GB

High Pressure Cleaners

quadro 800
250 bar / 3600 psi TST

quadro 1000
220 bar / 3200 psi TST

quadro 1200
180 bar / 2600 psi TST

quadro 1000
220 bar / 3200 psi TS

quadro 1200
180 bar / 2600 psi TS

Operating manual
Read and conform
safety instructions
before use

Technical data

Technical data	quadro 800 TST	quadro 1000 TST	quadro 1200 TST	quadro 1000 TS	quadro 1200 TS
Operating pressure, steplessly adjustable	30 - 250 bar	30 - 220 bar	30 - 180 bar	30 - 220 bar	30 - 180 bar
Perm. overpressure	270 bar	250 bar	200 bar	250 bar	200 bar
Water output (*1)					
at 0 bar	15 l/min	17,5 l/min	21 l/min	17,5 l/min	21 l/min
at nominal pressure	13,5 l/min	15,6 l/min	19 l/min	15,6 l/min	19 l/min
Nozzle size					
(Flat jet)	2504	2505	2507	2505	2507
(Turbokiller)	045	055	08		
Volume Water tank	16 l	16 l	16 l	16 l	16 l
Max. inlet water temperature to water tank	max. 70 °C	max. 70 °C	max. 70 °C	max. 70 °C	max. 70 °C
Max. temperature for direct suction (*2)	60 °C	60 °C	60 °C	60 °C	60 °C
Direct suction height	2,5 m	2,5 m	2,5 m	2,5 m	2,5 m
Hose drum	yes	yes	yes	no	no
High pressure hose	20 m	20 m	20 m	10 m	10 m
Electrical ratings	400 V/50 Hz 12 A	400 V/50 Hz 12 A	400 V/50 Hz 12 A	400 V/50 Hz 12 A	400 V/50 Hz 12 A
Motor speed adjustm.	1400 U/min	1400 U/min	1400 U/min	1400 U/min	1400 U/min
Connect. wattage inp.	P1: 7,5 kW	P1: 7,5 kW	P1: 7,5 kW	P1: 7,5 kW	P1: 7,5 kW
output.	P2: 5,5 kW	P2: 5,5 kW	P2: 5,5 kW	P2: 5,5 kW	P2: 5,5 kW
Weight (incl. accessories with empty water tank	89 kg	89 kg	89 kg	82 kg	82 kg
Dimensions including handle L x W x H in mm	770 x 570 x 990	770 x 570 x 990	770 x 570 x 990	770 x 570 x 990	770 x 570 x 990
Sound level acc. to 45 635 (rel. to working place)	79 dB	79 dB	79 dB	79 dB	79 dB
with Turbokiller	85 dB	85 dB	85 dB	85 dB	85 dB
Recoil at lance	ap. 20 N	ap. 20 N	ap. 22 N	ap. 20 N	ap. 22 N
Order n°.	40.423	40.421	40.422	40.421 1	40.422 1

Permissible tolerance for figures ± 5 % in acc. with VDMA uniform sheet 24411

(*1) Min. water quantity to be supplied to the high pressure cleaner! (1-8 bar admission pressure)

(*2) Direct suction is possible through by-passing of water tank! (see page 5)

Description

Dear customer

We would like to congratulate you on your new high pressure cleaner with integrated water tank and to thank you for the purchase.

To ease your introduction to the use of the cleaner, we have provided the following pages of explanations, tips and hints, which we ask you to read before using for the first time.

The equipment will assist you professionally in all cleaning tasks, e.g.:

- facades
- flagstones
- terraces
- vehicles of all types
- containers
- machines etc.
- barrels and containers
- channels

Contents

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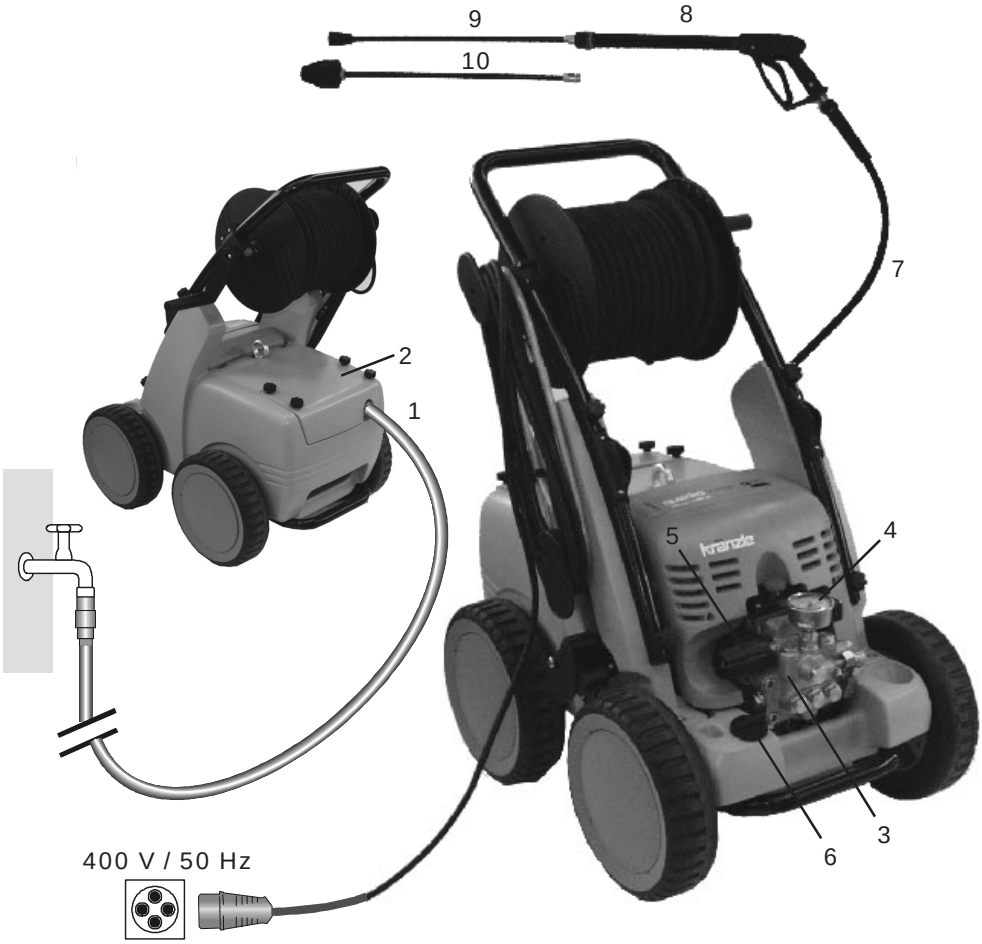
Description



Construction

The KRÄNZLE quadro 800 TST, 1000 TST and 1200 TST TST high pressure cleaners are mobile machines with hose drum and 20m industrial hose. The KRÄNZLE quadro 1000 TS und 1200 TS - high pressure cleaners are mobile machines without hose drum, however with 10m industrial hose. The schematic principle can be seen from the illustration.

Components

1 Water inlet connection with filter
2 Cover for water tank
3 High pressure pump
4 Press. gauge with glycerin filling
5 Unloader valve - safety valve
6 Detergent valve
7 High pressure hose
8 Spray gun
9 Interchangeable lance with Turbokiller
10 Interchangeable lance with flat jet nozzle and nozzle protection

Description

Water system

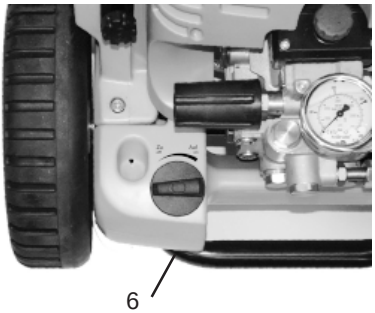
The water must be lead to the high pressure cleaner under pressure (1 – 8 bar admission pressure). A float valve regulates the water inlet. Then, the water is sucked by the high pressure pump from the water tank and supplied to the lance under the set pressure. The high pressure jet is formed by the nozzle at the end of the lance.

Detergent and caring system

The high pressure pump can also suck a detergent/caring agent and mix it with the high pressure jet. The additive is sucked through the pump and brought in with the set pressure.

Insert the detergent hose into the detergent container and open the detergent valve (6).

The detergent discharges with the water at the high pressure nozzle.



Open the dosing valve, if the chemistry sieve is placed in a liquid. Sucked air leads to destruction of the pump seals!!!

The rules concerning the environment, refuse and ground water protection must be complied with!

Lance with spray gun

The machine can only be operated when the safety trigger is squeezed.

When the lever is squeezed, the spray gun opens. The liquid is then pumped to the nozzle. The spray pressure increases and quickly reaches the selected operating pressure.

When the trigger is released, the trigger gun closes and any further spraying of liquid from the lance is stopped and the manometer must show 0 bar.

The increase in pressure when the trigger gun is closed causes the unloader valve-safety valve to open. The pump remains switched on and continues to pump liquid through the pump at reduced pressure. When the spray gun is opened, the unloader valve - safety valve closes and the pump ressumes spraying from the lance with the selected operating pressure.

The spray gun is a safety device. Repairs should only be performed by qualified persons. Should replacement parts be required, use only components authorized by the manufacturer.

Description

High pressure hose and spraying device

The high pressure hose and spraying device supplied with the machine are made of high grade material. They are also optimized for the machine and marked as required by the appropriate regulations.

If replacement parts are required, only such parts that are authorized by the manufacturer and which bear the markings required by the appropriate regulations may be used. The high pressure hose and spraying device must be connected in a pressure-tight manner.
The high pressure hose may not be driven over, pulled excessively or twisted. Hose lines are wear parts. Guarantee is accepted only for manufacturing errors, not for external damages.

High pressure hose lines and spraying equipment must not be repaired, but replaced by a new hose or spraying equipment.

Unloader valve - safety valve

The unloader valve - safety valve protects the machine from a build up of excess pressure, and is designed not to permit an excess pressure to be selected for operation. The limit nut on the handle is sealed with a spray coating.

The operating pressure and spray rate can be steplessly adjusted by turning the handle.
Replacements, repairs, new adjustments and sealing should only be performed by qualified persons.

Delayed motor cut-out

Frequent, work-necessitated switching on and off of motors on machines of this size puts a heavy load on the power network and causes increased wear on internal electrical parts. Therefore the motor of the new KRANZLE device only switches off 30 seconds after closing the gun and then goes to stand still. By opening the gun, the device is started again.

Safety cut-out

If the device is accidentally not turned off after use or the pistol is not used for 20 minutes, the device automatically goes into the safety state via deactivating. By operating the main switch again, the device is activated again.

Replacements and inspection work should only be performed by qualified persons when the machine is disconnected from the power supply, i.e. the plug pulled out from the electrical socket.

Setting up

Location

Neither set up and operate the machine in rooms where there is a risk of fire or explosion nor put it into puddles. Do not use the machine under water. The device must not stand in the spray area of the high pressure jet.

CAUTION !

Never suck in liquid containing solvents such as paint thinners, petrol, oil or similar liquid matter. Pay attention to the instructions of the manufacturers of the cleaning agents. The seals in the machine are not resistant to solvents! The spray of solvents is inflammable, explosive and poisonous.

CAUTION !

When running your high pressure cleaner with hot water of 70° C raised temperatures occur. Do not touch the machine without safety gloves!

Electrical connection

The machine is supplied with an electrical power cord with plug.

The mains plug must be fitted to a standard grounded socket with a 30 mA residual current operated device. The socket must be protected with a 16A delay action fuse on the mains side.

KRÄNZLE quadro = 400 Volt / 50 Hz (phase-sequence not significant)

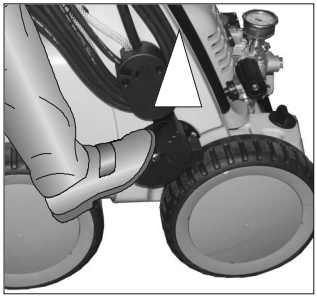
When using an extension cable, this must have a grounded lead which is properly connected to the socket. The conductors in the extension cable must have a minimum cross section of 1.5 mm². Plug connections must be of a spray-proof design and may not be located on a wet floor.

CAUTION !

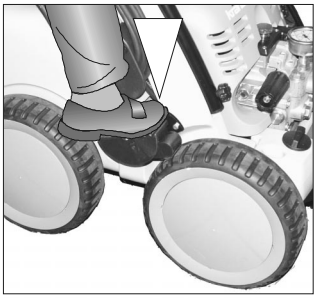
The use of extension cables which are too long may lead to malfunctions and start up difficulty.

When using a cable drum, always keep the cable wound as far as possible.

Brake



Brake applied



Brake not applied

Brief operating instructions

1. Connect high pressure hose with spray gun.
2. Connect to suitable water supply.
3. Connect current - (400 Volt three-phase current)
4. Switch on machine and start cleaning.
5. After having completed the cleaning process, put main switch in zero position and by opening the gun, reduce the pressure in the high pressure hose.

   Then, the high pressure hose can be rolled up

   - Only use clean water ! Protect from frost !

CAUTION !

Please pay attention to the regulations of your waterworks company.

Because of the water tank, the device can be connected to any drinking water line without worries.

This is what you've purchased:

1. Turbokiller

   Lance with nozzle protection and high pressure nozzle
   Flat jet 25°

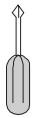
2. Spray gun Starlet with insulated grip and screw connection

3. KRÄNZLE - High pressure cleaners
   quadro 800 TST, 1000 TST and quadro 1200 TST with hose drum
   quadro 1000 TS and quadro 1200 TS without hose drum

4. Operating instructions

5. High pressure hose, 20 m NW 8 on hose drum

6. Crank for hose drum



7. Crosstip screwdriver

Fixing screw for crank

8. Water inlet part
   (filter is already installed)

Remove the screw from the drive shaft of the hose drum. Unpack the crank and insert it onto the hexagon head. Tighten the crank again with the screw.

To check the oil level, loosen the oil cover screw and take out the oil dip stick. The oil level must be between the two markings.

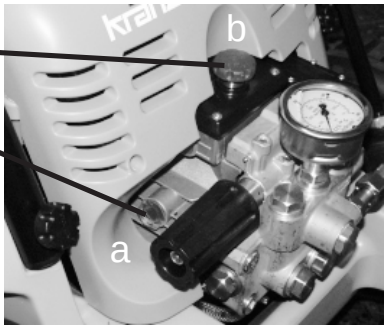
To control the high pressure cleaner put
1. the foot against the tilt bases and then pull the device
2. towards you.

Preparation for use

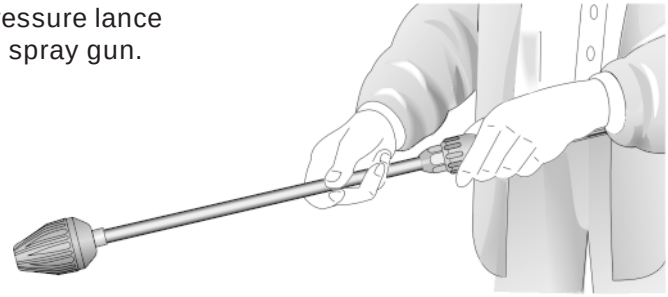
1. Check oil level.
   There are two possibilities for checking the oil level of the pump:

a) Oil must be visible in the viewing window

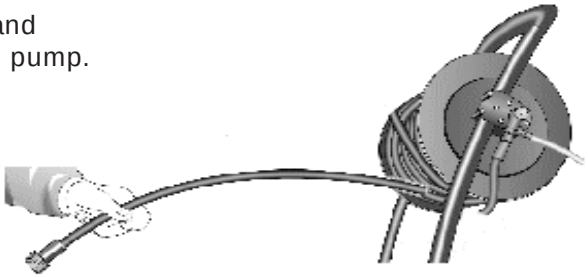
b) The oil state must be between the two markings on the oil measuring rod.

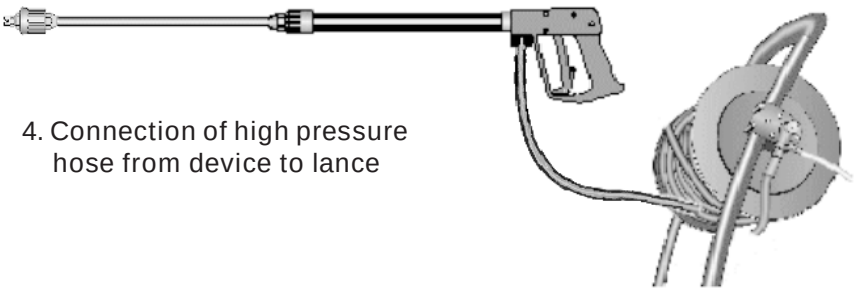


2. Connect the high pressure lance or Turbokiller to the spray gun.



3. Unroll hose without kinks and connect with handgun and pump. Use max. 20 m HP hose.



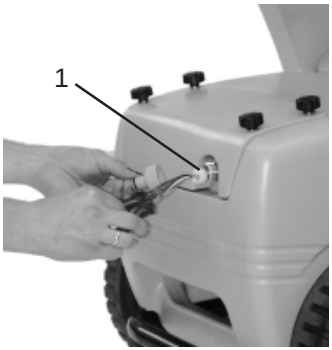


4. Connection of high pressure hose from device to lance

5. The machine must be connected to the water line with cold water or up to 70° C warm water (see page 2).

   The hose cross section must be at least 3/4" = 16 mm (free passage). Filter 1 must always be clean.

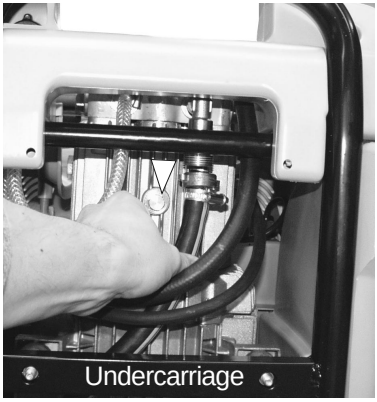
   Please make sure that the filter is clean before using your high pressure cleaner.



CAUTION !

When running your high pressure cleaner with hot water of 70° C raised temperatures occur.
Do not touch the pump without safety gloves!

External suction

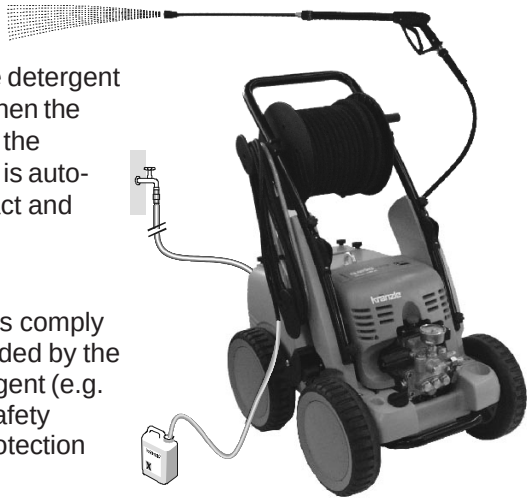


If water is to be sucked from an external container for the high pressure cleaner, the connection hose between the high pressure pump and the water tank must be screwed off and the suction hose must be connected directly to the pump.

Make sure that the water is clean. Use the Kränzle suction hose with suction filter. (Order N°. 15.038 3)

Maximum suction height 2.5 m, maximum water temperature for direct suction: 60°C
(see technical data on page 2)

When using detergents:



Put chemistry sieve number 5 into the detergent container. Open the detergent valve, then the detergent is sucked in. When closing the detergent valve, the chemistry supply is automatically closed. Allow detergent to act and then wash off. (see page 5).

Note that you must always comply with the instructions provided by the manufacturer of the detergent (e.g. instructions concerning safety clothing) and the water protection regulations!

To shut down the pump:

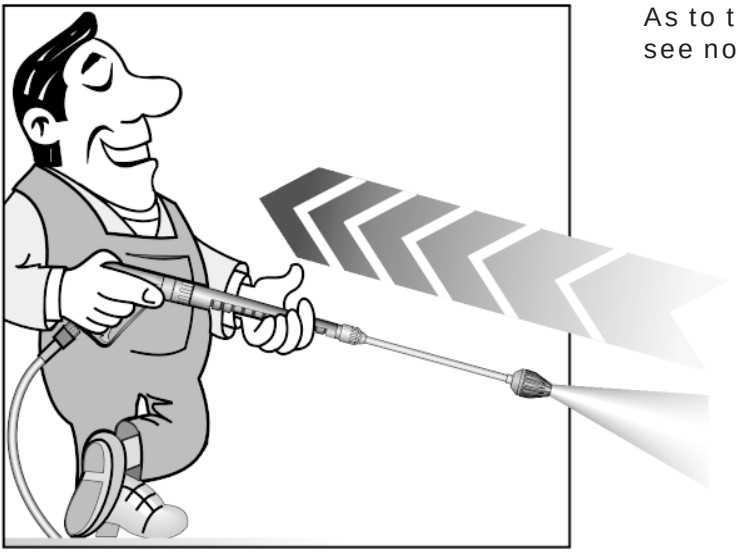
1. Switch off the machine. Device switch to „0“ position.
2. Cut off the water supply.
3. Open the spray gun briefly until the pressure is released.
4. Apply the safety catch on the spray gun.
5. Remove the water hose and spray gun.
6. Pull the plug from the socket.
7. Winter: store the pump in rooms above 0°C.
8. Clean the water filter.

Frost protection

Normally after operation, there is still some water in the device. Thus, you must take special measures to protect the device from frost.

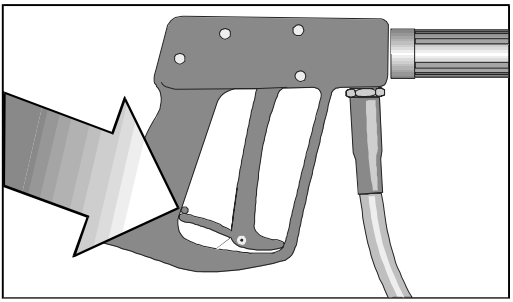
- Completely drain the device
  For this purpose, separate the device from the water supply. Then, turn on the main switch and open the gun. Now, the pump presses the remaining water from the water tank and the pump. However, do not allow the device to operate without water for longer than one minute.
- Fill the device with antifreeze agent
  If the device is not operated for longer periods, especially over the winter, you should pump an antifreeze agent through the device. For this purpose, fill the anti freeze agent into the water box and turn on the device. Wait with opened gun, until the agent comes from the nozzle.

However, the best way to protect the device from frost is to store it at a frost-free location.



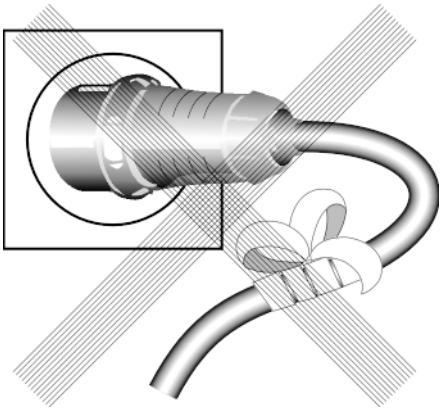
As to the recoil -
see notice on page 2!

Apply the safety catch on the spray gun after each use, in order to prevent unintentional spraying!

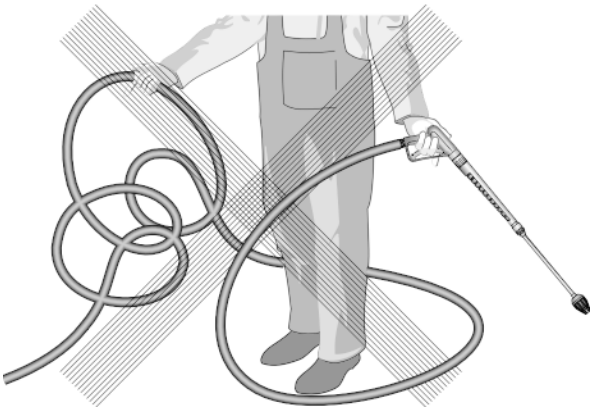


This is prohibited !

Never direct the water jet at people or animals !



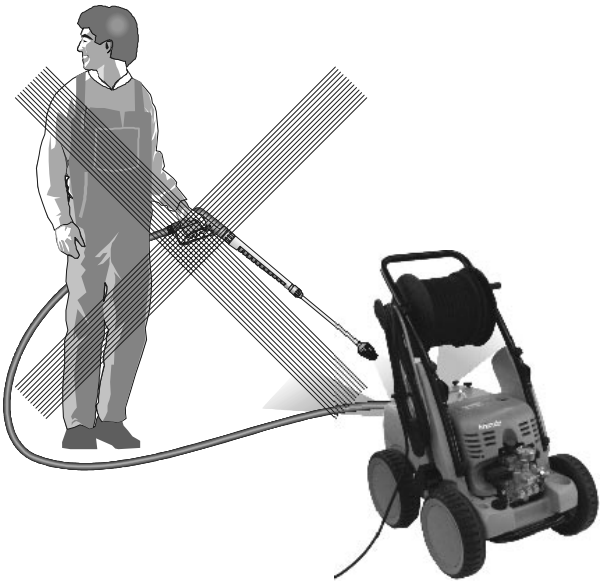
Do not damage the power cord or repair it incorrectly !



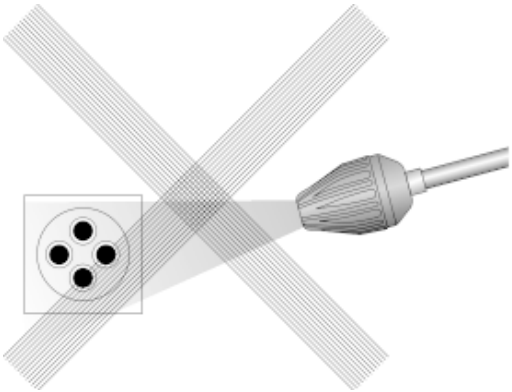
Never pull the high pressure hose if it has formed kinks or “nooses”!
Never pull the hose over sharp edges !

This is prohibited !

Never allow children to use the high pressure cleaner !



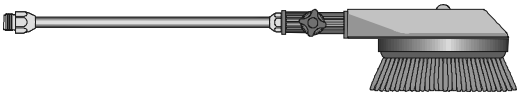
Never direct the water jet at the machine itself !



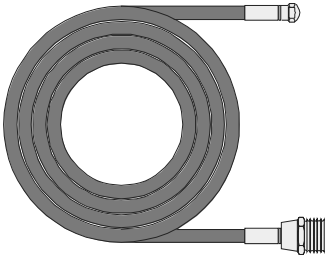
Never direct the water jet at a power socket !

Additional accessories for ...
(on demand)

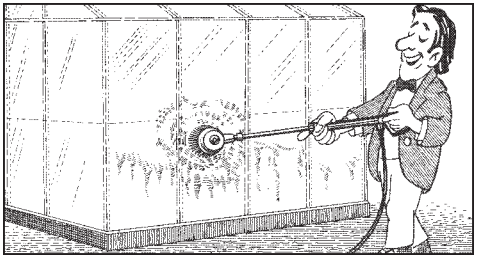
Rotary scrubbing brush
Order No. 41.050 1



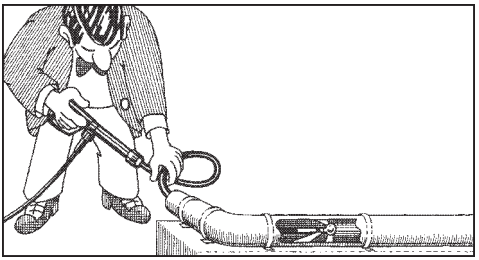
Drain and pipe cleaning hose
10 m - Order No. 41.058.1
15 m - Order No. 41.058



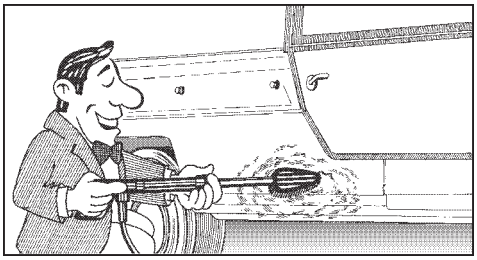
Environmental, refuse disposal and water protection regulations must be observed when using the accessories!



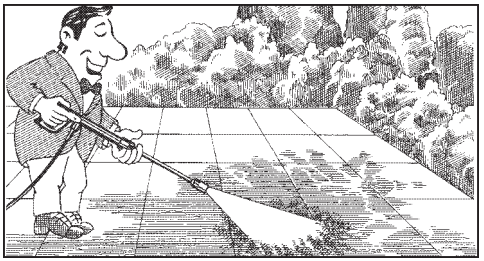
Car cleaning, glass, caravan, boat etc.: rotary washing brush with 40 cm extension and ST 30 nipple M22 x 1.5



Cleaning pipes, channels and drains: pipe cleaning hose with KN nozzle and ST 30 nipple M22 x 1.5



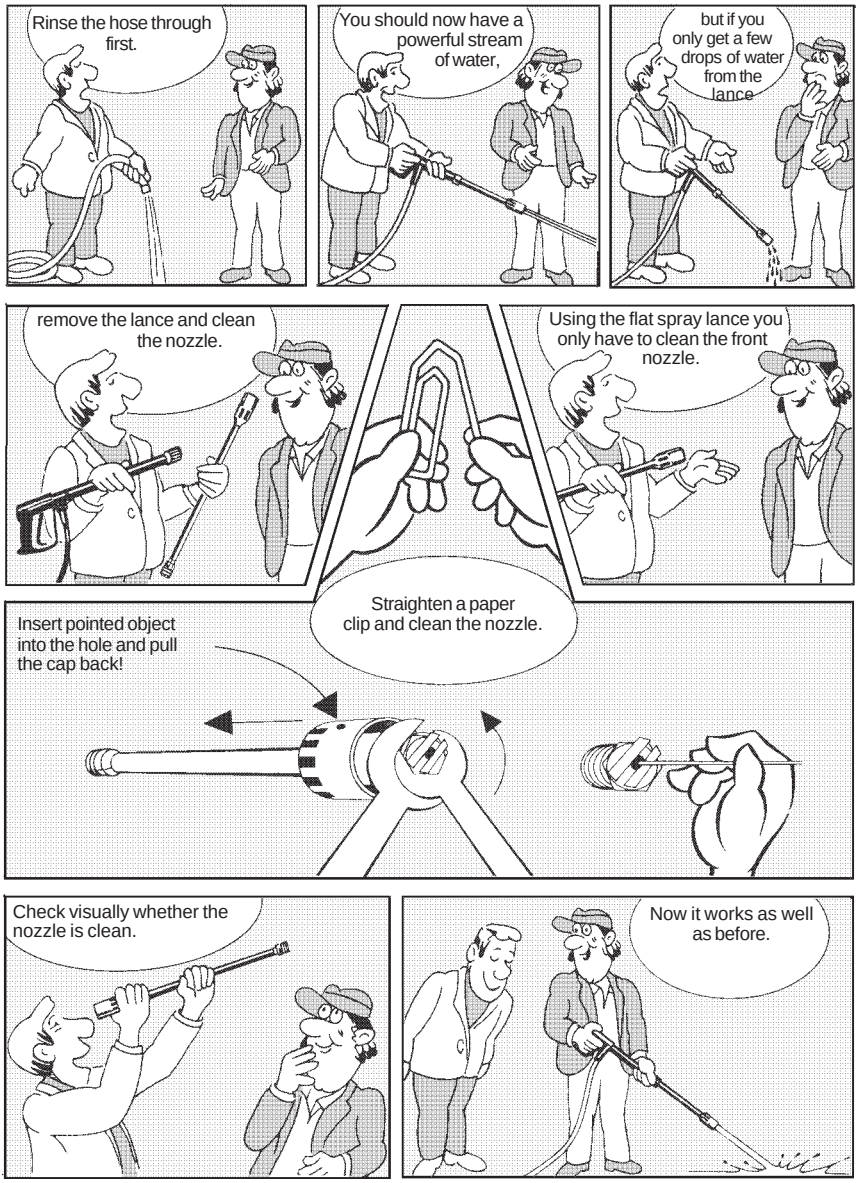
Cleaning cars and all smooth surfaces: brush with ST 30 nipple M22 x 1.5



Rotary point sprayer for extreme soiling: Turbokiller with 40 cm extension and ST 30 nipple M22 x 1.5

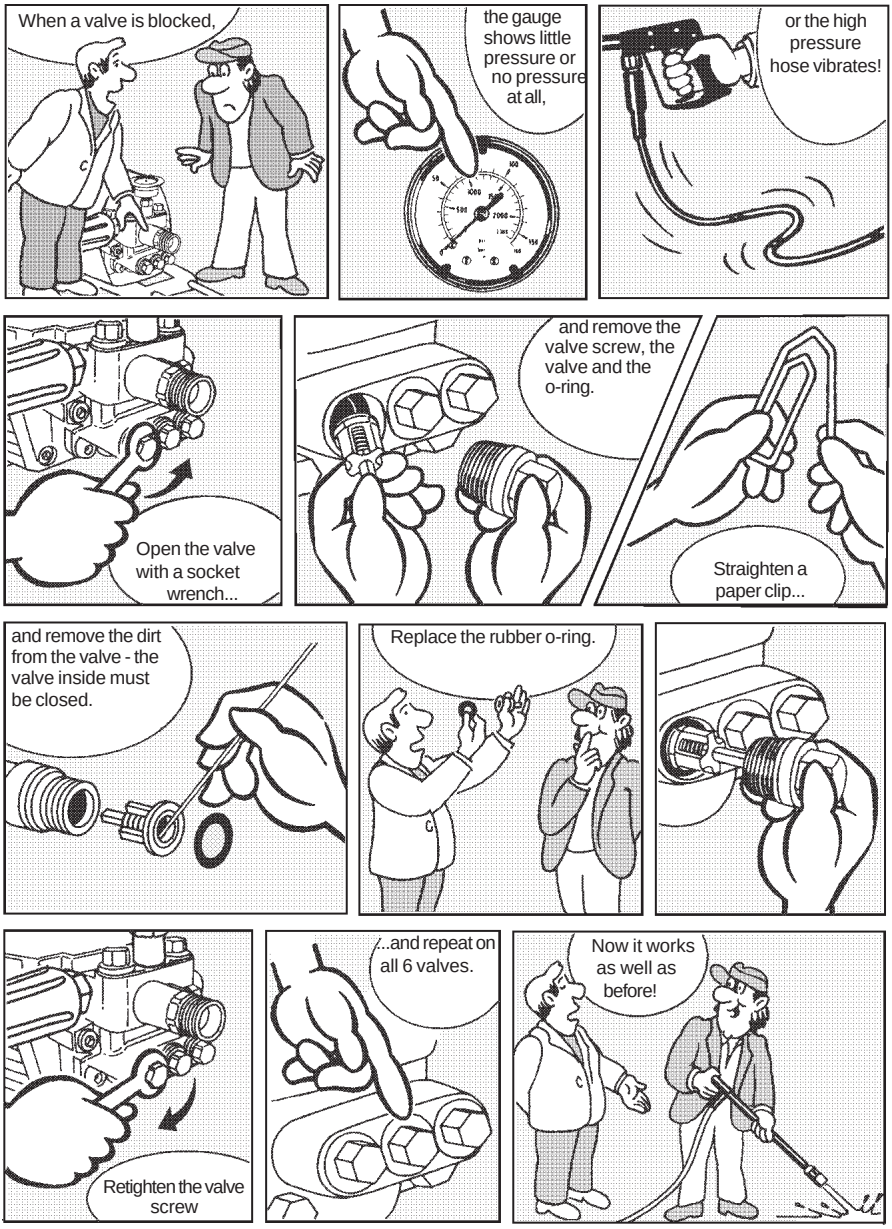
The nozzle is blocked!

● No water but the gauge shows full pressure !

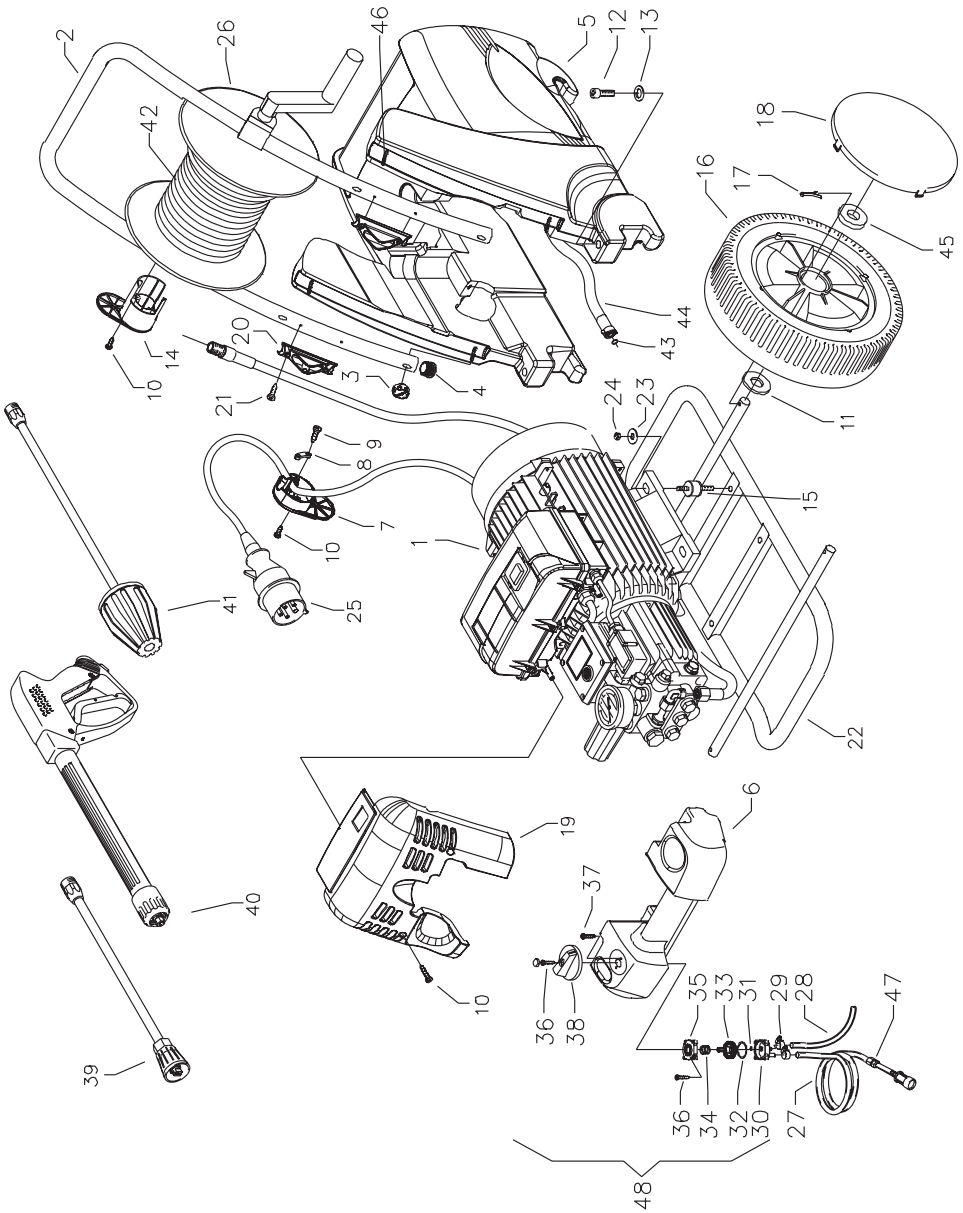


Nozzle dirty or sticky!

- Pressure gauge does not show full pressure
- The high-pressure hose vibrates
- Water comes out in spurts.
- If you do not use the high-pressure cleaner for some time the valves can stick



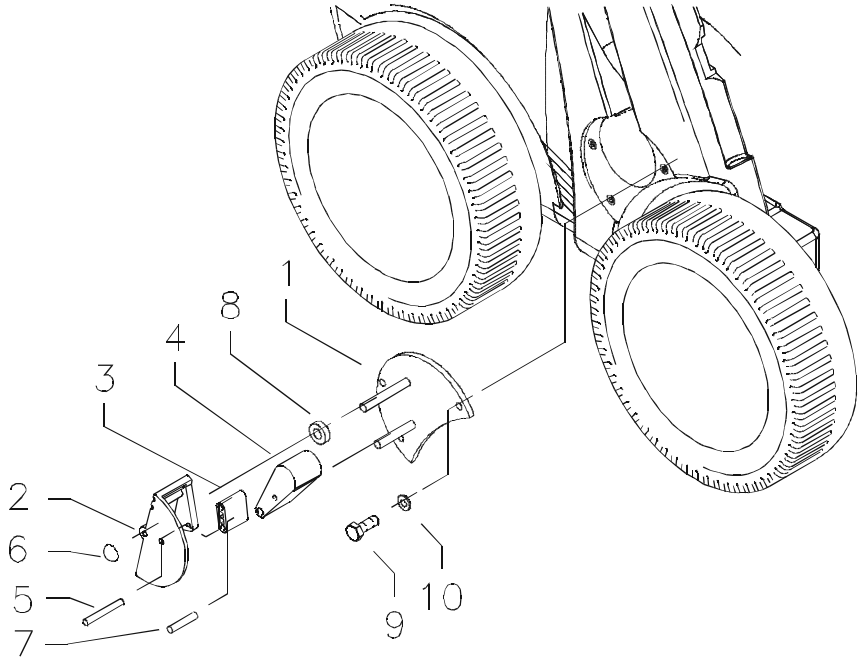
Complete Assembly



Spare parts list KRÄNZLE quadro 800 TST - 1200 TST
Complete Assembly

No	Description	Qty.	Ord.-No
1.1	Motor-Pumpe für quadro 800 TST ohne Elektrik	1	42.622 1
1.2	Motor-Pumpe für quadro 1000 TST ohne Elektrik	1	42.622 2
1.3	Motor-Pumpe für quadro 1200 TST ohne Elektrik	1	42.622 3
2	Schubbügel	1	42.601
3	Sterngriffmutter M8	4	42.619
4	Stopfen	2	42.613
5	Wasserkasten	1	42.603
6	Lanzenablage	1	42.604
7	Kabelaufwicklung unten	1	42.611
8	Zugentlastung	1	43.431
9	Blechschraube 3,5 x 12	2	40.290
10	Kunststoffschraube 5,0 x 25	6	41.414
11	Scheibe 21 DIN125	12	40.207
12	Schraube M8x50 DIN912	2	42.620
13	Scheibe 8,4 DIN125	2	50.186
14	Kabelaufwicklung oben	1	42.612
15	Gummipuffer 25 x 25	4	44.227
16	Rad	4	44.017
17	Splint 5x28 DIN94	4	42.614
18	Radkappe	4	44.018
19.1	Frontplatte quadro 800 TST	1	42.609 1
19.2	Frontplatte quadro 1000 TST	1	42.609 2
19.3	Frontplatte quadro 1200 TST	1	42.609 3
20	Lanzenhalter	2	42.610
21	Blechschraube 3,5x16 DIN7981	4	44.161
22	Fahrgestell	1	42.602
23	Scheibe 8,4 DIN9021	4	41.409

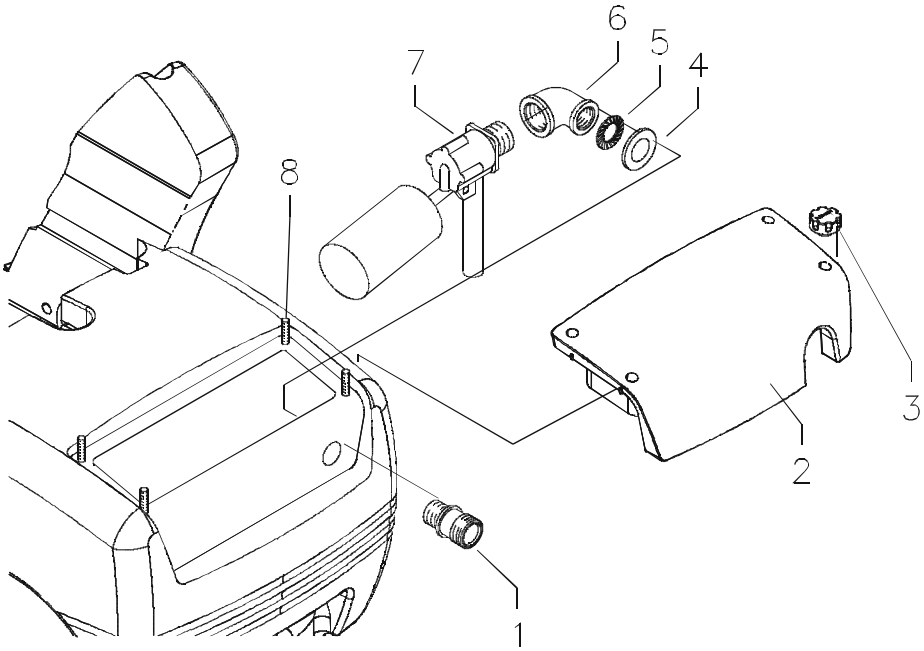
No	Description	Qty.	Ord.-No
24	Elastic-Stop-Mutter M8	4	41.410
25	Netzanschlußkabel 8 m	1	44.036
26	Schlauchtrommel kpl.	1	41.259 6
27	Chemiesaugschlauch (Gewebe) mit Filter	1	42.621
28	Gewebeschlauch 0,4m	1	42.622
29	Schlauchklemme 9 - 9	2	44.054
30	Gehäuse Waschmittelventil	1	44.145
31	O-Ring 5 x 1,5 (Viton)	1	44.150
32	O-Ring 28,24 x 2,62	1	44.149
33	Regulierkolben Chemieventil	1	44.147
34	Edelstahlfeder 1,8 x 15 x 15	1	44.148
35	Deckel für Chemieventil	1	44.146
36	Blechschraube 3,5 x 16	3	44.161
37	Blechschraube 3,5 x 19	2	44.162
38	Drehgriff Chemieventil mit Blendkappe	1	44.151
39.1	Lanze mit Flachstrahldüse für 800 TST	1	12.392 2-2504
39.2	Lanze mit Flachstrahldüse für 1000 TST	1	12.392 2-2505
39.3	Lanze mit Flachstrahldüse für 1200 TST	1	12.392 2-2507
	Please specify nozzle size:		
40	Starlett -Pistole mit Verlängerung	1	12.320 2
41.1	Turbo-Killer 045 bei quadro 800 TST	1	41.072 3
41.2	Turbo-Killer 055 bei quadro 1000 TST	1	41.072 4
41.3	Turbo-Killer 08 bei quadro 1200 TST	1	41.072 8
42	Hochdruckschlauch 20 m NW8	1	41.083
43	O-Ring 13 x 2,6	2	13.272
44	Verbindungsschlauch	1	42.625
45	Scheibe 8mm für Rad	4	44.246
46	Gewindestift M6x55	4	42.617 2
47	Rückschlagventil für Chemiesaugschl.	1	44.240
48	Chemieventil Kpl. Pos. 30-37	1	44.052



Spare parts list KRÄNZLE quadro 800 TST - 1200 TS
Brake

No	Description	Qty.	Ord.-No
1	Grundplatte	1	42.615
2	Bremspedal	1	44.022
3	Bremshebel	1	44.023
4	Bremsklotz	1	44.024
5	Stift 6 x 50	1	44.035
6	Starlock-kappe 8 mm	1	44.165
7	Stift 6 x 40	1	44.035 1
8	Distanzring	2	42.626
9	Sechskantschraube M6x16	3	50.173
10	Unterlegscheibe DIN125-6,3	3	50.189

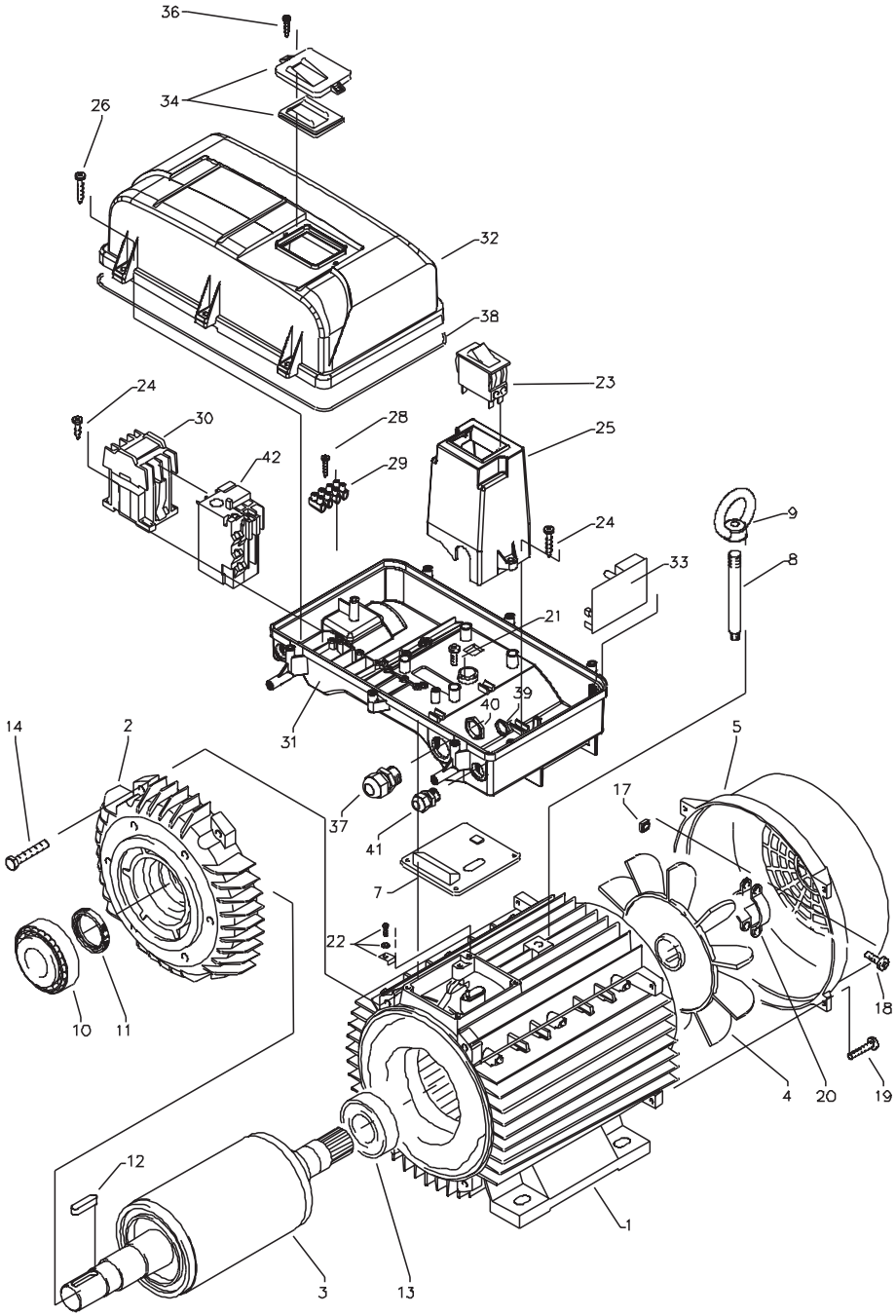
Water inlet



Spare parts list KRÄNZLE quadro 800 TST - 1200 TS
Water inlet

No	Description	Qty.	Ord.-No
1	Eingangsteil	1	42.627
2	Revisionsdeckel	1	42.605
3	Sterngriffmutter M8	4	42.619
4	Scheibe DIN125-21	1	40.207
5	Schnorrsicherung S20	1	14.150 1
6	Winkel R3/8“ IG x R3/4“ IG	1	42.628
7	Schwimmerventil	1	42.629
8	Gewindestift M6x40	4	42.617 1

Pump motor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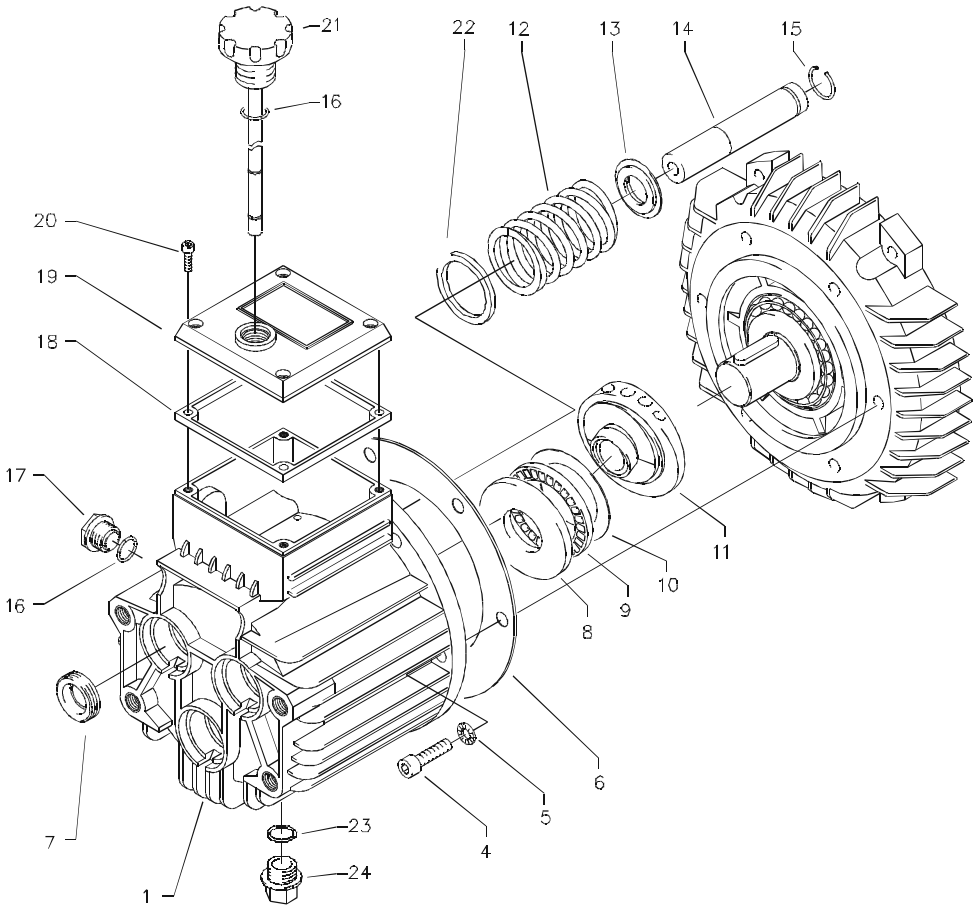
Spare parts list KRÄNZLE quadro 800 TST - 1200 TS
Pump motor

No	Description	Qty.	Ord.-No
1	Stator 112 5,5kW 400V / 50Hz	1	40.540
2	A-Lager Flansch	1	40.530
3	Rotor 112 (400V / 50Hz)	1	40.531
4	Lüfterrad für BG 112	1	40.532
5	Lüfterhaube BG 112	1	40.533
7	Flachdichtung	1	43.030
8	Stehbolzen für Kranhaken	1	42.616
9	Ringmutter DIN582-M12	1	42.618
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
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 112	2	40.535
21	Schraube M 4 x 12	4	41.489
22	Erdungsschraube kpl.	1	43.038
23	Schalter 14,5 A Amazonas	1	41.111 6
24	Kunststoffschraube 4,0 x 16	6	43.417
25	Bock für Schalter	1	42.608
26	Kunststoffschraube 5,0 x 25	6	41.414
28	Kuststoffschraube 3,5 x 20	2	43.415
29	Lüsterklemme 5-pol.	1	43.326 1
30	Schütz CA3-12-10 3x400V 50/60 Hz	1	44.057
31	Schaltkasten Unterteil	1	42.606
32	Schaltkasten Deckel	1	42.607
33	Steuerplatine Abschaltverz. 400V / 50Hz	1	42.503
34	Klemmrahmen mit Schalterabdichtung	1	43.453
36	Blechschraube 3,5 x 16	2	44.161
37	PG 16-Verschraubung	1	41.419 1
38	Dichtung für Schaltkastendeckel	1	42.525
39	Gegenmutter für PG9-Verschraubung	1	41.087 1
40	Gegenmutter für PG16-Verschraubung	1	44.119
41	PG 9 - Verschraubung	1	43.034
42	Überstromauslöser CT 3-12	1	44.058
	Motor compl. without switch	1	24.060
	Set of cables compl. consisting of 10 single cables	1	42.537

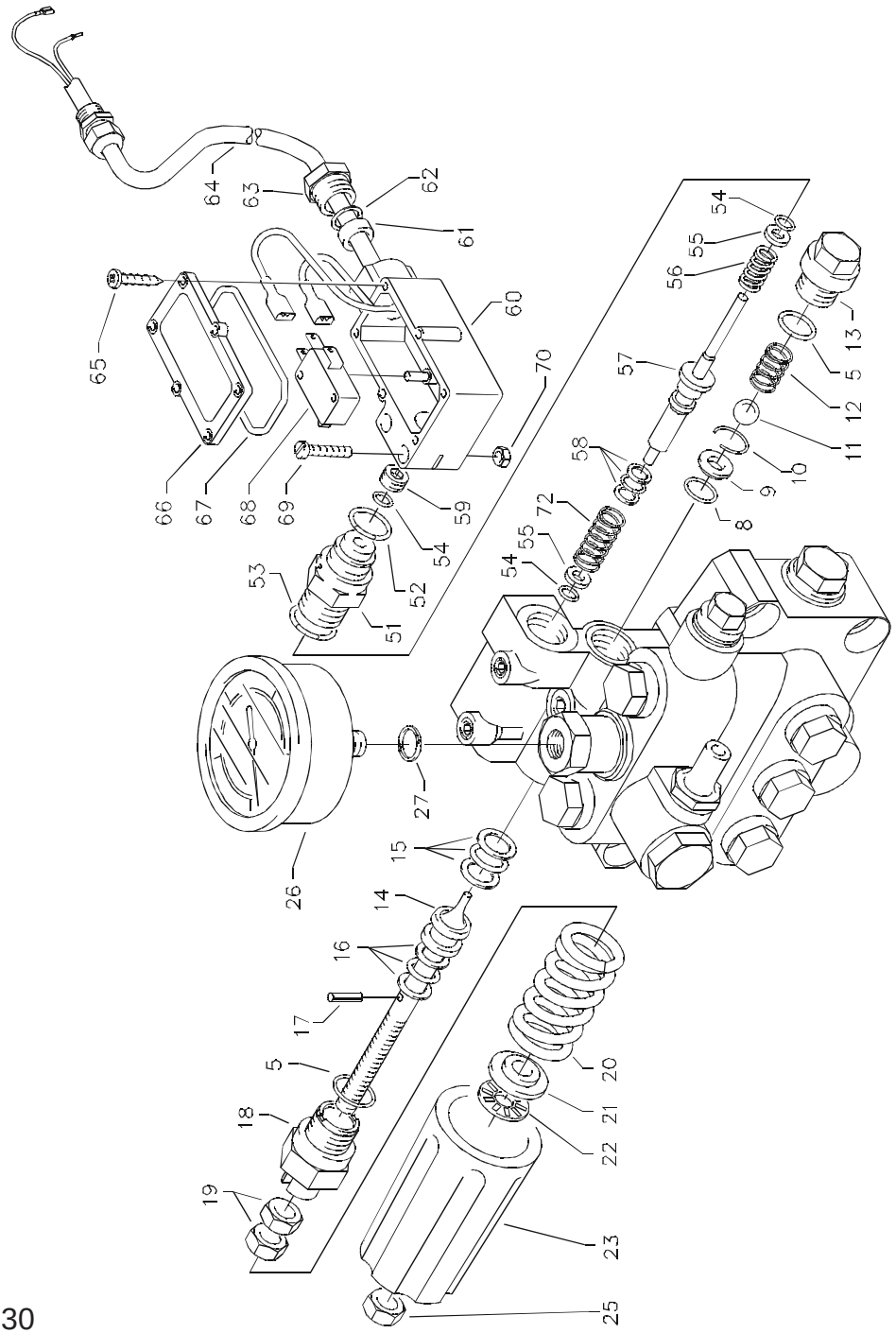
Transmission unit



Spare parts list KRÄNZLE quadro 800 TST - 1200 TST
Pump transmission unit for AQ-Pump

No	Description	Qty.	Ord.-No
1	Ölgehäuse	1	40.501
4	Innensechskantschraube M 8 x 30	6	41.036 1
5	Sicherungsscheibe	6	40.054
6	Flachdichtung	1	40.511
7	Öldichtung 20 x 30 x 7	3	40.044 1
8	Wellenscheibe	1	40.043
9	Axial-Rollenkäfig	1	40.040
10	AS-Scheibe	1	40.041
11.1	Swash plate AQ 9,5° for quadro 800 TST	1	40.042 1-9,5
11.2	Swash plate AQ 10,4° for quadro 1000 TST + 1000 TS	1	40.042 1-10,4
11.3	Swash plate AQ 12,75° for quadro 1200 TST + 1200 TS	1	40.042 1-12,75
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	Ölschauglas	1	42.018
18	Flachdichtung	1	41.019 3
19	Deckel flach für Ölgehäuse	1	41.023 1
20	Innensechskantschraube M 5 x 12	4	41.019 4
21	Stopfen M 18 x 1,5 mit Ölmeßstab	1	42.623
22	Stützscheibe für Plungerfeder	3	40.513
23	O-Ring	1	43.445
24	Verschlußstopfen R 3/8“	1	40.051

Unloader valve and pressure switch



Spare parts list quadro 800 TST - 1200 TST
Unloader valve and pressure switch

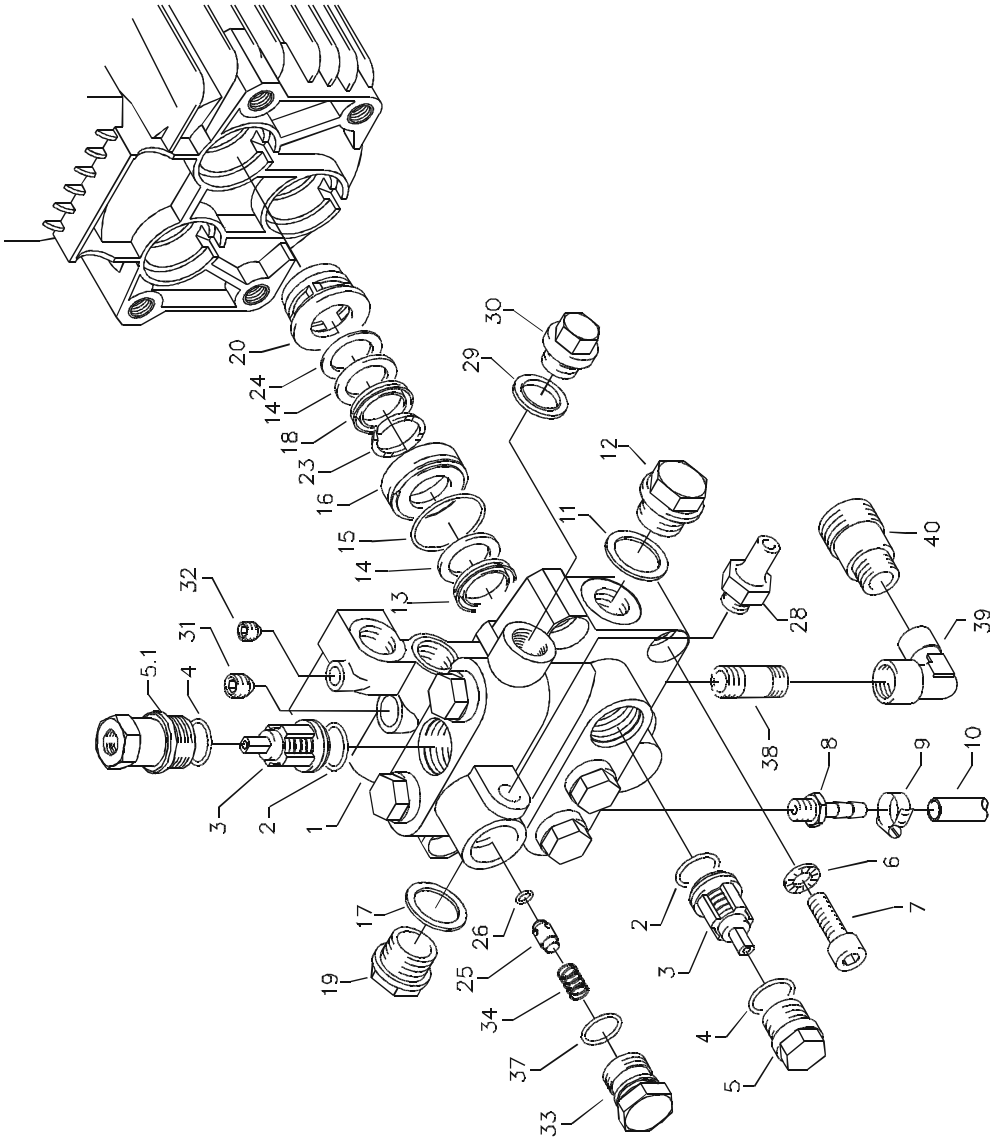
No	Description	Qty.	Ord.-No
5	O-Ring 16 x 2	2	13.150
8	O-Ring 11 x 1,44	1	12.256
9	Edelstahlsitz	1	14.118
10	Sicherungsring	1	13.147
11	Edelstahlkugel	1	13.148
12	Edelstahlfeder	1	14.119
13	Verschlußschraube	1	14.113
14	Steuerkolben	1	14.134
15	Parbaks 16 mm	1	13.159
16	Parbaks 8 mm	1	14.123
17	Spanstift	1	14.148
18	Kolbenführung spezial	1	42.105
19	Kontermutter M 8 x 1	2	14.144
20	Valve spring red for quadro 800	1	14.125 1
20.1	Valve spring black for quadro 1000 and 1200	1	14.125
21	Federdruckscheibe	1	14.126
22	Nadellager	1	14.146
23	Handrad	1	14.147
25	Elastic-Stop-Mutter M 8 x 1	1	14.152
26	Manometer 0-400 Bar	1	15.039 4
27	Aluminium-Dichtring	2	13.275
51	Führungsteil Steuerstößel	1	15.009 1
52	O-Ring 12,3 x 2,4	1	15.017
53	O-Ring 14 x 2	1	43.445
54	O-Ring 3,3 x 2,4	3	12.136

No	Description	Qty.	Ord.-No
55	Stützscheibe	2	15.015
56	Edelstahlfeder	1	15.016
57	Steuerstößel	1	15.010 2
58	Parbaks	1	15.013
59	Stopfen M 10 x 1 (durchgebohrt)	1	13.385 1
60	Gehäuse Elektroschalter	1	15.007
61	Gummimanschette PG 9	1	15.020
62	Scheibe PG 9	1	15.021
63	Verschraubung PG 9	1	15.022
64	PVC-Kabel 2x 1,0 mm²	1	42.505
65	Blechschruabe 2,8 x 16	6	15.024
66	Deckel Elektroschalter	1	15.008
67	O-Ring 44 x 2,5	1	15.023
68	Mikroschalter	1	15.018
69	Zylinderschraube M 4 x 20	2	15.025
70	Sechskant - Mutter M 4	2	15.026
72	Druckfeder 1 x 8,6 x 30	1	40.520

Repair kits:

Repair kit Pressure switch 1x Pos. 51, 1x Pos. 52, 1x Pos. 53, 3x Pos. 54, 1x Pos. 55, 1x Pos. 56, 1x Pos. 57, 1x Pos. 58, 1x Pos. 59	15.009 3
Pressure switch compl. No. 54 - 70	41.300 5

Valve housing



Spare parts list KRÄNZLE quadro 800 TST - 1200 TST
Valve housing for integrated AQ-pump

No	Description	Qty.	Ord.-No
1	Ventilgehäuse AQ mit integr. UL und Druckschalter	1	40.503 5
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	5	42.026
5.1	Ventilstopfen mit R 1/4" IG	1	42.026 2
6	Sicherungsring	4	40.032
7	Innensechskantschraube M 12 x 45	4	40.504
8	Schlauchnippel R3/8“ x 8	1	
9	Schlauchschelle 7 - 10	1	44.054
10	Chemiesaugschlauch mit Filter	1	42.621
13	Gewebemanschette	3	40.023
14	Backring 20 mm	6	40.025
15	O-Ring 31,42 x 2,62	3	40.508
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
23	Druckring 20 mm	3	40.021
24	Zwischenring 20 mm	3	40.516
25	Rückschlagkörper	1	14.122
26	O-Ring 6 x 3	1	14.121

No	Description	Qty.	Ord.-No
28	Verschraubung Ermeto R 1/4" x 8L	1	41.042
29	Dichtring 17 x 22 x 1,5 (Kupfer)	1	40.019
30	Stopfen 3/8"	1	40.018
31	Dichtstopfen M 10 x 1	1	43.043
32	Dichtstopfen M 8 x 1	2	13.158
33	Ausgangsteil	1	42.161
34	Rückschlagfeder	1	14.120
37	O-Ring 18 x 2	1	43.446
38	Messingrohr bds. R3/8“	1	41.628
39	Winkel 2x 3/8“ IG	1	44.138
40	Wassereingang R3/8“ AG	1	41.016

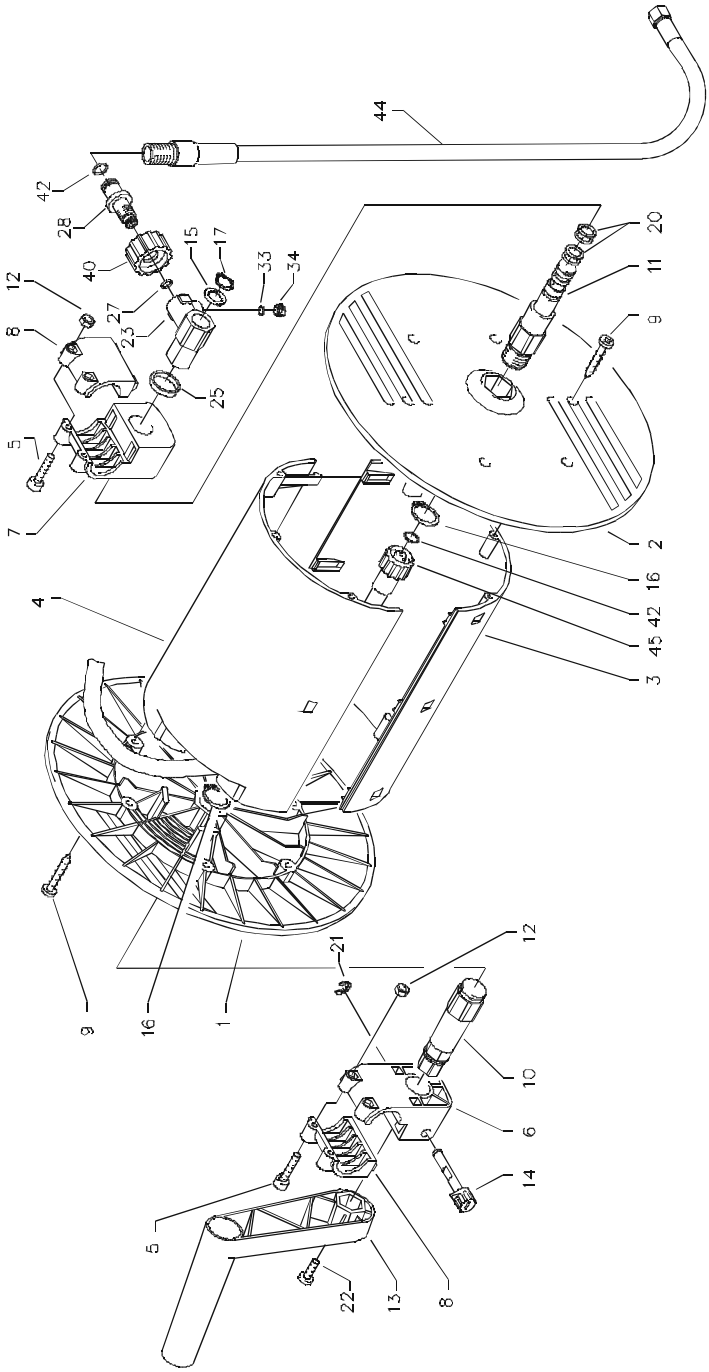
Repair kits:

Repair kit for sleeves 40.065 1
consisting of: 3x Pos. 13; 6x Pos. 14;
3x Pos. 15; 3x Pos. 16; 3x Pos. 18;
3x Pos. 20; 3x Pos. 23

Repair kit for sleeves without brass parts consisting of: 40.517
3x Pos. 13; 6x Pos. 14; 3x Pos. 15;
3x Pos. 18; 3x Pos. 23

Repair kit valves 40.062 1
consisting of:
6x Pos. 2; 6x Pos. 3; 6x Pos. 4

Hose drum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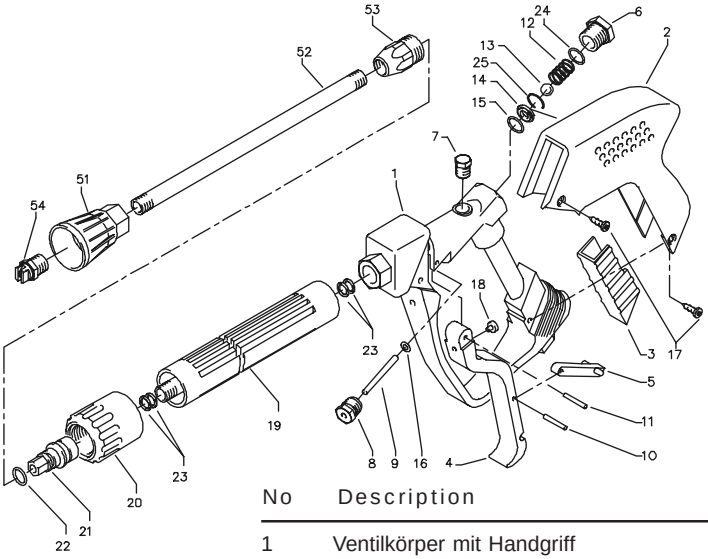
Spare parts list KRÄNZLE quadro 800 TST - 1200 TST
Hose drum

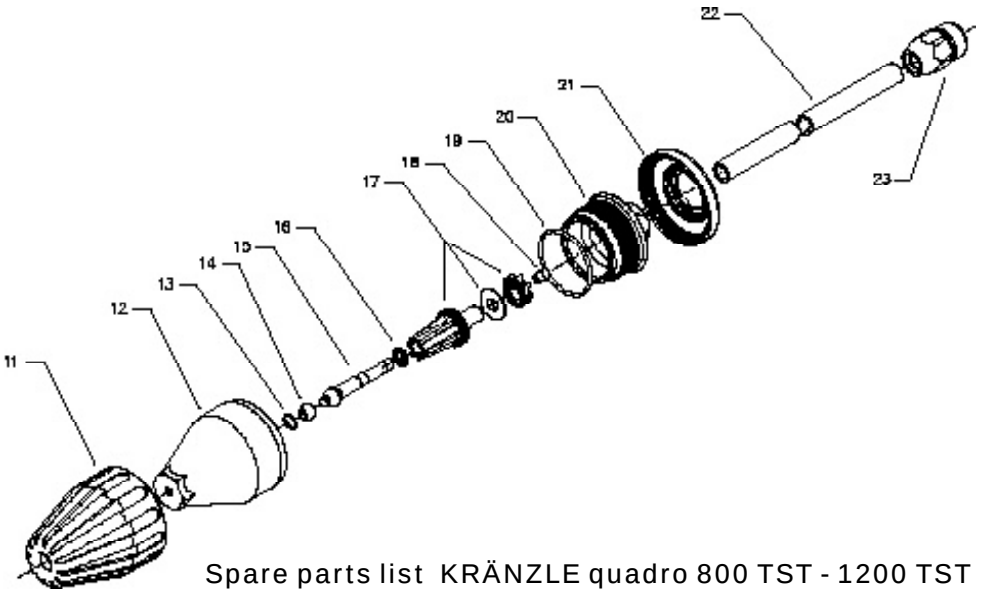
No	Description	Qty.	Ord.-No
1	Seitenschale Schlauchführung	1	40.302
2	Seitenschale Wasserführung	1	40.301
3	Trommel Unterteil	1	40.304
4	Trommel Oberteil	1	40.303
5	Innensechskantschraube M 4 x 25	4	40.313
6	Lagerklotz mit Bremse	1	40.306
7	Lagerklotz links	1	40.305
8	Klemmstück	2	40.307
9	Kunststoffschraube 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

No	Description	Qty.	Ord.-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
40	Überwurfmutter	1	13.276 2
42	O-Ring 9,3 x 2,4	4	13.273
44	Verbindungsschlauch	1	42.624
45	Hochdruckschlauch NW 8 20 m	1	41.083
	Hose drum compl..		41.259

Starlet II



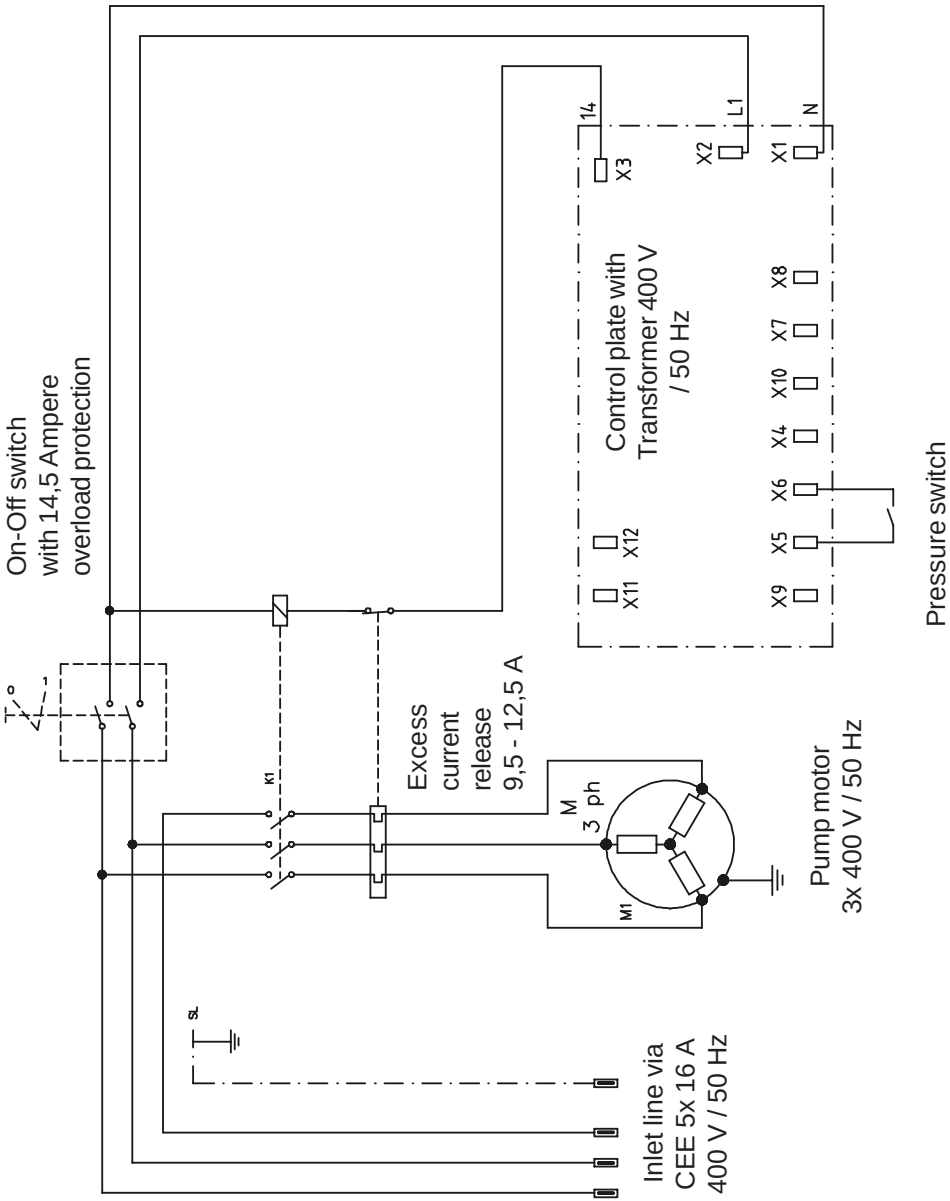
No	Description	Qty.	Ord.-No
1	Ventilkörper mit Handgriff	1	12.294
2	Schutzhülse	1	12.295
3	Abdeckschutz	1	12.296
4	Betätigungshebel	1	12.298
5	Sicherungshebel	1	12.149
6	Abschlußschraube M 16 x1	1	12.247
7	Stopfen	1	12.287
8	Gewindeführungshülse R 1/4" AG	1	12.250
9	Aufsteuerbolzen	1	12.284
10	Stift	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 2504 (bei quadro 800)	1	D2504
54.1	Flachstrahldüse 2505 (bei quadro 1000)	1	D2505
54.2	Flachstrahldüse 2507 (bei quadro 1200)	1	D2507
	Starlet-Gun with prolongation		12.320 2
	Repair kit: "Starlet II"		12.299
	consisting of: 1x Position:		



Spare parts list KRÄNZLE quadro 800 TST - 1200 TST
Turbokiller

No	Description	Qty.	Ord.-No
11	Sprühkörperschutz	1	41.528
12	Sprühkörper	1	41.529
13	O-Ring 6,88 x 1,68	1	41.521
14	Düsensitz	1	41.522
15	Düse 045 für quadro 800	1	41.532 1
15.1	Düse 055 für quadro 1000	1	41.532
15.2	Düse 08 für quadro 1200	1	41.537
16	Ring	1	41.533
17	Rotor	1	41.534
18	Stabilisator	1	41.524
19	O-Ring 41 x 1,78	1	41.538
20	Deckel	1	41.539
21	Deckelschutz	1	41.540
22	Rohr 500 mm lang; bds. R1/4"	1	12.385 1
23	Nippel M22x1,5 x R1/4" IG	1	13.370
	Turbokiller 045 compl. with lance		41.072 3
	Turbokiller 055 compl. with lance		41.072 4
	Turbokiller 08 compl. with lance		41.072 8
	Repair Kit Turbokiller 045		41.097 6
	Repair Kit Turbokiller 055		41.097 1
	Repair Kit Turbokiller 08		41.097 3

Wiring diagram



Inspections

The machine must be inspected according to the “Guidelines for Liquid Spray Devices” at least once every 12 months by a qualified person, to ensure that continued safe operation is guarateed.
The results of the inspection are to be recorded in writing.
This may be done in any form.

Accident prevention

The machine is designed for accidents to be impossible if used correctly.
The operator is to be notified of the risk of injury from hot machine parts and the high pressure water jet. The “Guidelines for Liquid Spray Devices” must be complied with. (see pages 16 and 17)

Check the oil level at the oil dip stick prior to each use (see also page 11). (Ensure horizontal position!)

Oil change:

The first oil change should be carried out after approximately 50 operating hours, then every year or after 1000 operating hours. If the oil turns grey or white, you must certainly change the oil of your high pressure pump.
Open the oil discharge screw at the bottom of the device over a collection resevoir.

Put the machine into a horizontal position to drain the oil. The oil is to be caught in the reservoir and disposed of in an approved manner.

New Oil: 1,0 l -
Motor oil: 10/W60 SAE halfsynthetic oil

Guarantee

The guarantee is 12 months according to VDMA for manufacturing errors

The guarantee is void if changes are made to the safety devices or if the machine is used at excess temperatures or speeds. The guarantee is also void if the machine is used with a voltage below the required rating, with less than the required amount of water or with dirty water. Manometer, nozzle, valves, sleeves, high pressure hose and spray equipment are wear parts and are not covered by the warranty.

Our operating instructions must be complied with.

Inspection report

for KRÄNZLE - High Pressure Cleaners

The high pressure cleaner must be inspected by an expert every 12 months.

Appliance No.:

Type of appliance:

The following must be checked:

1. Safety features

a) Manometer
b) Safety valve (pressure control)
c) Operating pressure
d) Cut out pressure (max. 10% above operating pressure)
e) Low pressure with closed gun

2. General condition

a) High pressure hose
b) Cable, plug, switch (VDE)
c) Spray gun, spray accessories.
d) Motor
e) Oil level

The information in the operating instructions are a part of the inspection

Result of inspection:	Date of inspection:	Faults rectified, Stamp and signature

Excerpt from the Guidelines for Liquid Spray Equipment (ZH 1/46) by the Central Office of the Professional Trade Association.
Inspection:
Liquid spray equipment should be inspected for safe operation by a qualified person whenever necessary, but no less than every 12 months. The maker's or supplier's instructions must be followed. The inspection intervals may be extended if the equipment is not in active use.
The results of inspections must be recorded in writing and presented to the respective authorities on demand. There is no set form for these records.

Notes

Notes

High-pressure-cleaners
Hochdruckreiniger
Nettoyeurs à Haute Pression

I. Kränzle GmbH
Elpke 97 . 33605 Bielefeld

EC declaration of conformity
as defined by machinery directive 98/37/EU Annex II A and the EC low-voltage directive 73/23 EEC and the EC-EWV directive 89/336

Herewith we declare that	quadro 800 TST - 1200 TST, quadro 1000 TS - 1200 TS,
complies with the following provisions applying to it	91/368 EEC Ann. I N°. 1 73/23 EEC 79/113 EEC 81/1051 EEC
Applied harmonized standards in particular	EN 292 T 1 and T 2 EN 60 204 T 1 EN 50 082-2 EN 61 000 3-2 3-3 4-12 EN 55 014 EN 55 104
Applied national technical standards and specifications in particular	DIN VDE 0700 Part 265/79 3.95 DIN IEC 61 S (Co) 17 DIN IEC 801 2-6 601 1-2 DIN IEC 1000 4 2-11
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, 01.02.02

(Managing Director)

Order-N°.: 30 260 1