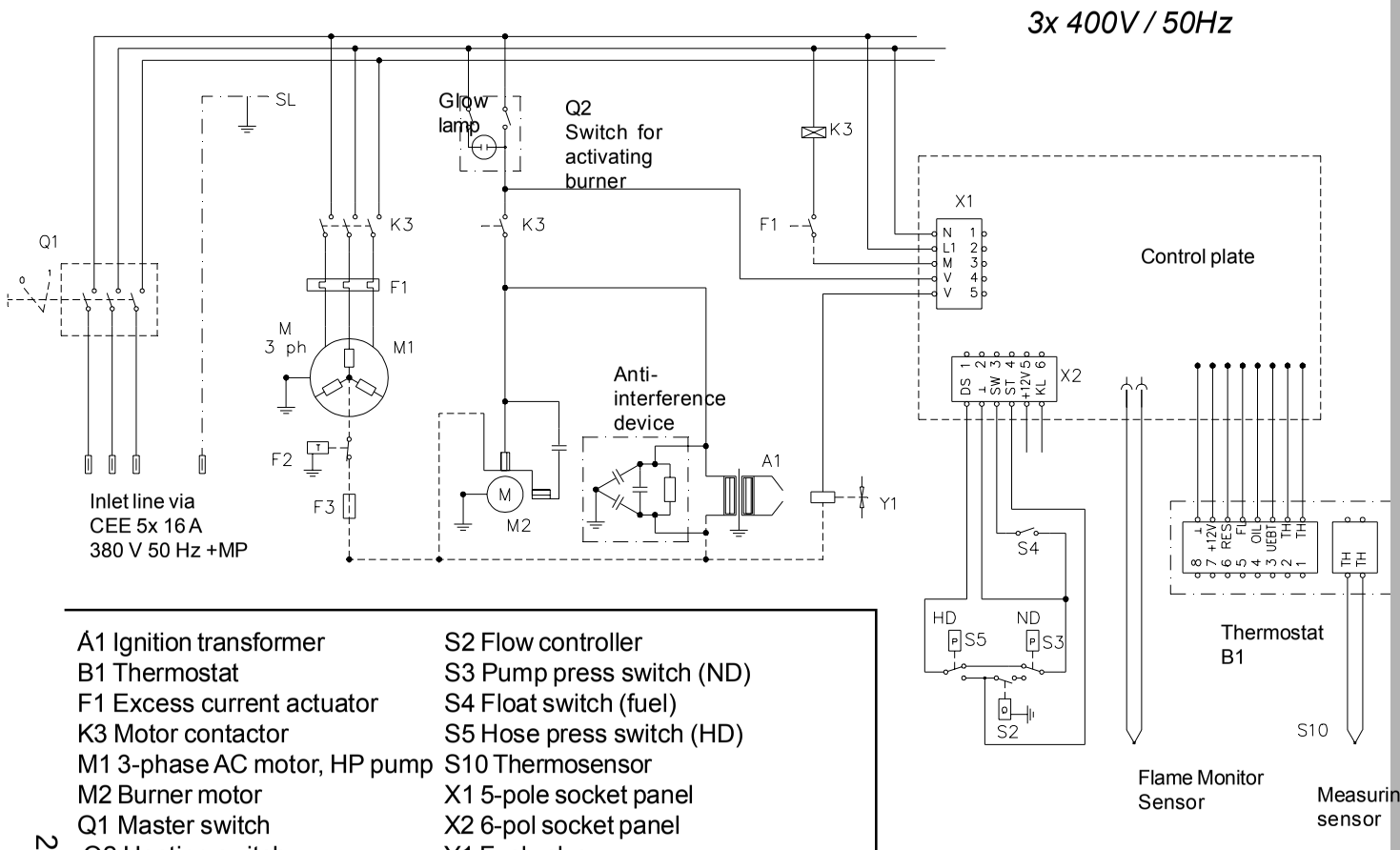
The system must be connected to the power mains when the LEDs are checked.

You must therefore be as careful as possible.

Disconnect the system from the power mains as soon as possible afterwards.

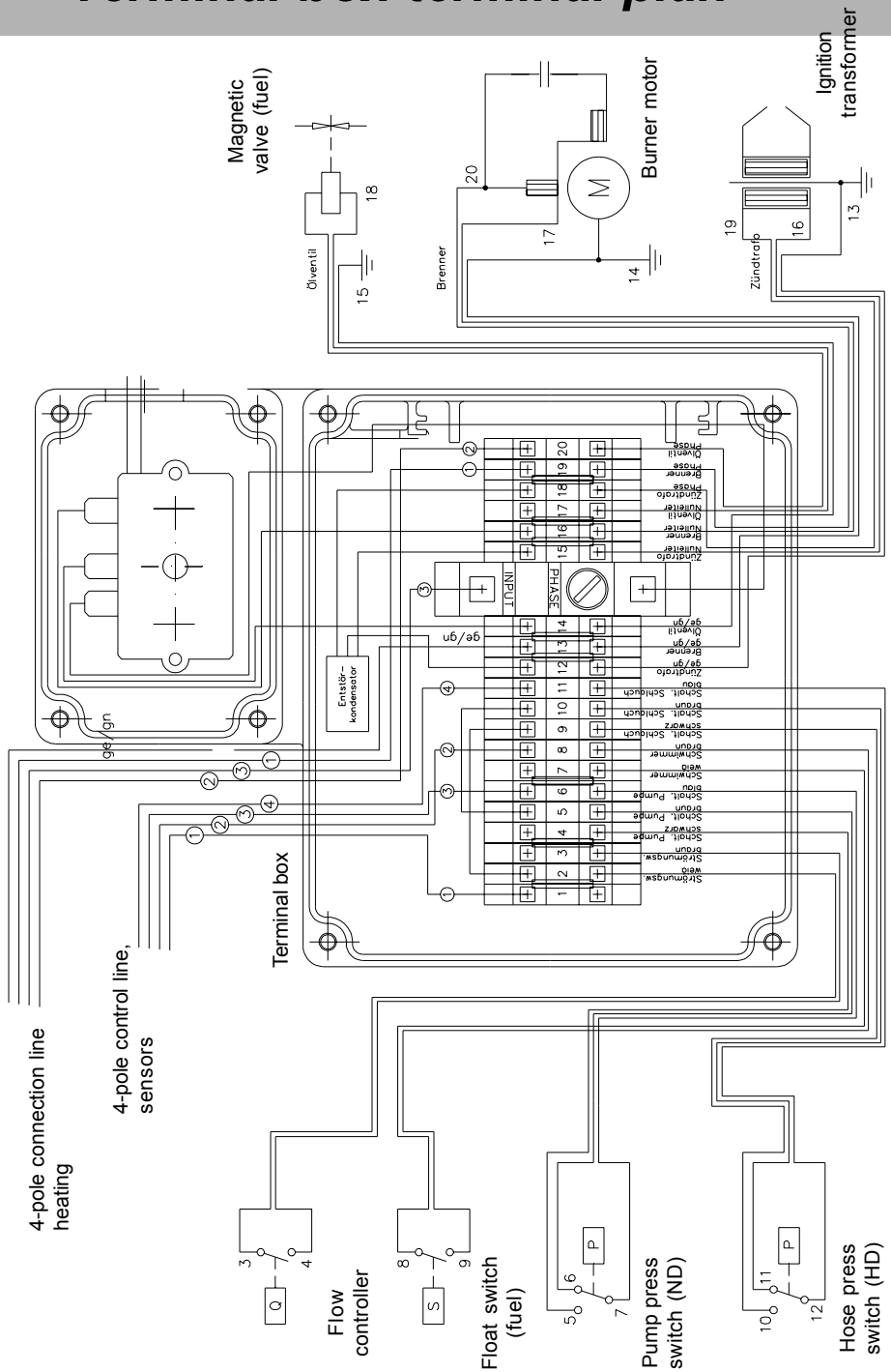
Remove the plug from the socket!

Diode	Illuminates when
	Diode D7 must light up directly after the system is switched on, otherwise check fuses F1 and F2 on the circuit board.
D7	Motor start-up allowed - heating element press switch (S5) in rest position or re-run delay active
D11	Excess temperature not exceeded - Klixon (S1) not actuated
D12	Magnetic valve release illuminates 3.5 seconds after D17
D16	Motor start-up allowed - heating element press switch (S5) in rest position
D17	Burner start-up allowed - Thermostat (B1), flow controller (S2) and pump press switch have actuated
D18	Low oil level - float switch oil control (S4) closed
D20	In case of sensor breakage refer to Flame Monitor Sensor.

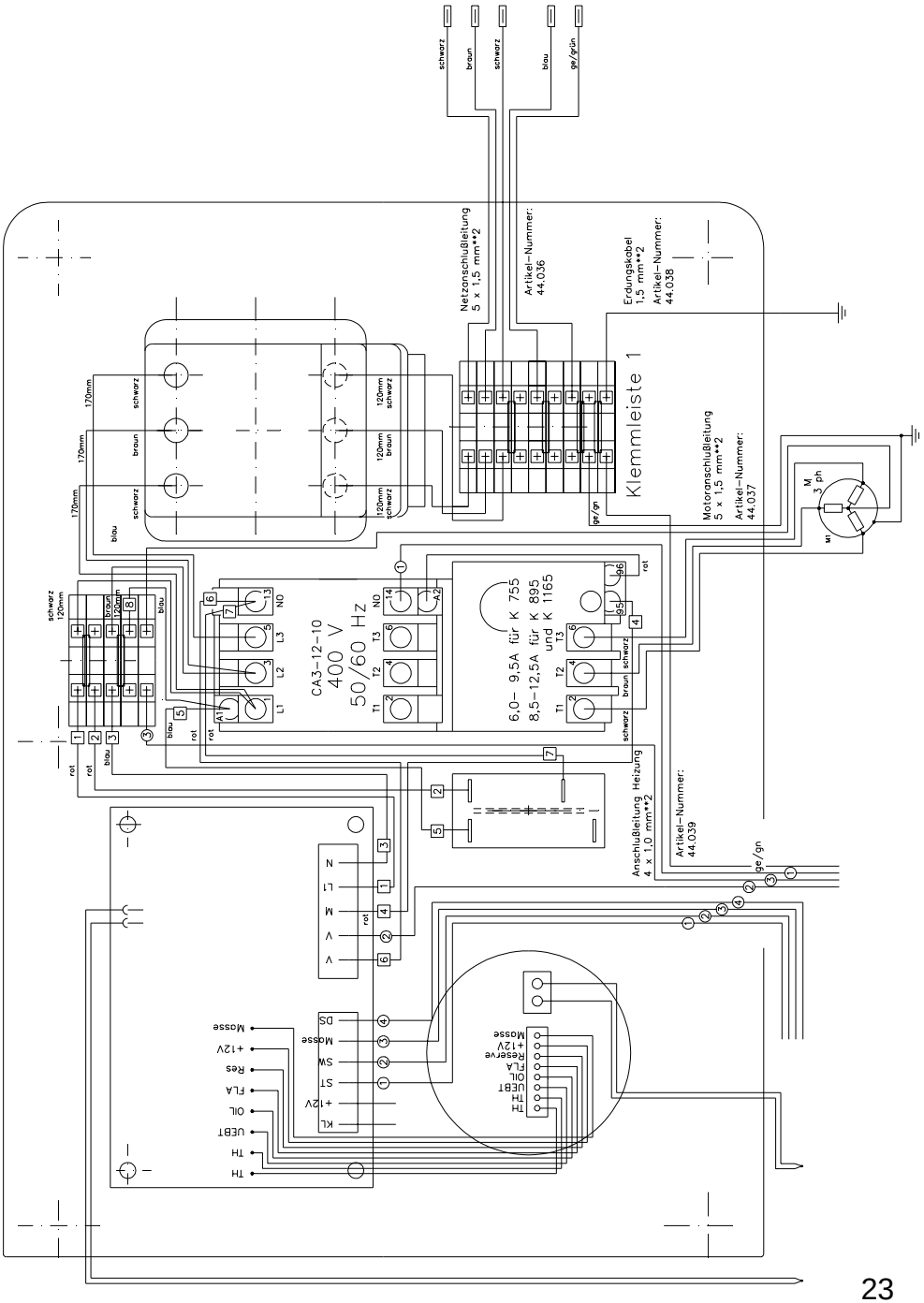


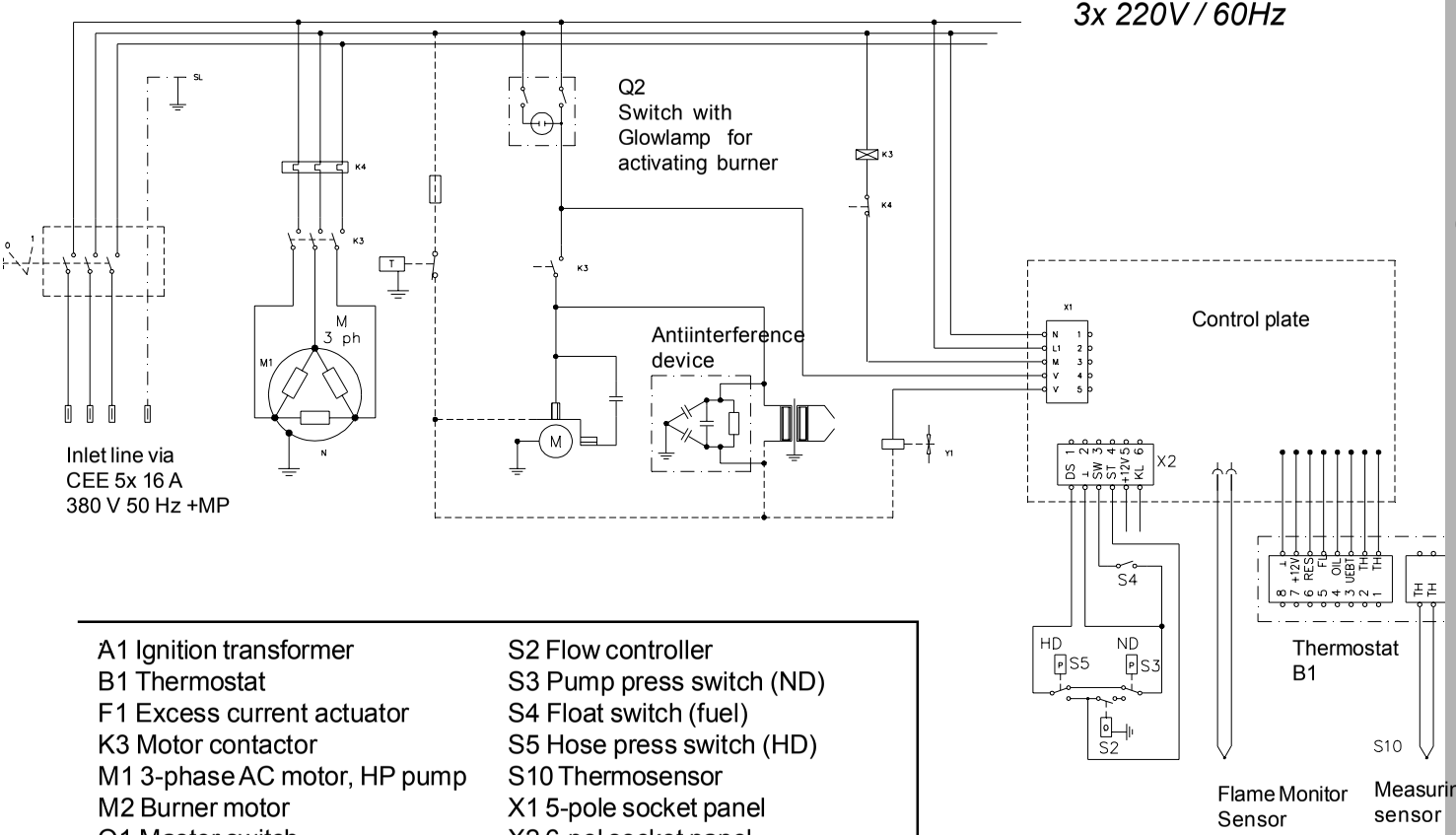
Á1 Ignition transformer	S2 Flow controller
B1 Thermostat	S3 Pump press switch (ND)
F1 Excess current actuator	S4 Float switch (fuel)
K3 Motor contactor	S5 Hose press switch (HD)
M1 3-phase AC motor, HP pump	S10 Thermosensor
M2 Burner motor	X1 5-pole socket panel
Q1 Master switch	X2 6-pol socket panel
Q2 Heating switch	Y1 Fuel valve

Terminal box terminal plan

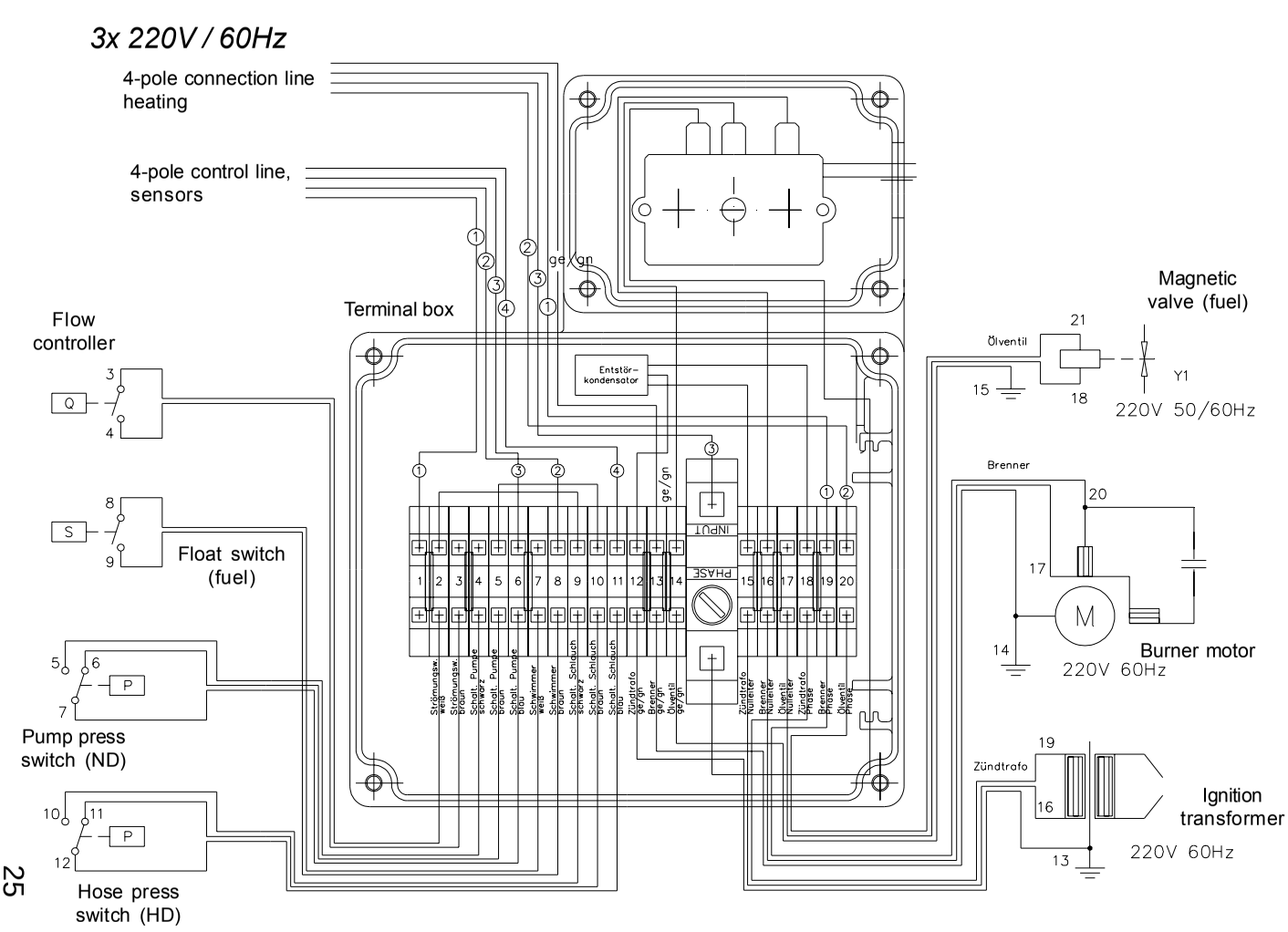


Cockpit terminal plan

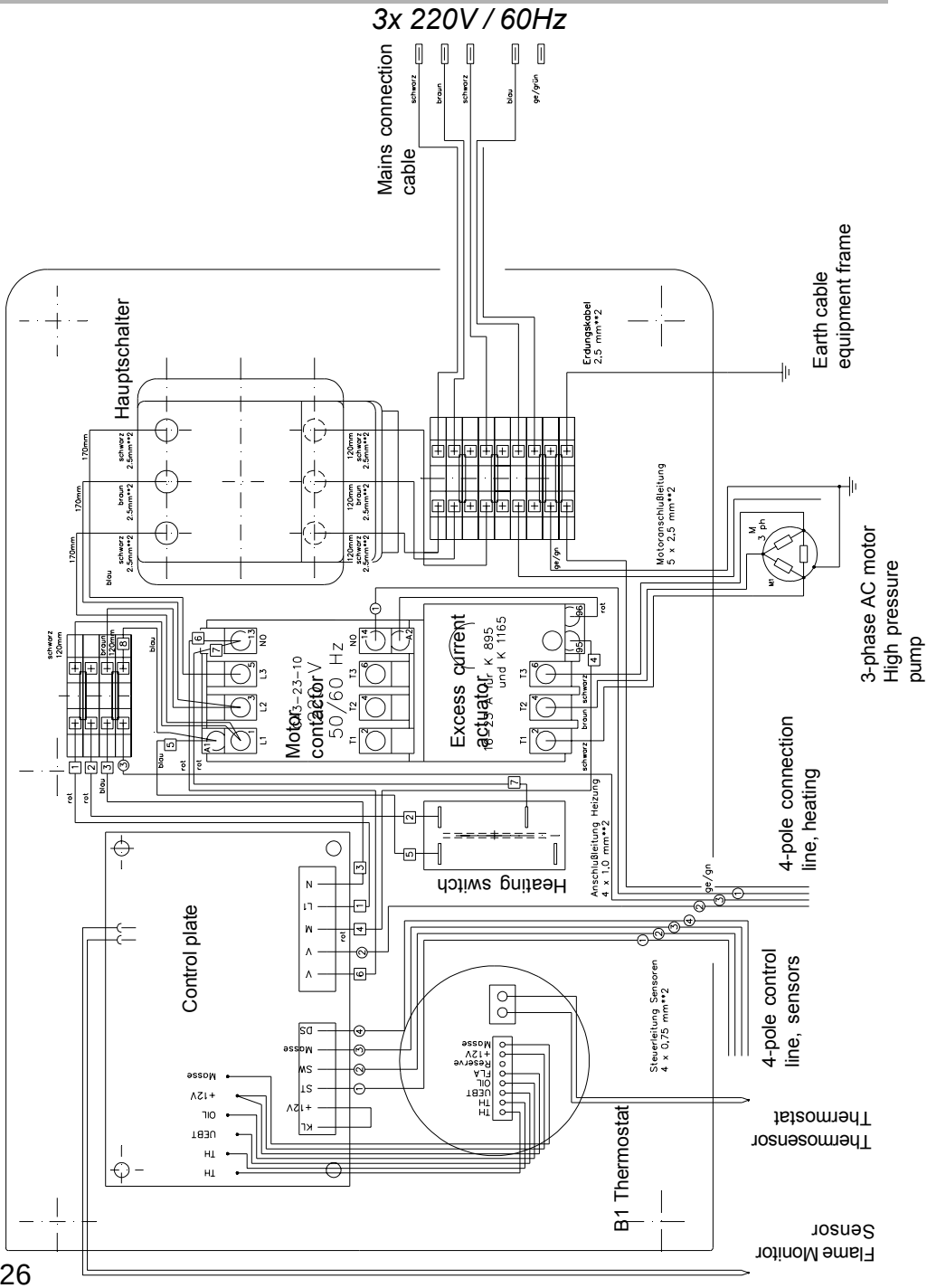




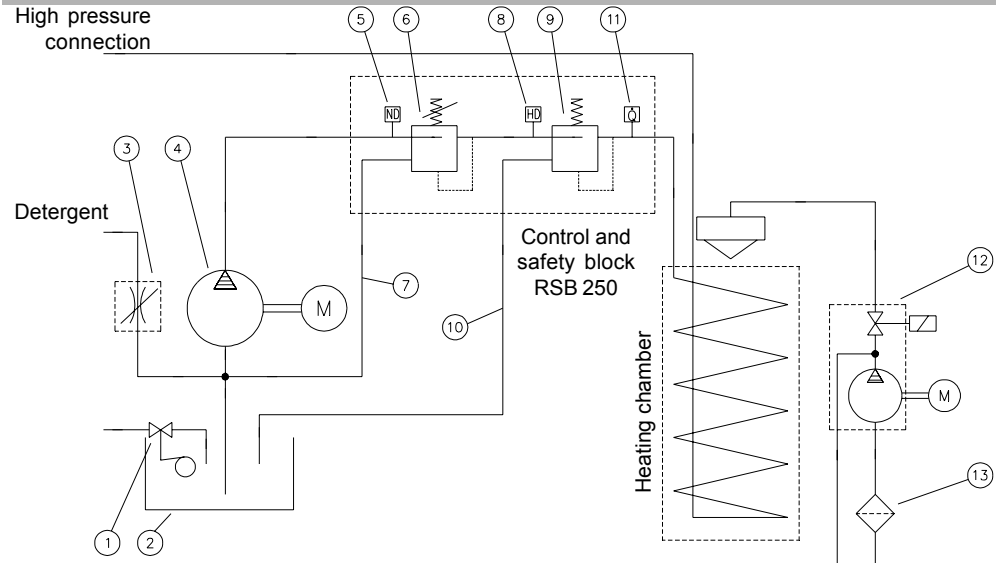
A1 Ignition transformer	S2 Flow controller
B1 Thermostat	S3 Pump press switch (ND)
F1 Excess current actuator	S4 Float switch (fuel)
K3 Motor contactor	S5 Hose press switch (HD)
M1 3-phase AC motor, HP pump	S10 Thermosensor
M2 Burner motor	X1 5-pole socket panel
Q1 Master switch	X2 6-pol socket panel
Q2 Heating switch	Y1 Fuel valve


3x 220V / 60Hz
4-pole connection line heating
4-pole control line, sensors
Terminal box
Flow controller
Q
S
Float switch (fuel)
Pump press switch (ND)
Hose press switch (HD)
Entstör-kondensator
INPUT
PHASE
Magnetic valve (fuel)
Ölventil
Y1
220V 50/60Hz
Brenner
Burner motor
220V 60Hz
Zündtrafo
Ignition transformer
220V 60Hz

Cockpit terminal plan

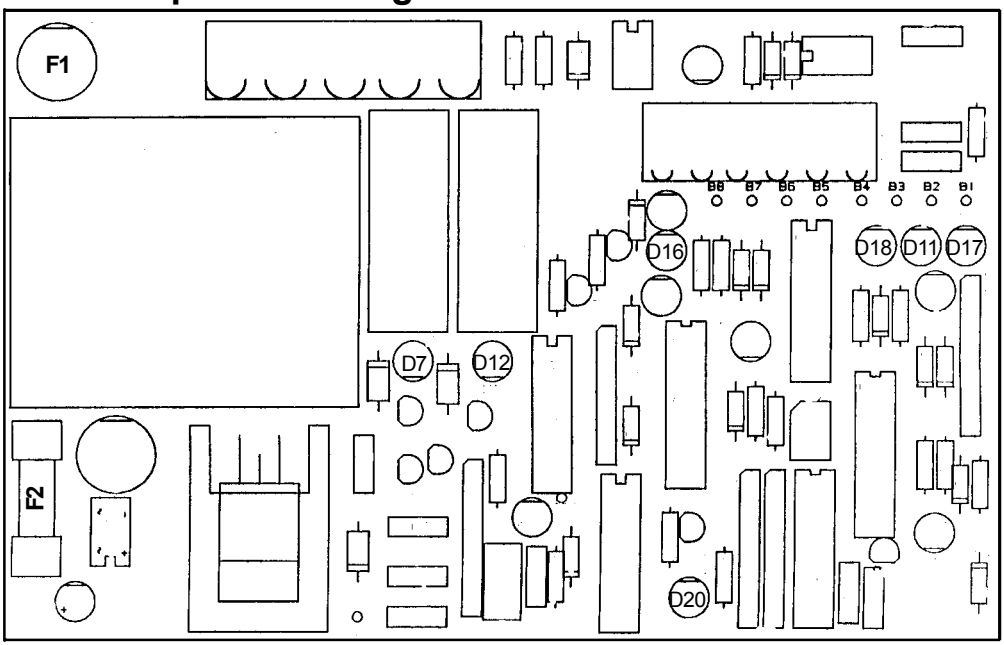


Pipeline plan



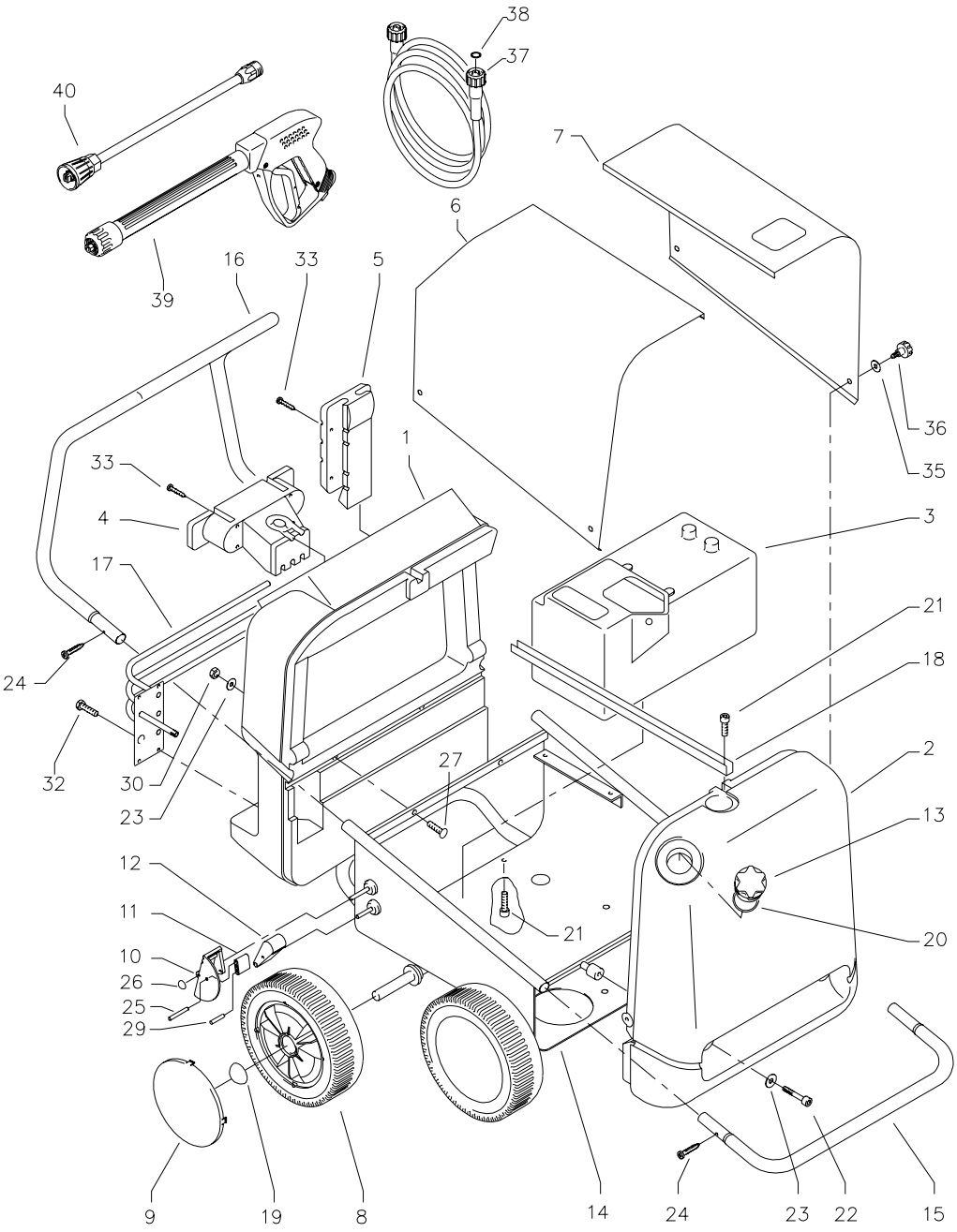
1 Float valve, water inlet
2 Water tank
3 Control valve, detergent
4 High pressure pump
5 Press switch pump (ND)
6 Unloader valve
7 By-pass line, unloader
8 Press switch, hose
9 Safety valve
10 Excess pressure line, safety valve
11 Flow controller
12 Fuel pump with magnetic valve
13 Fuel filter
14 Fuel tank

Control panel with light diodes



F1: T32 mA Best.Nr.: 44.200 1 F2: M 250 mA Best.Nr.: 44.200 2

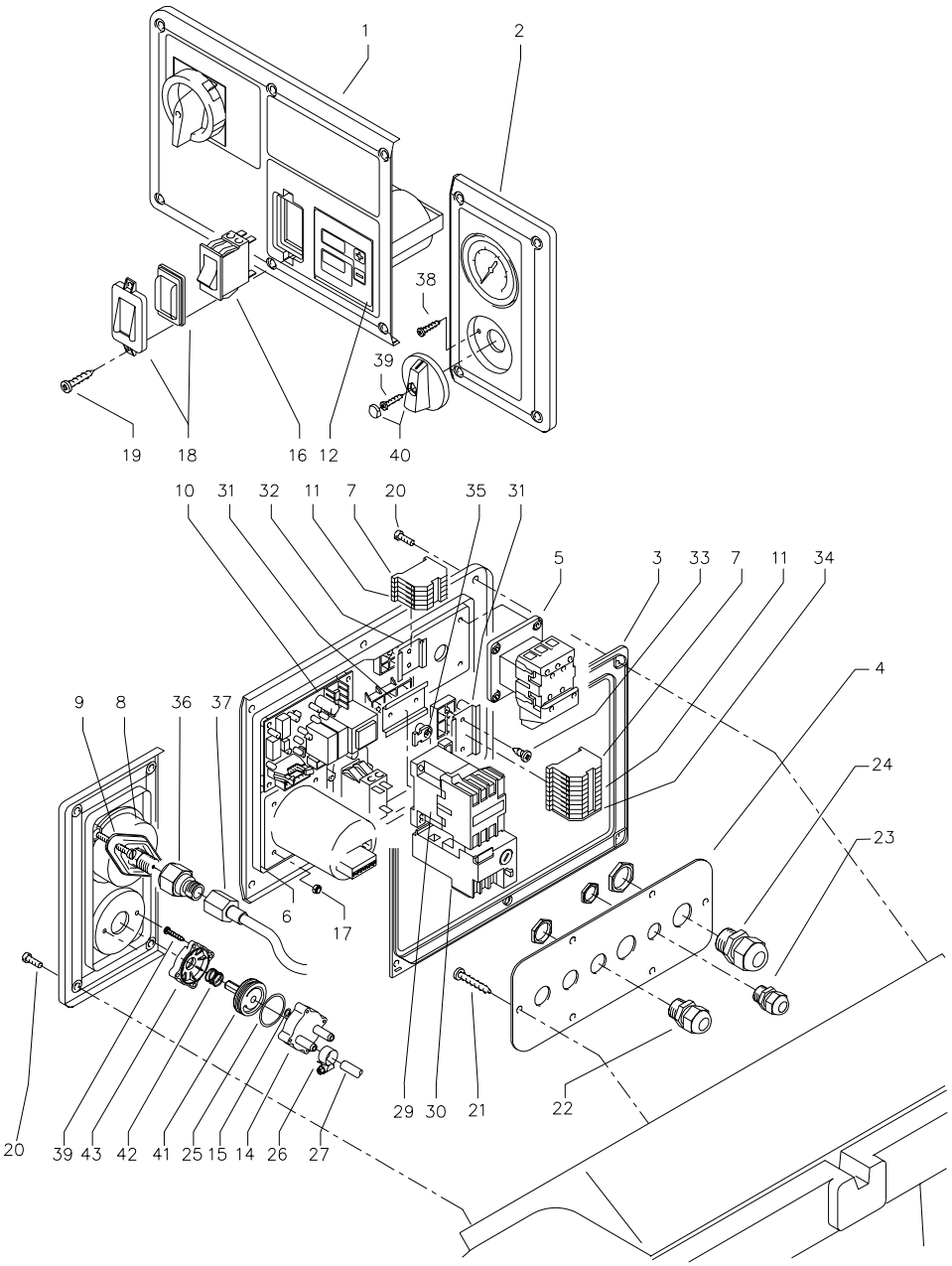
Complete assembly



Kränzle therm 895 / 1165

Pos.	Description	Qty	Order No.
1	Cockpit	1	44.006
2	Brennstofftank	1	44.004
3	Wassertank	1	44.009
4	Kabelaufwicklung	1	44.007
5	Lanzenköcher	1	44.008
6	Haube rechts	1	44.032
7	Haube links	1	44.031
8	Rad	4	44.017
9	Radkappe	4	44.018
10	Bremspedal	1	44.022
11	Bremshebel	1	44.023
12	Bremsklotz	1	44.024
13	Tankdeckel	1	44.005
14	Fahrgestell	1	44.001
15	Frontbügel	1	44.002
16	Schubbügel	1	44.003
17	Reeling	1	44.016
18	Top-Strebe	1	44.019
19	Starlock-kappe 20 mm	4	40.142
20	O-Ring 70 x 5	1	44.020
21	Innensechskantschraube M 8 x 12	4	40.122
22	Innensechskantschraube M 8 x 40	2	44.033
23	Unterlegschiebe 8,4 DIN 9021	4	41.409
24	Schraube 3,9 x 16	4	12.150
25	Stift 6 x 50	1	44.035
26	Starlockkappe 8 mm	1	44.165
27	Schloßschraube M 8 x 35	2	41.408
29	Stift 6 x 40	1	44.035 1
30	Elastic-Stop-Mutter M 8	2	41.410
32	Kunststoffschraube 6 x 30	4	43.423
33	Kunststoffschraube 5 x 25	8	41.414
35	Scheibe	4	44.034
36	Sterngriff	4	50.168 1
37	Hochdruckschlauch NW 8 20 m	1	41.083
38	O-Ring 9,3 x 2,4 Viton	2	13.273 1
39	Pistole mit Verlängerung - Starlett II	1	41 053 1
40	Lanze mit Flachstrahldüse 25045 (für therm 895)	1	12.392
40.1	Lanze mit Flachstrahldüse 2507 (für therm 1165)	1	12.392 1

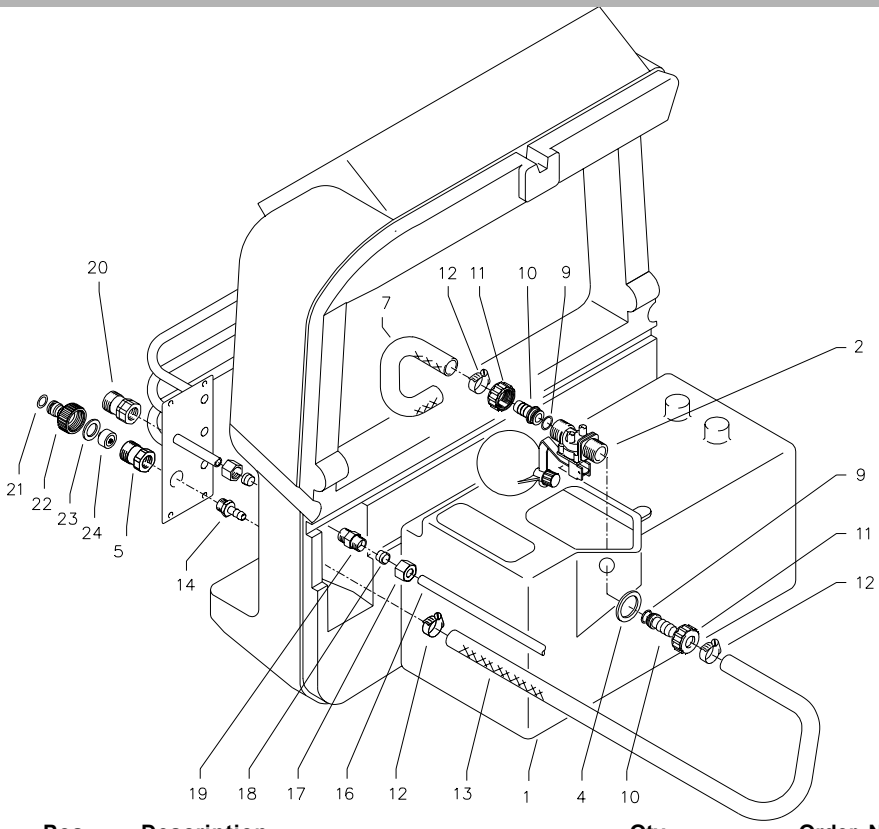
Switchbox electronics



Kränzle therm 895 / 1165

Pos.	Description	Qty	Order No.
1	Frontplatte Elektrik 895	1	44.042
1.1	Frontplatte Elektrik 1165	1	44.042 2
2	Frontplatte Manometer	1	44.043
3	Gummidichtung Elektrik	1	44.044
4	Kabeldurchführungsplatte	1	44.045
5	Hauptschalter KG32B T203/01E	1	44.046
6	Dichtung für Thermostat	1	44.101 1
7	Klemme Wago 2,5 mm²	1	44.047
8	Manometer	1	15.039 1
9	Klemmbügel für Manometer	1	44.049
10	Steuerplatine für 3x 400V / 50/60Hz	1	44.196
10.1	Steuerplatine für 3x 220V / 50/60Hz	1	44.196 1
11	Erdungsklemme Wago 2,5 mm²	1	44.048
12	Thermostat	1	44.101
14	Gehäuse Waschmittelventil	1	44.145
15	O-Ring 5 x 1,5 (Viton)	1	44.150
16	Heizungsschalter	1	41.111 6
17	Elastic-Stop Mutter M 4	4	41.111
18	Klemmrahmen mit Schalterabdichtung	1	41.110 5
19	Kunststoffschraube 3,5 x 9,5	2	41.088
20	Schraube M 5 x 14	10	40.536
21	Kunststoffschraube 5,0 x 14	6	43.426
22	PG-Verschraubung PG 11	3	41.419
23	PG-Verschraubung PG 9	1	41.087
24	PG-Verschraubung PG 16	2	41.419 1
25	O-Ring 28,24 x 2,62	1	44.149
26	Schlauchklemme 9 - 9	2	44.054
27	Kunststoffschlauch für Waschmittelansaugung	1	44.055
28	Kunststoffschlauch mit Filter	1	44.056
29	Motorschütz CA3-12-10 für 3x 400V / 50/60Hz	1	44.057
29.1	Motorschütz CA3-23-10 für 3x 230V / 50/60Hz	1	44.057 2
30	Thermorelais CT3-12 8,5 - 12,5 A	1	44.058
30.1	Thermorelais CT3-23 16 - 23 A	1	44.058 3
31	Hutschiene 50 mm lang	2	44.125 1
32	Hutschiene 30 mm lang	1	44.125 2
33	Blechschraube 3,9 x 9,5	16	41.636
34	Verschlußdeckel für Durchgangsklemme	1	44.047 2
35	Kabelhaltesockel	5	44.135
36	Anschlußmuffe Manometer	1	44.136
37	Druckmeßleitung	1	44.102
38	Blechschraube 3,5 x 19	2	44.162
39	Blechschraube 3,5 x 16	3	44.161
40	Drehgriff Chemieventil mit Blendkappe	1	44.151
41	Regulierkolben Chemieventil	1	44.147
42	Edelstahlfeder 1,8 x 15 x 15	1	44.148
43	Deckel für Chemieventil	1	44.146
	Chemieventil kpl. Pos. 14; 15; 25-27; 39-43		**44.052**
F1	Feinsicherung T 32 mA	1	44.200 1
F2	Feinsicherung M 250 mA	1	44.200 2

Water supply

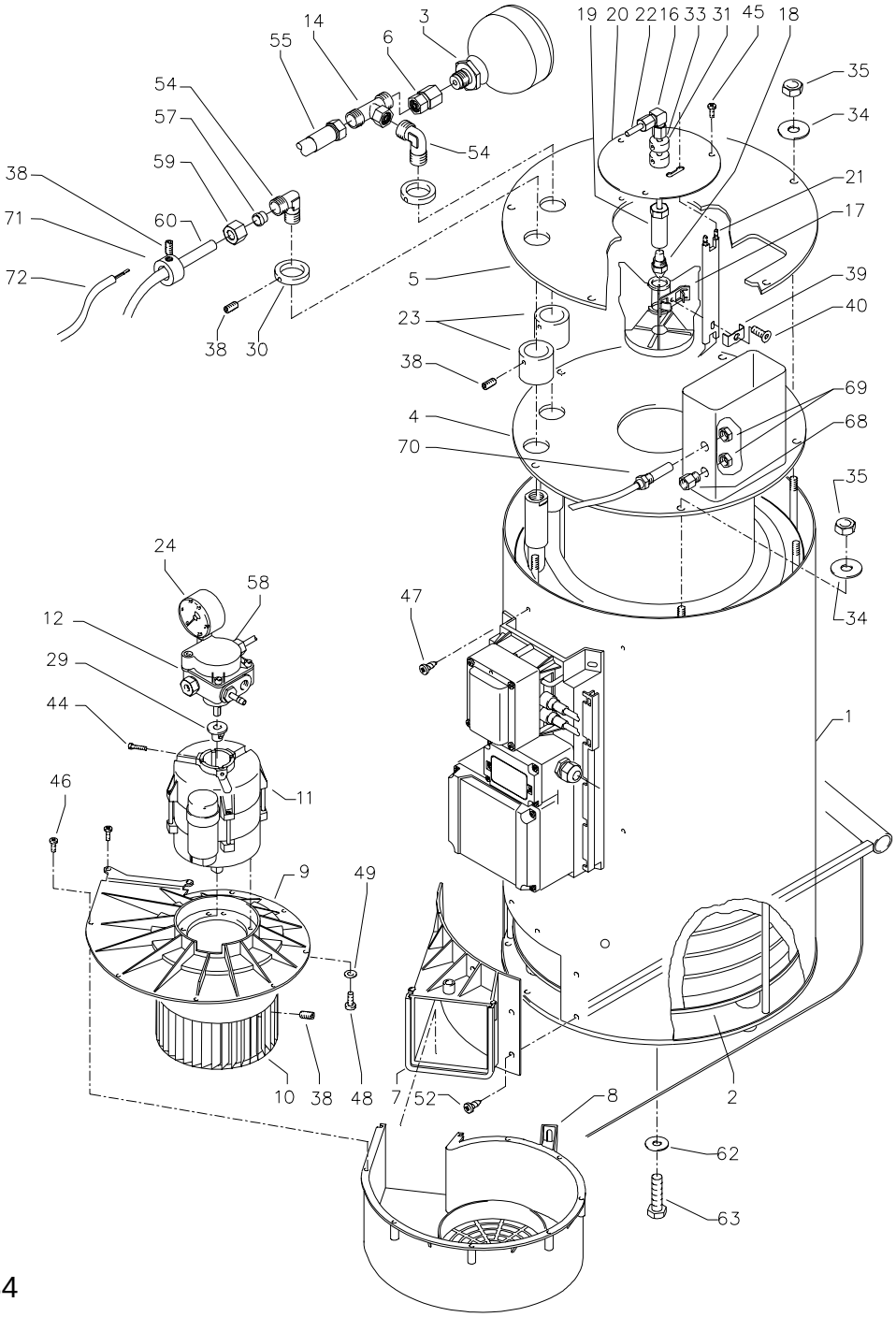


Pos.	Description	Qty	Order No.
1	Wassertank	1	44.009
2	Schwimmerventil	1	44.025
4	Distanzring	1	44.026
5	Anschlußstück R 3/8" IG	1	41.423
7	Einströmschlauch	1	44.027
9	O-Ring 13 x 2,6	2	13.272
10	Schlauchtülle	2	44.126
11	Überwurfmutter	2	41.047
12	Schlauchschelle 12 - 22	3	44.054 2
13	Wassereingangsschlauch	1	44.028
14	Schlauchtülle R3/8" x 13	1	44.029
16	Ermetorohr 12 mm	1	44.030
17	Ermetomutter 12 mm	2	40.075
18	Klemmhülse 12 mm	2	40.074
19	Ermetoverschraubung 12 L x 12 L	1	44.060
20	Wasserausgangsteil	1	44.061
21	O-Ring	1	41.047 3
22	Steckkupplung	1	41.047 2
23	Gummidichtung	1	41.047 1
24	Wasserfilter	1	41.046 2
	Steckkupplung kpl. Pos. 21-23		**41.047 4**

Fuel supply

Pos.	Description	Qty	Order No.
1	Deckel Brennstoffversorgung	1	44.011
2	Flansch mit Brennstoffleitungen	1	44.010
3	Gummidichtung	1	44.012
5	Schwimmerschalter	1	44.014
8	Rücklaufschlauch	1	44.015
9	Schlauchschelle 7 - 11	2	44.054
10	Einschraubwinkelverschraubung 1/4" x 6	1	44.062
11	Kunststoffschraube 4,8 x 25	3	41.414
15	Kugelhahn	1	44.203
16	Anschlußteil Brennstofffilter	2	44.214
17	Gummidichtung 3/4"	2	41.047 1
18	Filtergrundkörper	1	13.301
19	Gummidichtung	1	13.303
20	Siebkörper Brennstofffilter	1	44.213
21	Filterbecher	1	13.302
22	Einschraubwinkel R1/4" AG x 10L	2	40.121 1
23	Brennstoffpumpe mit Magnetventil	1	44.073
24	Brennstoffmanometer 0-15 bar R1/8"	1	44.082
25	Magnet für Magnetventil	1	44.111 1
26	Anschlußkabel für Magnetventil	1	44.111
27	Abstandsrohr 128 mm	1	44.084
28	Schlauchtülle 1/4" x 6	1	44.053
29	Winkeleinschraubverschraubung 1/8" x 6	1	44.110 1

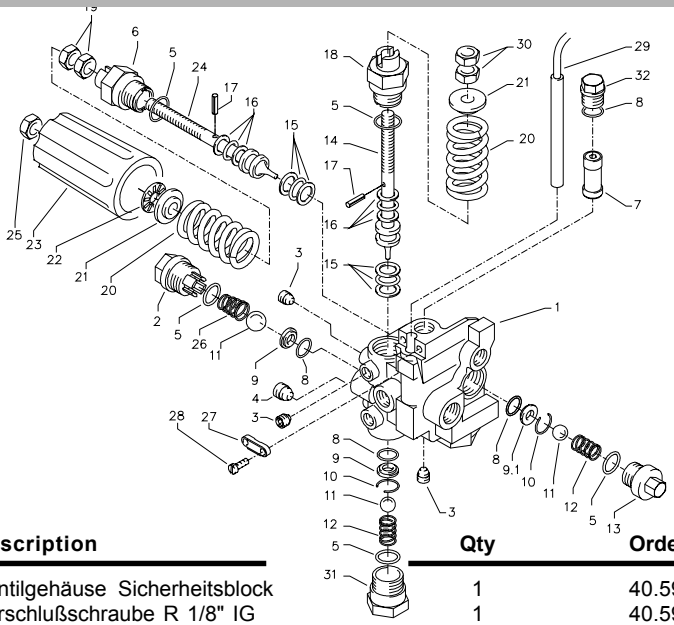
Heat exchanger



Kränzle therm 895 / 1165

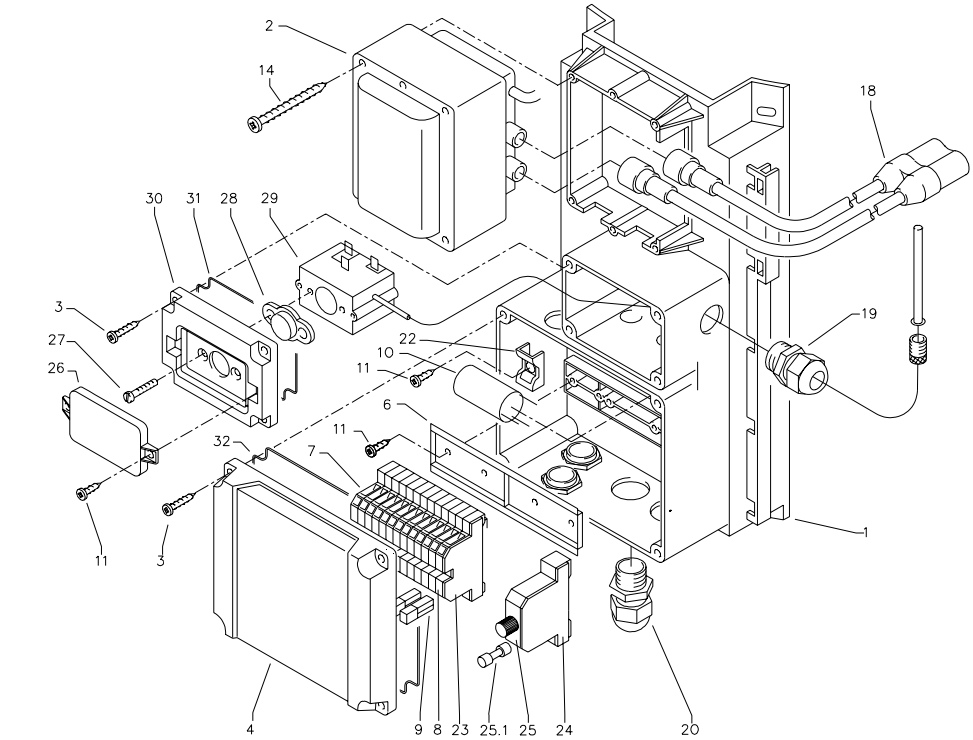
Pos.	Description	Qty	Order No.
1	Außenmantel	1	44.063
2	Heizschlange mit Innenmantel	1	44.064
3	Hydrospeicher	1	44.140
4	Innendeckel	1	44.065
5	Außendeckel	1	44.066
6	Anschlußmuffe für Hydrospeicher	1	44.140 1
7	Gebläsestutzen	1	44.068
8	Gebläsegehäuse	1	44.069
9	Gebläsedeckel	1	44.070 1
10	Lüfterrad	1	44.071
11	Brennermotor 220 V / 50 Hz	1	44.072
12	Brennstoffpumpe mit Magnetventil	1	44.073
14	Einstellbare T-Verschraubung 12	1	44.141
16	Winkelverschraubung 6L x 6L	1	44.106
17	Düsenstock	1	44.076 4
18	Brennstoffdüse 60° B 1,5 gph bei 895	1	44.077
18.1	Brennstoffdüse 60° B 1,75 gph bei 1165	1	44.077 4
19	Düsenhalter	1	44.078
20	Deckel Düsenstock	1	44.079
21	Blockelektrode	1	44.080
22	Brennstoffleitung Pumpe	1	44.108
23	Abschlußhülse	2	44.081
24	Brennstoffmanometer 0 - 15 bar R 1/8"	1	44.082
29	Steckkupplung	1	44.085
30	Abschlußring	2	44.086
31	Tiefenanschlag	1	44.088
33	Brennstoffleitung „Düsenstock“ 137 mm	1	44.089
34	Scheibe 8,4 DIN125	7	50.186
35	Mutter M 8	7	14.127
36	Ringmutter M 8 DIN 582	3	44.115
38	Gewindestift M 6 x 8 DIN 914	7	44.090
39	Klemmblech für Elektrode	1	44.076 1
40	Zyl.schraube mit ISK M 5 x 15 DIN6912	1	44.076 2
44	Zyl.schraube mit ISK M 5 x 12 DIN 912	1	40.134
45	Schraube M 6 x 12	3	43.421
46	Kunststoffschraube 5,0 x 20	9	50.157
47	Blechschraube 4,8 x 13	4	44.112
48	Schraube M 4 x 10	4	44.091
49	Unterlegscheibe 4,3	4	44.059
52	Blechschraube 6,3 x 13	7	44.109
54	Einschraubwinkelverschr. 3/8" x 12L	2	44.092
55	Hochdruckschlauch	1	44.093
57	Schneidring 12 mm	1	40.074
58	Winkeleinschraubverschraubung 1/8" x 6	1	44.110 1
59	Überwurfmutter f. Ermeto 12 mm	1	40.075
60	Ermetorohr	1	44.030
62	Unterlegscheibe A 10,5 DIN 9021	3	50.182
63	Sechskantschraube M 10 x 20 DIN 933	3	44.116
64	Federring A 10 DIN 127	3	44.116 1
68	Fühler Muffe	1	44.171
69	Mutter	2	44.172
70	Thermofühler für Flammüberwachung	1	44.199 1
71	Klemmring für Meßleitung Thermostat	1	44.087 1
72	Meßleitung Thermostat	1	44.101 2

Control and safety block



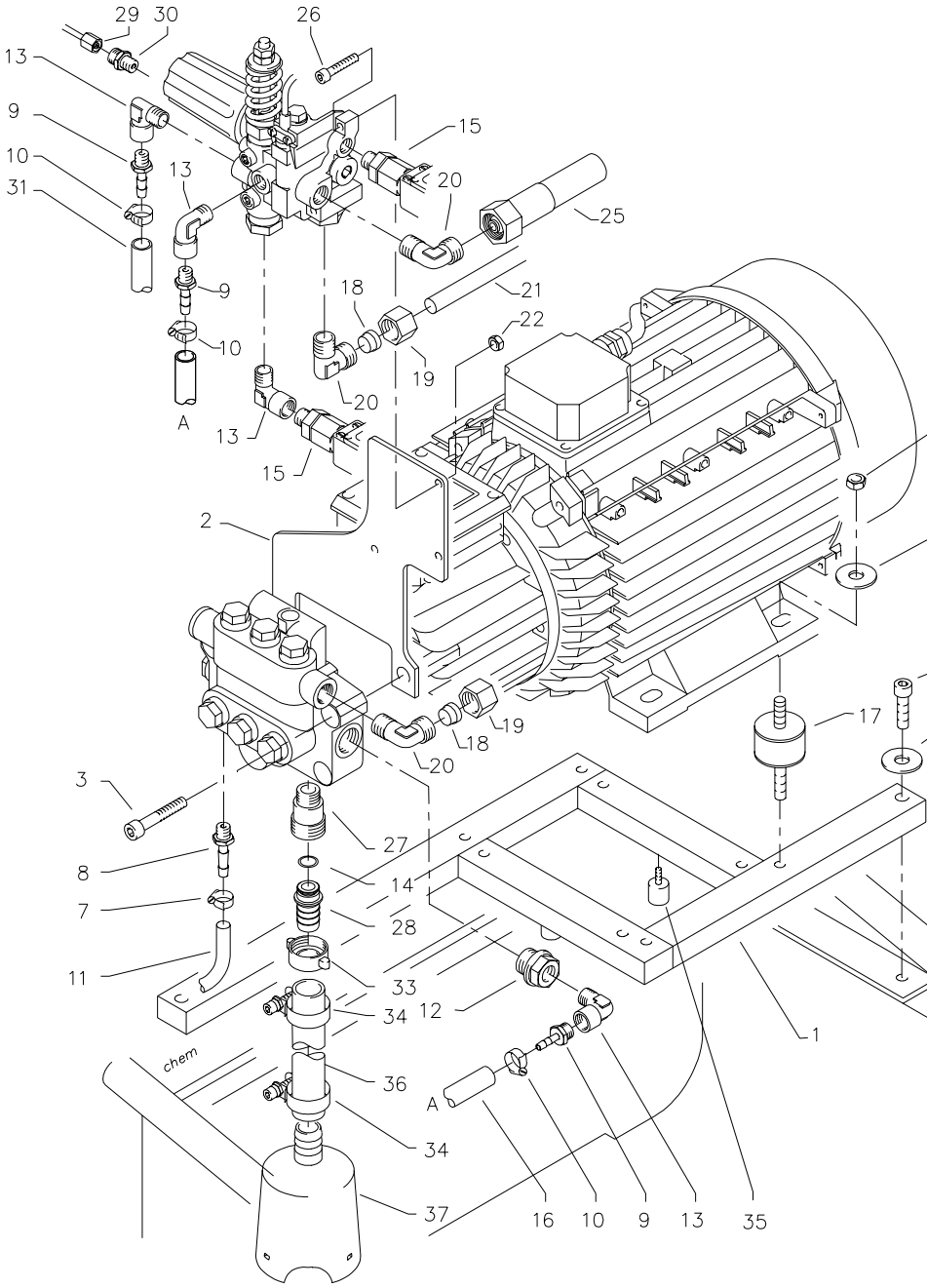
Pos.	Description	Qty	Order No.
1	Ventilgehäuse Sicherheitsblock	1	40.590
2	Verschlußschraube R 1/8" IG	1	40.591
3	Dichtstopfen M 8 x 1	3	13.158
4	Dichtstopfen M 10 x 1	1	43.043
5	O-Ring 15 x 2	5	13.150
6	Kolbenführung spezial	1	42.105
7	Stömungskörper	1	40.592
8	O-Ring 11 x 1,44	4	12.256
9	Edelstahlsitz 8,2 mm	2	13.146
9.1	Edelstahlsitz 7,0 mm	1	14.118
10	Sprengring	2	13.147
11	Edelstahlkugel 10,0 mm	3	12.122
12	Edelstahlfeder	2	14.119
13	Verschlußschraube	1	14.113
14	Steuerkolben Sicherheitsventil	1	14.110
15	Parbaks 16 mm	2	13.159
16	Parbaks 8 mm	2	14.123
17	Spannstift	2	14.148
18	Kolbenführung	1	14.109
19	Sechskantmutter M 8 x 1	2	14.144
20	Ventilfeder	2	14.125
21	Federdruckscheibe	2	14.126
22	Nadellager	1	14.146
23	Handrad	1	14.147
24	Steuerkolben	1	14.134
25	Elasic-Stop-Mutter	1	14.152
26	Rückschlagfeder „K“	1	14.120 1
27	Klemmstück	1	40.593
28	Schraube M 4 x 10	2	41.489
29	Magnetschalter	1	40.594
30	Sechkantmutter M 8	2	14.127
31	Eingangsstück R 3/8"	1	13.136
32	Verschlußschraube M 14 x 1	1	40.595

Terminal box and transformer



Pos.	Description	Qty	Order No.
1	Konsole mit integr. Klemmkasten	1	44.067 1
2	Transformator 230 V / 50 Hz	1	44.074
3	Kunststoffschraube 4,0 x 25	8	43.425
4	Deckel für Klemmkasten	1	44.075 2
6	Hutschiene für Verteilerkasten	1	44.125
7	Durchgangsklemme grau	18	44.047
8	Durchgangsklemme grün/gelb	3	44.048
9	Querbrücker 24 A	6	44.047 1
10	Entstörkondensator	1	44.124
11	Blechschraube 3,9 x 9,5	7	12.172
14	Kunststoffschraube 4 x 60	4	43.420
18	Zündkabel mit Stecker	1	44.114
19	PG-Verschraubung PG 16	2	41.419 1
20	PG-Verschraubung PG 11	5	41.419
22	Haltesockel für Entstörglied	1	44.178
23	Abdeckplatte für Durchgangsklemme	1	44.047 2
24	Abdeckplatte für Sicherungsklemme	1	44.166 1
25	Halteklemme für Feinsicherung	1	44.166
25.1	Feinsicherung 3,15 A träge	1	44.166 3
26	Abdeckkappe Überstromauslöser	1	44.154
27	Schraube M 4 x 12	2	41.089 1
28	Dichtung für Übertemperaturauslöser	1	44.157
29	Übertemperaturauslöser	2	44.169
30	Deckel für Übertemperaturauslöser	2	44.182
31	Dichtung für Deckel Übertemperaturauslöser	1	44.182 1
32	Dichtung für Deckel Klemmkasten	1	44.075 3

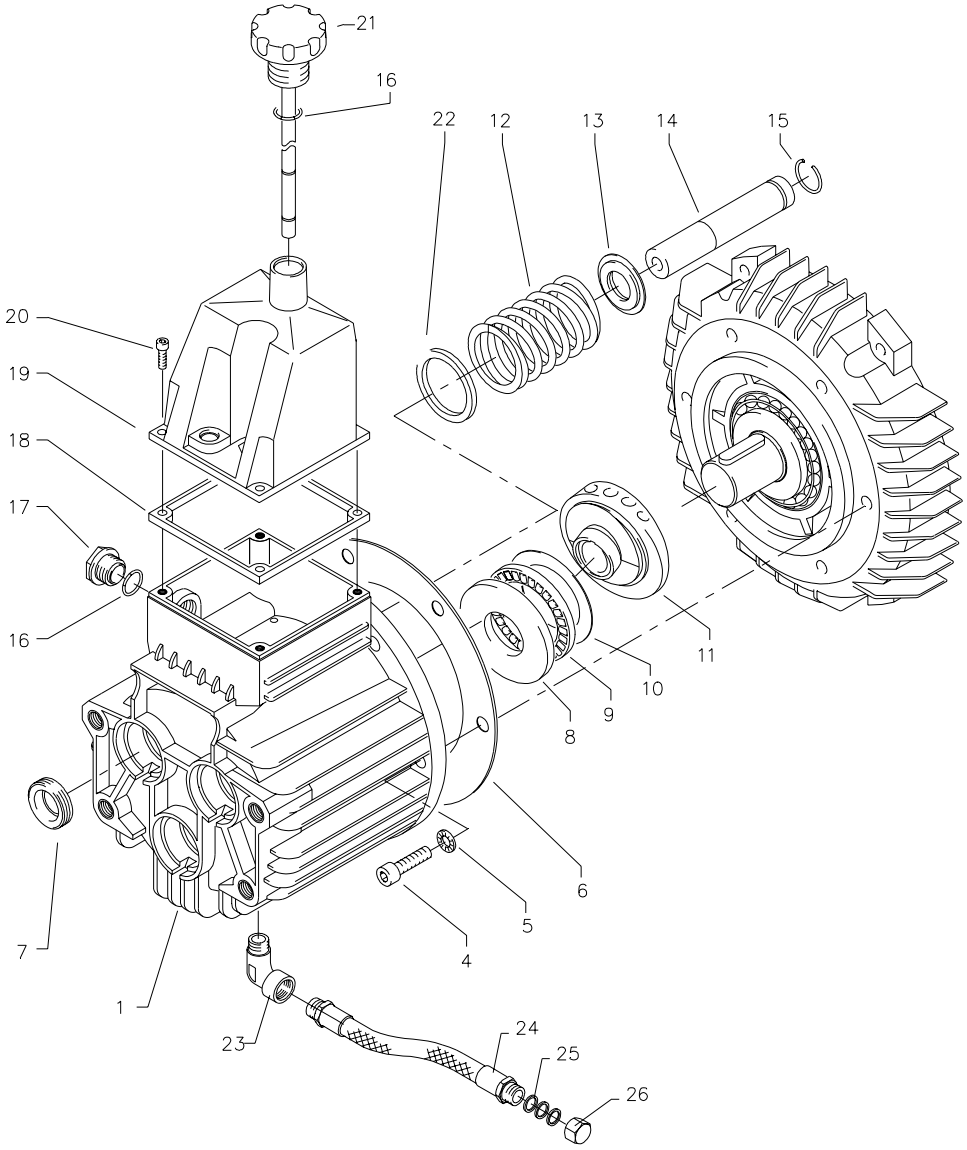
Connections



Kränzle therm 895 / 1165

Pos.	Description	Qty	Order No.
1	Aggregathalterung	1	44.013
2	Halteblech Sicherheitsblock	1	44.095
3	Innensechskantschraube M 12 x 45	4	40.504
4	Elastic-Stop-Mutter M8	4	41.410
5	Unterlegscheibe 8,4 DIN 9021	7	41.409
6	Innensechskantschraube M 8 x 30	3	41.036 1
7	Schlauchschelle 7 - 10	1	44.054
8	Schlauchtülle 3/8" x 6	1	44.029
9	Schlauchtülle 1/4" x 6	3	44.053
10	Schlauchschelle 10-16	3	41.046 3
11	Waschmittelsaugschlauch	1	44.055
12	Verschlußschraube 1/2" AG mit 1/4" IG	1	44.121
13	Einschraubwinkel R1/4" IG/AG	4	40.121
14	O-Ring 13 x 2,6	1	13.272
15	Druckschalter (schwarz) kpl. mit Kabel 0,59 m	1	44.120
15.1	Druckschalter (rot) kpl. mit Kabel 0,49 m	1	44.120 1
16	By-Pass- Verbindungsschlauch	1	44.097
17	Schwingmetall 30 x 30	4	44.227
18	Klemmhülse 12 mm	2	40.074
19	Ermetomutter 12 mm	2	40.075
20	Einschraubwinkelverschraubung 3/8" x 12	3	44.092
21	Ermetorohr Pumpenausgang	1	44.098
22	Elastic-Stop-Mutter M 6	3	14.152 1
25	Hochdruckschlauch	1	44.093
26	Innensechskantschraube M 6 x 30	2	43.037
27	Sauganschluß 3/8" AG x 3/4" AG	1	41.016
28	Schlauchtülle für Sauganschluß	1	44.126 1
29	Druckmessleitung	1	44.102
30	Einschraubverschr. 1/8" x 6 mm	1	40.591 1
31	Bypass Schlauch Sicherheitsventil	1	44.104
33	Schlauchverschraubung 3/4" x 19	1	44.122
34	Schlauchschelle 20 - 32	2	44.054 1
35	Gummidämpfer	2	43.419
36	Ansaugschlauch	1	44.096
37	Saugglocke mit Sieb	1	15.038 5

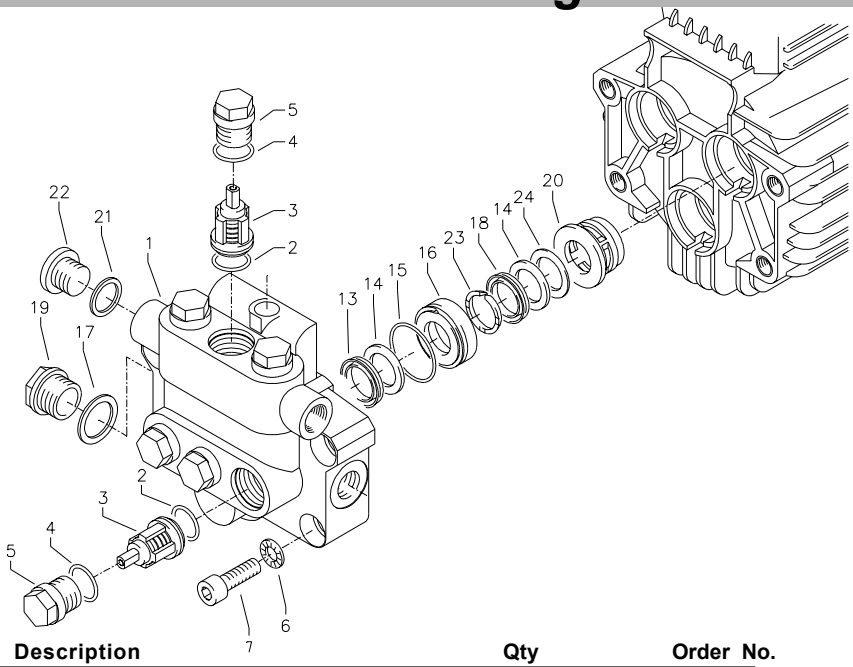
Transmission unit



Kränzle therm 895 / 1165

Pos.	Description	Qty	Order No.
1	Ölgehäuse	1	40.501
4	Innensechskantschraube M 8 x 25	6	40.053
5	Sicherungsscheibe	6	40.054
6	Flachdichtung	1	40.511
7	Öldichtung 20 x 38 x 7	3	40.044 1
8	Wellenscheibe	1	40.043
9	Axial-Rollenkäfig	1	40.040
10	AS-Scheibe	1	40.041
11	Taumelscheibe 9,5° bei 895 400V / 50Hz	1	40.042 1-9,5
11.1	Taumelscheibe 12,0° bei 1165 400V / 50Hz	1	40.042 1-12,0
11.2	Taumelscheibe 8° bei 895 3x 220V / 60Hz	1	40.042 1-8,0
11.3	Taumelscheibe 10,4° bei 1165 3x 220V/60Hz	1	40.042 1-10,4
12	Plungerfeder	3	40.506
13	Federdruckscheibe	3	40.510
14	Plunger 20 mm (lang)	3	40.505
15	Sprengring	3	40.048
16	O-Ring 14 x 2	2	43.445
17	Verschlußschraube M 18 x 1,5	1	41.011
18	Flachdichtung	1	41.019 3
19	Deckel	1	40.518
20	Innensechskantschraube M 5 x 12	4	41.019 4
21	Ölmeßstab	1	42.520
22	Stützscheibe für Plungerfeder	3	40.513
23	Einschraubwinkel 3/8" x 3/8"	1	44.127
24	Ölablasschlauch	1	44.128 1
25	Kupferring	3	14.149
26	Verschlußkappe	1	44.130

Valve housing



Pos.	Description	Qty	Order No.
1	Ventilgehäuse	1	40.502 1
2	O-Ring 18 x 2	6	40.016
3	Einlaß- / Auslaß- Ventil	6	42.024
4	O-Ring 21 x 2	6	42.025
5	Ventilstopfen	6	42.026
6	Sicherungsring	4	40.032
7	Innensechskantschraube M 12 x 45	4	40.504
13	Gewebemanschette	3	40.023
14	Backring 20 mm	6	40.025
15	O-Ring 31,42 x 2,62	3	40.508 1
16	Leckagering 20 x 36 x 13,3	3	40.509
17	Cu-Dichtring 21 x 28 x 1,5	1	42.039
18	Gummimanschette	3	40.512
19	Verschlußschraube R 1/2"	1	42.032
20	Distanzring mit Abstützung	3	40.507
21	Cu-Dichtring 17 x 22 x 1,5	1	40.019
22	Verschlußschraube R 3/8"	1	40.018
23	Druckring 20 mm	3	40.021
24	Zwischenring	3	40.516

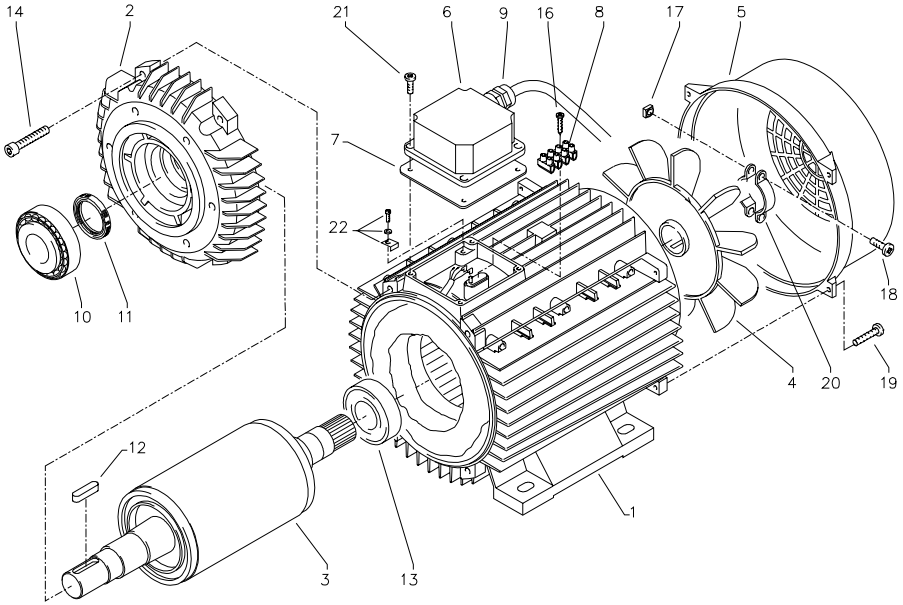
Reparatur - Satz Manschetten und Messingteile
40.065 1

bestehend aus: 3x Pos. 13; 6x Pos. 14; 3x Pos. 15;
3x Pos. 16; 3x Pos. 18; 3x Pos. 20; 3x Pos. 23

Reparatur - Satz Manschetten **40.517**
bestehend aus: 3x Pos. 13; 6x Pos. 14; 3x Pos. 15;
3x Pos. 18; 3x Pos. 23

Kränzle therm 895 / 1165

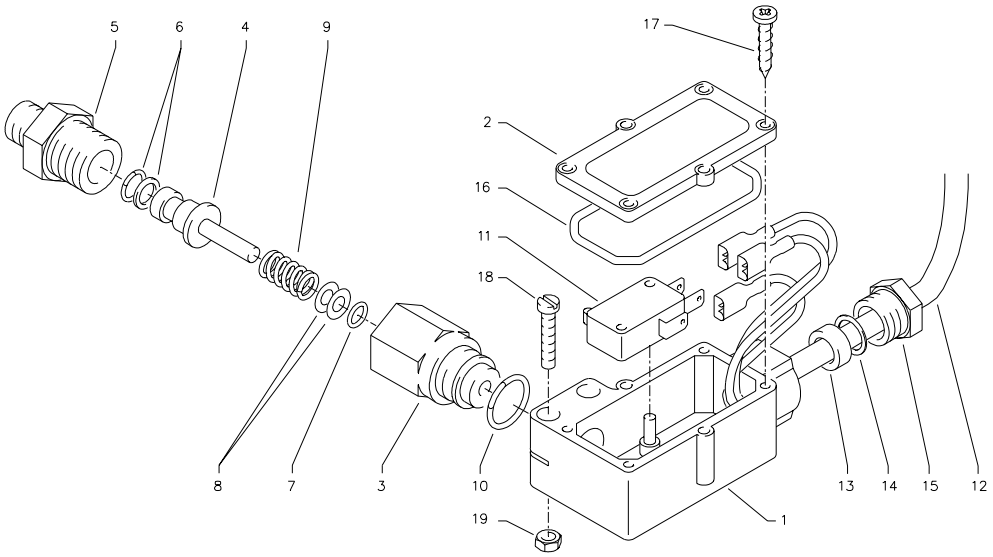
Motor



Pos.	Description	Qty	Order No.
1	Stator 112 5,5 kW 400V / 50Hz	1	40.540
1.1	Stator 112 3x 220V / 60 Hz	1	40.541
2	A-Lager Flansch	1	40.530
3	Rotor 112	1	40.531
4	Lüfterrad BG112	1	40.532
5	Lüfterhaube BG 112	1	40.533
6	Klemmkasten	1	40.534
7	Flachdichtung	1	43.030
8	Lüsterklemme 2,5 mm² 4-polig	1	43.031 1
9	PG-Verschraubung PG 13,5	1	40.539
10	Kegelrollenlager 31306	1	40.103
11	Öldichtung 35 x 47 x 7	1	40.080
12	Paßfeder 8 x 7 x 32	1	40.104
13	Kugellager 6206 - 2Z	1	40.538
14	Innensechskantschraube M 6 x 30	4	43.037
16	Blechschraube 2,9 x 16	1	43.036
17	Vierkantmutter M 5	2	41.416
18	Schraube M 5 x 14	2	40.536
19	Schraube M 4 x 12	4	41.489
20	Schelle für Lüfterrad BG112	2	40.535
21	Schraube M 4 x 12	4	41.489
22	Erdungsschraube kpl.	1	43.038

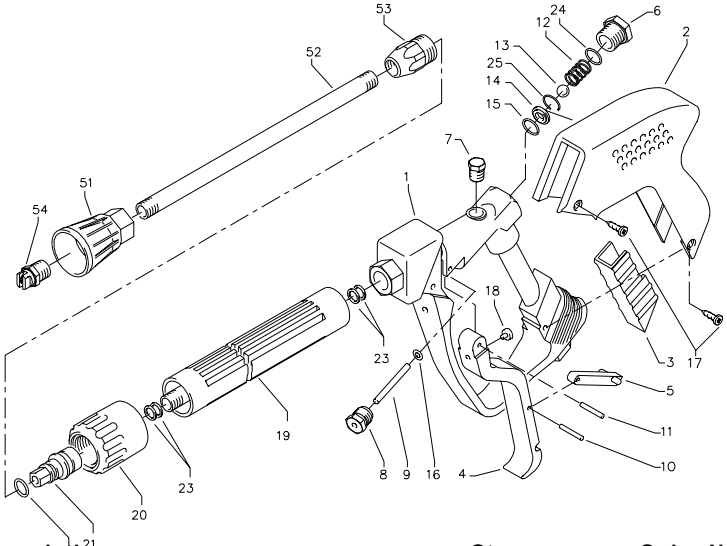
Kränzle therm 895 / 1165

Pressure switch



Pos.	Description	Qty	Order No.
1	Gehäuse (schwarz)	1	15.007
1.1	Gehäuse (rot)	1	15.007 1
2	Deckel (schwarz)	1	15.008
2.1	Deckel (rot)	1	15.008 1
3	Gehäuse Steuerkolben	1	15.009
4	Steuerkolben	1	15.010
5	Ausgangsteil R 1/4" AG	1	15.011
6	Parbaks 7 mm	1	15.013
7	O-Ring 5 x 1,5	1	15.014
8	Scheibe	1	15.015
9	Edelstahlfeder	1	15.016
10	O-Ring 12,3 x 2,4	1	15.017
11	Mikroschalter	1	15.018
12	Anschlußkabel 0,59 m	1	44.131
12.1	Anschlußkabel 0,49 m	1	44.131 1
13	Gummimanschette für PG 9	1	15.020
14	Scheibe für PG 9	1	15.021
15	Druckschraube PG 9	1	15.022
16	O-Ring 44 x 2,5	1	15.023
17	Blechschraube 2,8 x 16	6	15.024
18	Schraube M 4 x 20	2	15.025
19	Mutter M 4	2	15.026

Gun

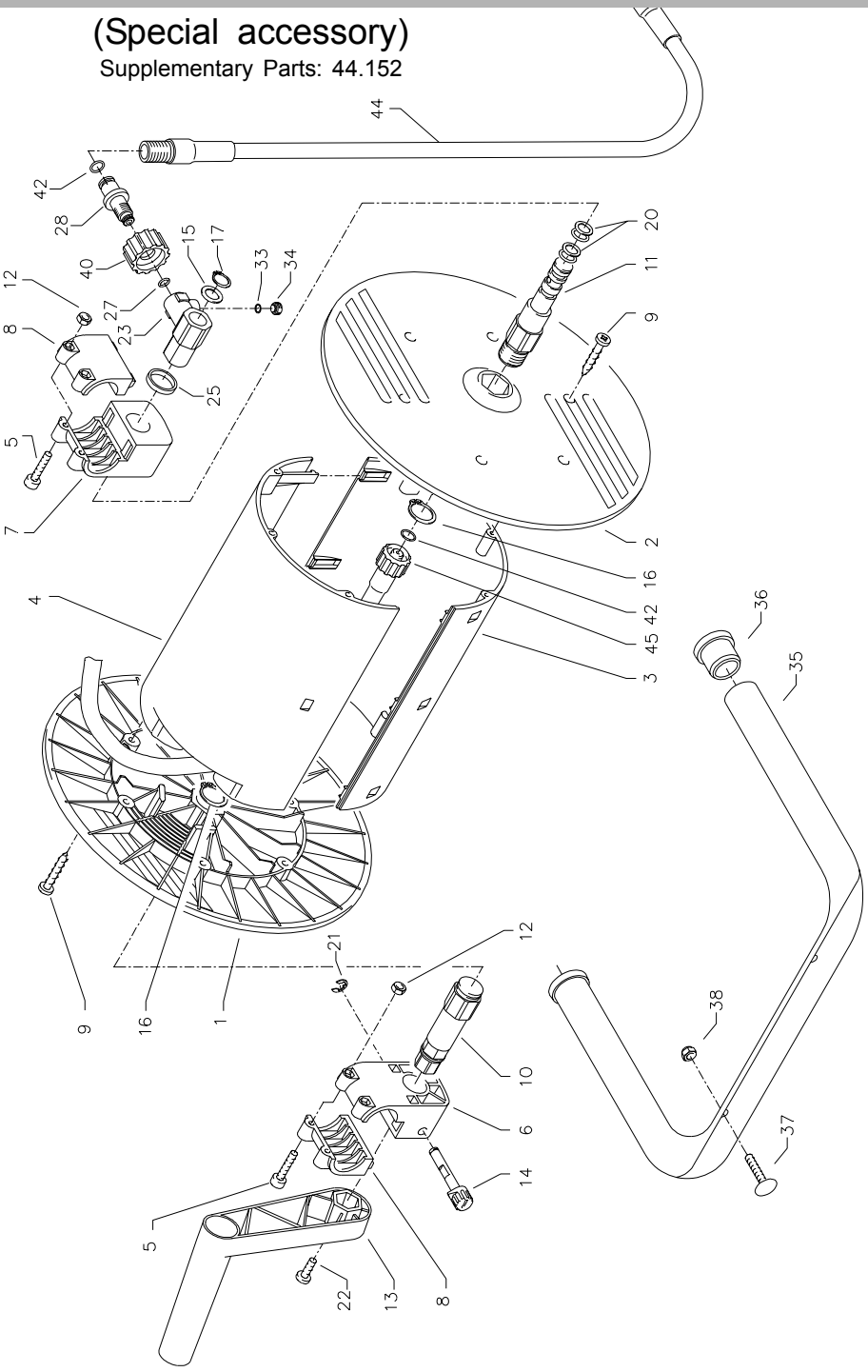


Pos.	Description	Qty	Order No.
1	Ventilkörper mit Handgriff	1	12.294
2	Schutzhülse	1	12.295
3	Abdeckschutz	1	12.296
4	Betätigungshebel	1	12.298
5	Sicherungshebel	1	12.149
6	Abschlußschraube M 16 x1	1	12.247
7	Stopfen	1	12.287
8	Gewindeführungshülse R 1/4" AG	1	12.250
9	Aufsteuerbolzen	1	12.284
10	Stift	1	12.148
11	Lagernadel	1	12.253
12	Edelstahlfeder	1	12.246
13	Edelstahlkugel	1	12.245
14	Edelstahlsitz	1	13.146
15	O-Ring 11 x 1,44	1	12.256
16	O-Ring 3,3 x 2,4	1	12.136
17	Blechschraube 3,9 x 8	4	12.297
18	Druckstück	1	12.252
19	Rohr kunststoffumspritzt bds. R 1/4" AG	1	15.004 5
20	Überwurfmutter ST 30 M22 x 1,5 IG	1	13.276 1
21	Außen-Sechskant-Nippel R 1/4" IG	1	13.277 1
22	O-Ring 9,3 x 2,4	1	13.273
23	Aluminium-Dichtring	4	13.275
24	O-Ring 15 x 1,5	1	12.129 1
25	Sicherungsring	1	12.258
51	Düsenschutz	1	26.002
52	Rohr 500 mm; bds. R1/4"	1	12.385 1
53	ST 30 Nippel M 22 x 1,5 / R1/4" m. ISK	1	13.370
54	Flachstrahldüse 25045 (bei therm 895)	1	D25045
54.1	Flachstrahldüse 2507 (bei therm 1165)	1	D2507
	Starlet-Pistole kpl. mit Verlängerung		**12.320 2**
	Rep.-Satz "Starlet II" bestehend aus je 1x Position: 13, 9, 10, 15, 14		**12.299**

Hose drum

(Special accessory)

Supplementary Parts: 44.152



Spare part list KRÄNZLE therm
Hose reel

Pos.	Description	Qty	Order No.
1	Seitenschale Schlauchführung	1	40.302
2	Seitenschale Wasserführung	1	40.301
3	Trommel Unterteil	1	40.304
4	Trommel Oberteil	1	40.303
5	Innensechskantschraube M 4 x 25	4	40.313
6	Lagerklotz mit Bremse	1	40.306
7	Lagerklotz links	1	40.305
8	Klemmstück	2	40.307
9	Kunststoffschraube 5,0 x 20	12	43.018
10	Antriebswelle	1	40.310
11	Welle Wasserführung	1	40.311
12	Elastic-Stop-Mutter M 4	4	40.111
13	Handkurbel	1	40.309
14	Verriegelungsbolzen	1	40.312
15	Scheibe MS 16 x 24 x 2	1	40.181
16	Wellensicherungsring 22 mm	2	40.117
17	Wellensicherungsring 16 mm	1	40.182

Pos.	Description	Qty	Order No.
20	Parbaks 16 mm	2	13.159
21	Sicherungsscheibe 6 DIN6799	1	40.315
22	Schraube M 5 x 10	1	43.021
23	Drehgelenk	1	40.167
25	Distanzring	1	40.316
27	O-Ring 6,86 x 1,78	1	40.585
28	Anschlußstück	1	40.308
33	O-Ring 6 x 1,5	1	13.386
34	Stopfen M 10 x 1	1	13.385
35	Haltebügel	1	44.143
36	Gummistopfen	2	40.208 1
37	Schloßschraube M 8 x 40	2	44.159
38	Elastic-Stop-Mutter M 8	2	41.410
40	Überwurfmutter	1	13.276 2
42	O-Ring 9,3 x 2,4	4	13.273
44	Verbindungsschlauch NW 8 1 m	1	44.160
45	Hochdruckschlauch NW 8 20 m	1	41.083

NOTES

Hochdruckreiniger
High-pressure-cleaners
Nettoyeurs À Haute Pression

I. Kränzle GmbH
Elpke 97 . 33605 Bielefeld

EC declaration of conformity
as defined by machinery directive 89/392/EEC Annex II A

Herewith we declare that	**Kränzle therm 895, 1165**
complies with the following provisions applying to it	**91/368 EWG Anh. I Nr. 1** **73/23 EWG** **79/113 EWG 81/1051 EWG** **89/336 EWG**
Applied harmonized standards in particular	**EN 292 T 1 und T 2** **EN 60 204 T 1** **EN 50 082-2** **EN 61 000 3-2 3-3**
Applied national technical standards and specifications in particular	**DIN VDE 0700 Teil 265** **DIN EN 60555** **DIN EN 60335-1** **TRD 801** **ZH 1/406**
Notified body [1] within the meaning of Annex VII	**TÜV Hannover**

engaged for [2]
- safe keeping of the file as defined by Annex VI
- verification of correct application of harmonized standards and certification of adequacy of the file as defined by Annex VI
- EC type-examination (EC type-examination certificate No. ...)

Bielefeld, den 10.10.97

Droitsch
(Geschäftsführer)

Inspection Sheet

Custumer:_____

Mixing facility: MEKU
Number of slots: 6
Diameter of hole: 22 mm

All lines connected ☐
Hose clamps tight ☐
Screws all installed and tightened ☐
Ignition cable plugged in ☐
Visual check carried out ☐
Brake function checked ☐

Sealing check:

Float box filled and checked ☐
Water inlet checked for tightness ☐
Float valve function checked ☐
Machine checked for tightness under pressure ☐
Flow controller function checked ☐

Electrical check:

Earth line checked ☐

Current intake

Operating pressure:
Switch-off pressure:

Steam phase checked ☐
Chemical valve checked ☐
Start/Stop automatic and re-run delay checked ☐

Thermostat function checked ☐

Fuel warning switch checked ☐

Burner function checked: ☐

Water temperature reached: | 70 | 72 | 74 | 76 | 78 | 80 | 82 | 84 | 86 | 88 | 90 | °C

Fuel pressure: | 8 | 8,5 | 9 | 9,5 | 10 | 10,5 | 11 | 11,5 | 12 | bar

Measured soot count: | 0 | 1 | 2 | 3 |

Result of emissin analysis:

Safety equipment sealed with lacquer ☐

Name of inspector:_____

Date:_____

Signature:_____

Inspection log

1st Inspection

Performed by **Kränzle as per the inspection record supplied with the machine**

2nd Inspection

_____
Date

Performed by_____
Stamp/signature

3rd Inspection

_____
Date

Performed by_____
Stamp/signature

4th Inspection

_____
Date

Performed by_____
Stamp/signature

5th Inspection

6th Inspection

_____
Date

Performed by_____
Stamp/signature