

Operating manual

High-pressure cleaners

- USA -

quadro 599 TST

220V / 60Hz



Read and conform safety instructions before use!

Keep instructions in a safe place for later use and pass them on to any future user.



Technical data

Technical data	quadro 599 TST
Operating pressure, steplessly adjust.	400 - 2200 psi (30 - 150 bar)
max. permissible overpressure	2400 psi (165 bar)
Water output ^{(*)1}	
at 0 bar	2.5 Gpm (10,0 l/min)
at nominal pressure	2.45 Gpm (9,5 l/min)
Nozzle size	
(Flat jet)	20035
(Dirt killer)	035
Volume	
Water tank	2.5 gal (10 l)
max. inlet water temp. to water tank ^{(*)2}	max. 140°F (60 °C)
Direct suction height	100 in (2,5 m)
Hose drum	yes
High pressure hose	65 ft (20 m)
Electrical ratings	220 V/60 Hz 15 A
Motor speed adjust.	1700 rpm
Connect.wattage Inp.	P1: 3,2 kW
Output	P2: 3,4 HP
Weight (incl. access. with empty water tank)	130 lbs (60 kg)
Dimensions ind. handle	30 in x 15 in x 34 in
L x W x H	(780 x 395 x 870 mm)
Sound level acc. to DIN 45 635 (reg. working place) with dirtkiller	88 dB (A) 90 dB (A)
Guaranteed sound level L _{WA}	88 dB (A)
Vibrations at lance	2,0 m/s ²
Recoil at lance	ca. 20 N

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

^{(*)1} **Min. water quantity to be supplied to the high pressure cleaner!**
(2 - 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 it for the first time.

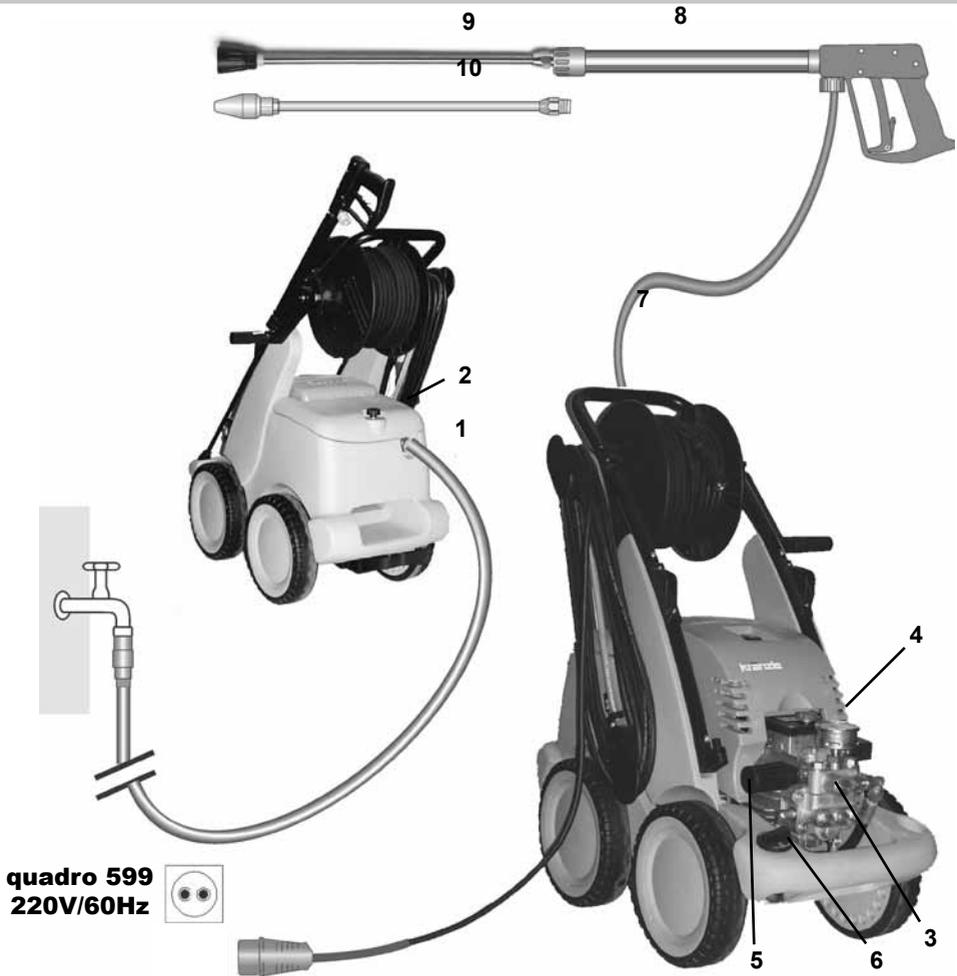
The equipment will assist you professionally in all cleaning tasks, e.g.:

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

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Description



quadro 599
220V/60Hz



Connection principle

The KRÄNZLE quadro 599 TST - high pressure cleaners are mobile machines with hose drum and 65ft (20m) industrial hose.

The connection 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 flat jet nozzle and nozzle protection
- 10 Interchangeable lance with dirtkiller

Description

Water system

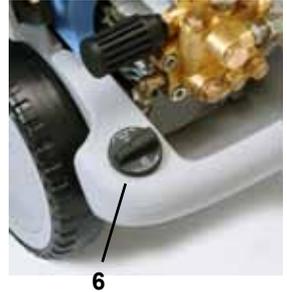
The water must be lead to the high pressure cleaner under pressure (30-115psi (2 – 8 bar) ad-mission pressure). A float valve regulates the water inlet. Then, the water is sucked by the high pressure pump from the water tank and supplied to the lance under the set pressure. The high pressure jet is formed 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 must have the ph-value 7-9 neutral.

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



Only 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. For the deairing of the system open and close the gun quickly a few times. When the trigger is released, the trigger gun closes and any further spraying of liquid from the lance is stopped and the pressure gauge 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 resumes 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.



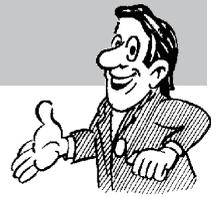
Take care that all screw connections are pressure-tight. A leakage of gun, high-pressure hose or hose drum has to be repaired at once. Leakages lead to an increased wear and to the destruction of the delayed motor cut-out.



Operator's task:

Prior to each usage of this liquid spraying device, the operator is obliged to check if all safety relevant parts are in perfect working condition. (e.g. safety valves, high-pressure hose, cables and connections, spraying devices, etc.)

Description



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 140 °F (60 °C) raised temperatures occur. **Do not touch the machine without safety gloves!**

Description

quadro 599
220V/60Hz



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 **30mA** residual current operated device. The socket must be protected with a **16A delay** action fuse on the mains side.

KRÄNZLE quadro 599 TST = 220 Volt / 60 Hz

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 14 AWG. 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. If the extension cable is longer than 30 ft (10m) it must have a min. cross section of 12 AWG.

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

Description



Brake



Brake not applied



Brake applied

Brief operating instructions:

1. Connect high pressure hose with spray gun.
2. Connect to suitable water supply.
3. Connect current
(quadro 599: 220V/60Hz AC)
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.

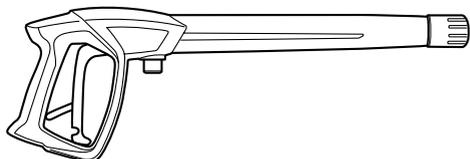
This is what you've purchased:



1. Dirtkiller



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



3. Spray gun M2000 with insulated handle and screw connection

3. KRÄNZLE - High pressure cleaner quadro 599 TST with hose drum and 65 ft (20m) HP hose NW 6 with steel reinforcement



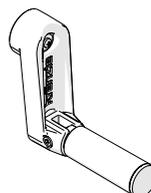
4. Operating manual



5. HP hose 65 ft (20m) NW 6 with hose drum

6. Collapsible crank for hose drum (already installed)

7. Waterfilter



Preparation for use



To control the high pressure cleaner put

1. the foot against the tilt bases and
2. then pull the device towards you.

1. Check oil level.

The oil level must be between the two markings on the oil dip stick.

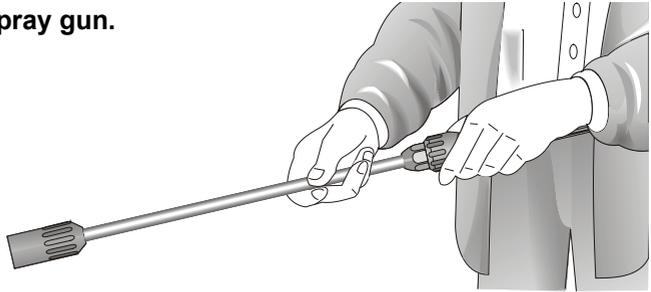


To check the oil level, loosen the oil cover screw and take out the oil dip stick. The oil level must be between the two markings.

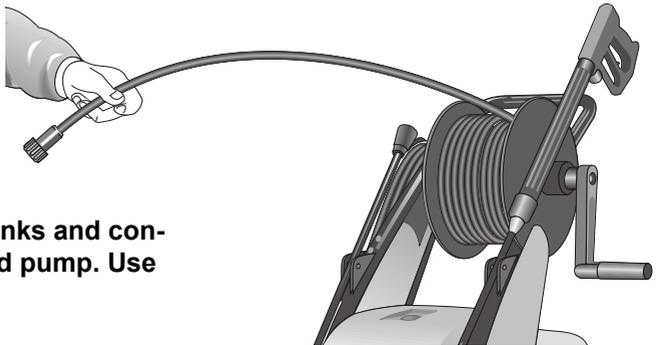


Preparation for use

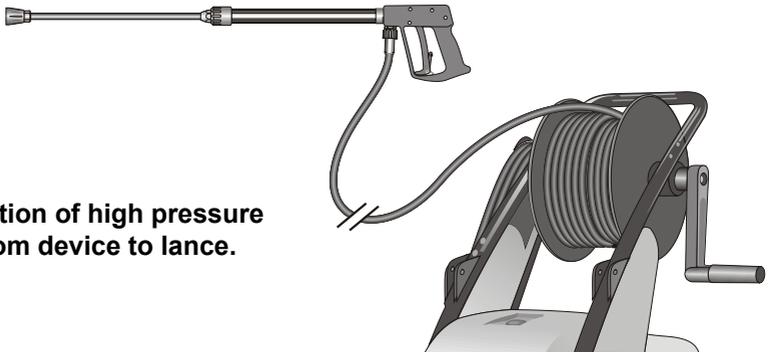
- 2. Connect the high pressure lance or dirtkiller to the spray gun.**



- 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.**

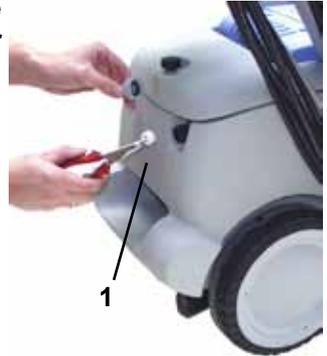


Preparation for use

5. The machine must be connected to the water line with cold water or up to 140°F (60 °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 140°F (60 °C) raised temperatures occur.

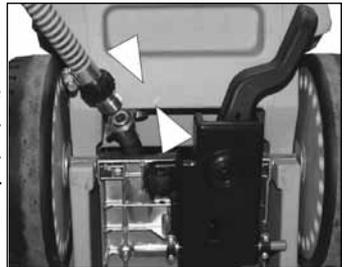
Do not touch the pump without safety gloves!

External suction



Undercarriage

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 via a double nipple



Undercarriage

3/4" (Order no.: 46.004) to the connection hose.

Make sure that the water is clean. Use the Kränzle suction hose with suction filter.

(Order no. 15.038 3)

Maximum suction height 100in (2.5 m), maximum water temperature for direct suction: 140°F (60 °C)

(see technical data on page 2)

To shut down the pump

When using detergents

Put chemistry sieve number 5 into the detergent container. Open the detergent valve (6), 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. safety clothing) and the water protection regulations!



Only open the valve, if the chemistry sieve is in a liquid. Sucked in air leads to the destruction of the pump seals !!!
Damages to the pump caused by sucked in air are not covered by the guarantee.



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 32 °F (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.

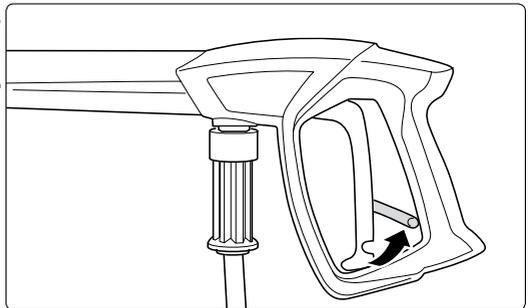
However, the best way to protect the device from frost is to store it at a frost-free location.

Safety notes

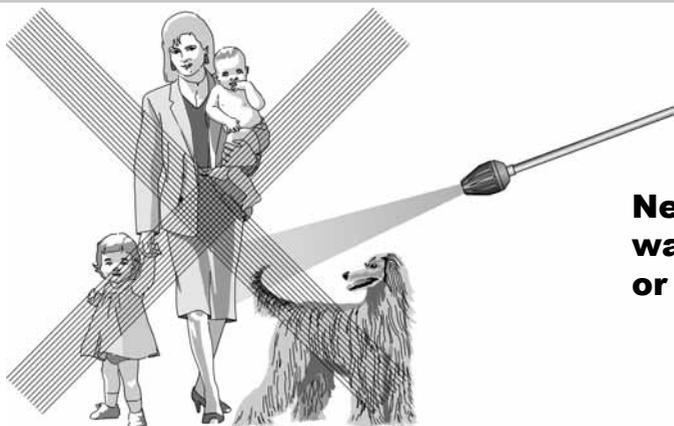


**As to the recoil -
see notice on page 2!**

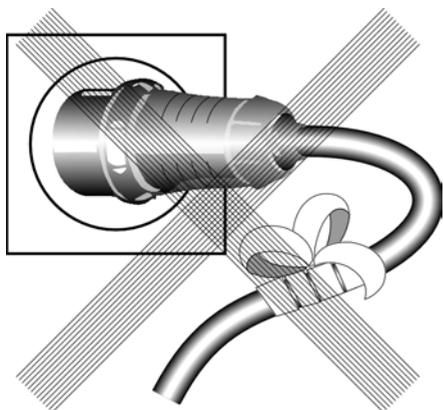
**Apply the safety catch on the
spray gun after each use, in
order to prevent unintentional
spraying!**



This is prohibited !



Never direct the water jet at people or animals !



Do not damage the power cable or repair it incorrectly!

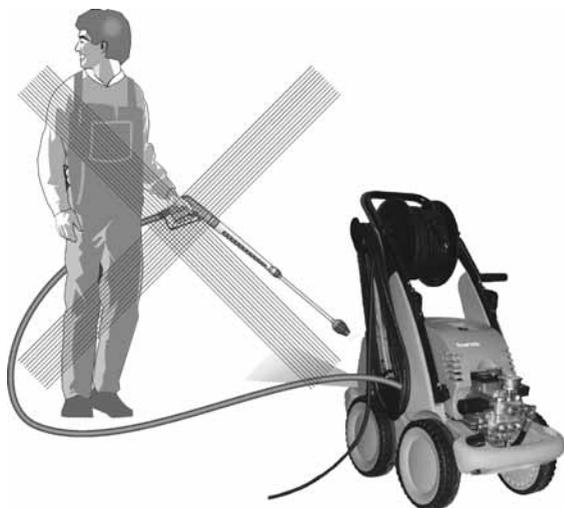


**Never pull the high pressure hose if it has formed kinks or "nooses"!
Never pull the hose over sharp edges !**

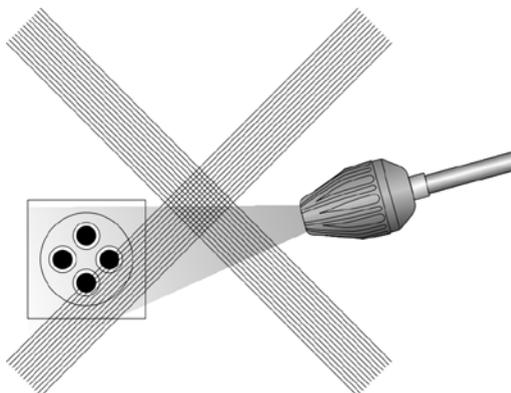
This is prohibited !



Never allow children to use the high pressure cleaner !

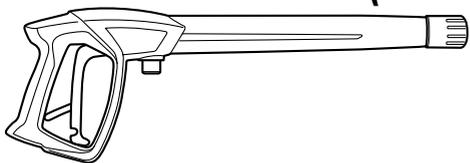


Never direct the water jet at the machine itself !



Never direct the water jet at a power socket !

Additional accessories for ... (on demand)



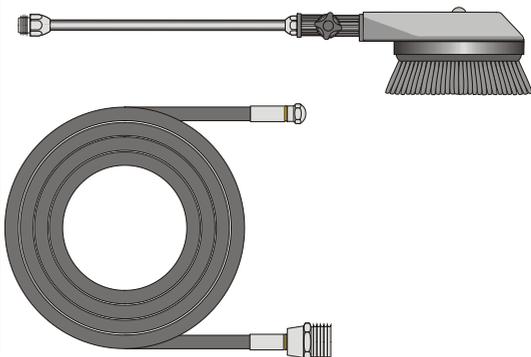
Rotary scrubbing brush

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!

Guarantee

The guarantee is only valid for material and manufacturing errors. Wearing does not fall within this guarantee.

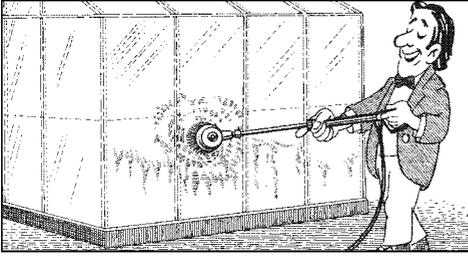
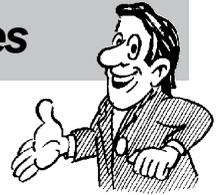
The instructions in our operating manual must be complied with. The operating instructions form part of the guarantee. The Guarantee is void if other parts are used than genuine Kränzle accessory parts or genuine Kränzle spare parts.

For high-pressure cleaners sold to the user the guarantee period is 24 month.

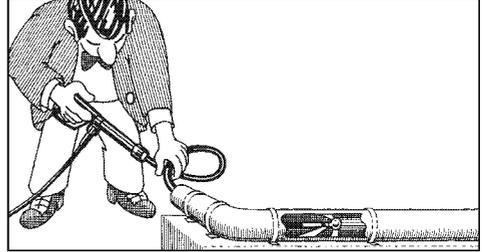
For high-pressure cleaners sold for industrial use the guarantee period is 12 month. In the case of a guarantee please contact your dealer or authorized seller delivering accessories and your purchase receipt. You can find them in the internet under www.kraenzle.com.

The guarantee is also void if the machine is used with exceeding the temperature and speed limits, a voltage below the required rating, with less than the required amount of water or with dirty water. Pressure gauge, nozzle, valves, sleeves, high pressure hose and spray equipment are wear parts and are not covered by the warranty.

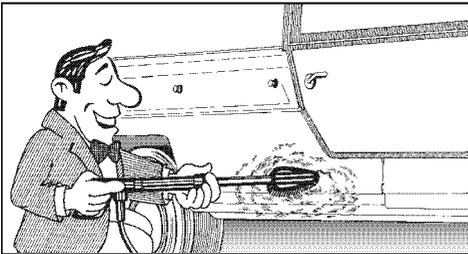
... further combination possibilities



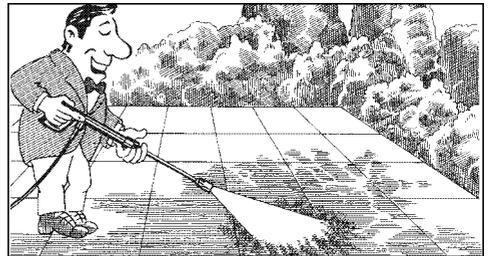
Car cleaning, glass, caravan, boat etc.: rotary washing brush with 40 cm extension and ST 30 nipple M22 x 1.5



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

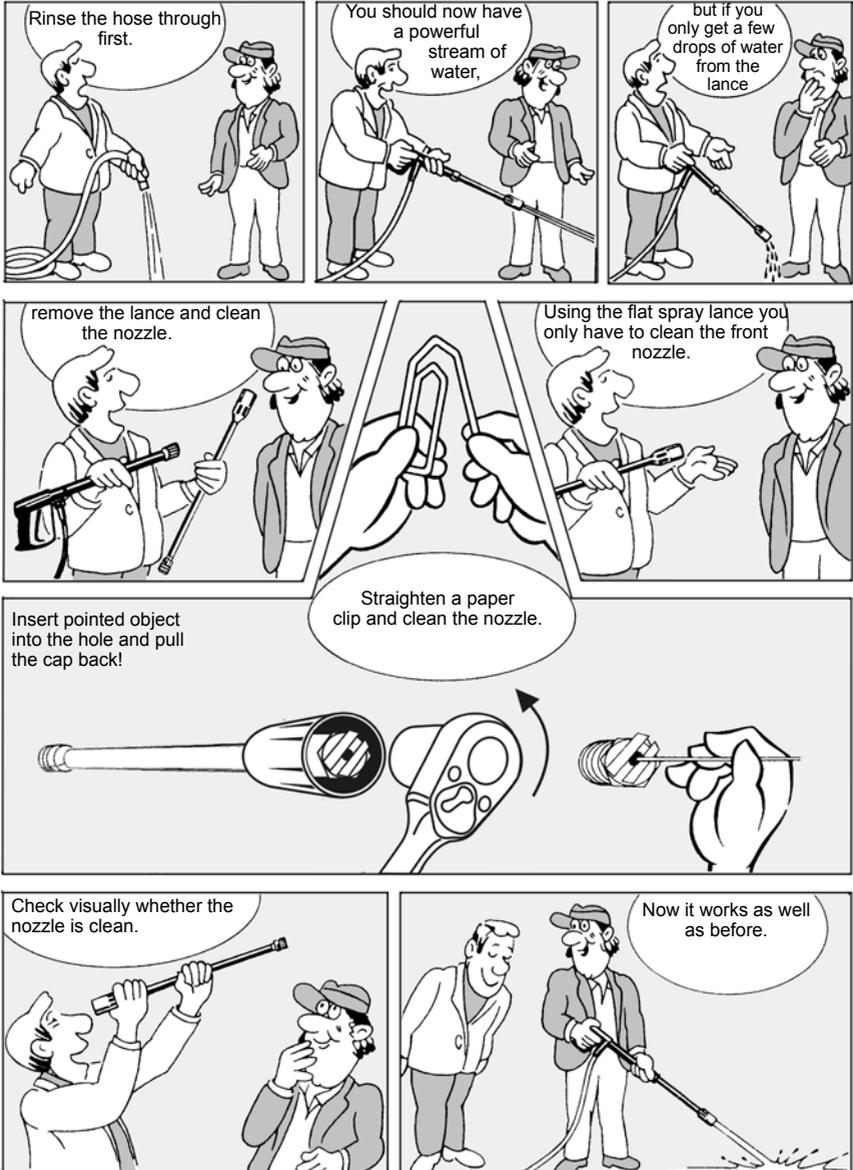


Rotary point sprayer for extreme soiling: Turbokiller with 40 cm extension and ST 30 nipple M22 x 1.5



The nozzle is blocked!

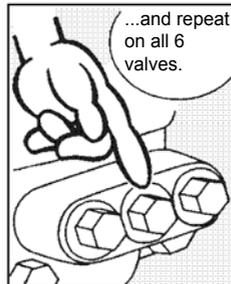
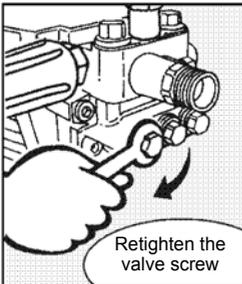
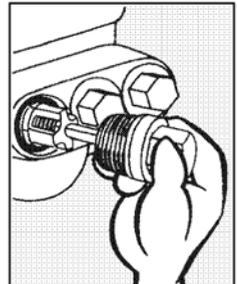
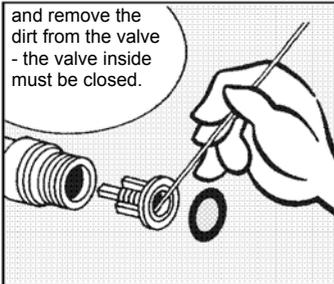
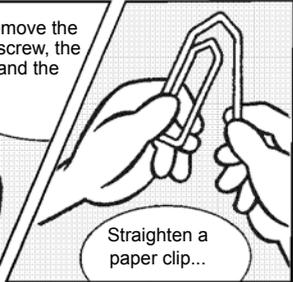
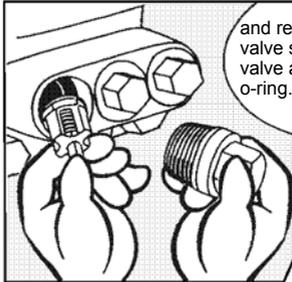
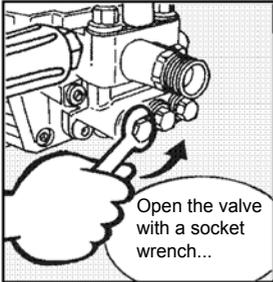
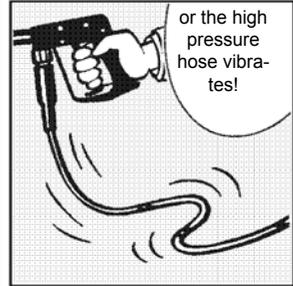
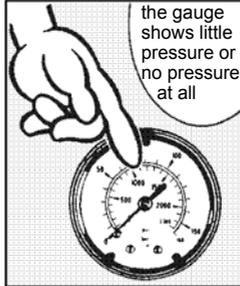
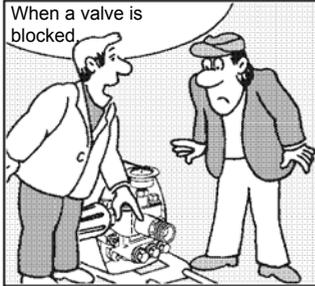
- No water but the gauge shows full pressure !



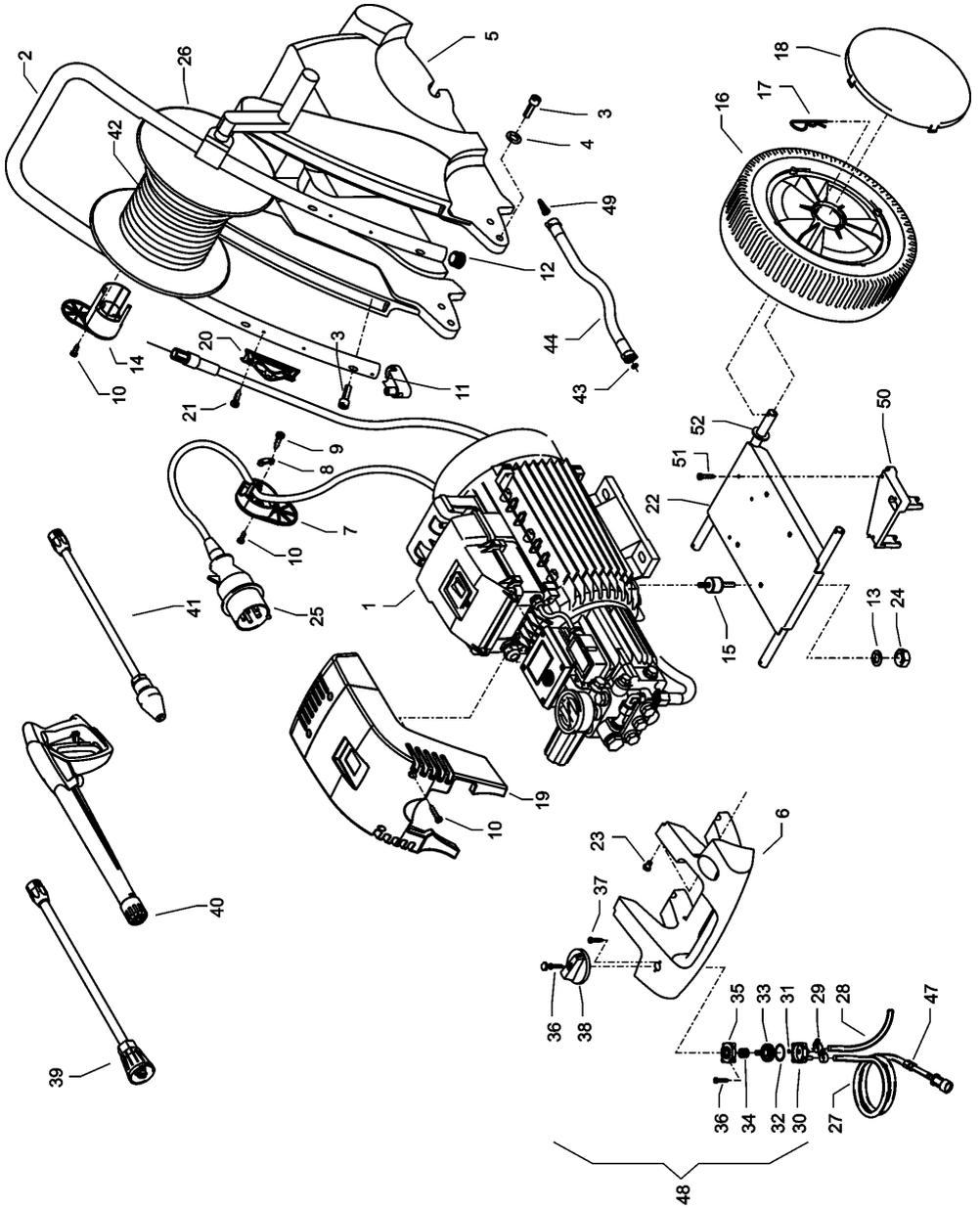
do it yourself !

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



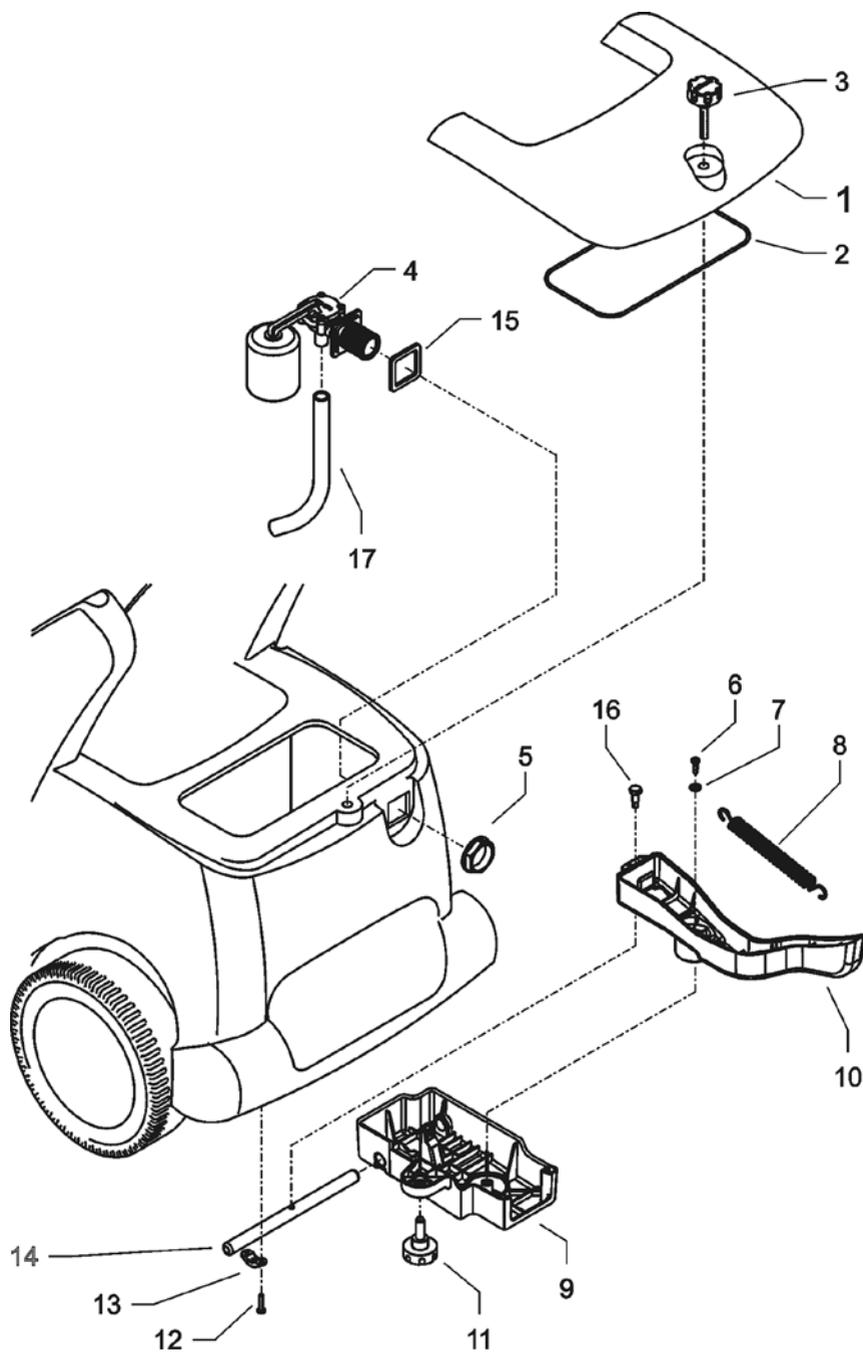
Complete Assembly



Spare parts list KRÄNZLE quadro 599 TST Complete assembly

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
2	Schubbügel	1	46.033	26	Schlauchtrommel kpl.	1	46.081
3	Schraube M6x35 DIN6912	8	46.024	27	Chemiesaugschlauch (Gewebe) mit Filter	1	42.621
4	Scheibe 6,4 DIN125	4	50.189	28	Gewebeschlach 0,4m	1	42.622
5	Wasserkasten	1	46.026	29	Schlauchklemme 9 - 9	2	44.054
6	Lanzennablage	1	46.028	30	Gehäuse Waschmittelventil	1	44.145
7	Kabelaufwicklung unten	1	42.611	31	O-Ring 5 x 1,5 (Viton)	1	44.150
8	Zugentlastung	1	43.431	32	O-Ring 28,24 x 2,62	1	44.149
9	Blechschrabe 3,5 x 12	2	40.290	33	Regulierkolben Chemieventil	1	44.147
10	Kunststoffschrabe 5,0 x 30	2	41.412	34	Edelstahlfeder 1,8 x 15 x 15	1	44.148
11	Lanzensteränder	1	46.021	35	Deckel für Chemieventil	1	44.146
12	Rohrstופן dm25	1	46.022	36	Blechschrabe 3,5 x 16	3	44.161
13	Scheibe 8,4 DIN125	4	50.186	37	Blechschrabe 3,5 x 19	2	44.162
14	Kabelaufwicklung oben	1	42.612	38	Drehgriff Chemieventil mit Blendkappe	1	44.151
15	Gummipuffer 30 x 20	4	46.023	39	Lanze mit Flachstrahlidüse	1	12.394-M20035
16	Rad d250	4	46.010	40	Midi - Pistole mit Verlängerung	1	12.160
17	Federstecker	4	40.115 1	41	Schmutz-Killer 035	1	46.150
18	Radkappe	4	46.011	42	Hochdruckschlauch 20 m NW6	1	43.416 1
19	Frontplatte quadro 599 TST	1	46.014 1	43	O-Ring 13 x 2,6	2	13.272
20	Lanzenhalter	2	42.610	44	Verbindungsschlauch	1	46.032
21	Blechschrabe 3,9x13 DIN7981	5	41.078	47	Rückschlagventil für Chemiesaugschl.	1	44.240
22	Fahrgestell incl. Pos. 50, 51, 52	1	46.001	48	Chemieventil Kpl. Pos. 30-37	1	44.052
24	Elastic-Stop-Mutter M8	4	41.410	49	Wasserfilter	1	42.633
25	Netzanschlusskabel	1	46.044	50	Aufnahme Bremse	1	46.042
				51	Schraube 5,0 x 14	3	43.426
				52	Scheibe 19 mm	6	43.830

Water inlet and brake



quadro 599 TST

Spare parts list KRÄNZLE quadro 599 TST Water inlet and brake

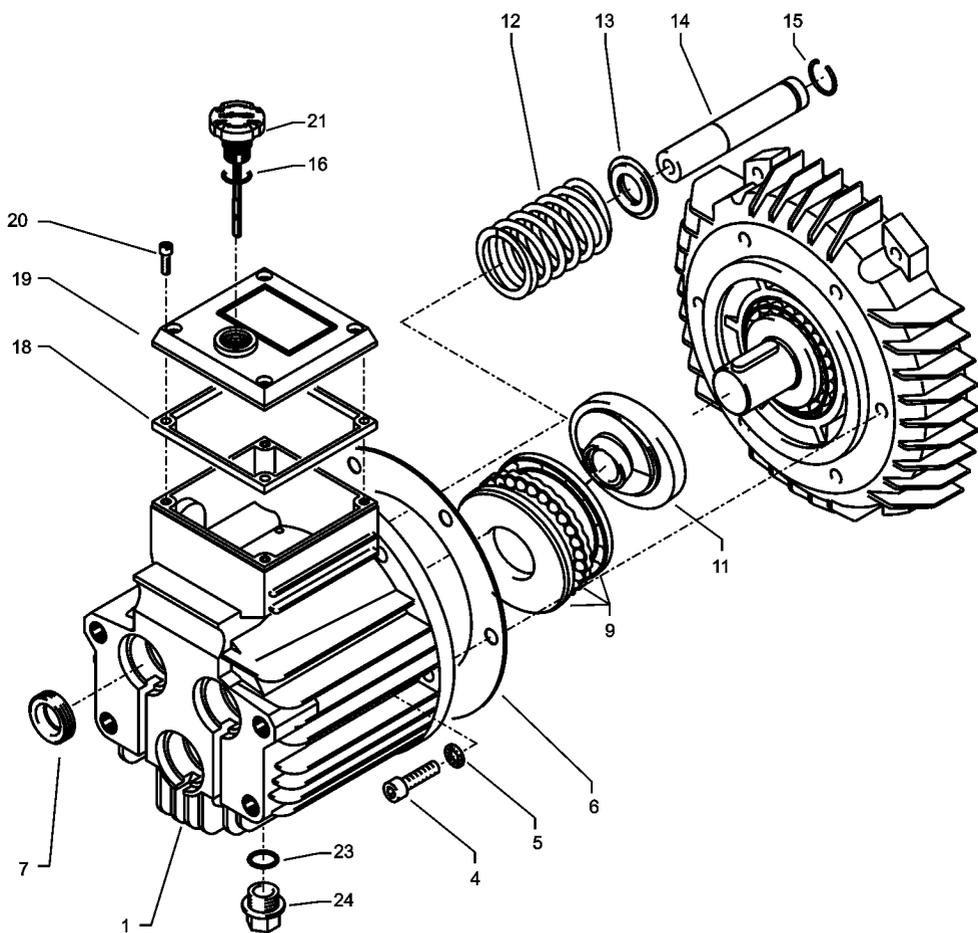
No	Description	Qty.	Ord.-No
1	Revisionsdeckel	1	46.027
2	Dichtung für Revisionsdeckel	1	46.030
3	Sterngriffschraube M6	1	46.031
4	Schwimmerventil	1	46.250
5	Mutter R3/4"	1	46.258
6	Kunststoffschraube 5x14	1	43.426
7	Scheibe 5,3 DIN9021	1	50.152
8	Zugfeder	1	46.020
9	Deckel Bremse	1	46.016
10	Hebel Bremse	1	46.017
11	Sternschraube M8	1	50.168
12	Schraube 3,5x14	4	44.525
13	Schelle	2	43.431
14	Bolzen für Bremse	1	46.018
15	Dichtung für Schwimmerventil	1	46.261
16	Bundschraube	1	46.019
17	Einströmschlauch	1	46.043
	Bremse kpl.		46.080
	bestehend aus: Pos. 6-14		

quadro 599 TST

Spare parts list KRÄNZLE quadro 599 TST Pump motor

No	Description	Qty.	Ord.-No
1	Stator BG100 2,3kW 220V / 60Hz	1	40.720 1
2	A-Lager Flansch	1	40.700
3	Rotor BG100 230V / 50Hz	1	40.703 1
4	Lüfterrad BG100	1	40.702
5	Lüfterhaube BG100	1	40.701
7	Flachdichtung	1	43.030
10	Schräggugellager 7306	1	40.704
11	Öldichtung 35 x 47 x 7	1	40.080
12	Passfeder 8 x 7 x 28	1	40.459
13	Kugellager 6206 - 2Z	1	40.538
14	Innensechskantschraube M 6 x 30	4	43.037
18	Innensechskantschraube M 5 x 12	4	41.019 4
19	Schraube M 4 x 12	4	41.489
20	Schelle für Lüfterrad BG100-112	1	40.535
22	Erdungsschraube kpl.	1	43.038
23	Schalter 14,5 A Amazonas	1	41.111 6
24	Kunststoffschraube 4,0 x 16	4	43.417
26	Kunststoffschraube 5,0 x 25	6	41.414
28	Kunststoffschraube 3,5 x 20	2	43.415
29	Lüsterklemme 5-pol.	1	43.326 1
30	Schütz 230V 50/60 Hz	1	46.005
31	Schaltkasten Unterteil	1	46.012
32	Schaltkasten Deckel	1	46.013
33	Steuerplatine Abschaltverz. 230V / 50Hz	1	42.564
34	Klemmrahmen mit Schalterabdichtung	1	43.453
36	Blechschraube 3,5 x 14	2	44.525
37	PG 16-Verschraubung	1	41.419 1
38	Dichtung für Schaltkastendeckel	1	42.525
39	Gegenmutter für PG9-Verschraubung	2	41.087 1
40	Gegenmutter für PG16-Verschraubung	1	44.119
41	PG 9 - Verschraubung	1	42.541
42	Kondensator 60µF	1	41.148
43	PG 9 – Verschraubung reduziert	1	41.087
Motor compl. without switch items 1 - 22			24.087

Transmission unit

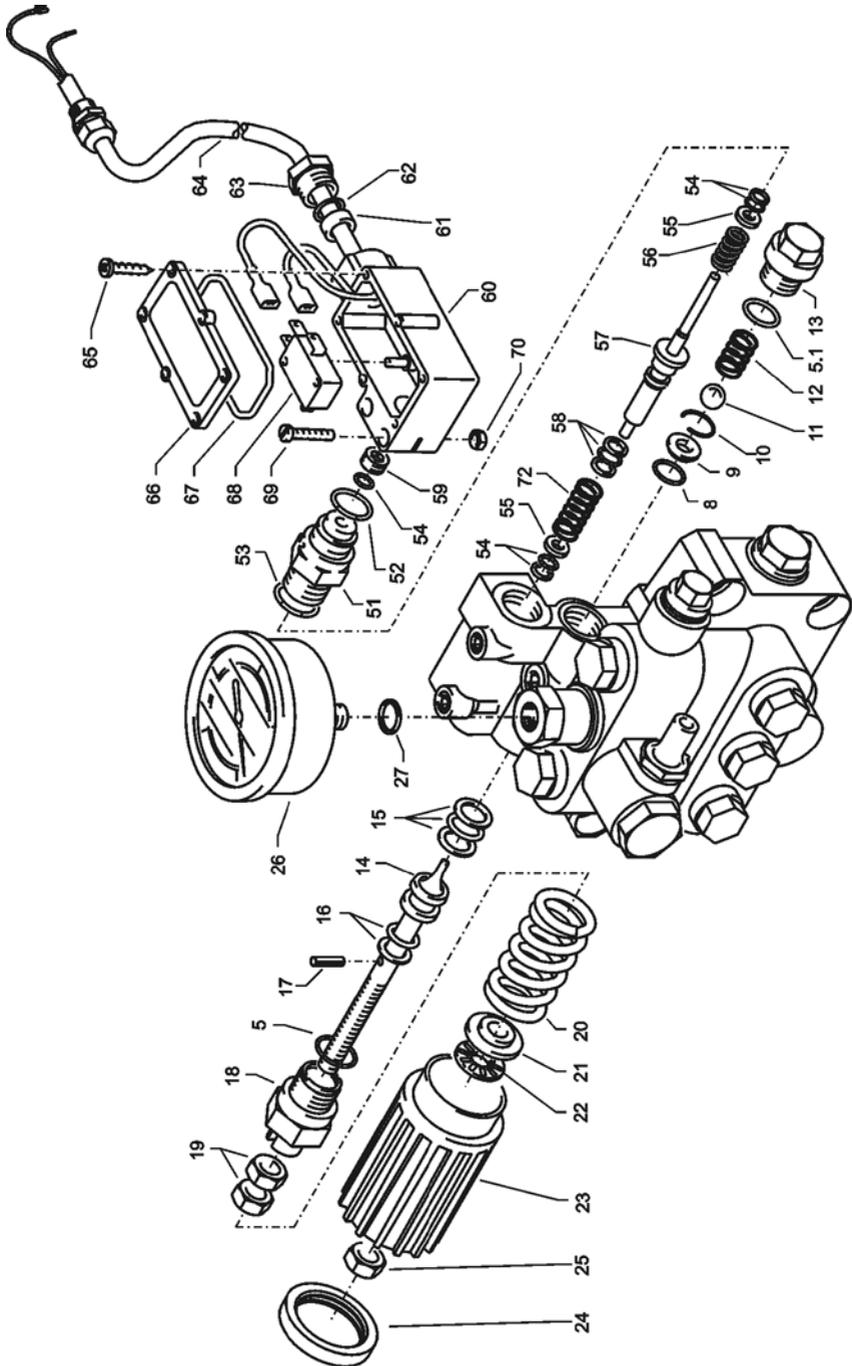


quadro 599 TST

Spare parts list KRÄNZLE quadro 599 TST Pump transmission unit for AM-pump

No	Description	Qty.	Ord.-No
1	Ölgehäuse mit Öldichtungen	1	40.452
4	Innensechskantschraube M 8 x 25	6	40.053
5	Sicherungsscheibe	6	40.054
6	Flachdichtung	1	40.511
7	Öldichtung 18 x 28 x 7	3	41.031
9	Axial-Rillenkugellager AM	1	40.462
11	Taumelscheibe 6,5° quadro 599	1	40.460-6,5
12	Plungerfeder	3	40.453
13	Federdruckscheibe	3	40.454
14	Plunger 18mm (AM-Pumpe)	3	40.455
15	Sprengring	3	41.035
16	O-Ring 14 x 2	1	43.445
18	Flachdichtung	1	41.019 3
19	Deckel	1	41.023 1
20	Innensechskantschraube M 5 x 12	4	41.019 4
21	Ölmessstab (AM-Pumpe)	1	40.463
23	O-Ring 13,94 x 2,62	1	42.167
24	Ölablassstopfen R 3/8"	1	42.019
	Transmission unit AM compl.		46.087 1-6,5
	with ball bearing for quadro 599		
	consisting of: Items 1-24		

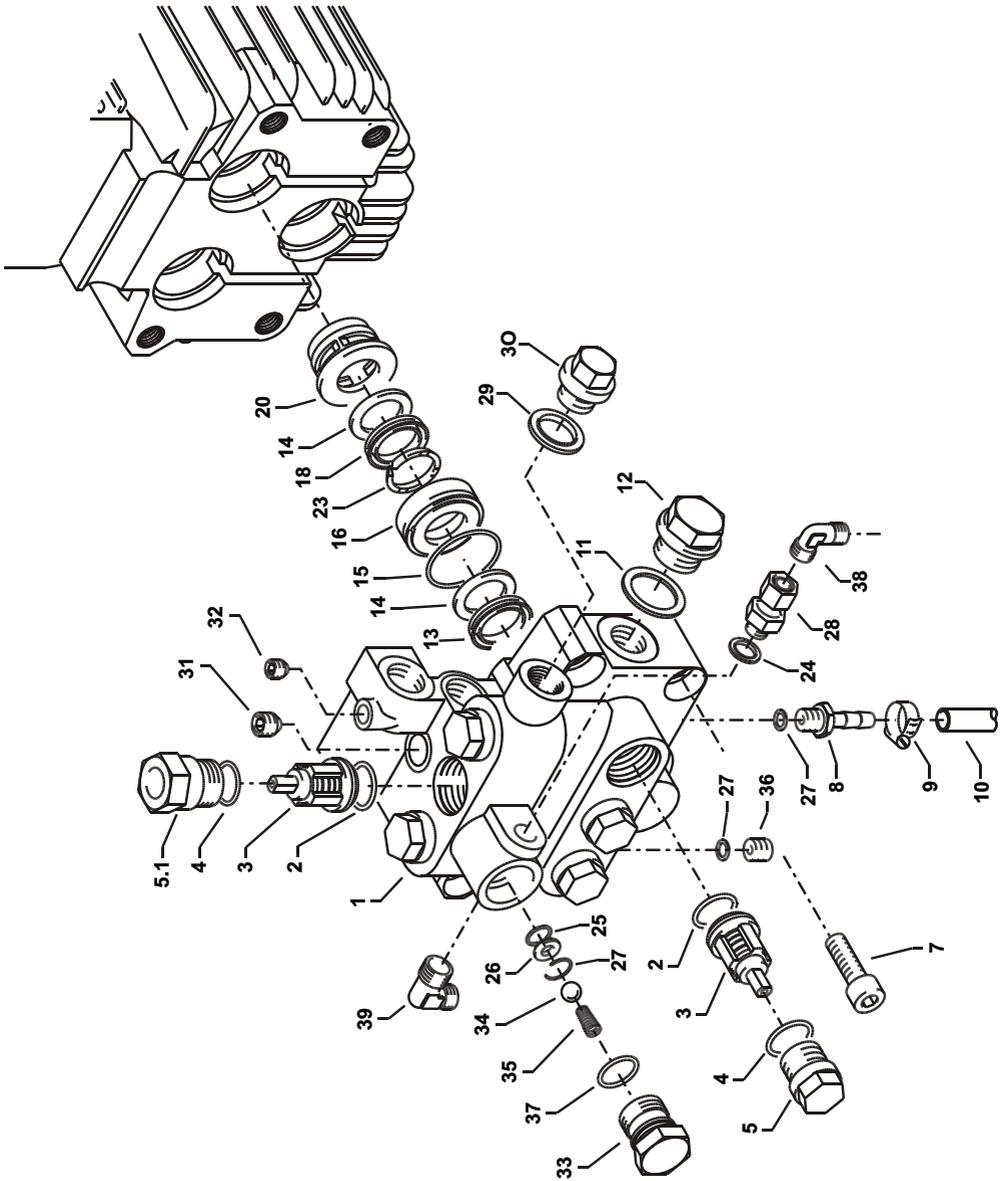
Unloader valve and pressure switch



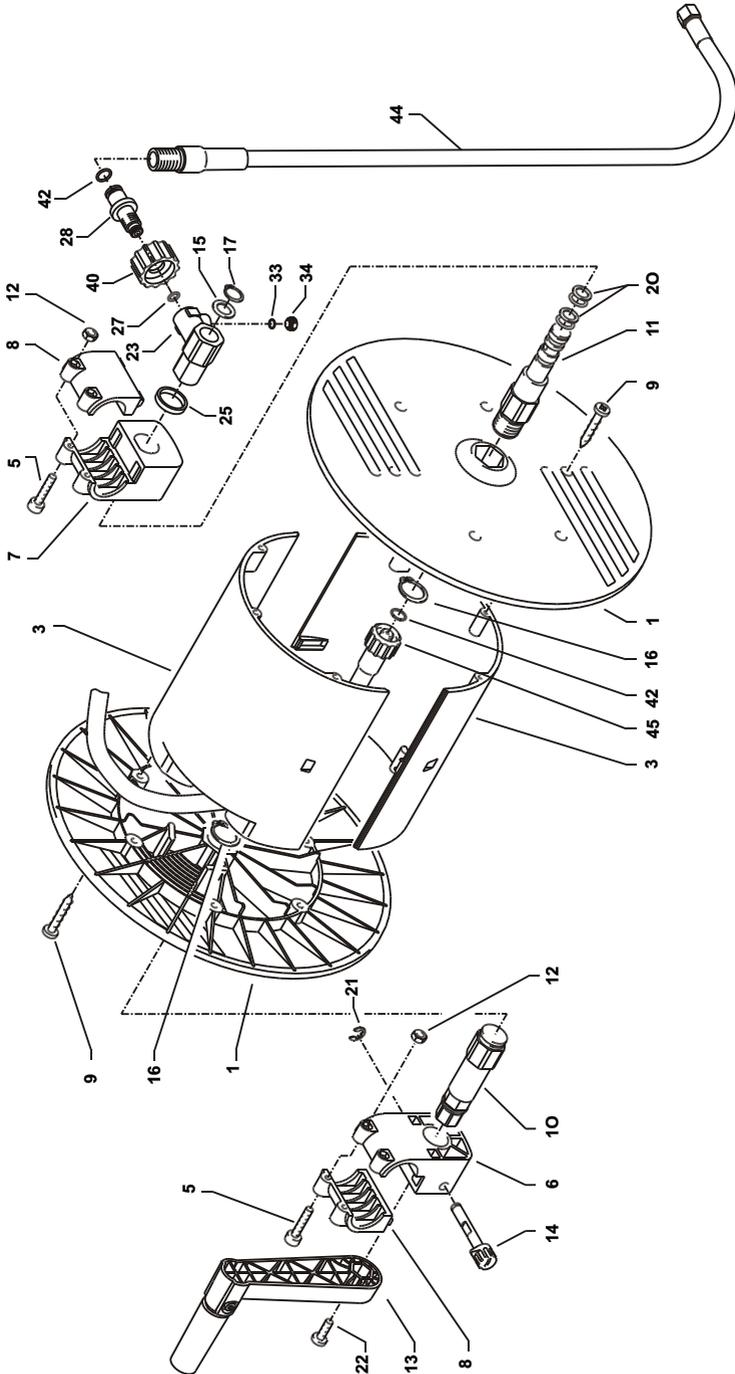
Spare parts list KRÄNZLE quadro 599 TST Unloader valve and pressure switch

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
5	O-Ring 16 x 2	1	13.150	55	Stützscheibe	2	15.015 1
5.1	O-Ring 13,94 x 2,62	1	42.167	56	Edelstahlfeder	1	15.016
8	O-Ring 11 x 1,44	1	12.256	57	Steuerstößel	1	15.010 2
9	Edelstahlsitz	1	14.118	58	Parbaks 7 mm	1	15.013
10	Sicherungsring	1	13.147	59	Stopfen M 10 x 1 (durchgebohrt)	1	13.385 1
11	Edelstahlkugel	1	13.148	60	Gehäuse Elektroschalter	1	15.007
12	Edelstahlfeder	1	14.119	61	Gummimanschette PG 9	1	15.020
13	Verschlusssschraube	1	14.113	62	Scheibe PG 9	1	15.021
14	Steuerkolben	1	14.134	63	Verschraubung PG 9	1	15.022
15	Parbaks 16 mm	1	13.159	64	PVC-Kabel 2x 1,0 mm ²	1	42.505
16	Parbaks 8 mm	1	14.123	65	Blechschrube 2,8 x 16	6	15.024
17	Spannstift	1	14.148	66	Deckel Elektroschalter	1	15.008
18	Kolbenführung spezial	1	42.105	67	O-Ring 44 x 2,5	1	15.023
19	Kontermutter M 8 x 1	2	14.144	68	Mikroschalter	1	15.018
20	Ventilfeder schwarz	1	14.125	69	Zylinderschraube M 4 x 20	2	15.025
21	Federdruckscheibe	1	14.126	70	Sechskant - Mutter M 4	2	15.026
22	Nadellager	1	14.146	72	Druckfeder 1 x 8,6 x 30	1	40.520
23	Handrad AM-Pumpe	1	40.457	Steuerkolben kpl. mit Handrad			
24	Kappe Handrad AM-Pumpe	1	40.458	Pos. 5, 14-25			
25	Elastic-Stop-Mutter M 8 x 1	1	14.152	Rep.-Satz Druckschaltermechanik 15.009 3			
26	Manometer 0-250 Bar	2	15.039	1x Pos. 51, 1x Pos. 52, 1x Pos. 53,			
27	Aluminium-Dichtring	1	13.275	3x Pos. 54, 1x Pos. 55, 1x Pos. 56,			
50	O-Ring 3,3 x 2,4	1	12.136	1x Pos. 57, 1x Pos. 58, 1x Pos. 59			
51	Führungsteil Steuerstößel	1	15.009 1	Druckschalter kpl. Pos. 54 - 70			
52	O-Ring 13 x 2,6	1	15.017	41.300 5			
53	O-Ring 14 x 2	1	43.445				
54	Parbaks 4 mm	2	12.136 2				

Valve housing



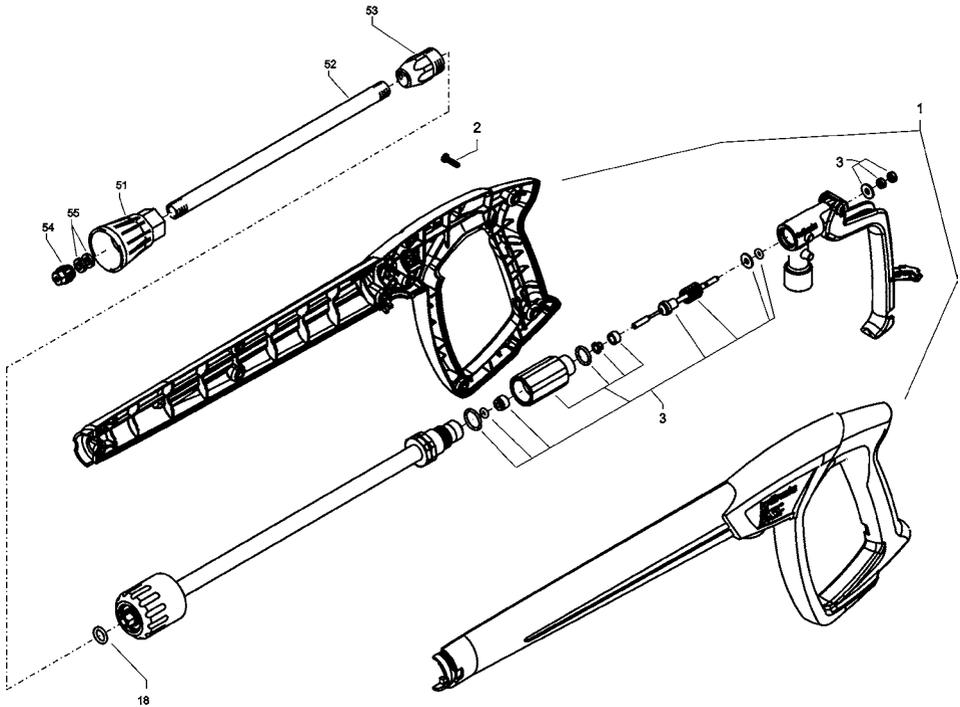
Hose drum



Spare parts list KRÄNZLE quadro 599 TST Hose drum

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
1	Seitenschale	2	46.201	23	Drehgelenk	1	40.167
3	Trommelteil	2	46.202	25	Distanzring	1	40.316
5	Innensechskantschraube M 4 x 25	4	40.313	27	O-Ring 6,86 x 1,78	1	40.585
6	Lagerklotz mit Bremse	1	40.306 1	28	Anschlussstück	1	40.308
7	Lagerklotz links	1	40.305 1	33	O-Ring 6 x 1,5	1	13.386
8	Klemmstück	2	40.307 1	34	Stopfen M 10 x 1	1	13.385
9	Kunststoffschraube 5,0 x 20	12	43.018	40	Überwurfmutter	1	13.276 2
10	Antriebswelle	1	46.204	42	O-Ring 9,3 x 2,4	4	13.273
11	Welle Wasserführung	1	46.203	44	Verbindungsschlauch	1	46.037
12	Elastic-Stop-Mutter M 4	4	40.111	45	Hochdruckschlauch NW6 20 m	1	43.416 1
13	Handkurbel	1	40.320 0		quadro 599, 799 TST		
14	Verriegelungsbolzen	1	40.312	45.1	Hochdruckschlauch NW8 15 m	1	44.879
15	Scheibe MS 16 x 24 x 2	1	40.181		quadro 899 TST		
16	Wellensicherungsring 22 mm	2	40.117		Schlauchtrommel kpl. ohne Schlauch		46.081
17	Wellensicherungsring 16 mm	1	40.182		bestehend aus Pos. 1 - 42		
20	Parbaks 16 mm	2	13.159				
21	Sicherungsscheibe 6 DIN6799	1	40.315				
22	Schraube M 5 x 10	1	43.021				

M2000-gun and lance



No	Description	Qty.	Ord.-No
1	Pistolschale re-lli	1	12.450
2	Schraube 3,5 x 14	10	44.525
18	O-Ring 9,3 x 2,4	1	13.273
51	Düsenschutz	1	26.002 1
52	Rohr 500 mm; bds. M12x1	1	41.527 1
53	ST 30 Nippel M 22 x 1,5 / M12x1 m. ISK	1	13.363
54	Flachstrahldüse 20035 (quadro 599)	1	M20035
54.1	Flachstrahldüse 20045 (quadro 799)	1	M20045
54.2	Flachstrahldüse 2506 (quadro 899)	1	D2506
55	Aluminium-Dichtring 8,3x11,3x2	2	13.275 1

M2000-Pistole

12.480

Lanze kpl. mit HD-Düse M20035

12.394-M20035

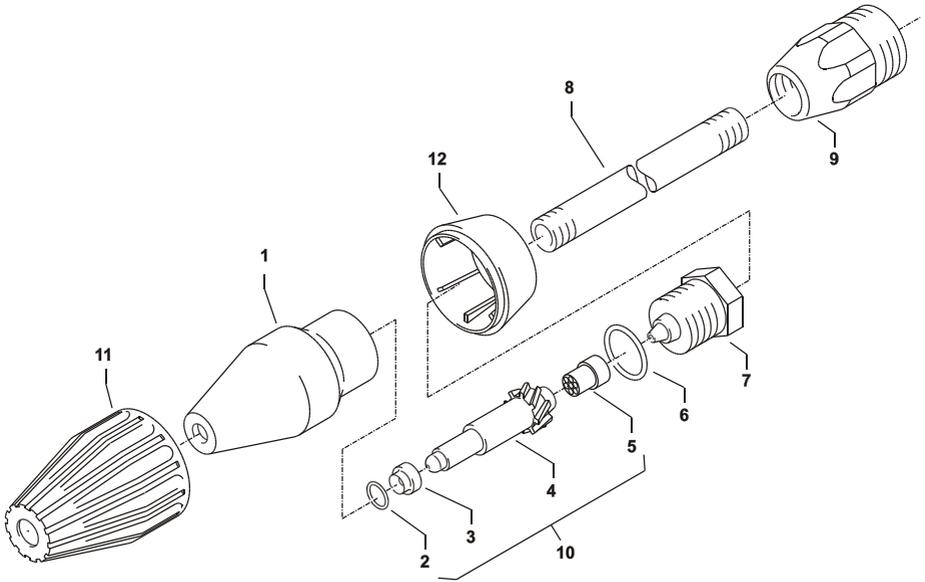
Lanze kpl. mit HD-Düse M20045

12.394-M20045

Lanze kpl. mit HD-Düse D2506

12.394-D2506

Dirtkiller

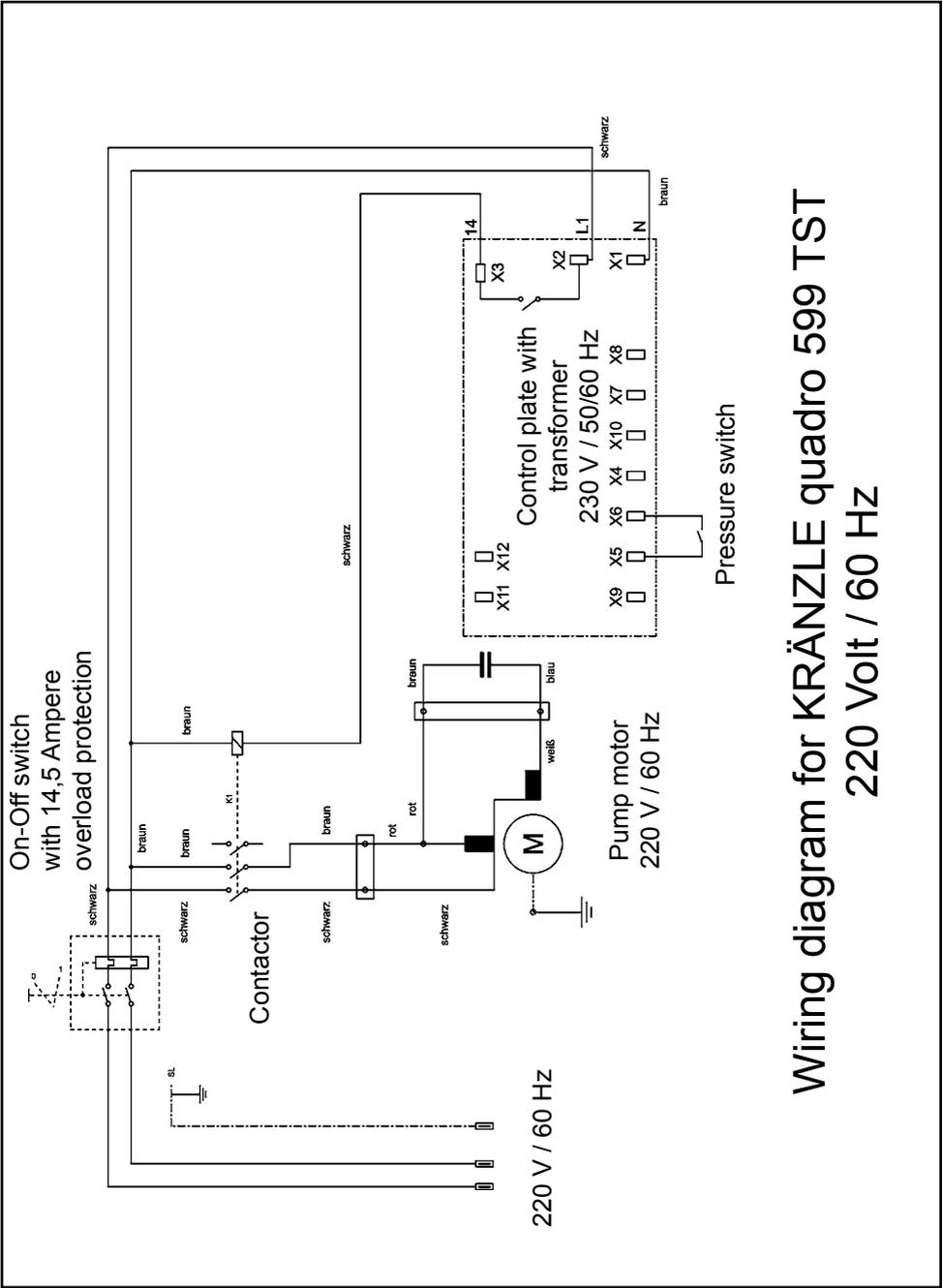


No	Description	Qty.	Ord.-No
1	Sprühkörper	1	41.520
2	O-Ring 6,88 x 1,68	1	41.521
3	Düsensitz	1	41.522
4	Düse 035 (quadro 599)	1	41.523 1
5	Stabilisator	1	41.524
6	O-Ring	1	40.016 1
7	Sprühstopfen R1/4" IG	1	41.526 1
8	Rohr 600 mm lang; bds. R1/4"	1	12.385 2
9	Nippel M22x1,5 x R1/4" IG	1	13.370
11	Kappe vorn für Schmutzkiller	1	41.528 1
12	Kappe hinten für Schmutzkiller 035	1	41.540 4

Rep.-Satz Schmutzkiller 035 **41.097 0**
 bestehend aus je 1x 2; 3; 4; 5

Schmutzkiller 035 mit Lanze 600mm **46.150**

Wiring diagram



Wiring diagram for KRÄNZLE quadro 599 TST
220 Volt / 60 Hz

Notes

General rules

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 guaranteed.

The results of the inspection are to be recorded in writing.

This may be done in any form. (see pages 46-47)

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 15 - 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 change the oil of your high pressure pump in any case. Open the oil discharge screw at the bottom of the device over a collection reservoir. Ensure a horizontal position to drain the oil completely. The oil is to be caught in the reservoir and disposed of in an approved manner.

New oil: 0,8 l

Motor oil: Castrol 10 W-60 SAE halfsynthetic oil



Oil discharge screw

Inspection report for HP cleaners

HP cleaners for industrial use have to be checked by an expert every 12 months! Inspection report on annually carried out Labour Safety Inspection (UVV) according to the Guidelines for Liquid Spray Equipment. (This inspection sheet serves as proof for the completion of the retest and must be kept carefully!) Kränzle test seals: Order no. UVV200106

Owner: Type:.....
 Address: Serial no.:
 Rep. order no.:

Scope of inspection	o.k.	yes	no	repaired
Type plate (on hand)				
Operating manual (on hand)				
Protective covering, -device				
Pressure line (tightness)				
Pressure gauge (function)				
Float valve (tightness)				
Spraying device (marking)				
HP-hose / connector (damage, marking)				
Safety valve opens at 10 % / 20 % exceeding of operating pr.				
Power cable (damage)				
Protective conductor (connected)				
On / Off switch				
Used chemicals				
Allowed chemicals				

Inspection data	determined value	set value
High-prsure nozzle		
Operating pressure.....bar		
Switch off pressure.....bar		
Conductor reist. not exceeded / value		
Insulation		
Leakage current		
Gun locked		

Inspection result (tick)

- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment, the defects found have been rectified so that the Labour Safety can be confirmed.
- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment. The Labour Safety cannot be confirmed unless the defects found are rectified by repair or replacement of the faulty parts

The next retest according to the Guidelines for Liquid Spray Equipment has to be carried out by: MonthYear

Place, date..... Signature

Inspection report for HP cleaners

HP cleaners for industrial use have to be checked by an expert every 12 months! Inspection report on annually carried out Labour Safety Inspection (UVV) according to the Guidelines for Liquid Spray Equipment. (This inspection sheet serves as proof for the completion of the retest and must be kept carefully!) Kränzle test seals: Order no. UVV200106

Owner: Type:.....
 Address: Serial no.:
 Rep. order no.:

Scope of inspection	o.k.	yes	no	repaired
Type plate (on hand)				
Operating manual (on hand)				
Protective covering, -device				
Pressure line (tightness)				
Pressure gauge (function)				
Float valve (tightness)				
Spraying device (marking)				
HP-hose / connector (damage, marking)				
Safety valve opens at 10 % / 20 % exceeding of operating pr.				
Power cable (damage)				
Protective conductor (connected)				
On / Off switch				
Used chemicals				
Allowed chemicals				

Inspection data	determined value	set value
High-prsure nozzle		
Operating pressure.....bar		
Switch off pressure.....bar		
Conductor resist. not exceeded / value		
Insulation		
Leakage current		
Gun locked		

Inspection result (tick)

- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment, the defects found have been rectified so that the Labour Safety can be confirmed.
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The next retest according to the Guidelines for Liquid Spray Equipment has to be carried out by: MonthYear

Place, date..... Signature.....

**I. Kränzle GmbH
Elpke 97
D - 33605 Bielefeld**

Subject to technical modifications.

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As date of 02/26/2013

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■ in
■ Germany