

# kränzle® GB

## High Pressure Cleaners



W 11/135  
W 13/230  
W 15/200  
W 19/160



made  
in  
Germany



**Operating manual**  
Read before use and  
conform to  
safety instructions



# Description

## Dear Customer

We would like to congratulate you on your new high pressure cleaner 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.

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

- Vehicles of all types
- Machines etc.
- Removing old paint
- Barrels and containers

Technical specifications	<b>Kränzle W 11 / 135</b>	<b>Kränzle W 19 / 160</b>	<b>Kränzle W 15 / 200</b>	<b>Kränzle W 13 / 230</b>
Operating pressure steplessly adjustable	10 - 135 bar	10 - 160 bar	10 - 200 bar	10 - 230 bar
Permiss. overpressure	150 bar	180 bar	220 bar	250 bar
Water output *	at 1400 rpm 11 l/min	at 1400 rpm 19 l/min	at 1400 rpm 15 l/min	at 1400 rpm 13 l/min
Hot water input	max. 60 °C	max. 60 °C	max. 60 °C	max. 60 °C
High pressure hose	10 m	10 m	10 m	10 m
Electrical ratings	230 V ; 50 Hz ; 14,0 A	400 V ; 50 Hz ; 12,5 A	400 V ; 50 Hz ; 12,5 A	400 V ; 50 Hz ; 12,5 A
Connected load Input	P1: 3,3 kW	P1: 7,5 kW	P1: 7,5 kW	P1: 7,5 kW
Output	P2: 2,4 kW	P2: 5,5 kW	P2: 5,5 kW	P2: 5,5 kW
Weight	76 kg	90 kg	90 kg	90 kg
Dimensions	710 x 740 x 370	710 x 740 x 370	710 x 740 x 370	710 x 740 x 370
Sound lever accord. to DIN 45 635 (rel. to working place)	89 dB	89 dB	89 dB	89 dB
with dirtkiller	84 dB	93 dB	93 dB	93 dB
Recoil at lance	approx. 25 Nm	approx. 22 Nm	approx. 25 Nm	approx. 27 Nm
Torque	26 Nm	24,3 Nm	28,8 Nm	28,8 Nm
		(Assumed length of lance: 0.9 m)		
Vibrations at lance	2,4 m/s <sup>2</sup>	3,2 m/s <sup>2</sup>	3,2 m/s <sup>2</sup>	3,2 m/s <sup>2</sup>
Order n°:	41 312	41 310	41 309	41 308

Permissible tolerance for figures ±5% in accordance with VDMA, uniform sheet 24411

\* Min. water quantity to be supplied to the high pressure cleaner!

# Preparation for use

## Stationary cold water high pressure cleaner

The stationary wall-mounted systems are supplied with a stainless steel housing and equipped with an AQ pump (W11/135 with APG pump) and 10m steel fabric heavy duty hose.

Pressure fully adjustable, automatic total-stop feature.

After the gun is closed, the device continues to run for a time and then cuts out. It restarts when the gun is opened. Incorrect operation by unauthorised persons is therefore not possible. The factory setting is 30 seconds. The device is connected to a water supply with advance pressure. Temperatures of up to 60 °C are possible.

## Features

Stainless steel housing,  
10 m heavy duty hose with gun,  
lance 800 mm  
control nozzle and HP nozzle.

## Function

- 1 **Water inlet connection**
- 2 **High-pressure outlet**
- 3 **Press. gauge with glycerin filling**
- 4 **On-/ Off switch**



## Preparation for use

Connect to suitable water supply, open the water tap.

Switch on high-pressure cleaner. The pump is running and the pressure is built up. If the gun remains closed, the cleaner continues to run for another 30 seconds and then switches automatically into standby.

As soon as you presser the trigger of the gun the high-pressure pump starts.

After closing the gun, it continues to run for approx. 30 seconds, and then switches back to standby mode.

The device continues to run once the trigger is pressed during the 30 seconds.



If you use the HP cleaner for the first time or if you have not worked with your cleaner for a longer period of time, the machine has to be deaerated by opening and closing the gun various times.

# Description

## Water supply system

The water is fed under pressure (2 - 8 bar) to the HP pump. Then the water is fed under pressure from the HP pump to the safety spray lance. The high pressure jet is formed by the nozzle at the end of the lance.



Environmental, refuse disposal and water protection regulations must be observed !

## 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.

When the trigger is released, the spray 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 spray 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 pressure spraying from the lance.



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.

## 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.

# 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. Make sure that the hose is not damaged on sharp edges. 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 a possible malfunction 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



## With 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. That's why the motor on the new KRÄNZLE appliances switches itself off 30 seconds after the trigger is released, and switches itself back on again when the trigger is pressed.



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

## CAUTION !



Never use 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 60° C raised temperatures occur. Do not touch the machine without safety gloves!

# Description

W 11-135  
230V/50Hz  
W 13-230;  
W 15-200;  
W 19-160  
400V/50Hz



## 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 W 11-135 = 230 Volt / 50 Hz

KRÄNZLE W 13-230 = 400 Volt / 50 Hz (phase-sequence not significant)

KRÄNZLE W 15-200 = 400 Volt / 50 Hz (phase-sequence not significant)

KRÄNZLE W 19-160 = 400 Volt / 50 Hz (phase-sequence not significant)

When using an extension cable, this must have an earthed lead which is properly connected to the socket. The conductors in the extension cable must have a minimum cross section of 1.5 mm<sup>2</sup>. Plug connections must be of a spray-proof design, and may not be located on a wet floor.

(with extension cables of more than 10 m - 2.5 mm<sup>2</sup> )

## CAUTION !

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

# Description



Brief operating instructions:

1. **Connect the high pressure hose with spray gun and machine.**
2. **Connect to suitable water supply.**
3. **Flush the air from the pump (open and close the spray gun several times).**
4. **Make the electrical connection - (400 Volt three-phase current).**
5. **Switch on the machine and commence cleaning.**
6. **After having completed the work switch off the tap and completely empty the pump.  
(Switch on the motor for approx. 20 sec. without the water hose and gun).  
Afterwards you can roll up the high pressure hose.**
  - Only use clean water ! - Protect from frost !

## **CAUTION !**

Please pay attention to the regulations of your waterworks company.

In accordance with EN 61 770, the machine may not be directly connected to the public drinking water supply lines.

A brief connection however is permissible according to DVGW (German Association for Gas and Water Affairs) if a tube ventilator with check valve (Kränzle Order-No. 41.016 4) is built into the water supply.

Also indirect connection to the public drinking water supply lines is permissible by way of free emission in accordance with EN 61 770; e.g. by using a reservoir with a float valve.

Direct connection to a non-drinking water supply line is permissible.



# Preparation for use

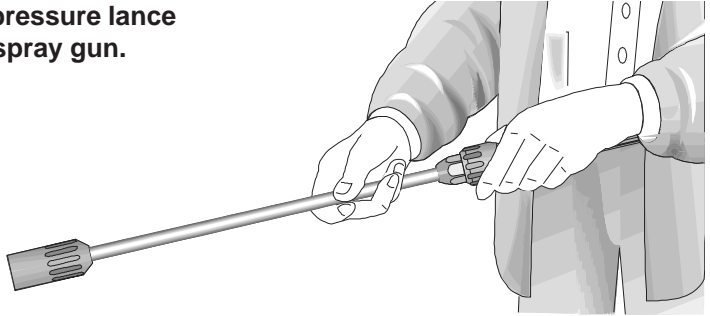
## 1. Check oil level.

- There are two possibilities for checking the oil level of the pump:
- a) Oil must be visible in the viewing window
  - b) The oil level must be between the two markings on the oil dipstick.

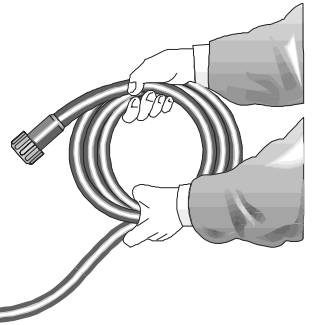
To check the oil level, loosen the oil cover screw and take out the oil dip stick. The oil level must be between the two markings.

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



## 3. Unroll hose without kinks and connect with handgun and pump. Max. extension 20m-HP hose or 2 x 10m with hose connections.



## 4. 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  $\frac{3}{4}$ " = 16 mm (free passage).  
It is recommended to install a water filter prior to the cleaner.  
(Kränzle order no.: 13.300 3)

# ***To shut down the pump:***

*To shut down the pump:*

- 1. Switch off the machine. 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 out of 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 spurts out of the nozzle.

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

# Care and Maintenance

## Care and Maintenance

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



### **IMPORTANT!!!**

**Always remove the plug before working on the machine!**

**Only use original Kränzle spare parts**

### **What to do!**

- **Weekly, or after approx. 40 hours of operation**

- Check the oil level of the high pressure pump.

Loosen the red oil stopper on the high pressure pump and pull out the oil dipstick.

If the oil level is too low, add oil until the oil level is between the two markings on the oil dipstick.

Change the oil if it has a grey or whitish appearance. The oil should be disposed of responsibly.

## Changing the oil

To do this, take the oil drainage hose (1) connected to the oil drain screw, from the inside of the machine and open the red oil filler cap on the top side of the black oil reservoir. Open the cap at the end of the hose. Drain off the oil into an oil pan and dispose of it responsibly. Close the end of the hose.

Refill with oil, as described above.



### **Oil leakage**

If oil leaks out, contact the nearest customer service (dealer) immediately. (Environmental damages, transmission damages, loss of guarantee.)

### **Type of oil:**

W19/160     **Formula RS of Castrol** - Quantity: 1.0 l

W15/200

W13/230

W11/135     **Motor oil: 15/W40** - Quantity: 0.3 l

# Care and Maintenance

## Rules, directives, inspections

### ● Inspections performed by Kränzle

- measurement of earth line resistance
- measurement of voltage and current
- inspection of tension consistency with +/- 1530 V
- visual and functional check as per the inspection sheet provided

### ● Guidelines for liquid sprayers

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

### ● Duties of owner

The owner is to ensure that all safety-relevant components are in a serviceable condition before the sprayer is used. (e.g., safety valves\*, hoses and electric cables, spray equipment etc).

\* The pressure gauge must show 0 bar once the gun is closed.

# Safety Information

## Safety Information

*Important !!!*



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

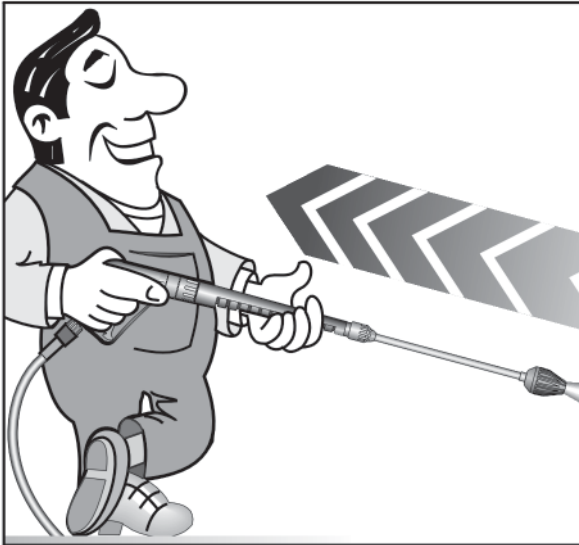
*Do not use the cleaner if electrical connections or other safety-relevant parts (e.g. overpressure valve, high pressure hose, spraying equipment etc.) are damaged.*

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

- Never operate the machine without supervision.
- The water spray can be dangerous. It should never be directed at people, animals, electrical apparatus or the machine itself.
- Never direct the spray at power sockets.
- Parts of the machine interior and parts of the gun and lance become hot when hot water is used. Leave the cover of the machine closed when using the machine and do not touch the metallic parts of the gun and lance.
- Children must not use high pressure cleaning equipment.
- Do not damage the cable or repair it incorrectly.
- Do not pull the high pressure hose if there are kinks or loops in it. Make sure that the hose is not damaged on sharp edges.
- Persons operating the machine should wear the necessary protective clothing, i.e., waterproof clothing, rubber boots, safety goggles, headwear etc. It is prohibited to use the machine in close vicinity to people lacking suitable protective clothing.
- The high pressure spray can generate a high level of noise. If noise exceeds the maximum allowed levels, users and others in the vicinity must wear suitable ear protection.
- The high pressure spray causes recoil and additional twisting movement if the gun is angled. The gun must therefore be held firmly with both hands. (see page 2)
- Do not clamp down the trigger of the gun. Apply the safety catch after use, in order to prevent accidental spraying.
- Do not spray against matter containing asbestos or other hazardous substances.
- Never spray liquids containing solvents, such as paint thinner, petrol, oil, or anything similar. **Note the specifications of the additive makers!** The seals in the machine are not resistant to solvents. The spray vapour of solvents is highly inflammable, explosive and poisonous.

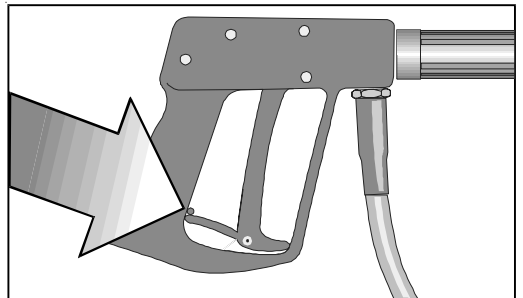
# Safety Information

- The machine may not be set up and used in rooms where there is a danger of fire or explosion. The machine may not be used under water.
- Never direct the high-pressure jet at yourself or other persons just to clean clothing or shoes.



As to the recoil -  
see notice on page 2!

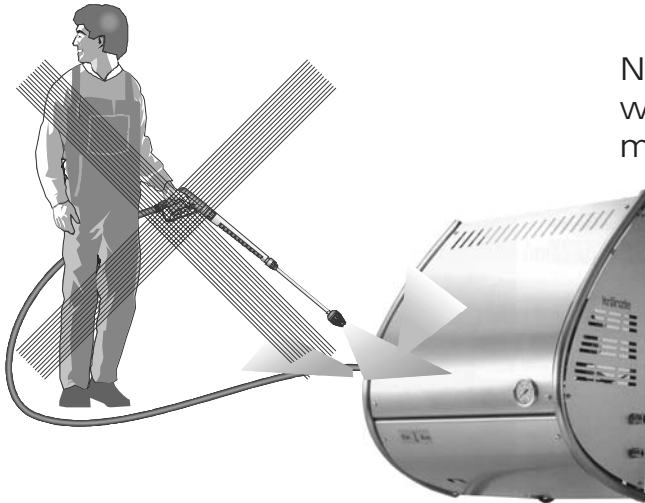
Apply the safety catch on  
the spray gun after each use,  
in order to prevent unintentional  
spraying!



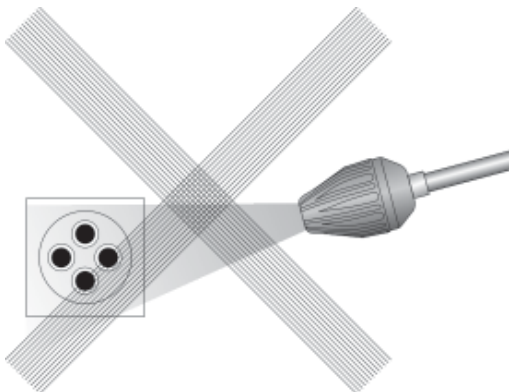
# *This is prohibited!*



Never allow children to use the high pressure cleaner!

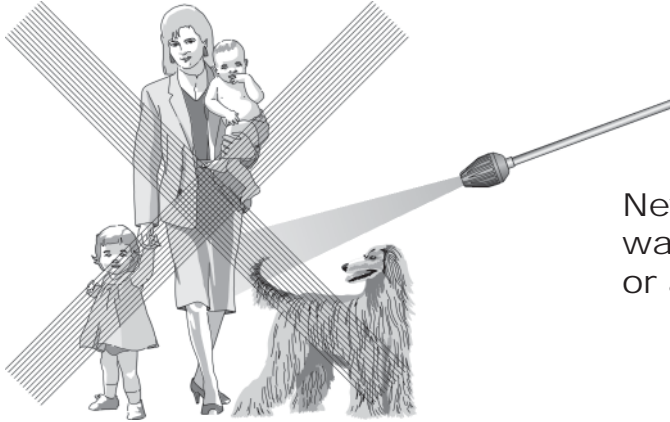


Never direct the water jet at the machine itself!

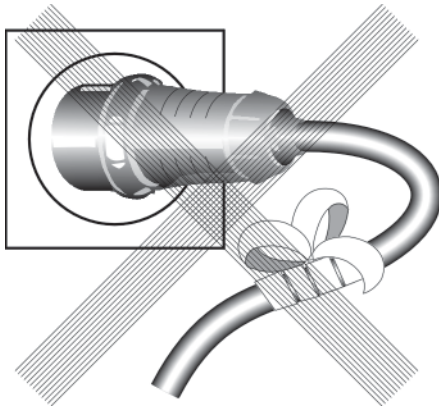


Never direct the water jet at a power socket!

# *This is prohibited!*



Never direct the water jet at people or animals!



Do not damage the power cable or repair it incorrectly!



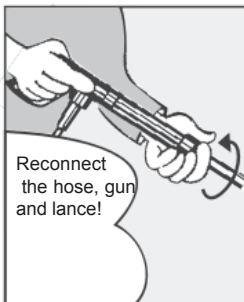
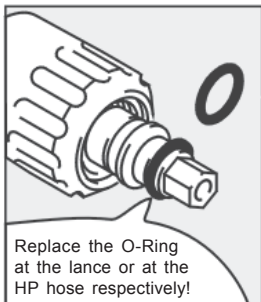
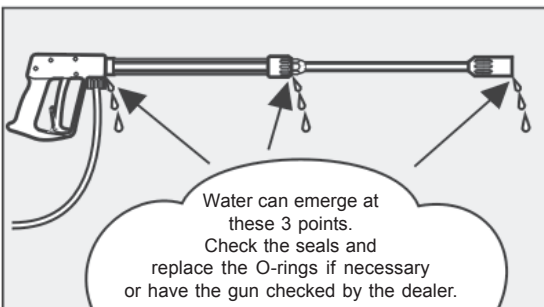
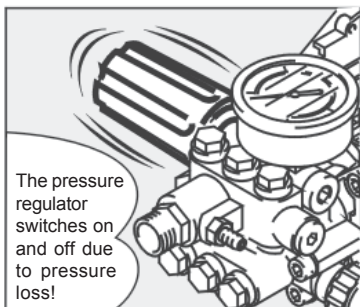
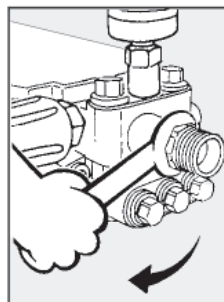
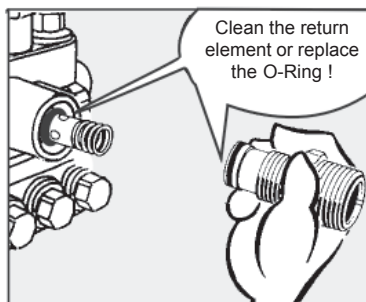
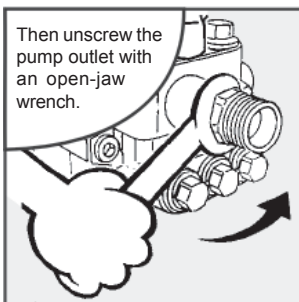
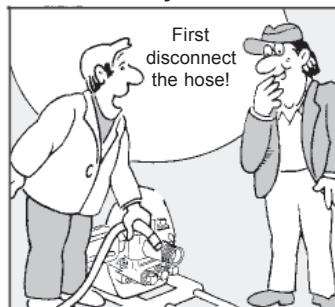
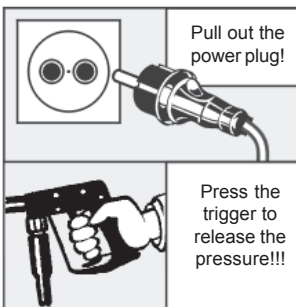
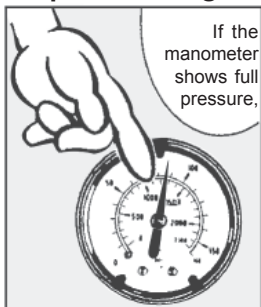
Never pull the high pressure hose if it has formed kinks or "nooses"!  
Never pull the hose over sharp edges!



# Small repairs - Do it yourself!

## Stopping leaks from hose or gun

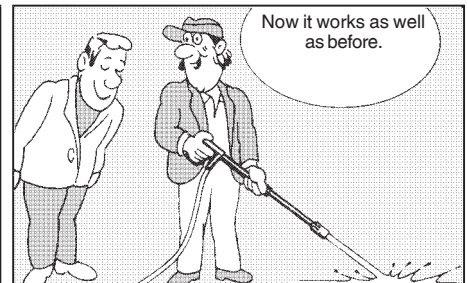
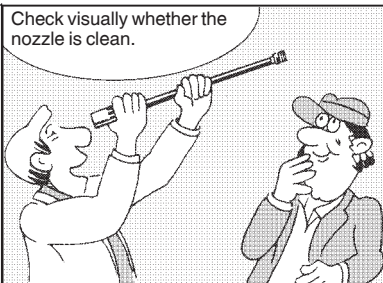
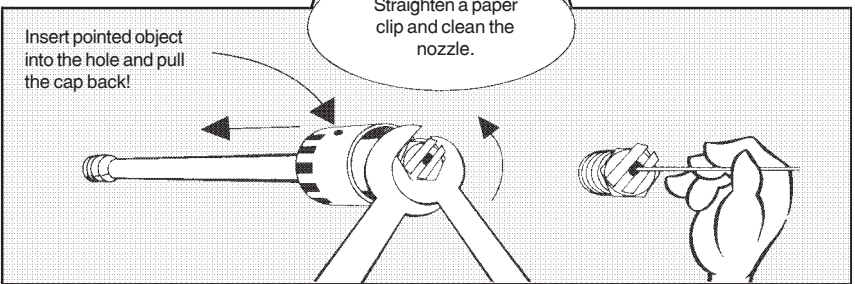
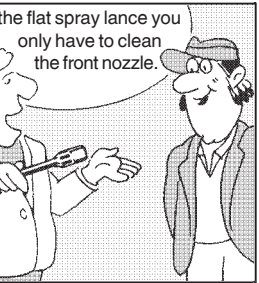
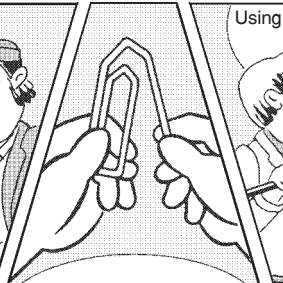
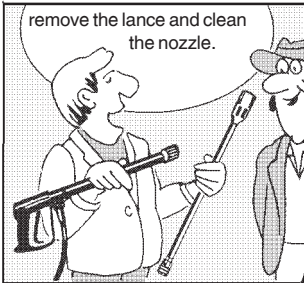
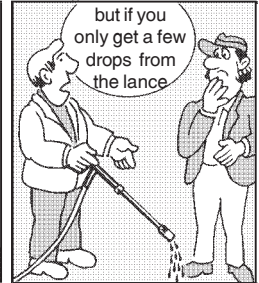
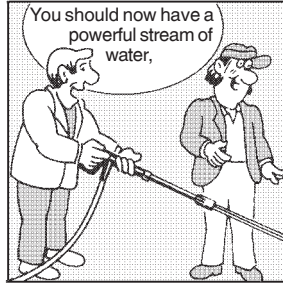
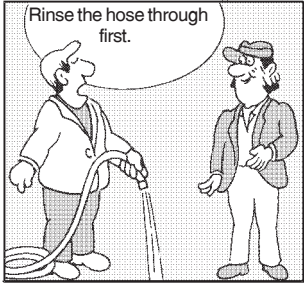
- After closing the gun the manometer shows full pressure!
- The pressure regulator switches on and off continuously!





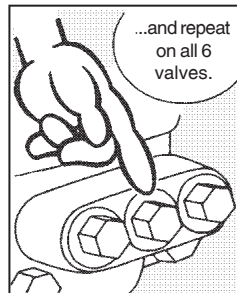
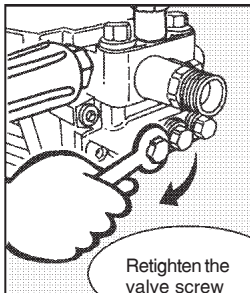
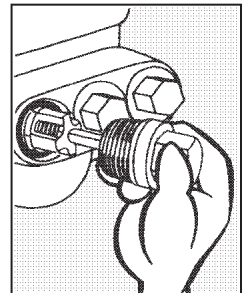
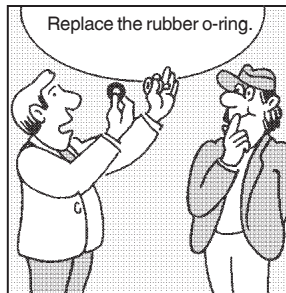
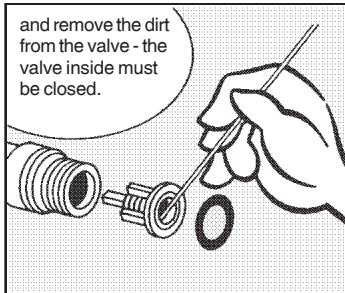
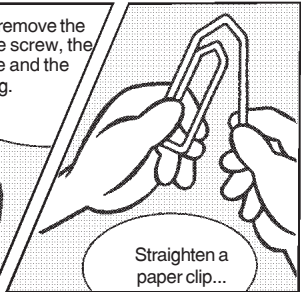
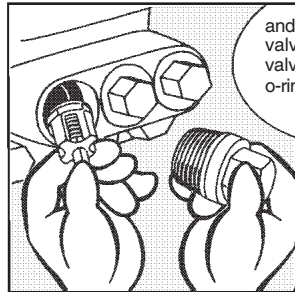
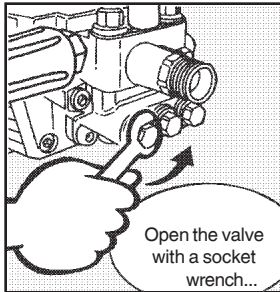
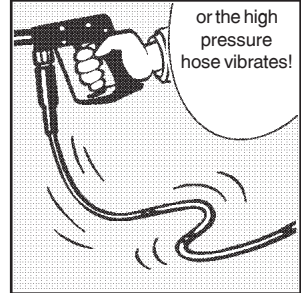
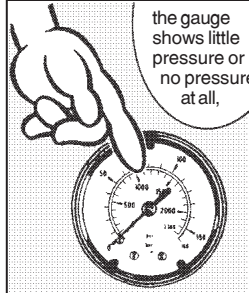
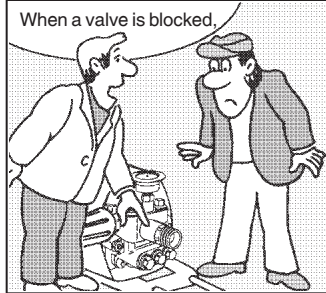
# The nozzle is blocked!

● No water but the gauge shows full pressure !

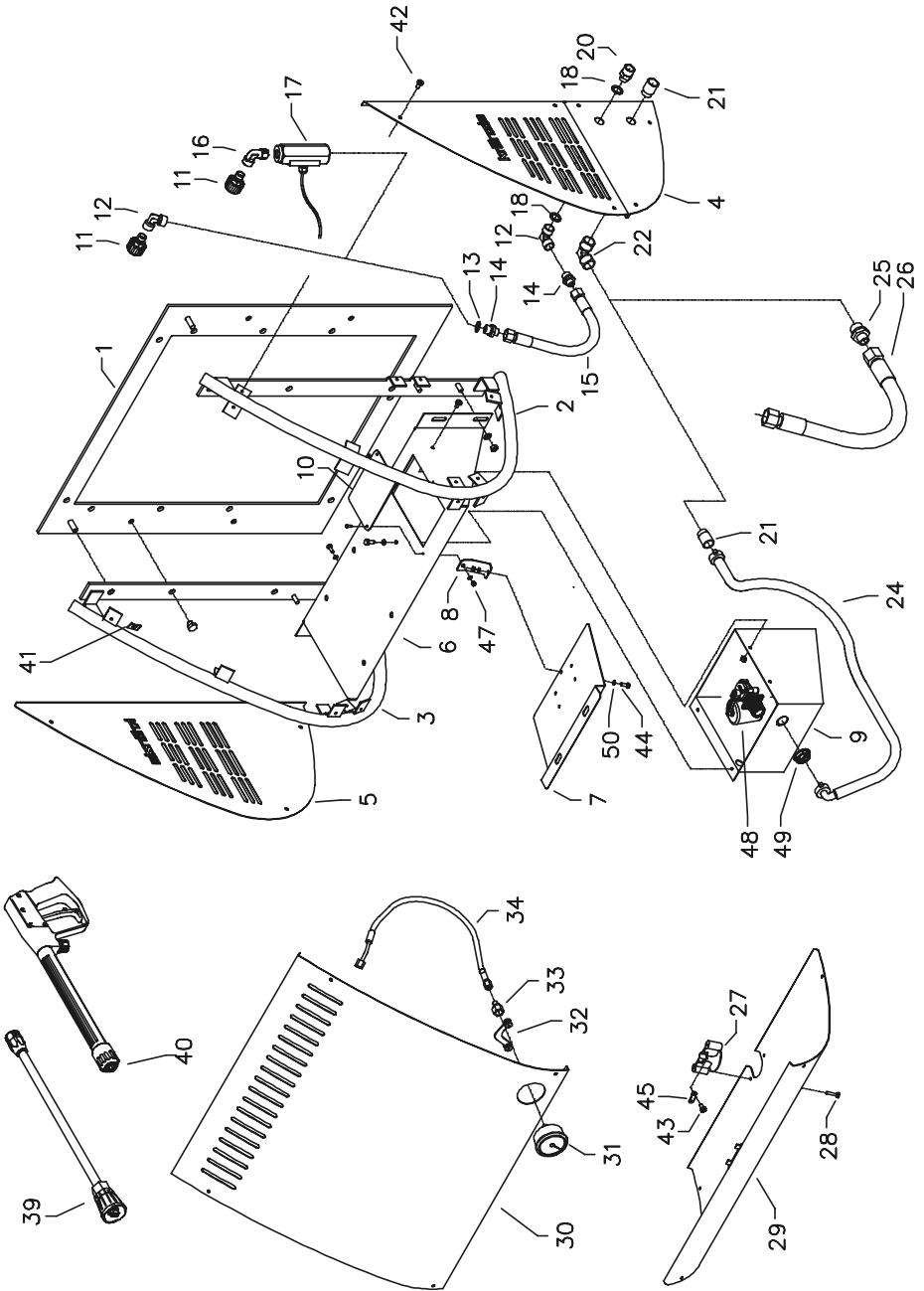


# Nozzle dirty or sticky!

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



# Complete Assembly

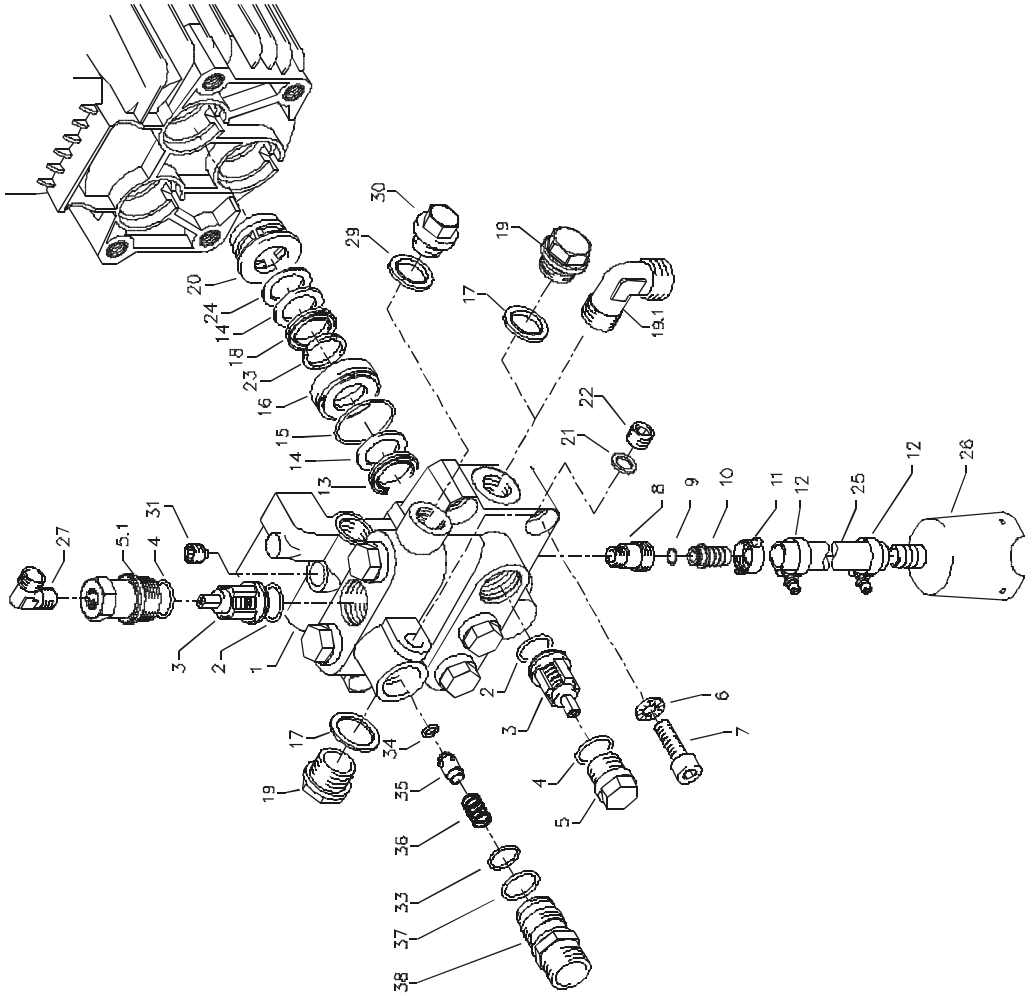


# Spare parts list

## Spare parts list KRÄNZLE W 11-135; W 13-230; W 15-200; W 19-160 Complete Assembly

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
1	Tragrahmen Wandaggregat	1	42.750	24	Wassereingangsschlauch R3/4"	1	42.760
2	Seitenbügel rechts	1	42.751	25	Nippel R 1/2" x 15L	1	42.763
3	Seitenbügel links	1	42.752	26	Wassereingangsschlauch 15L	1	42.760 1
4	Seitenblech rechts	1	42.753	27	Kabeldurchführung	1	42.513
5	Seitenblech links	1	42.754	28	Kunststoffschraube 5,0 x 25	2	41.414
6	Motorträger	1	42.755	29	Frontblech unten	1	42.761
7	Halteblech Schaltkasten	1	42.756	30	Frontblech oben	1	42.762
8	Verbindungsblech Schaltkasten	1	42.757	31	Manometer	1	15.039 1
9	Wasserkasten	1	42.758	32	Klemmbügel für Manometer	1	44.049
10	Abdeckblech	1	42.759	33	Anschlussmuffe Manometer	1	44.136
11	Verschraubung R3/8" AG x M22x1,5	1	13.371	34	Druckmessleitung	1	44.102 1
12	Winkel 2x R3/8" IG	2	44.138	39	Lanze mit HD-Düse	1	12.392 5-HD25045
13	Kupferdichtring	1	40.019	40	Starlett -Pistole mit Verlängerung	1	12.320 2
14	Ermetonippel R3/8" x 12	2	44.139	41	Blechmutter	17	42.506
15	HD-Schlauch	1	44.093	42	Schraube	17	41.414 1
16	Winkel R3/8"AG x R3/8"IG	1	44.127	43	Schraube	2	40.290
17	Durchflusswächter	1	12.634	44	Schraube M4 x 30	4	40.436
18	Usit-Ring	2	12.129	45	Zugentlastung	1	43.431
20	Ausgangsteil R3/8" x M22x1,5	1	13.365 2	47	Schraube M4 x 20	1	40.313
21	Sauganschluss R3/4" x R1/2"	1	41.016 1	48	Schwimmerventil	1	46.250
22	Winkel 2x R1/2" IG	1	42.764	49	Überwurfmutter	1	46.258

# Valve housing

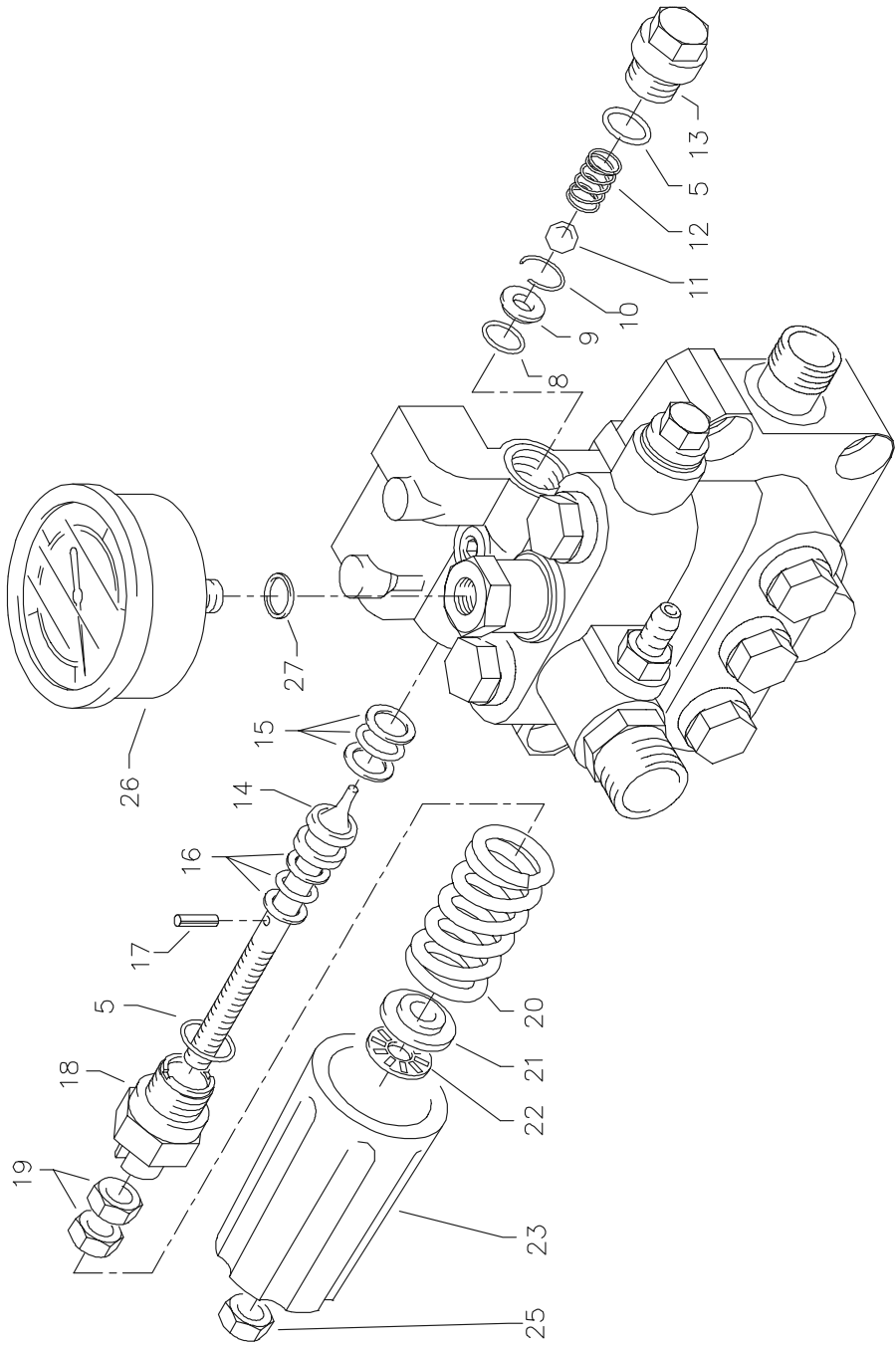


# Spare parts list

## Spare parts list W13/230; W15/200; W19/160 Valve housing AQ-pump

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
1	Ventilgehäuse AQ mit integr. UL ohne integr. Druckschalter	1	40.521	31	Dichtstopfen M 10 x 1	1	43.043
2	O-Ring 18 x 2	6	40.016	34	O-Ring 6 x 3	1	14.121
3	Einlass- /Auslass- Ventil	6	42.024	35	Rückschlagkörper	1	14.122
4	O-Ring 21 x 2	6	42.025	36	Rückschlagfeder	1	14.120
5	Ventilstopfen	5	42.026	37	O-Ring 18 x 2	1	43.446
5.1	Ventilstopfen mit R 1/4" IG	1	42.026.2	38	Ausgangsstück Injektor ST30 M22x1,5	1	43.447
6	Sicherungsring	4	40.032		<b>Repair kits:</b>		
7	Innensechskantschraube M 12 x 45	4	40.504		<b>Repair kit for sleeves</b>		<b>40.065 1</b>
8	Sauganschluss 3/8" AG x 3/4" AG	1	41.016		consisting of: 3x Pos. 13; 6x Pos. 14;		
9	O-Ring 13 x 2,6	1	13.272		3x Pos. 15; 3x Pos. 16; 3x Pos. 18;		
10	Schlauchtülle 11,3	1	44.126.2		3x Pos. 20; 3x Pos. 23		
11	Schlauchverschraubung 3/4" x 19	1	44.122		Repair kit for sleeves without		40.517
12	Schlauchschele 20 - 32	2	44.054.1		brass parts		
13	Gewebemanschette	3	40.023		consisting of:		
14	Backing 20 mm	6	40.025		3x Pos. 13; 6x Pos. 14; 3x Pos. 15;		
15	O-Ring 31,42 x 2,62	3	40.50		3x Pos. 18; 3x Pos. 23		
16	Leckagering 20 x 36 x 13,3	3	40.509		Repair kit valves		40.062 1
17	Cu-Dichtung 21 x 28 x 1,5	1	42.039		consisting of:		
18	Gummimanschette	3	40.512		6x Pos. 2; 6x Pos. 3; 6x Pos. 4		
19	Verschlusssschraube R 1/2"	1	42.032				
19.1	Winkel Einschraub-Verschraubung 1/2"	1	42.765				
20	Distanzring mit Abstützung	3	40.507				
21	Aluminium-Dichtung	2	13.275				
22	Verschlussstopfen	1	13.181				
23	Druckring 20 mm	3	40.021				
24	Zwischenring 20 mm	3	40.516				
25	Ansaugschlauch	1	40.096				
26	Sauglocke mit Sieb	1	15.038.5				
27	Winkel Einschraub-Verschraubung 1/4"	1	44.062				
29	Dichtung 17 x 22 x 1,5 (Kupfer)	1	40.019				
30	Verschlusssschraube 3/8" AG	1	40.018				

# Unloader valve



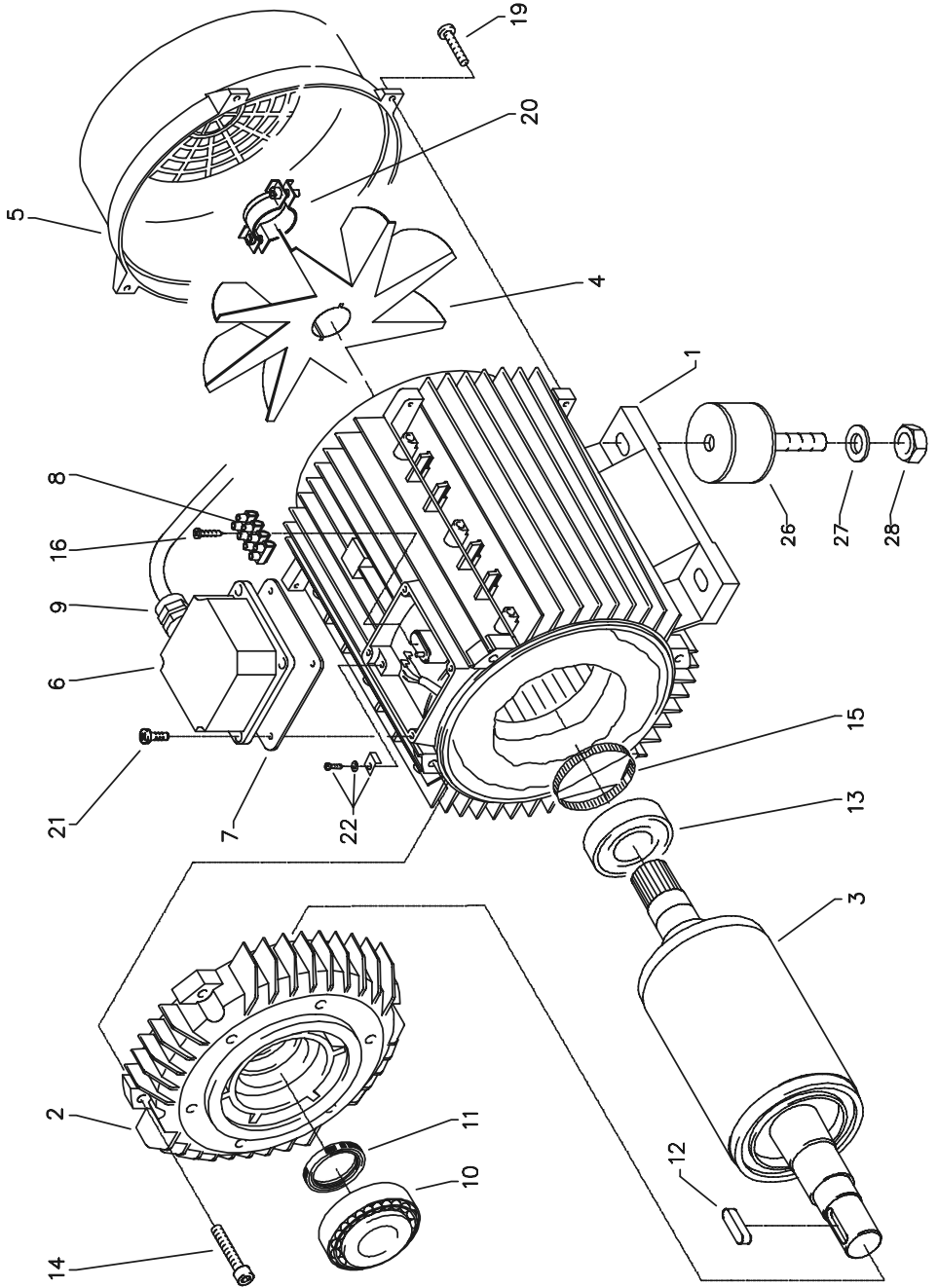


# Spare parts list

## Spare parts list W13/230; W15/200; W19/160 Unloader valve AQ-pump

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	Verschlusschraube	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	Ventilfeder schwarz	1	14.125
21	Federdruckscheibe	1	14.126
22	Nadellager	1	14.146
23	Handrad	1	14.147 2
25	Elastic-Stop-Mutter M 8 x 1	1	14.152

# Motor

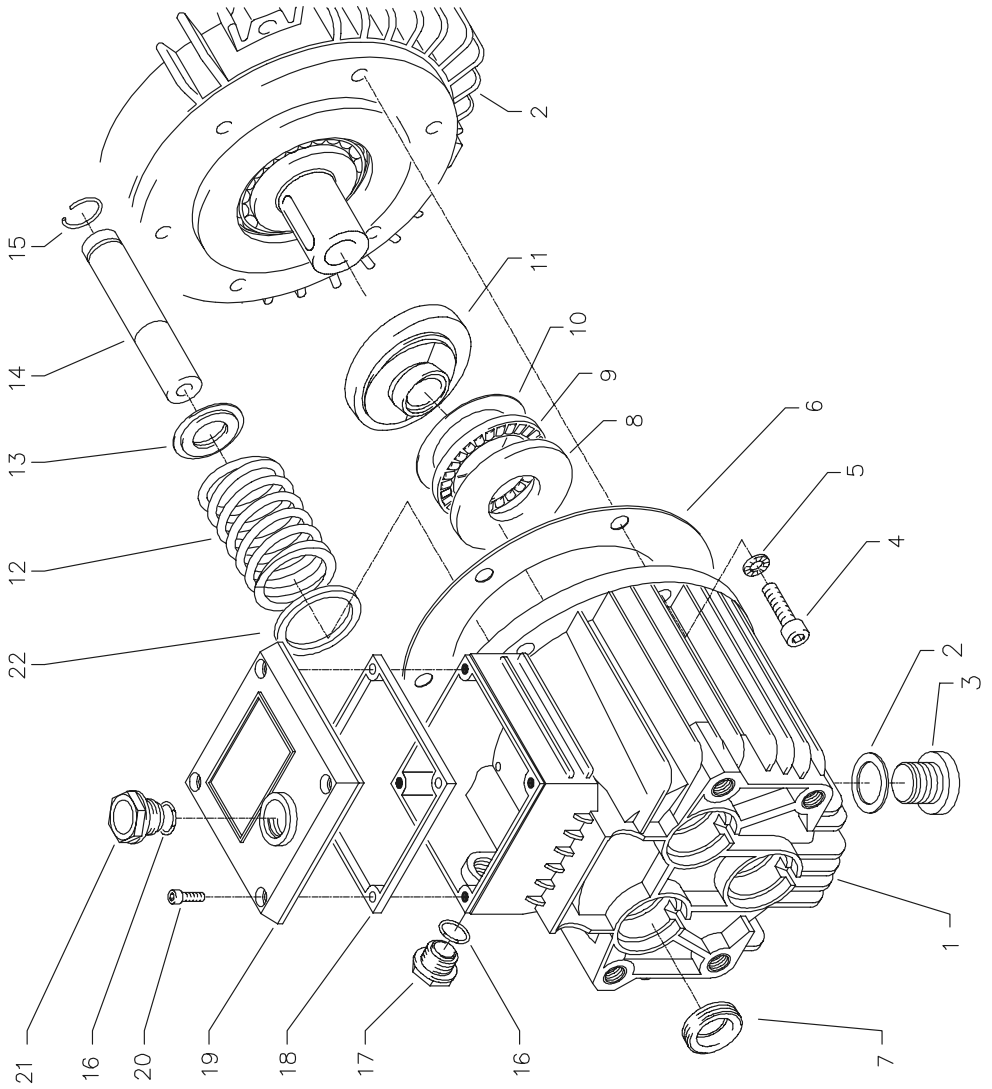


# Spare parts list

## Spare parts list Motor W 13/230; W 15/200; W 19/160

No	Description	Qty.	Ord.-No
1	Stator 112 5.5 kW 400V / 50Hz	1	40.540
2	A-Lager Flansch	1	40.530
3	Rotor 112 400V / 50Hz	1	40.531
4	Lüfterrad BG112	1	40.532
5	Lüfterhaube BG 112	1	40.533
6	Klemmkasten	1	40.534
7	Flachdichtung	1	43.030
8	Lüsterklemme 2,5 mm <sup>2</sup> 4-polig	1	43.031 1
9	PG-Verschraubung PG 13,5	1	40.539
10	Kegelrollenlager 31306	1	40.103
11	Öldichtung 35 x 47 x 7	1	40.080
12	Paßfeder 8 x 7 x 32	1	40.104
13	Kugellager 6206 - 2Z	1	40.538
14	Innensechskantschraube M 6 x 30	4	43.037
15	Toleranzhülse	1	40.544 1
16	Blechschaube 2,9 x 16	1	43.036
19	Schraube M 4 x 12	4	41.489
20	Schelle für Lüfterrad BG112	2	40.535
21	Schraube M 4 x 12	4	41.489
22	Erdungsschraube kpl.	1	43.038
26	Gummidämpfer	4	40.220
27	Unterlegscheibe 8,4 DIN 125	4	41.515
28	Elastic-Stop-Mutter M 8	4	41.410
	<b>Motor with terminal box 400 V / 50 Hz</b>		<b>24.060</b>
	<b>Motor with terminal box 3x 220 V / 50 Hz</b>		<b>24.060 2</b>

# Drive unit AQ

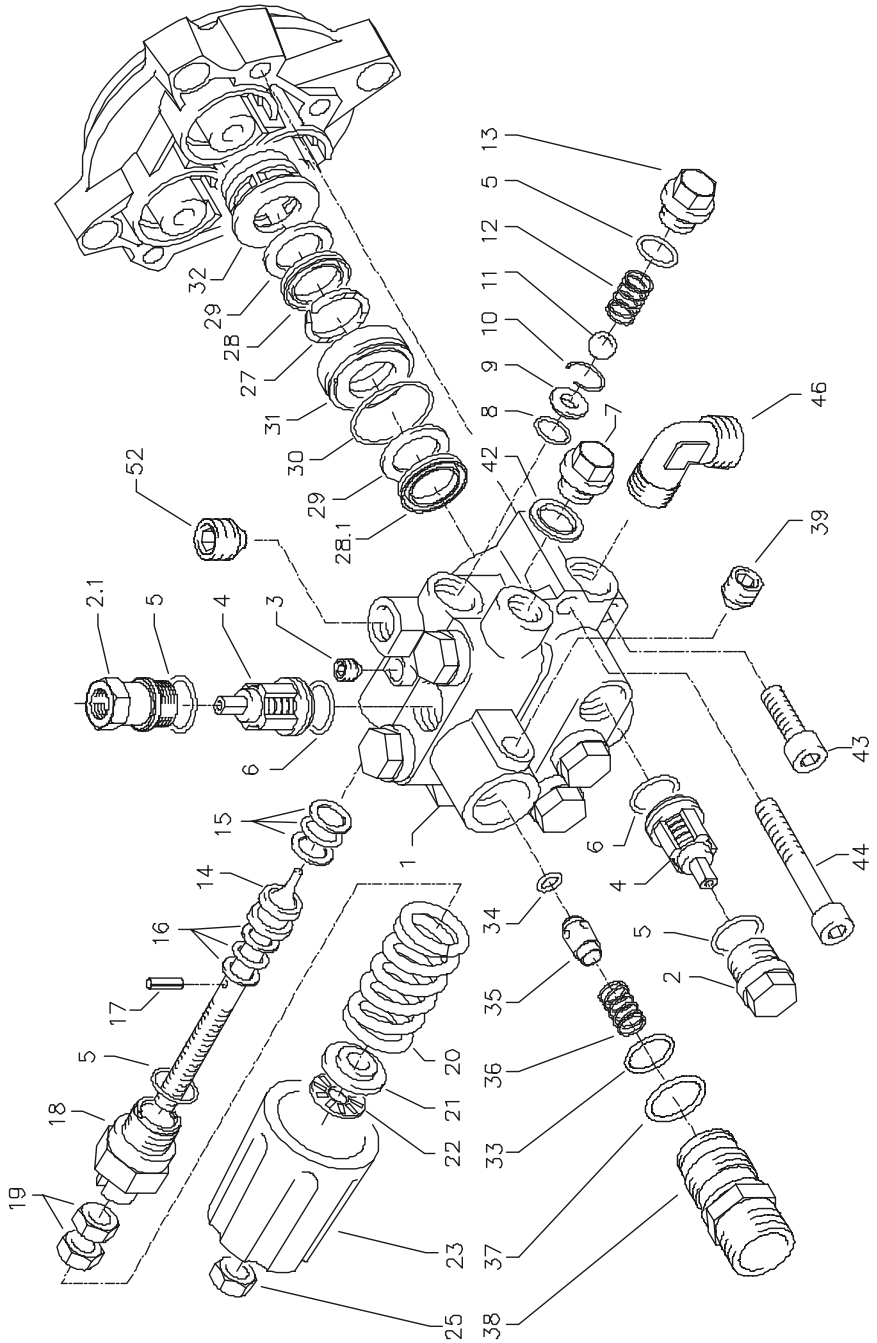


# Spare parts list

## Spare parts list Drive unit AQ

No	Description	Qty.	Ord.-No
1	Ölgehäuse	1	40.501
2	CU_Dichtung	1	40.052
3	Ölablaßschraube	1	40.051
4	Innensechskantschraube M 8 x 25	6	40.053
5	Sicherungsscheibe	6	40.054
6	Flachdichtung	1	40.511
7	Öldichtung 20 x 30 x 7	3	40.044 1
8	Weillenscheibe	1	40.043
9	Axial-Rollenkäfig	1	40.040
10	AS-Scheibe	1	40.041
11.1	Taumelscheibe AQ 12,75° bei 19 l/min	1	40.042 1-12,75
11.2	Taumelscheibe AQ 10,8° bei 15 l/min	1	40.042 1-10,8
11.3	Taumelscheibe AQ 9,5° bei 13 l/min bitte Taumelwinkel mit angeben	1	40.042 1-9,5
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 M 18 x 1,5	1	42.018 1
18	Flachdichtung	1	41.019 3
19	Deckel	1	41.023 1
20	Innensechskantschraube M 5 x 12	4	41.019 4
21	Ölschraube M 18 x 1,5	1	41.022 1
22	Stützscheibe für Plungerfeder	3	40.513
<b>Drive unit complete with plunger without swash plate</b>			<b>40.514</b>

# Valve housing



# Spare parts list

## Spare parts list Kränzle W 11 / 135 Valve housing APG for plunger diameter 18 mm

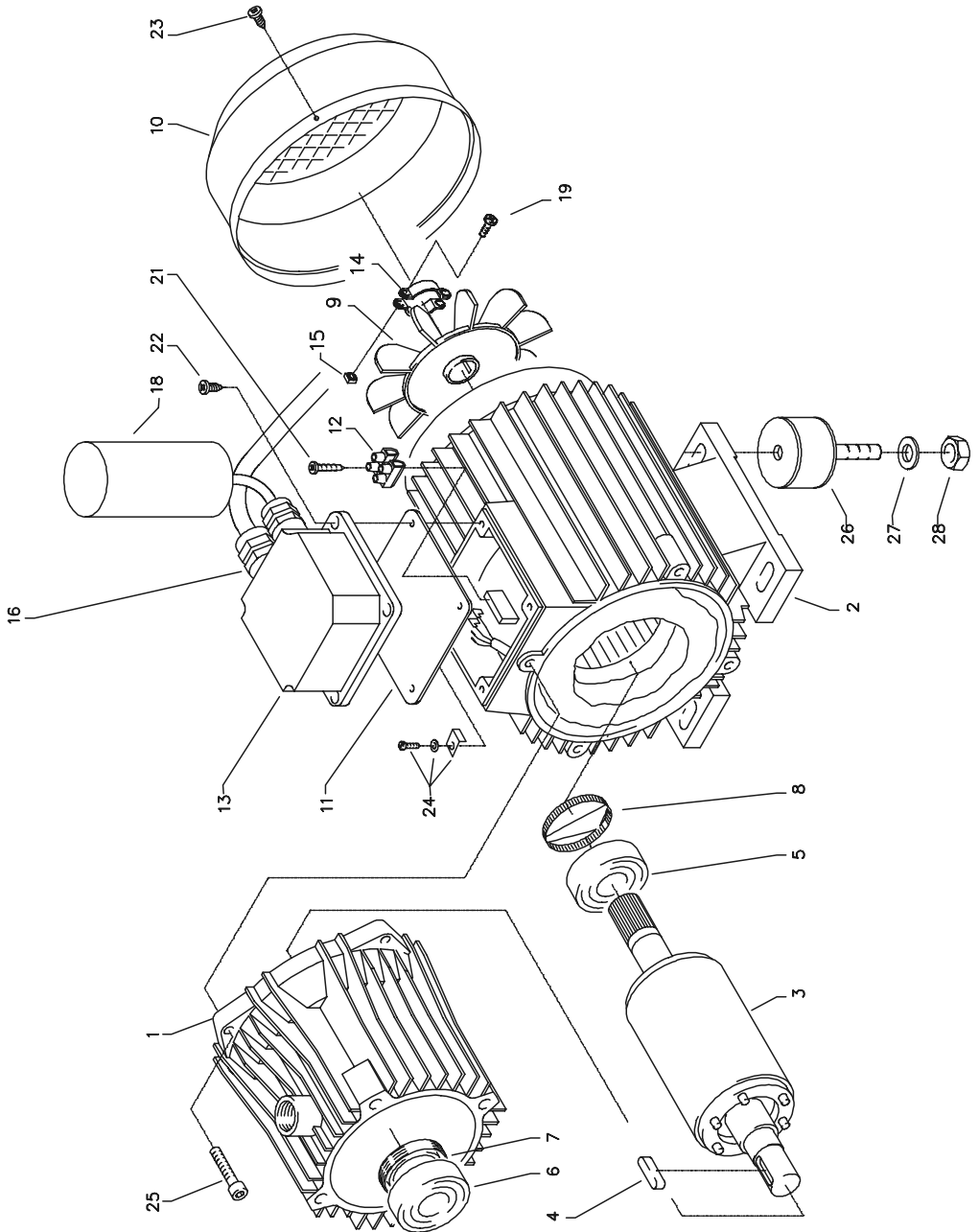
No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
1	Ventilgehäuse	1	43.435	31	Leckagering 18 mm	3	41.066
2	Ventilstopfen	5	41.714	32	Zwischenring 18 mm	3	41.015 2
2	Ventilstopfen mit 1/4" IG	1	42.026 1	33	O-Ring 15 x 1,5	1	42.104
3	Dichtstopfen M 10 x 1	1	43.043	34	O-Ring 6 x 3	1	14.121
4	Ventile (grün) für APG-Pumpe	6	41.715 1	35	Rückschlagkörper	1	14.122
5	O-Ring 16 x 2	8	13.150	36	Rückschlagfeder	1	14.120
6	O-Ring 15 x 2	6	41.716	37	O-Ring 18 x 2	1	43.446
7	Dichtstopfen R1/4" mit Bund	1	42.103	38	Ausgangsstück M22x1,5 AG	1	43.447 1
8	O-Ring 11 x 1,44	1	12.256	39	Dichtstopfen	1	13.385
9	Edelstahlsitz	1	14.118	40	Einschraubwinkel R3/8" AG x R3/8" IG	1	44.127
10	Sicherungsring	1	13.147	41	ST30-Nippel R3/8" AG x M22 x 1,5	1	13.365 2
11	Edelstahlkugel 8,5 mm	1	13.148	42	Kupferring	1	42.104
12	Edelstahlfeder	1	14.119	43	Innensechskantschraube M 8 x 30	2	41.036 1
13	Verschlußschraube	1	14.113	44	Innensechskantschraube M 8 x 55	2	41.017 1
14	Steuerkolben	1	14.134	45	Sicherungsring	4	40.054
15	Parbaks 16 mm	1	13.159	46	Winkel Einschraub-Verschraubung R3/8"	1	42.766
16	Parbaks 8 mm	1	14.123	52	Dichtstopfen	1	13.385
17	Spannstift	1	14.148				
18	Kolbenführung spezial	1	42.105				
19	Mutter M 8 x 1	2	14.144				
20	Ventilfeder schwarz	1	14.125				
21	Federdruckschreiber	1	14.126				
22	Nadellager	1	14.146				
23	Handrad	1	14.147 2				
25	Elastic-Stop-Mutter	1	14.152				
27	Druckring	3	41.018				
28	Manschette 18 x 26 x 4/2	3	41.013				
28.1	Gewebemanschette 18 x 26 x 4/2	3	41.013 1				
29	Backing 18 x 26	6	41.014				
30	O-Ring 28,3 x 1,78	3	40.026				

**Rep.-kit valves for APG-pump** **41.748 1**  
consisting of: 6x Pos. 4; 6x Pos. 5; 6x Pos. 6

**Rep.-kit sleeves 18 mm** **41.049 1**  
consisting of: 3x Pos. 27; 3x Pos. 28;  
3x Pos. 28.1; 6x Pos. 29; 3x Pos. 30

**Guide piston compl. with handwheel** **43.444**

# Motor



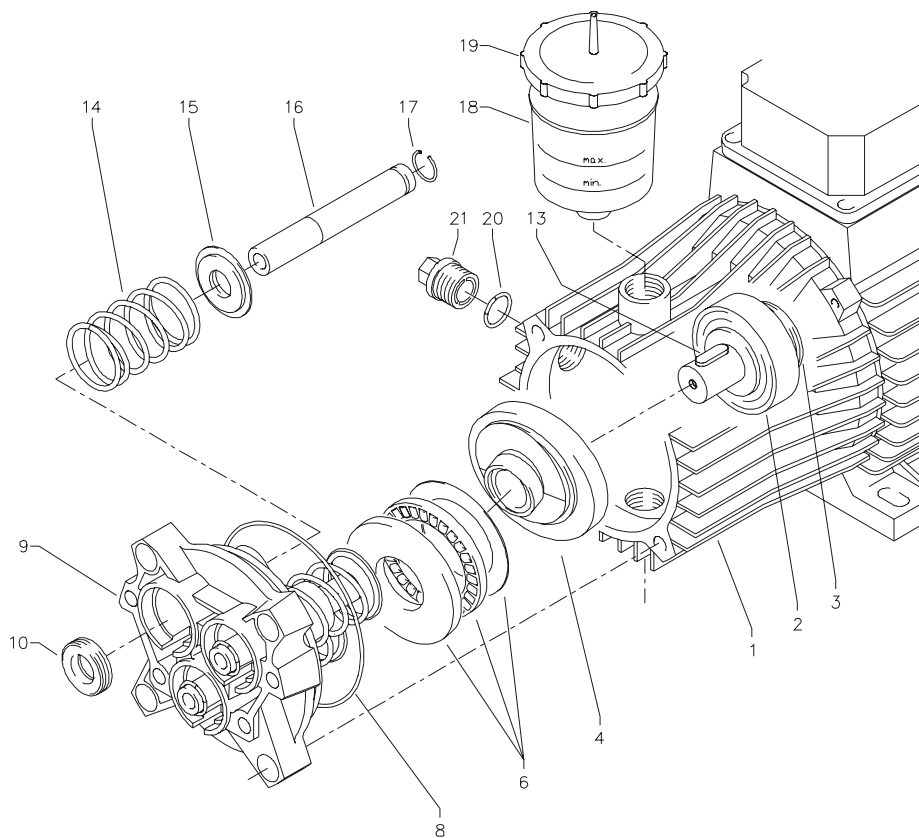


# Spare parts list

## Spare parts list Motor W 11/135

No	Description	Qty.	Ord.-No
1	Ölgehäuse	1	41.417
2	Stator BG90 230V / 50Hz	1	23.003
3	Rotor für 2,2 kW - Motor	1	43.316
4	Paßfeder 6 x 6 x 20	1	41.483 1
5	Kugellager	1	43.317
6	Schulterlager	1	41.027
7	Öldichtung 25 x 35 x 7	1	41.024
8	Toleranzhülse	1	43.330 1
9	Lüfterrad BG 90	1	41.118 1
10	Lüfterhaube BG 90	1	41.120 1
11	Flachdichtung	1	41.086
12	Lüsterklemme 2,5 mm <sup>2</sup> 2-polig	1	43.031
13	Klemmkasten	1	41.090 2
14	Klemmschelle für Lüfterrad	1	43.456
15	Vierkantmutter	2	43.323
16	PG-Einschub mit 1 PG-Verschraubung	1	41.090 4
18	Kondensator 55 µF	1	41.114 8
19	Schraube M 4 x 12	2	41.489
21	Blechschaube 2,9 x 16	1	43.036
22	Blechschaube 5 x 12	4	41.089
23	Blechschaube 4 x 9	4	41.079
24	Erdungsklemme kpl.	1	43.038
25	Innensechskantschraube M 6 x 30	4	43.037
26	Gummidämpfer	4	40.220
27	Unterlegscheibe 8,4 DIN 125	4	41.515
28	Elastic-Stop-Mutter M 8	4	41.410

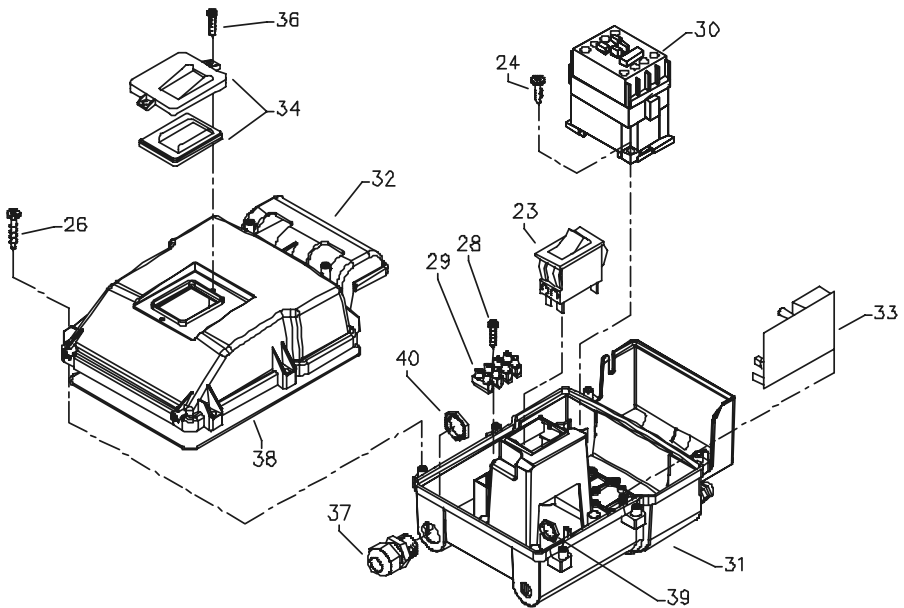
# Transmission unit 18 mm



# Spare parts list

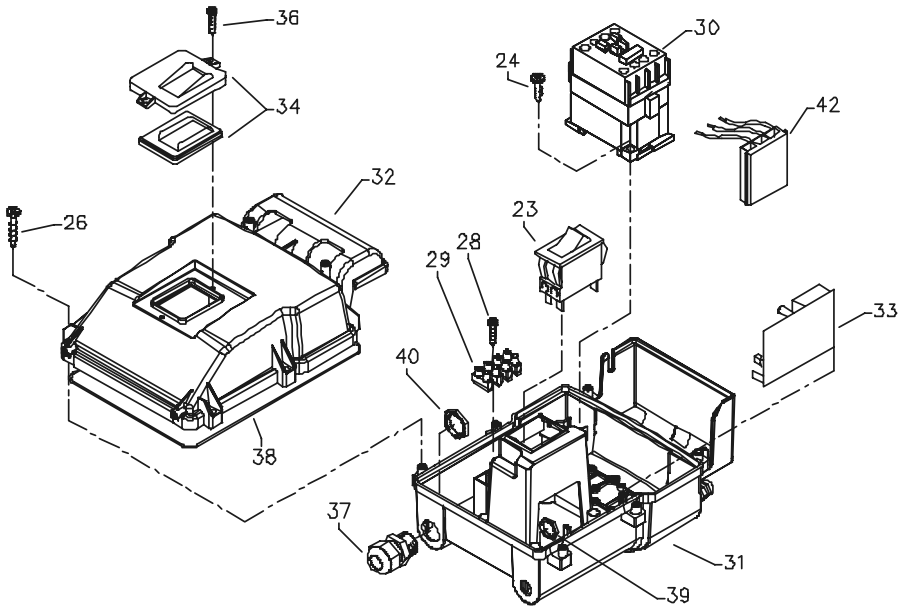
No	Description	Qty.	Ord.-No
1	Motor 2,2 kW 230 V	1	24.012
2	Schulterlager	1	41.027
3	Öldichtung 25 x 35 x 7	1	41.024
4	Taumelscheibe 12,5°	1	46.542-12,5
6	Axial-Rollenlager 3-teilig	1	46.543
8	O-Ring 88 x 2	1	41.021 1
9	Gehäuseplatte 18 mm	1	41.020 2
10	Öldichtung 18 x 28 x 7	3	41.031
13	Passfeder 6 x 6 x 20	1	41.483 1
14	Plungerfeder	3	41.033
15	Federdruckscheibe	3	41.034
16	Plunger 18 mm	3	41.032 1
17	Sprengring	3	41.035
18	Ölbecher	1	41.622
19	Deckel für Ölbecher	1	41.023
20	O-Ring 12 x 2	1	15.005 1
21	Verschlusschraube M 18 x 1,5	1	41.011

# Control unit 230 V



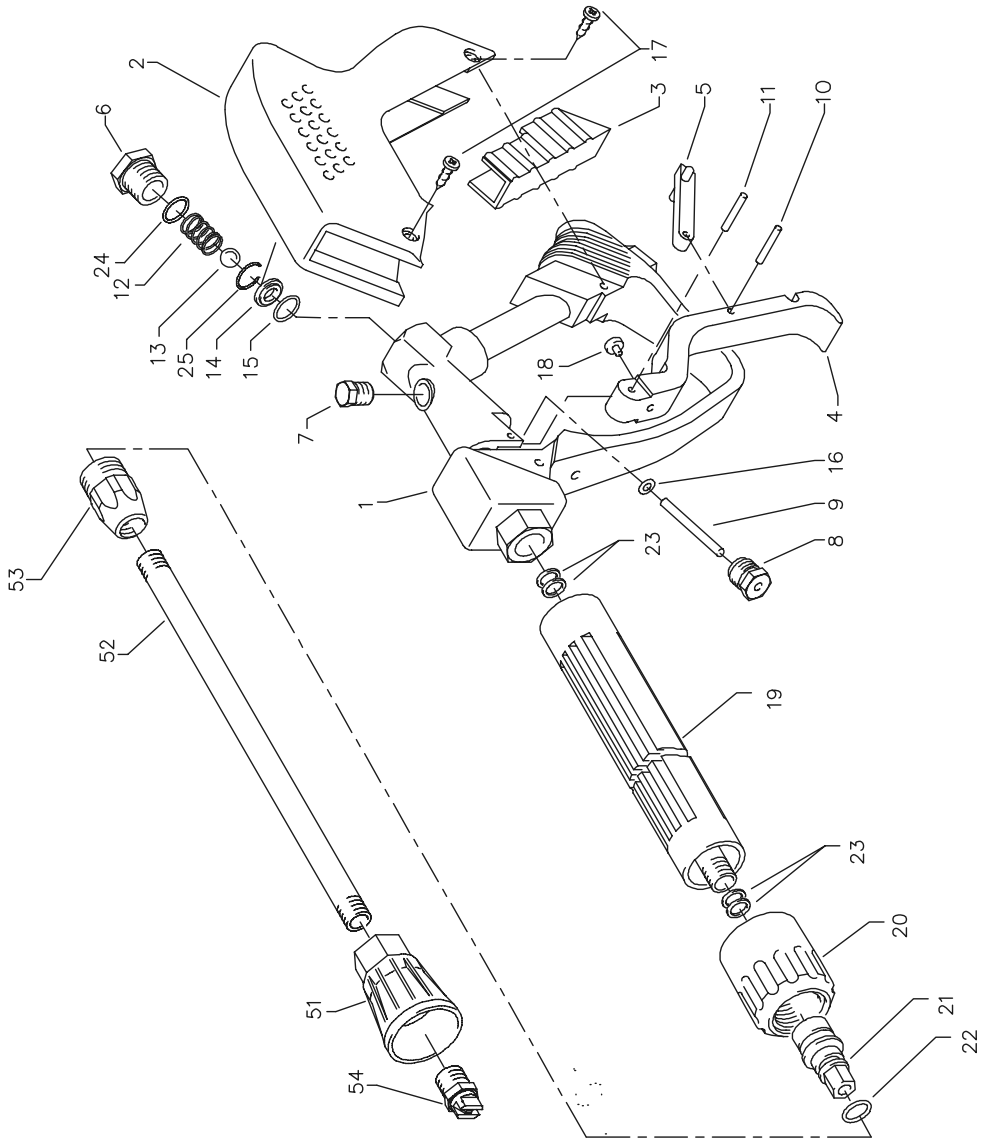
No	Description	Qty.	Ord.-No
23	Schalter 14,5 A Amazonas	1	41.111 6
24	Kunststoffschraube 4,0 x 16	4	43.417
26	Kunststoffschraube 5,0 x 25	6	41.414
28	Kunststoffschraube 3,5 x 20	2	43.415
29	Lüsterklemme 5-pol.	1	43.326 1
30	Schütz 230V 50/60 Hz	1	46.005
31	Schaltkasten Unterteil	1	46.012
32	Schaltkasten Deckel	1	46.013
33	Steuerplatine Abschaltverz.	1	42.564
34	Klemmrahmen mit Schalterabdichtung	1	43.453
36	Blechschrabe 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	3	44.119
41	PG 9 - Verschraubung	1	43.034

# Control unit 400 V



No	Description	Qty.	Ord.-No
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 100-C12KN10 3x400V 50/60 Hz	1	46.005 1
31	Schaltkasten Unterteil	1	46.012
32	Schaltkasten Deckel	1	46.013
33	Steuerplatine Abschaltverz.	1	42.564
34	Klemmrahmen mit Schalterabdichtung	1	43.453
36	Blechschrabe 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	3	44.119
41	PG 9 - Verschraubung	1	43.034
42	Überstromauslöser 3-polig 12 A	1	46.040 1

# Gun and HP lance

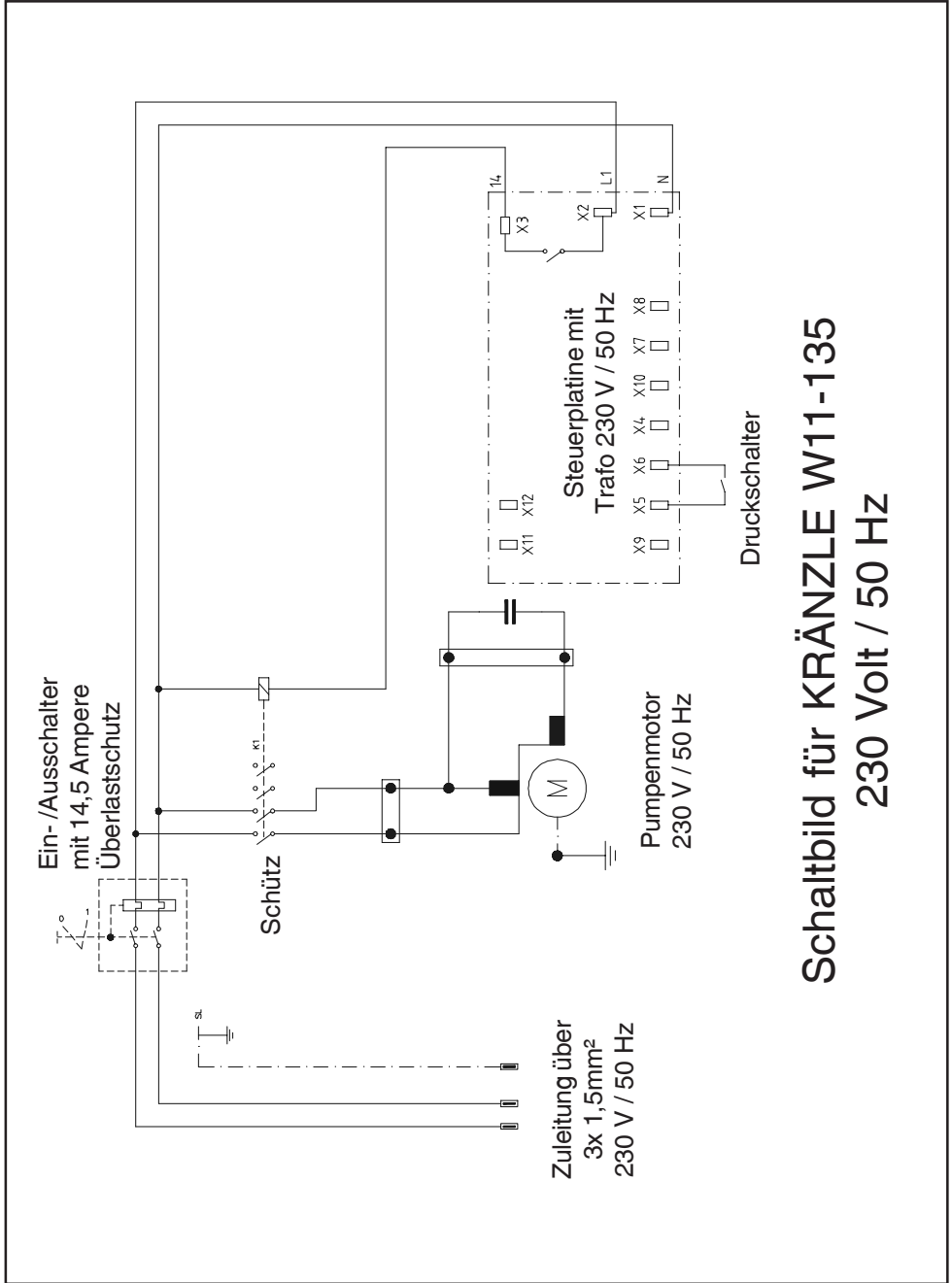


# Spare parts list

## Spare parts list Gun and HP lance W 13 / 230; W 15 / 200; W 19 / 160

No	Description	Qty.	Ord.-No	No	Description	Qty.	Ord.-No
1	Ventilkörper mit Handgriff	1	12.294	51	Düsenschutz	1	26.002
2	Schutzhülse	1	12.295	52	Rohr 500 mm; bds. R1/4"	1	12.385 1
3	Abdeckschutz	1	12.296	53	ST 30 Nippel M 22 x 1,5 / R1/4" m. ISK	1	13.370
4	Betätigungshebel	1	12.298	54	Flat jet nozzle 25045 (for therm 890)	1	D25045
5	Sicherungshebel	1	12.149	54.1	Flat jet nozzle 2507 (for therm 1160)	1	D2507
6	Abschlußschraube M 16 x 1	1	12.247				
7	Stopfen	1	12.287		Starlet-Gun compl. with prolongation		12.320 2
8	Gewindeführungshülse R 1/4" AG	1	12.250		Pos. 1-24		
9	Aufsteuerbolzen	1	12.284		Rep.-Kit "Starlet II"		12.299
10	Stift	1	12.148		consisting of 1x Position: 13, 9, 10, 15, 14		
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	Blechschaube 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				

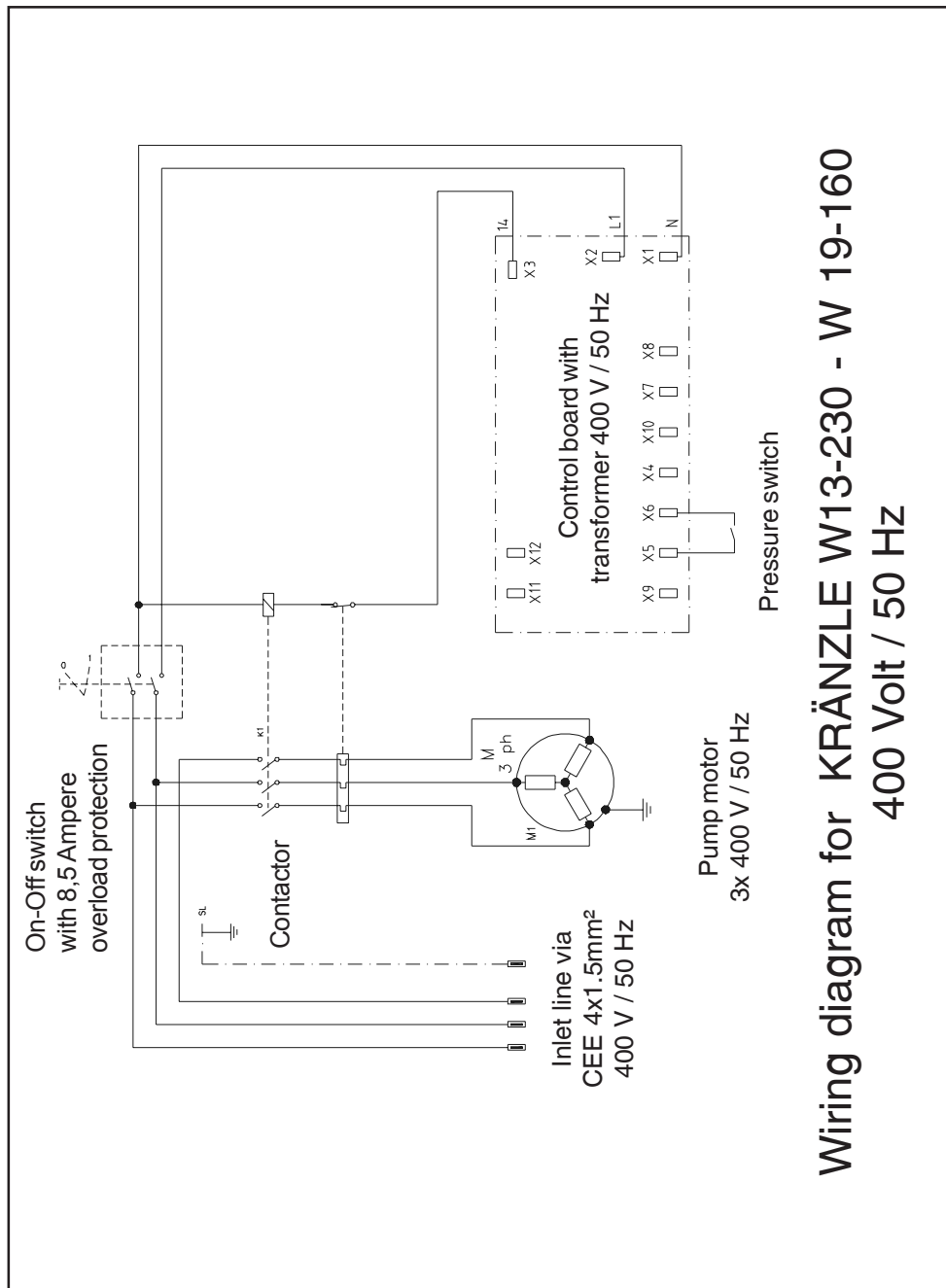
# Wiring diagram **230V 50Hz**



Schaltbild für KRÄNZLE W11-135  
230 Volt / 50 Hz



# Wiring diagram 400V 50Hz



**Wiring diagram for KRÄNZLE W13-230 - W 19-160  
400 Volt / 50 Hz**

# Warranty

## Warranty

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

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

All products sold directly to private customers are warranted 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](http://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.

# kränzle®

**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:

**W 11/135; W 13/230**  
**W 15/200; W 19/160**

techn. documentation available from:

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

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

**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

Applied specifications and  
standards:

**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**

Bielefeld, 08.09.05

A handwritten signature in black ink, appearing to read 'Droitsch', written over a horizontal line.

Droitsch  
(Managing Director)

# Inspection report for HP cleaners

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!)

Owner: \_\_\_\_\_ Type: \_\_\_\_\_ Built: \_\_\_\_\_

Address: \_\_\_\_\_ Serial no.: \_\_\_\_\_

\_\_\_\_\_ Rep.-order-no.: \_\_\_\_\_

Scope of inspection:	ok		repair- ed
	yes	no	
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 pressure			
Pressure reservoir			
Heating oil line (tightness)			
Solenoid valve (function)			
Thermostat (function)			
Flow controller (function)			
Power cable (damage)			
Power plug (damage)			
Protective conductor (connected)			
Emergency Off Switch (function)			
On/Off-switch			
Water quantity safety device (function)			
Used chemicals			
Allowed chemicals			

Inspection data:	determ. value	set value
High-pressure nozzle		
Operating pressure .....bar		
Cutting-off pressure.....bar		
Smoke spot number.....acc. to Bacharach scale		
CO <sup>2</sup> -value.....% CO <sup>2</sup>		
Efficiency rating.....%		
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.
  
- 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:

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Place, Date: \_\_\_\_\_

Signature: \_\_\_\_\_

# Inspection report for HP cleaners

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- 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:

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Place, Date: \_\_\_\_\_

Signature: \_\_\_\_\_

# *Notes*

# *Notes*



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As date of 25. 04. 2006

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