High Pressure Cleaners



quadro 800

250 bar / 3600 psi **TST**

quadro 1000220 bar | 3200 psi TS1

quadro 1200180 bar / 2600 psi **TS**1

-- -- P31

quadro 1000220 bar / 3200 psi TS

quadro 1200

180 bar | 2600 psi **TS**

Operating manual
Read and conform
safety instructions
before use

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 at 0 bar at nominal pressure	15 l/min 13,5 l/min	17,5 l/min 15,6 l/min	21 l/min 19 l/min	17,5 l/min 15,6 l/min	21 l/min 19 l/min
Nozzle size (Flat jet) (Turbokiller)	2504 045	2505 055	2507 08	2505	2507
Volume Water tank	16 I				
Max. inlet water temperature to water tank	max. 60 °C				
Direct suction height	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				
Motor speed adjustm.	1400 U/min				
Connect. wattage inp. output.	P1: 7,5 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 LxWxH in mm	770 x 570 x 990				
Sound level acc. to 45 635 (rel. to working place)	89 dB (A)				
with Turbokiller Guaranteed sound	91 dB (A)				
level LWA	91 dB (A)				
Vibrations at lance	2,2 m/s ²	2,2 m/s ²	2,2 m/s ²	2,2 m/s ²	2,2 m/s²
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

^(*1) Min. water quantity to be supplied to the high pressure cleaner! (2-8 bar admission pressure)

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.

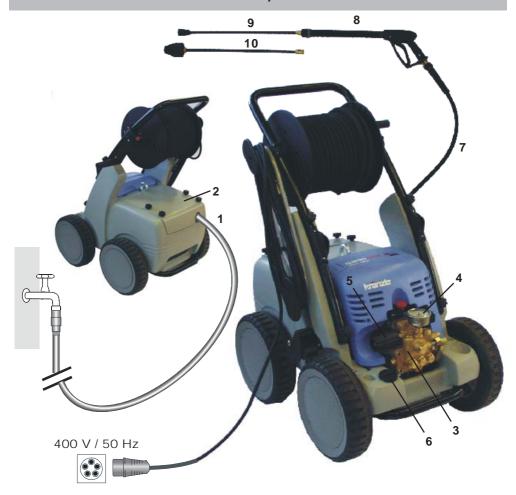
The equipment will assist you professionally in all cleaning tasks, e.g.:

- facades - vehicles of all types - barrels and containers

- flagstones - containers - channels

- terraces - machines etc.

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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.

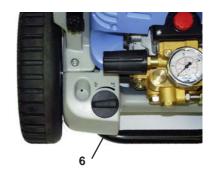
Components

- 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

Water system

The water must be lead to the high pressure cleaner under pressure (2-8) 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.

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 30mA 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 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:



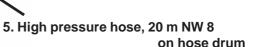
1. Turbokiller

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



6. Crank for hose drum



8. Water inlet part (filter is already installed)



7. Crosstip screwdriver

Fixing screw for crank



How to assemble and furnish your high pressure cleaner



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.



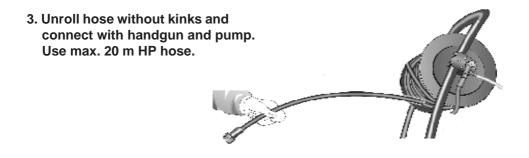


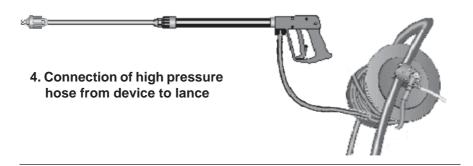
Preparation for use

- 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.









Preparation for use

5. The machine must be connected to the water line with cold water or up to 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 60° 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)

To shut down the pump

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

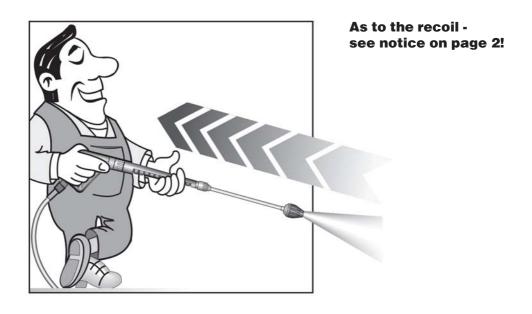
For this purpose, separate the device from the water supply. Then, turn on the main switch and open the gun. Now, the pump presses the remaining water from the water tank and the pump. However, do not allow the device to operate without water for longer than one minute.

- Fill the device with antifreeze agent

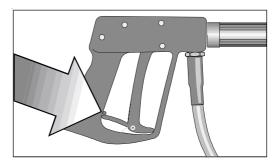
If the device is not operated for longer periods, especially over the winter, you should pump an antifreeze agent through the device. For this purpose, fill the antifreeze agent into the water box and turn on the device. Wait with opened gun, until the agent comes from the nozzle.

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

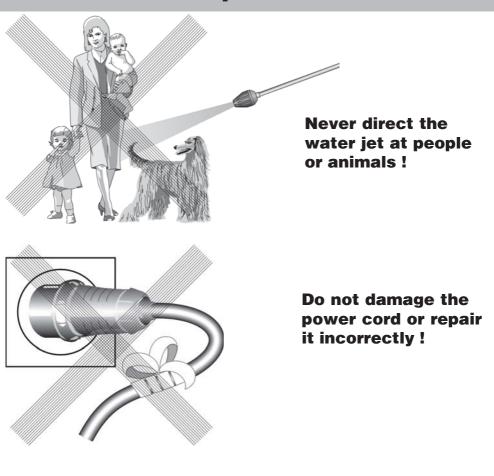
Safety notes

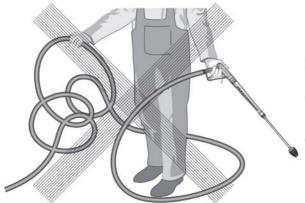


Apply the safety catch on the spray gun after each use, in order to prevent unintentional spraying!



This is prohibited!





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

This is prohibited!

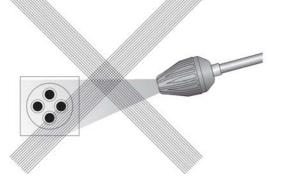




Never allow children to use the high pressure cleaner!



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

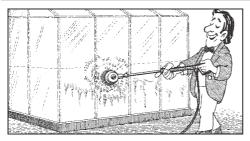
10 m - Order No. 41.058.1 15 m - Order No. 41.058



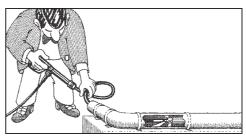


Environmental, refuse disposal and water protection regulations must be observed when using the accessories!

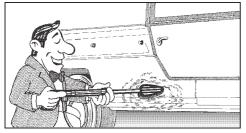
... further combination possibilities



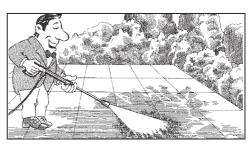
Car cleaning, glass, caravan, boat etc.: rotary washing brush with 40 cm extension and ST 30 nipple M22 $\,$ x 1.5



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



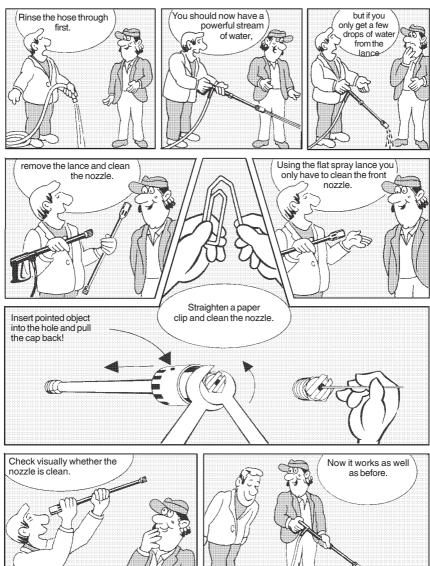
Rotary point sprayer for extreme soiling: Turbokiller with 40 cm extension and ST 30 nipple M22 x 1.5

Small repairs ...

The nozzle is blocked!

• No water but the gauge shows full pressure!

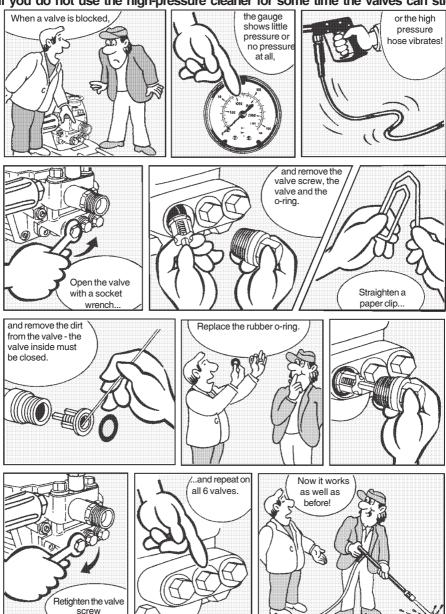




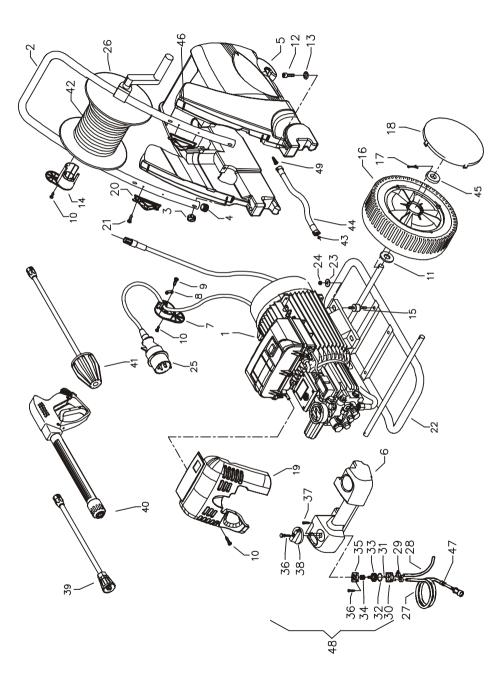
do it yourself!

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

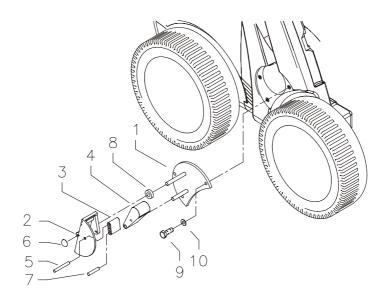


quadro 800 TST - 1200 TST

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

N	Description	Qty.	OrdNo	° N	Description	Qty.	OrdNo
	Motor-Pumpe ohne Elektrik			24	Elastic-Stop-Mutter M8	4	41.410
- -	für quadro 800 TST	-	42.622 1	22	Netzanschlusskabel 8 m	-	44.036
1.2	für quadro 1000 TST	-	42.622 2	56	Schlauchtrommel kpl.	-	41.2596
1.3	für quadro 1200 TST	-	42.622 3	27	Chemiesaugschlauch (Gewebe) mit Filter	er 1	42.621
4.1	für quadro 1000 TS	-	42.622 7	28	Gewebeschlauch 0,4m	-	42.622
1.5	für quadro 1200 TS	-	42.622 8	53	Schlauchklemme 9 - 9	Ŋ	44.054
8	Schubbügel	-	42.601	30	Gehäuse Waschmittelventil	-	44.145
က	Sterngriffmutter M8	4	42.619	31	O-Ring 5 x 1,5 (Viton)	-	44.150
4	Stopfen	0	42.613	32	O-Ring 28,24 x 2,62	-	44.149
2	Wasserkasten	-	42.603	33	Regulierkolben Chemieventil	-	44.147
9	Lanzenablage	-	42.604	34	Edelstahlfeder 1,8 x 15 x 15	-	44.148
7	Kabelaufwicklung unten	-	42.611	32	Deckel für Chemieventil	-	44.146
œ	Zugentlastung	-	43.431	36	Blechschraube 3,5 x 16	က	44.161
თ	Blechschraube 3,5 x 12	0	40.290	37	Blechschraube 3,5 x 19	7	44.162
9	Kunststoffschraube 5,0 x 25	9	41.414	38	Drehgriff Chemieventil mit Blendkappe	-	44.151
Ξ	Scheibe 21 DIN125	12	40.207	39.1	Lanze mit Flachstrahldüse für 800 TST	-	12.392 2-D25
12	Schraube M8x50 DIN912	Ø	42.620	39.2	Lanze mit Flachstrahldüse für 1000 TST	-	12.392 2-D25
13	Scheibe 8,4 DIN125	0	50.186	39.3	Lanze mit Flachstrahldüse für 1200 TST	-	12.392 2-D25
4	Kabelaufwicklung oben	-	42.612		bitte Düsengröße mit angeben		
15	Gummipuffer 25 x 25	4	44.227	40	Starlett -Pistole mit Verlängerung	-	12.320 2
16	Rad	4	44.017	41.1	Turbo-Killer 045 bei quadro 800 TST	-	41.0723
17	Splint 5x28 DIN94	4	42.614	41.2	Turbo-Killer 055 bei quadro 1000 TST	-	41.072 4
18	Radkappe	4	44.018	41.3	Turbo-Killer 08 bei quadro 1200 TST	-	41.0728
19.1	Frontplatte quadro 800 TST	-	42.609 1	42	Hochdruckschlauch 20 m NW8	-	41.083
19.2	Frontplatte quadro 1000 TST	-	42.609 2	43	O-Ring 13 x 2,6	Ŋ	13.272
19.3	Frontplatte quadro 1200 TST	-	42.609 3	44	Verbindungsschlauch	-	42.625
20	Lanzenhalter	Ø	42.610	45	Scheibe 8mm für Rad	4	44.246
21	Blechschraube 3,5x16 DIN7981	4	44.161	46	Gewindestift M6x55	4	42.617 2
22	Fahrgestell	-	42.602	47	Rückschlagventil für Chemiesaugschl.	-	44.240
23	Scheibe 8,4 DIN9021	4	41.409	48	Chemieventil Kpl. Pos. 30-37	-	44.052
				49	Wasserfilter	-	42.633

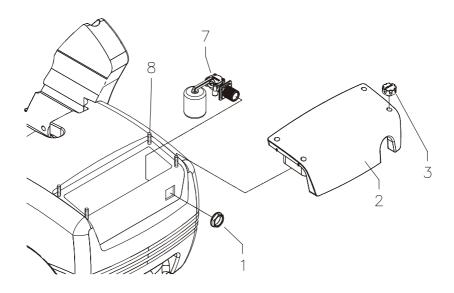
Brake



Spare parts list KRÄNZLE quadro 800 TST - 1200 TS Brake

No	Description	Qty.	OrdNo
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

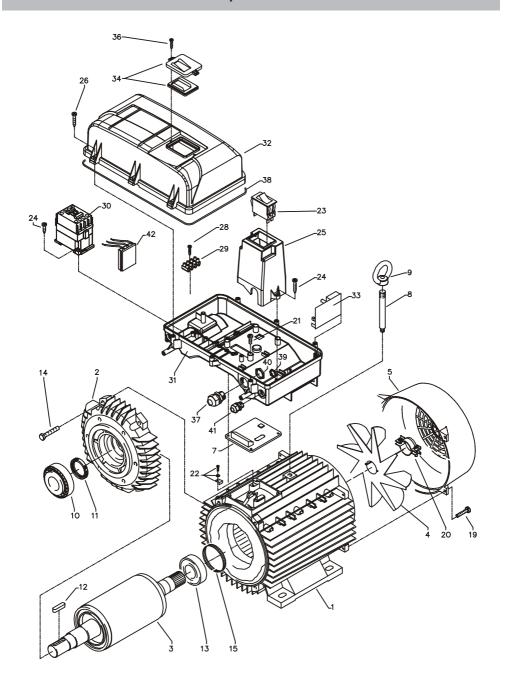
Water inlet



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

No	Description	Qty.	OrdNo
1	Mutter R3/4"	1	46.258
2	Revisionsdeckel	1	42.605
3	Sterngriffmutter M8	4	42.619
7	Schwimmerventil	1	46.250
8	Gewindestift M6x40	4	42.617 1

Pump motor

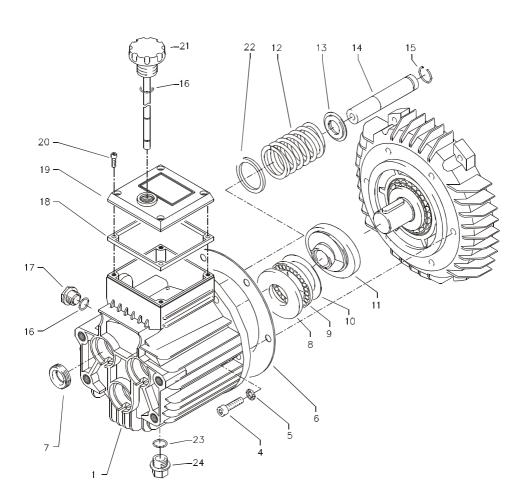


quadro 800 TST - 1200 TS

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

No	Description	Qty.	OrdNo
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
15	Toleranzhülse	1	40.544 1
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 100-C12KN10 3x400V 50/60 Hz	1	46.005 1
31	Schaltkasten Unterteil	1	42.606
32	Schaltkasten Deckel	1	42.607
33	Steuerplatine Abschaltverz. 400V / 50Hz	: 1	42.563
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 3-polig 12A	1	46.040 1
	Schaltkasten kpl. Pos. 23 - 42		42.631
	Motor compl. without switch	1	24.060
	Set of cables compl. consisting of 10 single cables	1	42.537

Transmission unit

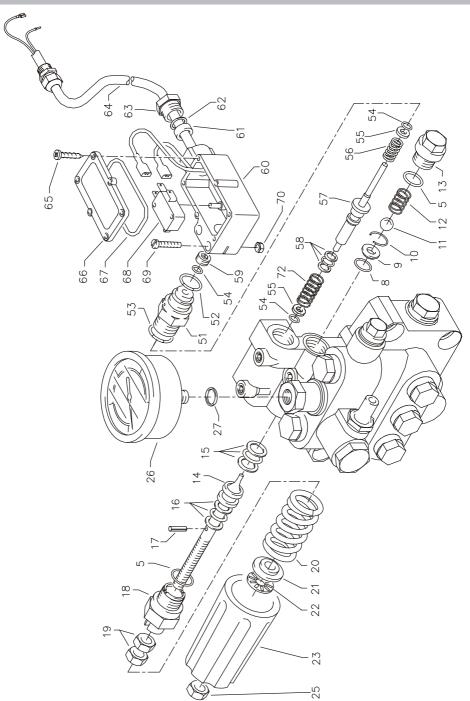


quadro 800 TST - 1200 TST

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

No	Description	Qty.	OrdNo
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	Taumelscheibe AQ 9,5° bei quadro 800 TST	1	40.042 1-9,
11.2	Taumelscheibe AQ 10,8° bei quadro 1000 TST + 1000 TS	1	40.042 1-10
11.3	Taumelscheibe AQ 12,75° bei quadro 1200 TST + 1200 TS	1	40.042 1-12
12	Plungerfeder	3	40.506
13	Federdruckscheibe	3	40.510
14	Plunger 20 mm (lang)	3 3 3 2	40.505
15	Sprengring	3	40.048
16	O-Ring 14 x 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

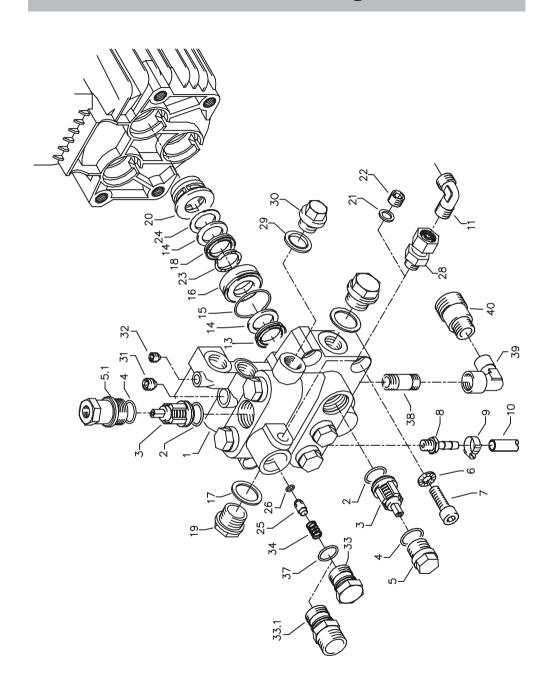


quadro 800 TST - 1200 TST

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

Š	Description	Qty.	Qty. OrdNo	9	Description	Qty.	OrdNo
22,	O-Ring 16 x 2	2	13.150	אָצ	Stiltzecheibe	٠	15 015 1
α	O-Ring 11 x 1 44	_	12 256	2 9	Stutzscrietor	۷.	0.00
0 0	++,- < Bully D	- ,		ဖွ	Edelstahlfeder	_	15.016
ກ່	Edelstanisitz			<u>/</u>	Steuerstößel	_	15.010 2
9	Sicherungsring	_		œ	Parhaks	_	15 013
=	Edelstahlkugel	_	13.148	g	Stonfan M 10 v 1 (durchaebohrt)		13 385 1
12	Edelstahlfeder	_	14.119	2 0	Cobject M 10 × 1 (datengeboller)		200.07
13	Verschlußschraube	_		5 2	Genause Elektroschalter		15.007
4	Steuerkolben	_		<u>-</u> (Guillimalischeite PG 9		15.020
τ.	Parhaks 16 mm	_		Ņ (Scheibe PG 9		15.021
<u> 4</u>	Darbake o mm	- ~		n	Verschraubung PG 9	_	15.022
1 9	Palbaks o IIIII			4	PVC-Kabel 2x 1,0 mm ²	_	42.505
_ ;	Spanstift			ťδ	Blechschruabe 2,8 x 16	9	15.024
Σ,	Kolbentuhrung spezial	- (99	Deckel Elektroschalter	_	15.008
ე ე	Kontermutter M 8 x 1	.7		<u></u>	O-Ring 44 x 2 5	_	15 023
70	Ventilfeder rot bei quadro 800	_	_	. α	Mikroschalter		15.018
20.1	Ventilfeder schwarz	_	14.125	σ	Zvlinderschraube M 4 x 20	۰ ،	15.025
	bei quadro 1000 und 1200		7	3 8	Sechskant - Mitter M 4	10	15.026
7	Federdruckscheibe	_	14.126	.	Decelled and a second	۷ ۳	0.05
22	Nadellager	_	14.146	V	Druckleder I x 8,6 x 30	_	40.520
23	Handrad	_	14.147		Repair kits:		
22	Elastic-Stop-Mutter M 8 x 1	_	14.152				
56	Manometer 0-400 Bar	_	15.039 4		Repair Kit		15.009 3
27	Aluminium-Dichtring	7	13.275		Pressure switch		
51	Führungsteil Steuerstößel	_	15.009 1		1x Pos. 51, 1x Pos. 52, 1x Pos. 53,		
25	O-Ring 12,3 x 2,4	_	15.017		3x Pos. 54, 1x Pos. 55, 1x Pos. 56,		
53	O-Ring 14 x 2	← (43.445		1x Pos. 57, 1x Pos. 58, 1x Pos. 59		
54	O-Ring 3,3 x 2,4	က	12.136				
					Pressure switch compl. No. 54 - 70	. 70	41.300 5

Valve housing

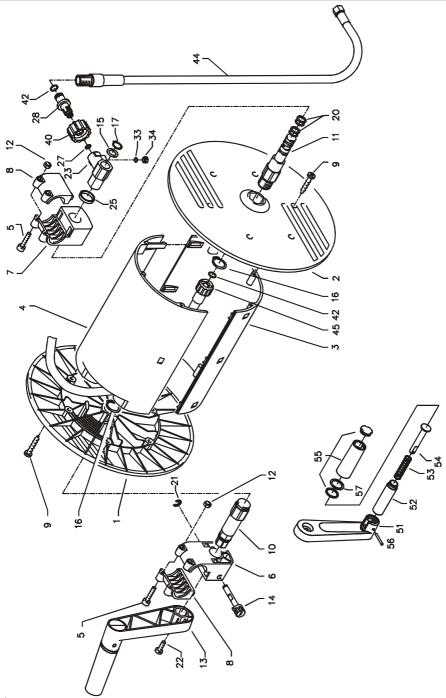


quadro 800 TST - 1200 TST

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

Š	Description	Qty.	OrdNo	° N	Description	Qty.	OrdNo
	Ventilgehäuse AQ mit integr. UL und Druckschalter	~	40.503 5	33	Ausgangsteil fiir guadro 800 1000 1200 TST	_	42.161
7	O-Ring 18 x 2	9	40.016	33.1	Ausgangsteil M22x1,5	_	42.161 1
က	Einlaß- / Auslaß- Ventil	9	42.024		für quadro 1000, 1200 TS		
4	O-Ring 21 x 2	9	42.025	34	Rückschlagfeder	_	14.120
2	Ventilstopfen	2	42.026	37	0-Ring 18 x 2	_	43.446
5.1	Ventilstopfen mit R 1/4" IG	-	42.026 2	38	Messingrohr bds. R3/8"	_	41.628
9	Sicherungsring	4	40.032	39	Winkel 2x 3/8" IG	_	44.138
7	Innensechskantschraube M 12 x 45	4	40.504	40	Wassereingang R3/8" AG	_	41.016
œ	Schlauchnippel R3/8" x 6	_	42.634				
တ	Schlauchschelle 7 - 10	-	44.054		Repair kits:		
10	Chemiesaugschlauch mit Filter	-	42.621				
_	Winkel 12L x 12L	-	42.630		Repair kit for sleaves		40 065 4
13	Gewebemanschette	က	40.023		consisting of 3× Dos 13· 6× Dos 14·		-
4	Backring 20 mm	9	40.025		3x Doc 16: 3x Doc 16: 3x Doc 19:		
15	O-Ring 31,42 x 2,62	က	40.508		37 Doc 20: 37 Doc 23		
16	Leckagering 20 x 36 x 13,3	က	40.509		3X FUS. 2U, 3X FUS. 23		
17	Cu-Dichtring 21 x 28 x 1,5	7	42.039				1
48	Gummimanschette	က	40.512		Repair Kit for sleeves without		7 LC:04
19	Verschlußschraube R 1/2"	7	42.032		brass parts consisting of:		
50	Distanzring mit Abstützung	က	40.507		3x Pos. 13; 6x Pos. 14; 3x Pos. 15;		
2	Aluminium-Dichtring bei quadro TS	7	13.275		3x Pos. 18; 3x Pos. 23		
22	Verschlußstopfen bei quadro TS	_	13.181				
23	Druckring 20 mm	က	40.021		Repair kit valves		40.062 1
24	Zwischenring 20 mm	က	40.516		consisting of:		
22	Rückschlagkörper	_	14.122		6x Pos. 2; 6x Pos. 3; 6x Pos. 4		
56	O-Ring 6x3	_	14.121				
28	Ausgangsteil Pumpe R1/4" x 12	-	44.215				
58	Dichtring 17 x 22 x 1,5 (Kupfer)	_	40.019				
30	Stopfen 3/8"	_	40.018				
31	Dichtstopfen M 10 x 1	-	43.043				
35	Dichtstopfen M8 x 1	7	13.158				

Hose drum



quadro 800 TST - 1200 TST

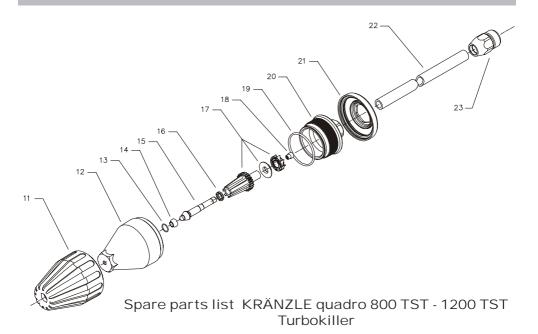
Spare parts list KRÄNZLE quadro 800 TST - 1200 TST Hose drum

° N	Description	Qty.	Qty. OrdNo	٥ N	Description Q	Qty.	OrdNo
	Seitenschale Schlauchführung	-	40.302	23	Drehgelenk	_	40.167
7	Seitenschale Wasserführung	_	40.301	22	Distanzring	_	40.316
က	Trommel Unterteil	_	40.304	27	O-Ring 6.86 x 1.78	_	40.585
4	Trommel Oberteil	_	40.303	78	Anschlußstück	_	40.308
2	Innensechskantschraube M4 x 25	4	40.313	33	O-Ring 6 x 1,5	_	13.386
9	Lagerklotz mit Bremse	_	40.306	8	Stopfen M 10 x 1	_	13.385
7	Lagerklotz links	_	40.305	4	Überwurfmutter	_	13.276 2
∞	Klemmstück	7	40.307	42	O-Ring 9,3 x 2,4	4	13.273
တ	Kunststoffschraube 5,0 x 20	12	43.018	4	Verbindungsschlauch	_	42.624
10	Antriebswelle	_	40.310	45	Hochdruckschlauch NW 8 20 m	_	41.083
7	Welle Wasserführung	_	40.311	21	Kurbelarm	_	40.309 1
12	Elastic-Stop-Mutter M 4	4	40.111	25	Hülse	_	40.309 2
13	Handkurbel klappbar	_	40.309 9	23	Druckfeder ,	_	40.3093
4	Verriegelungsbolzen	_	40.312	72	Bolzen	_	40.309 4
15	Scheibe MS 16 x 24 x 2	_	40.181	22	Griff mit Kappe und Gleitscheibe	_	40.309 5
16	Wellensicherungsring 22 mm	7	40.117	26	Spannstift 4 x 28	_	40.3096
17	Wellensicherungsring 16 mm	_	40.182	22	Flachsprengring SW18	_	40.3098
20	Parbaks 16 mm	7	13.159				
7	Sicherungsscheibe 6 DIN6799	_	40.315		Buhen na navíjene hadíce kompletní		41 259
22	Schraube M5x10	_	43.021				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
					Kurbel kpl. bestehend aus Pos. 51 - 57		40.309 9

Starlet II

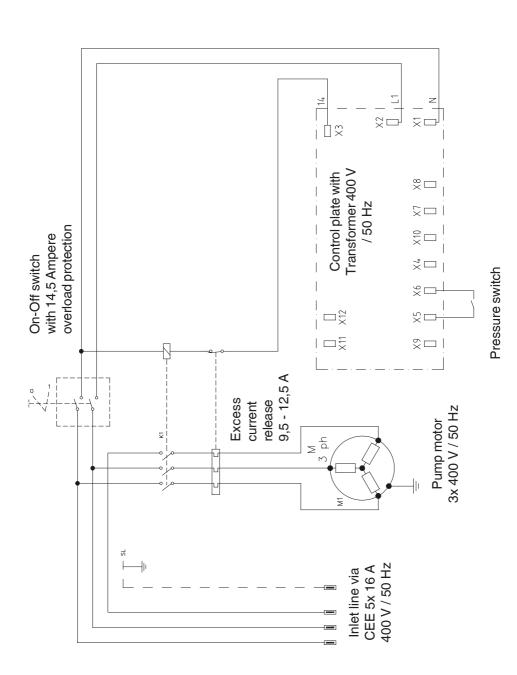
54 551 500 South State of Stat	53 52 13 25 14 15 19 19 19 10 10 10 10	Qty.	OrdNo
1 2 3 4 5 6 7 8 9 100 111 122 13 144 15 166 17 18 19 20 21 22 23 24 25 51 52 53 54 54 54	Ventilkörper mit Handgriff Schutzhülse Abdeckschutz Betätigungshebel Sicherungshebel Abschlußschraube M 16 x1 Stopfen Gewindeführungshülse R 1/4" AG Aufsteuerbolzen Stift Lagernadel Edelstahlfeder Edelstahlkugel Edelstahlsitz O-Ring 11 x 1,44 O-Ring 3,3 x 2,4 Blechschraube 3,9 x 8 Druckstück Rohr kunststoffumspritzt bds. R 1/4" A Überwurfmutter ST 30 M22 x 1,5 IG Außen-Sechskant-Nippel R 1/4" IG O-Ring 9,3 x 2,4 Aluminium-Dichtring O-Ring 15 x 1,5 Sicherungsring Düsenschutz Rohr 500 mm; bds. R1/4" ST 30 Nippel M 22 x 1,5 / R1/4" m. ISk Flachstrahldüse 2504 (bei quadro 800	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12.294 12.295 12.296 12.298 12.149 12.247 12.287 12.250 12.284 12.148 12.253 12.246 12.245 13.146 12.256 12.297 12.252 15.004 5 13.276 1 13.277 1 13.273 13.275 12.129 1 12.258 26.002 12.385 1 13.370 D2504 D2505 D2507 12.320 2 12.320 2

Turbokiller



No	Description	Qty.	OrdNo
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



38

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 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 I -

Motor oil: 10/W60 SAE halfsynthetic oil



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	2. General condition
 a) Manometer b) Safety valve (pressure control) c) Operating pressure d) Cut out pressure (max. 10% above operating pressure) 	a) High pressure hoseb) Cable, plug, switch (VDE)c) Spray gun, spray accessories.d) Motore) 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:

e) Low pressure with closed gun

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

Warranty

Warranty

This warranty covers material and/or workmanship related defects only and does not extend to ordinary wear.

Machine must be operated according to enclosed operating instructions which are part of present warranty conditions.

All products sold directly to private customers are warrantied for a period of 24 months, whereas the warranty period for industrial purchases is limited to 12 months.

In case of any warranty claims, please have your HP cleaner together with accessories and your purchase document ready and contact your nearest dealer or authorized service point which can also be looked up in the internet at www.kraenzle.com.

Warranty is void in case of attempts to modify any of the safety devices or in the event of exceeding temperature or rpm limits - this also applies to undervoltage, low water and/or polluted water. Gauge, nozzle, valves, sealing gaskets, high pressure hose and spray equipment are considered wear parts and do not fall under this warranty.



High-pressure-cleaners Hochdruckreiniger Nettoyeurs à Haute Pression



I. Kränzle GmbH Elpke 97 . 33605 Bielefeld



EC declaration of conformity

We hereby declare,

that the high-pressure models:

(techn. documentation available from):

comply with the following guidelines and specifications and their amendments for high-pressure cleaners:

measured:

quaranteed:

Sound power level

Applied specifications and standards:

Bielefeld, den 08.09.05

Kränzle quadro 800/1200 TST Kränzle quadro 1000/1200 TS

Manfred Bauer, Fa. Josef Kränzle Rudolf-Diesel-Str. 20, 89257 Illertissen

Machine guideline 89/392/EEC Low voltage guideline 73/23 EEC Specification for electromagnetic

compatibility 89/336 EEC

Outdoor noise directive 2000/14/EC, Art. 13, High-pressure water jet machines

Appendix 3, part B, chapter 27

89 dB (A)

91 dB (A)

EN 60 335-2-79:2004

EN 55 014-1 / A2:2002 EN 55 014-2 / A1:2001

EN 61 000-3-2 / A14:2000 EN 61 000-3-3 / A1:2001

Droitsch

(Managing Director)