

# ***High Pressure Cleaners***



**K 160 T S T**  
**K 195 T S T**

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

# Description

## Dear customer

We would like to congratulate you on your new high pressure cleaner with integrated undercarriage and integrated hose drum 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.

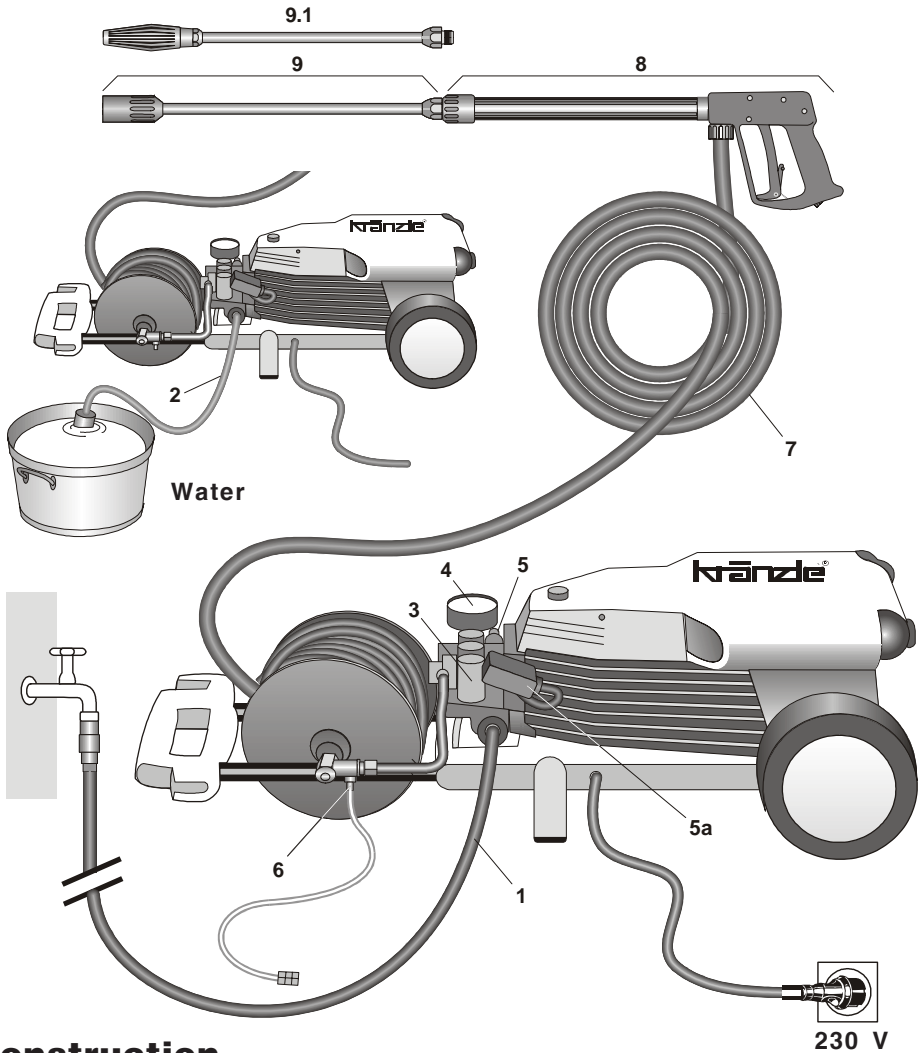
The equipment will assist you professionally in all cleaning tasks, e.g.:

- **facades**
- **vehicles of all types**
- **removing of old paint**
- **flagstones**
- **containers**
- **machines etc.**
- **terraces**

| Technical specifications                         | Kränzle 160 TS T          | Kränzle 195 TS T           | Instructions for use   |
|--|---------------------------|----------------------------|--|
| Operating pressure, steplessly adjustable        | 10 - 140 bar              | 10 - 180 bar               | The KRÄNZLE 160 TS T and KRÄNZLE 195 TS T have an electrical start-stop control.   |
| Perm. overpressure                               | 160 bar                   | 195 bar                    |  |
| Water output                                     | at 1400 U/min<br>11 l/min | at 1400 U/min<br>7,5 l/min | After connecting the water and the HP hose, switch the ON/OFF switch to ON. The red light in the switch will then illuminate.  |
| Hot water input                                  | max. 60 °C                | max. 60 °C                 |  |
| Suction height                                   | 2,5 m                     | 2,5 m                      |  |
| Inj. for cleansing agents                        | yes                       | no                         | The motor is started by opening the gun, and switched off by closing it.   |
| High pressure hose                               | 15 m                      | 15 m                       | The system remains ready for use until the ON/OFF switch is switched to OFF. The red light in the switch will then extinguish. |
| Electrical ratings                               | 230 V ; 50 Hz ;<br>14 A   | 230 V ; 50 Hz ;<br>13,5 A  |  |
| Connect. wattage input<br>output                 | P1: 3,2 kW<br>P2: 2,4 kW  | P1: 3,2 kW<br>P2: 2,4 kW   |  |
| Weight   | 36 kg                     | 36 kg                      |  |
| Dimension with<br>mounted handle in mm           | 350 x 330 x 900           | 350 x 330 x 900            | After switching the system off, press the trigger of the gun to release the pressure. You can now unscrew the HP hose.         |
| Sound level acc.to 45635<br>with dirtkiller      | 84 dB (A)                 | 84 dB (A)                  |  |
| Guaranteed sound level <sub>L<sub>WA</sub></sub> | 89 dB (A)                 | 89 dB (A)                  |  |
|  | 89 dB (A)                 | 91 dB (A)                  |  |
| Recoil at lance                                  | approx. 25 N              | approx.32 N                |  |
| Vibrations at lance                              | 2,0 m/s <sup>2</sup>      | 2,0 m/s <sup>2</sup>       |  |

Permissible tolerance for figures  $\pm 5\%$  in acc. with VDMA uniform sheet 24411

# Description



## Construction

The KRÄNZLE 160 TS T + 195 TS T - high pressure cleaners are mobile machines. The design can be seen from the diagram.

### Item

- |    |   |     |   |
|----|---|-----|---|
| 1  | Water inlet connection with filter                              | 6   | High pressure injector for cleaning agents (not with K 195 TST) |
| 2  | Suction hose with filter (special accessory) Order no. 15.038 3 | 7   | High pressure hose  |
| 3  | High pressure pump  | 8   | Spray gun   |
| 4  | Press. gauge with glycerin filling                              | 9   | Interchangeable lance with reg.nozzle                           |
| 5  | Unloader valve - safety valve                                   | 9.1 | Interchangeable lance with Vario-Jet 03 ( K 195 TS T)           |
| 5a | Electrical Start-Stop control                                   |     |   |

# Description

## Water and Cleaning System

Water can be connected at mains pressure to the high pressure pump or it can be sucked directly from a storage tank. The water is then forced under pressure by the high pressure pump to the 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 trigger gun

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

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.

The increase in pressure when the trigger gun is closed causes the unloader valve - safety valve to open. The motor is cut off by the pressure switch. When the trigger gun is opened, the unloader valve - safety valve closes, the motor is started again and the pump resumes pressure spraying from the lance.

**The trigger 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



## Motor protection switch

The motor is protected from overload by a motor protection switch, which automatically cuts out the motor in the event of overload. However should the switch trip frequently, the cause of the malfunction should be located and rectified (see page 6).



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



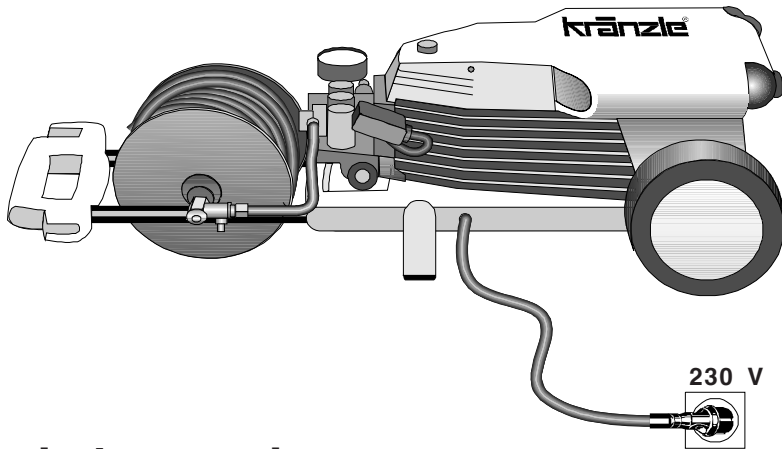
Never use liquid containing solvents such as paint thinners, petrol, oil or similar liquid matter. **Pay attention to the instructions of the manufacturers of the cleaning agents.** The seals in the machine are not resistant to solvents. The spray of solvents is inflammable, explosive and poisonous.

## 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



## 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 160 TS T - 230 Volt 50 Hz**  
**KRÄNZLE 195 TS T - 230 Volt 50 Hz**

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.

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

# Description



## Brief operating instructions

are fitted to the machine. Numbers 1-6.

**When operating your high pressure cleaner pay attention that it is in a horizontal position.**

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 -(with KRÄNZLE 160 TS T + 195 TS T 230 Volt AC).
5. Switch on the machine with opened spray gun and commence cleaning.
6. After completing the work, completely empty the pump (switch the motor on for approximately 20 seconds without the suction and pressure hoses). Now the switch has to be turned to the "OFF" position (red light on the switch not illuminated). Press the trigger of the gun to decrease the pressure. Now you can loosen 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.

## **High pressure hose and spray 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.



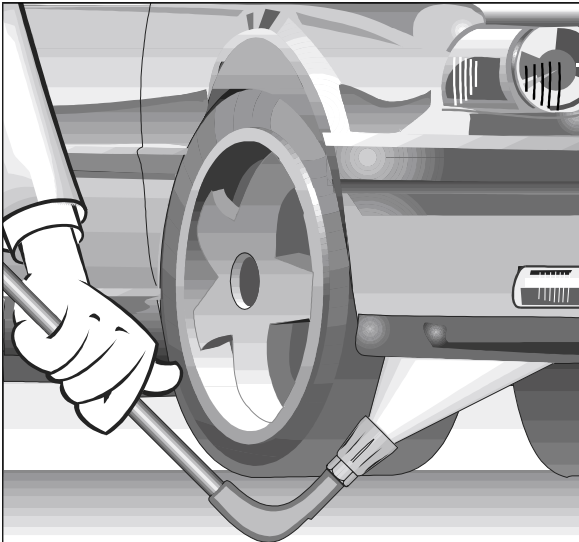
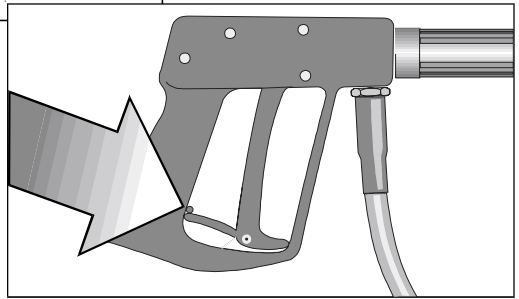
*If replacement parts are required, only such parts that are authorized by the manufacturer and which bear the markings required by the appropriate regulations may be used. The high pressure hose and spray device must be connected in a pressure-tight manner. The high pressure hose may not be driven over, pulled excessively, or twisted. The hose may under no circumstances be pulled over sharp edges, since otherwise the guarantee is automatically void.*

# 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!**



**Always aim the  
underbody lance. Note  
when using an angled  
underbody lance, like  
for example lance no.  
41.075, that there is a  
certain amount of  
torque in the recoil.  
(See also notice on  
page 2)**



# ***This is what you've purchased:***



1. Dirtkiller with nozzle 045 (K 160 TST)  
Nozzle 03 (K 195 TST)



- Spray lance with regulator and high pressure nozzle 25045 (K 160 TST)

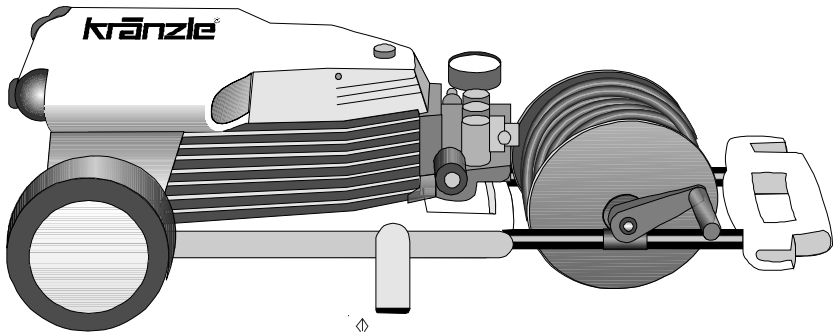


- Spray lance with Vario-Jet 03 (K 195 TST)



2. Spray gun with insulated pistol grip and screw connection

3. KRÄNZLE - High pressure cleaners 160 TST, 195 TST with hose drum and 15 m high pressure hose with steel reinforcement NW 6.



4. Crosstip screwdriver  
Fixing screw for crank



5. Operating instructions



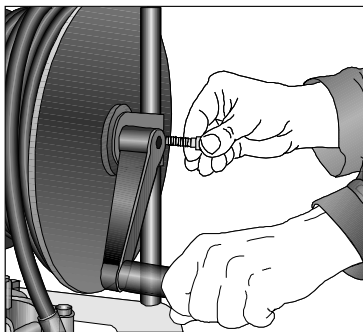
6. Crank for hose drum



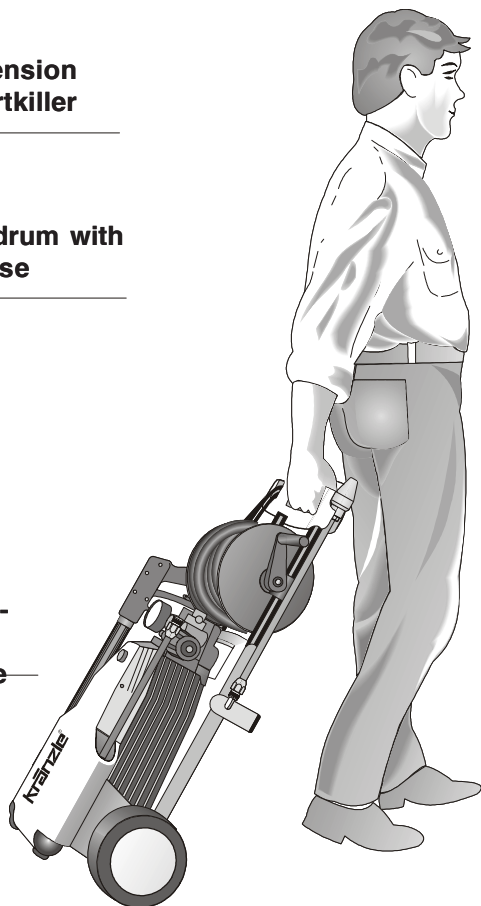
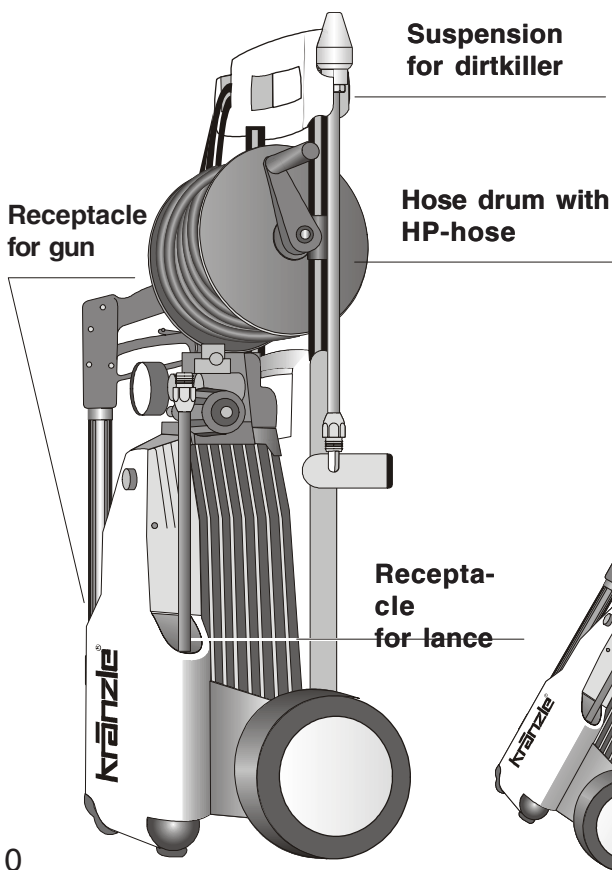
7. Water inlet components



## How to assemble and furnish your high pressure cleaner



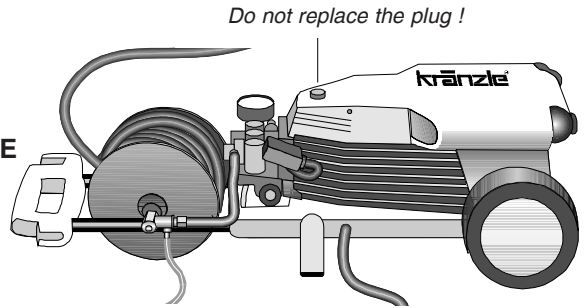
Put high pressure cleaner into upright position. **Now pull the cable holder from the hexagon on the cable drum.** Remove the screw from the brass element. Put the crank on the hexagon and fasten with the screw.



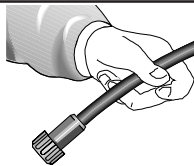
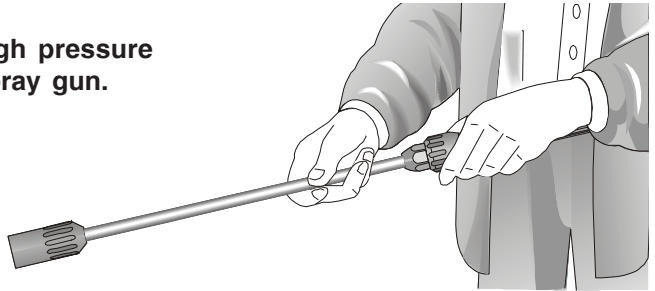
# Preparation for use

1. Put high pressure cleaner into horizontal position!

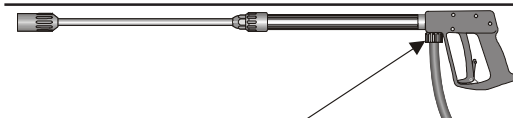
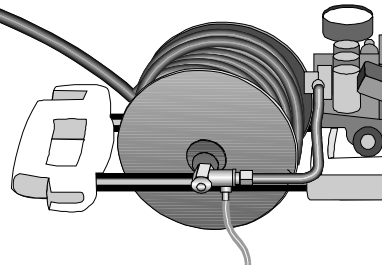
**THE HIGH PRESSURE CLEANER IS ONLY TO BE OPERATED IN HORIZONTAL POSITION !**



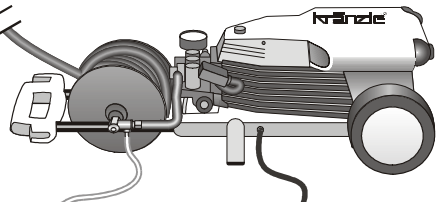
2. Connect the high pressure lance to the spray gun.



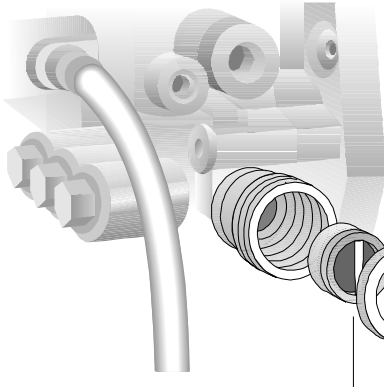
3. Unwind the high pressure hose completely from the hose drum



**High pressure hose connected to lance.**



# Preparation for use



4. The machine can be connected to a pressurised water line with cold or 60 °C hot water (see page 2). Ensure that the water supply is clean when sucking from external sources. The hose cross section must be at least 1/2" = 12.7 mm (free passage). Filter 1 must always be clean.

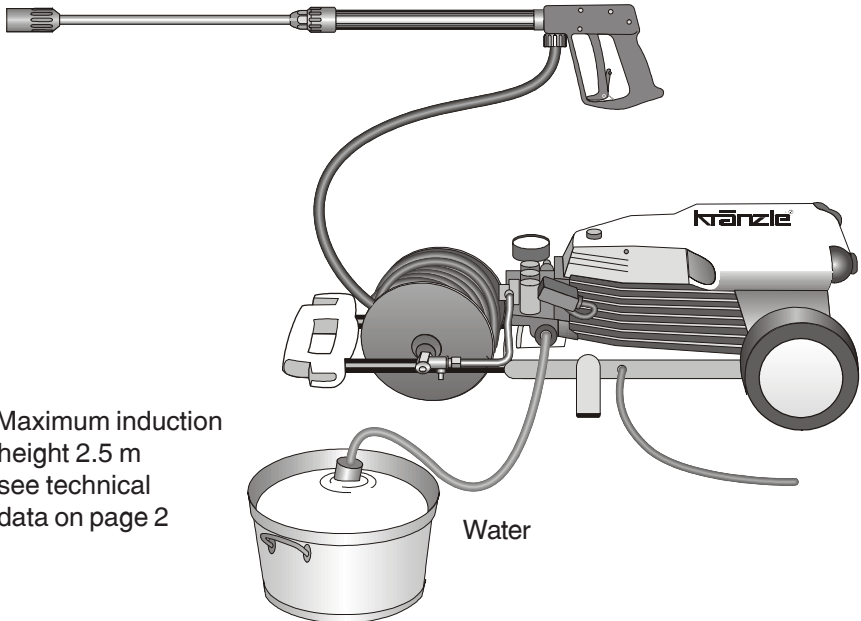
Please make sure that the filter is clean before using your high pressure cleaner!

## **CAUTION !**



When running your high pressure cleaner with hot water of 60 °C raised temperatures occur.

Do not touch the pump without safety gloves!

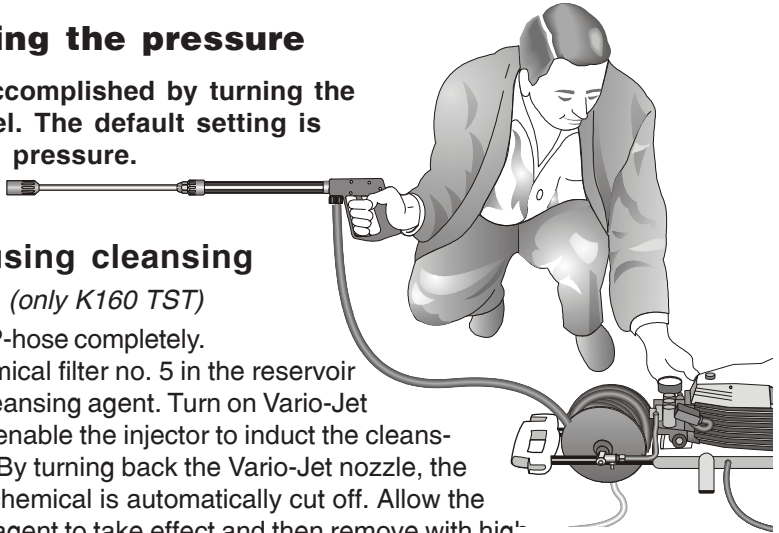


5. Maximum induction height 2.5 m see technical data on page 2

# Preparation for use

## Adjusting the pressure

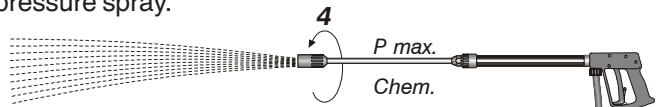
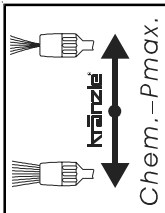
This is accomplished by turning the handwheel. The default setting is maximum pressure.



## When using cleansing agents: (only K160 TST)

Unwind HP-hose completely.

Place chemical filter no. 5 in the reservoir with the cleansing agent. Turn on Vario-Jet No.4 to enable the injector to induct the cleansing agent. By turning back the Vario-Jet nozzle, the supply of chemical is automatically cut off. Allow the cleansing agent to take effect and then remove with high pressure spray.

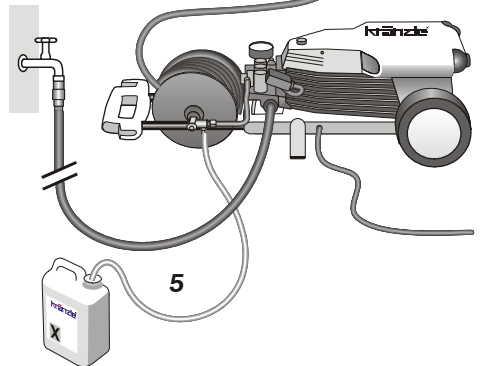


Turn on Vario-Jet to reach low pressure !

A mixing ratio of 3-5% is achieved when the Vario-Jet is fully turned on. pH value neutral 7-9.



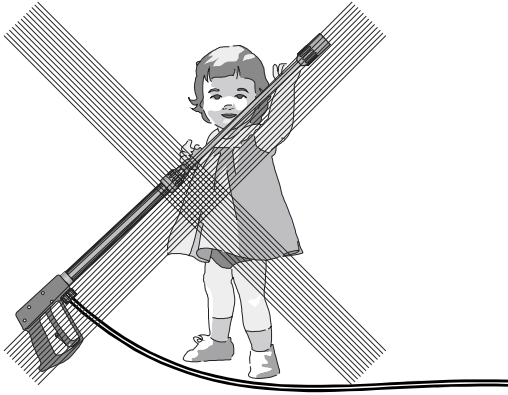
Note that you must always comply with the instructions provided by the manufacturer of the cleansing agent (e.g. instructions concerning safety clothing) and the water protection regulations!



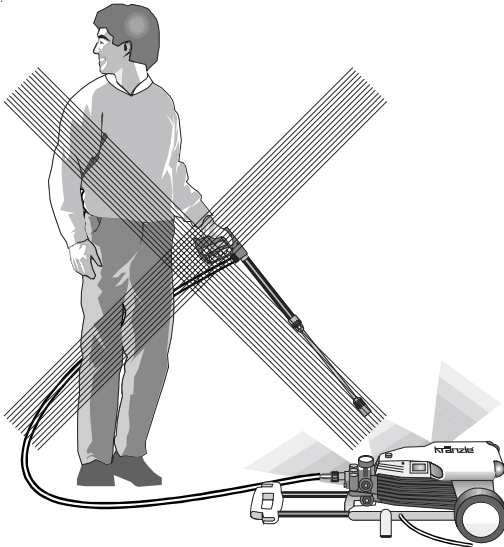
## To shut down the pump:

1. Switch off the machine.
2. Cut off the water supply.
- 2a Turn electric switch to "OFF" position
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. Drain the pump: switch on the motor for approx. 20 seconds.
7. Pull the plug from the socket.
8. Winter: store the pump in rooms above 0°C.
9. Clean the water filter.

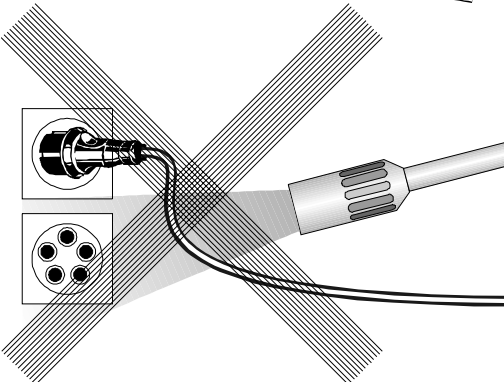
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**Never allow children to use the high pressure cleaner !**

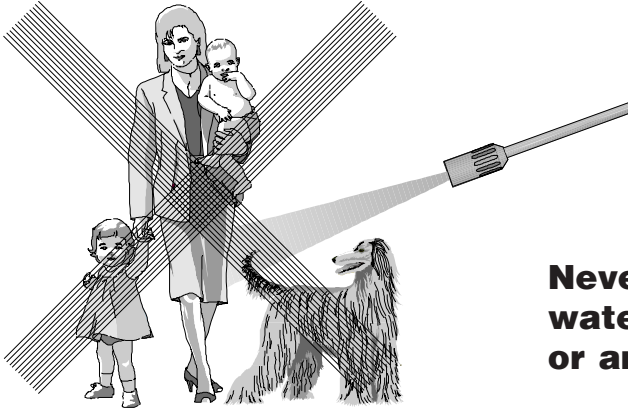


**Never direct the water jet at the machine itself !**

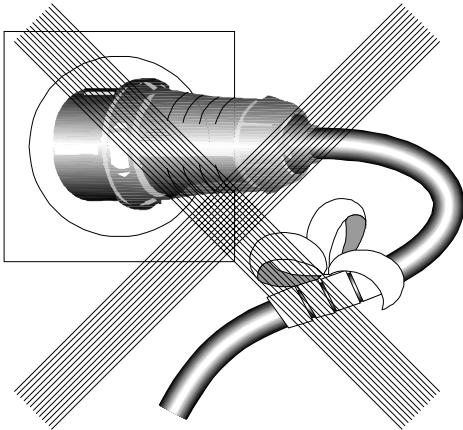


**Never direct the water jet at a power socket !**

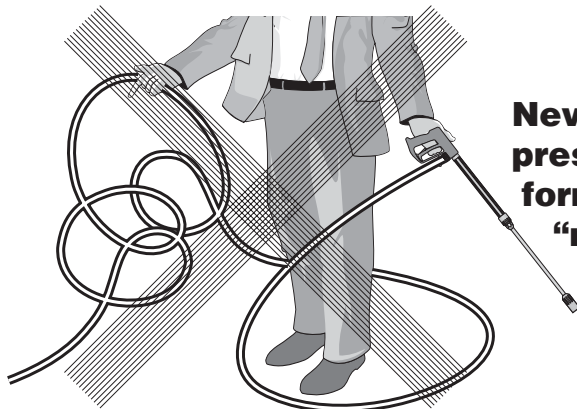
# ***This is prohibited !***



**Never direct the water jet at people or animals !**



**Do not damage the power cord or repair it incorrectly !**



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

# Additional KRÄNZLE-accessories for ...



**Rotary scrubbing brush**

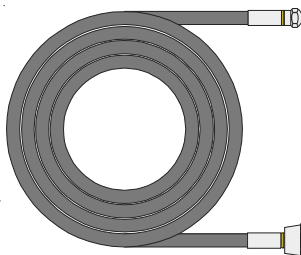
Order No. 41.050 1



for K 160 TS T  
**Drain and pipe  
cleaning hose**

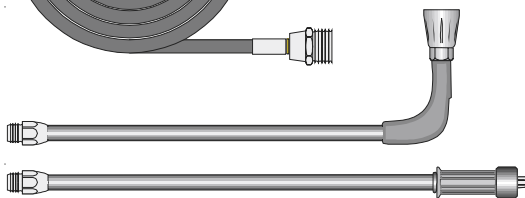
10 m - Order No. 41.058 1

15 m - Order No. 41.058



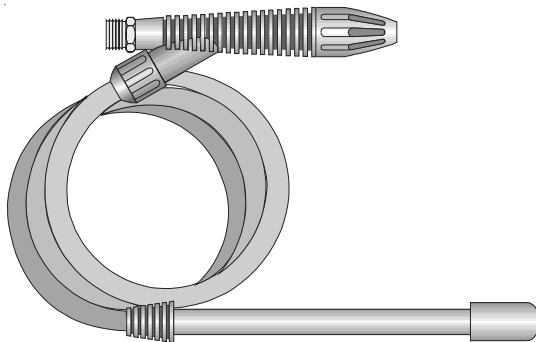
**Underbody lance, new**

Order No. 41.075 1



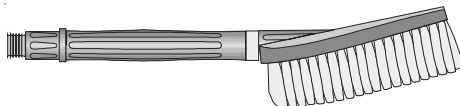
**Sandblaster**

Order No. 41.068 1



**Flat brush**

Order No. 41.073



**Dirtkiller 045** for K160 TST

Order No. 41.072 5

**Dirtkiller 03** for K195 TST

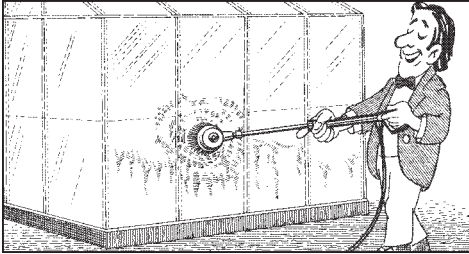
Order No. 41.096 1



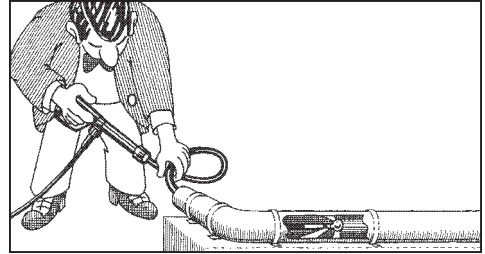
**Environmental, refuse disposal and water protection regulations must be observed when using the accessories!**



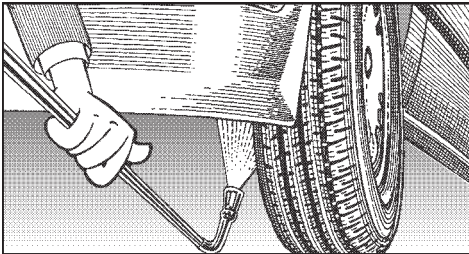
**... for further combination possibilities**



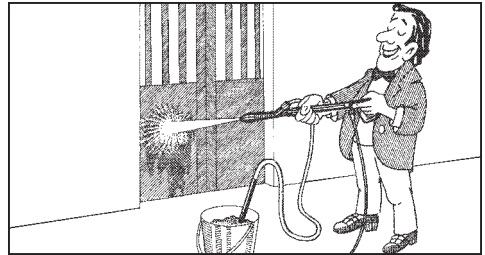
Car cleaning, glass, caravan, boat etc.  
rotary washing brush with 40 cm extension  
and ST 30 nipple M 22 x 1,5



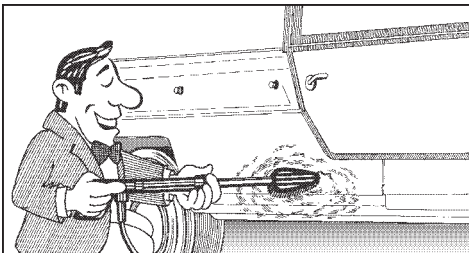
Cleaning pipes, channels and drains:  
pipe cleaning hose with KN nozzle  
and ST 30 nipple M 22 x 1,5



Underbody cleaning of cars, trailers and  
equipment: lance 90 cm with high pressure  
nozzle and ST 30 nipple M 22 x 1,5.  
The lance must be aimed when spraying..



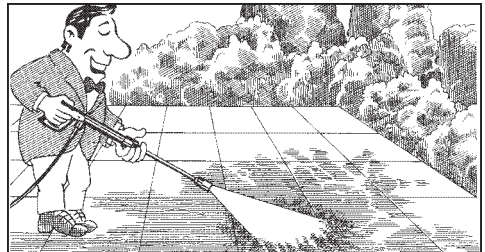
Blasting old paint, rust and facades: sand-  
blasting injector with suction lance, 3 m  
PVC hose and ST 30 nipple.



Cleaning cars and all smooth surfaces :  
brush with ST 30 nipple.



**When sandblasting you must  
wear protection clothes! Pay  
attention to the instructions  
of the manufacturer of the  
abrasive!**

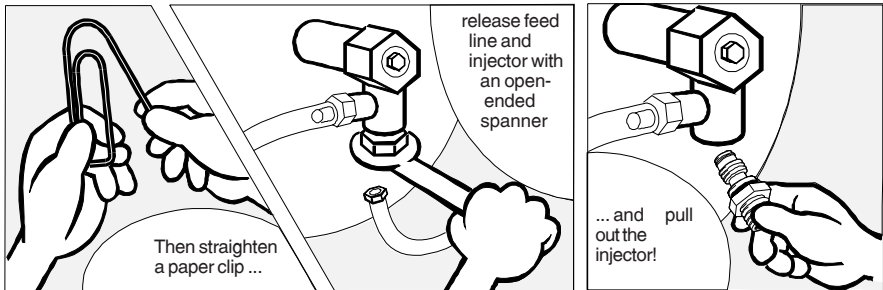
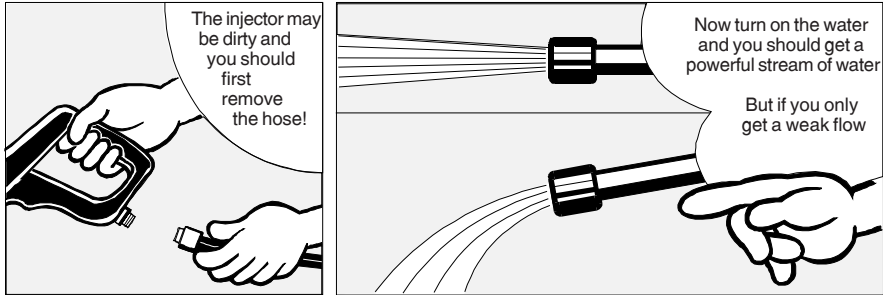


Rotary point sprayer for extreme soiling.  
Dirtkiller with 40 cm extension and ST 30  
nipple.

# Small repairs - Do it yourself!

## You only get a weak flow of water or no water at all!

- The pressure gauge shows a 10% higher pressure than the working pressure.

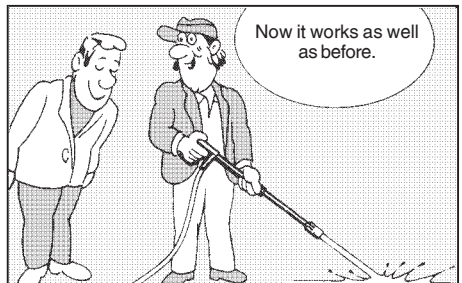
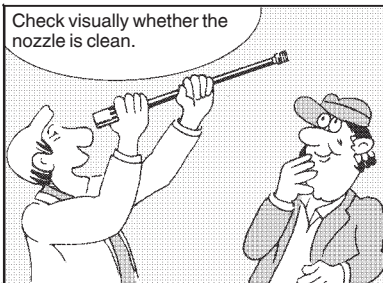
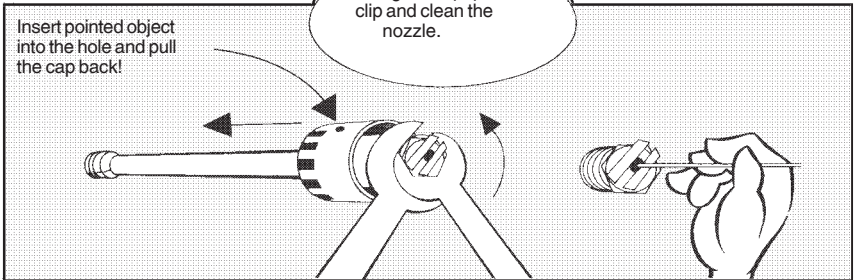
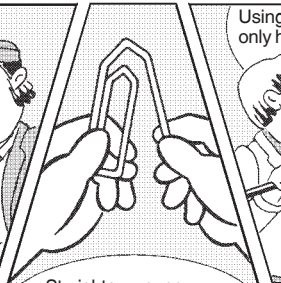
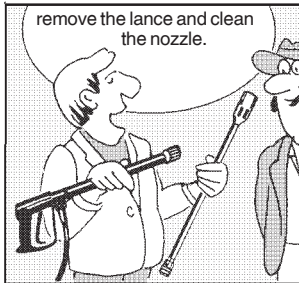
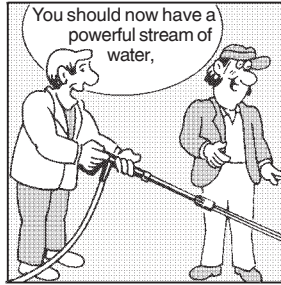
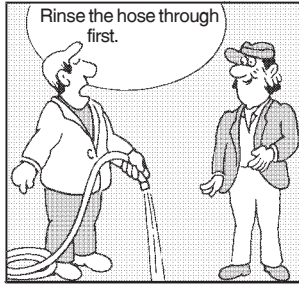


# Small repairs - Do it yourself!



## The nozzle is blocked! (160 TST)

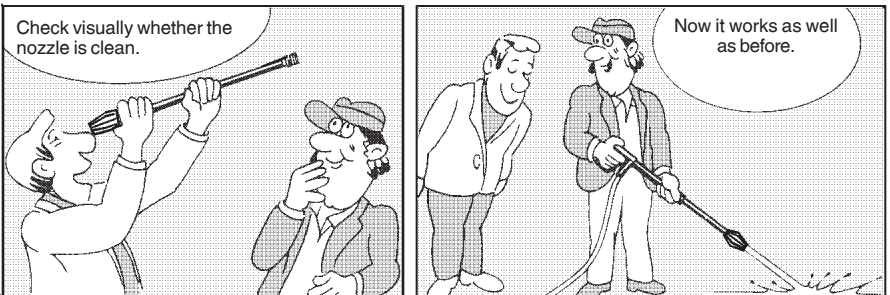
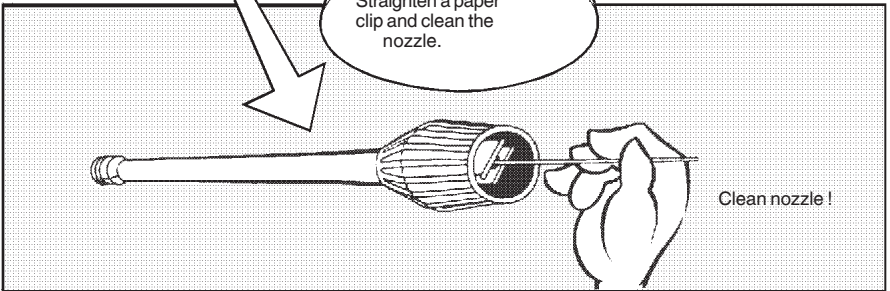
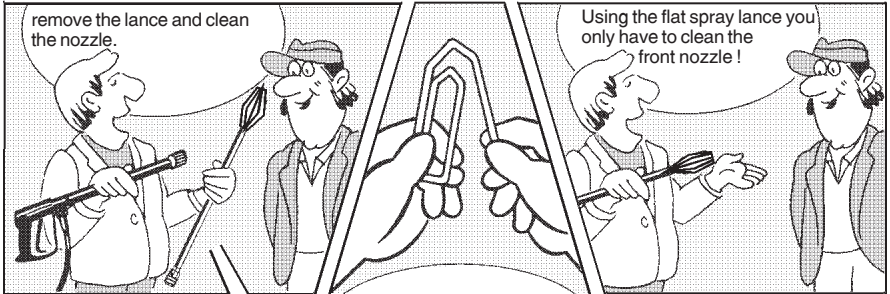
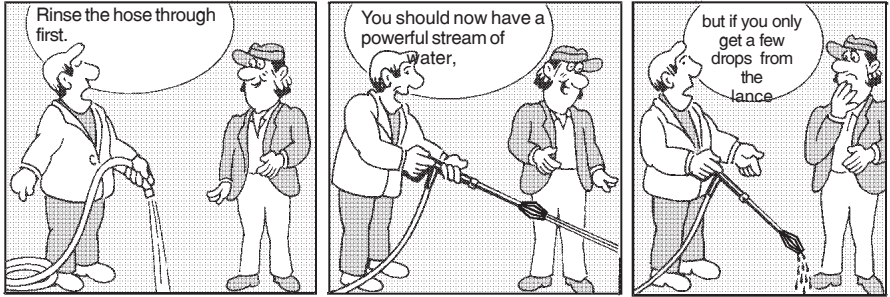
● No water but the gauge shows full pressure !



# Small repairs - Do it yourself!

## The nozzle is blocked! (195 TST)

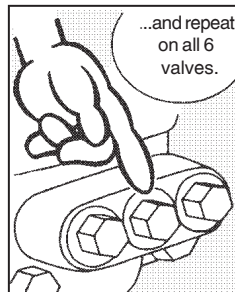
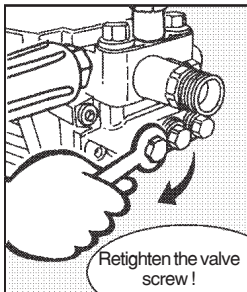
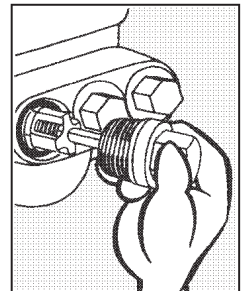
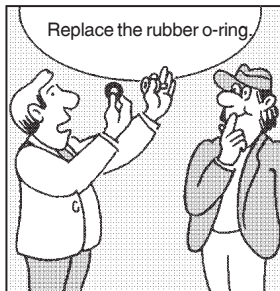
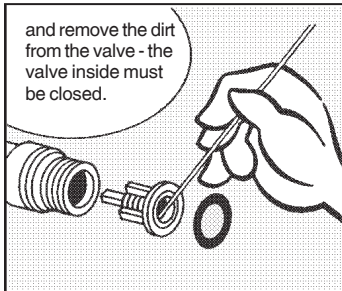
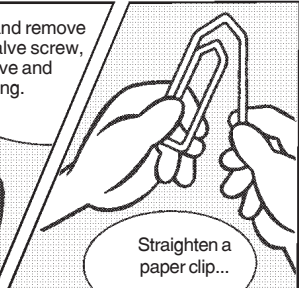
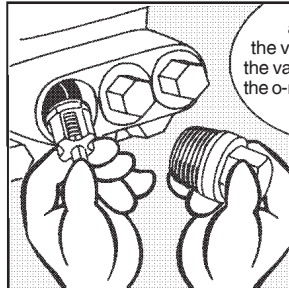
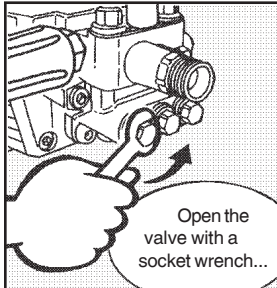
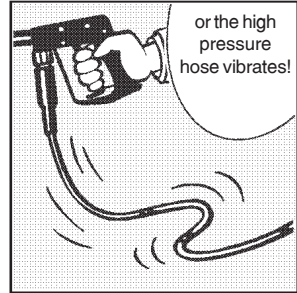
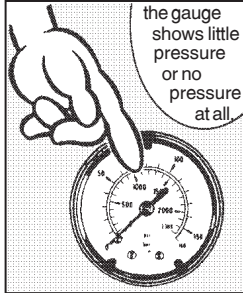
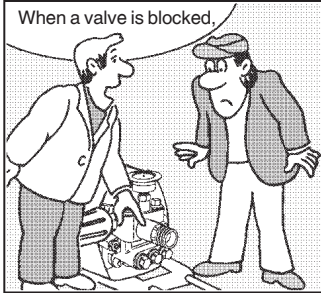
No water but the gauge shows full pressure !



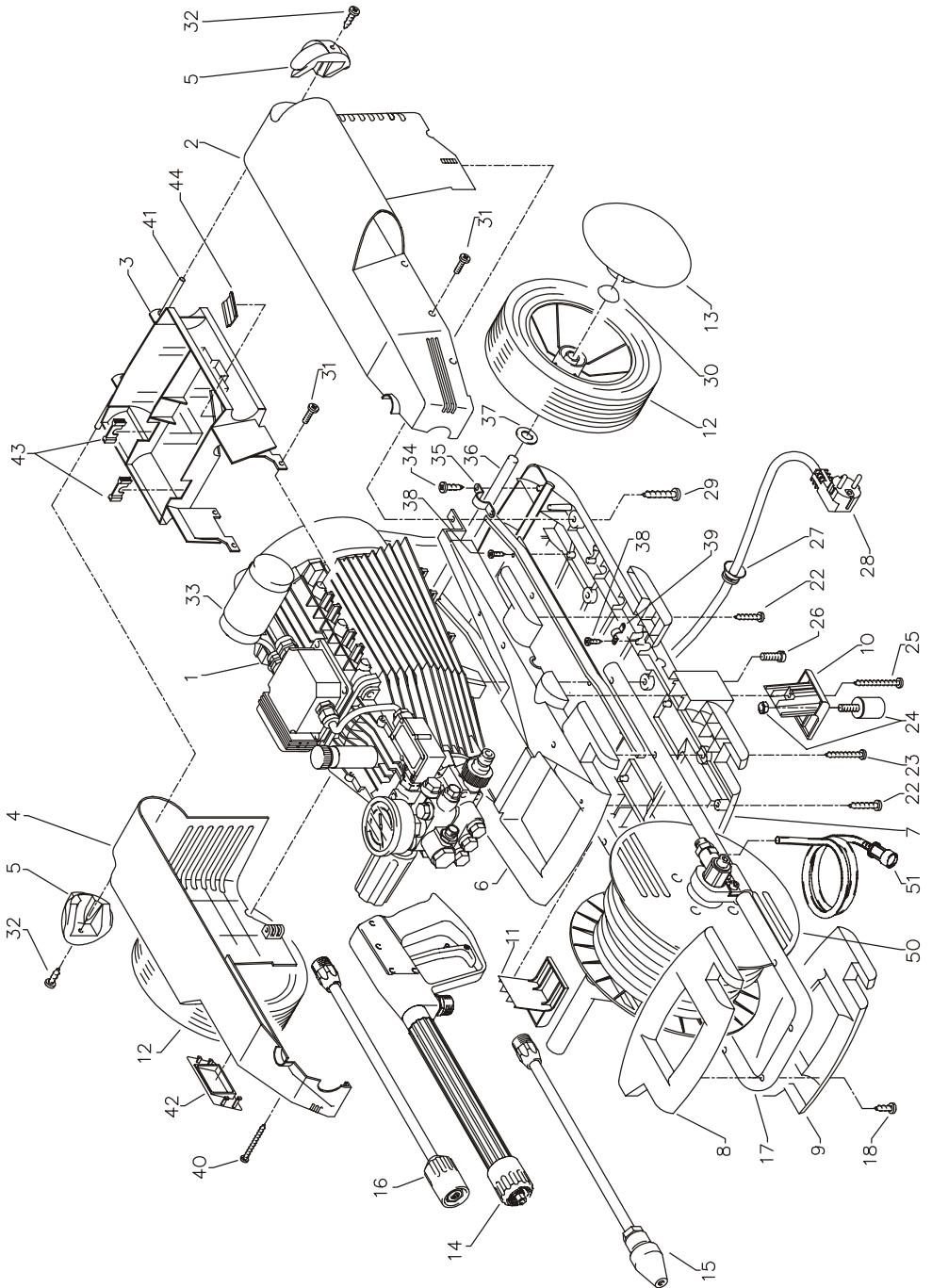
# Small repairs - Do it yourself!

## 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

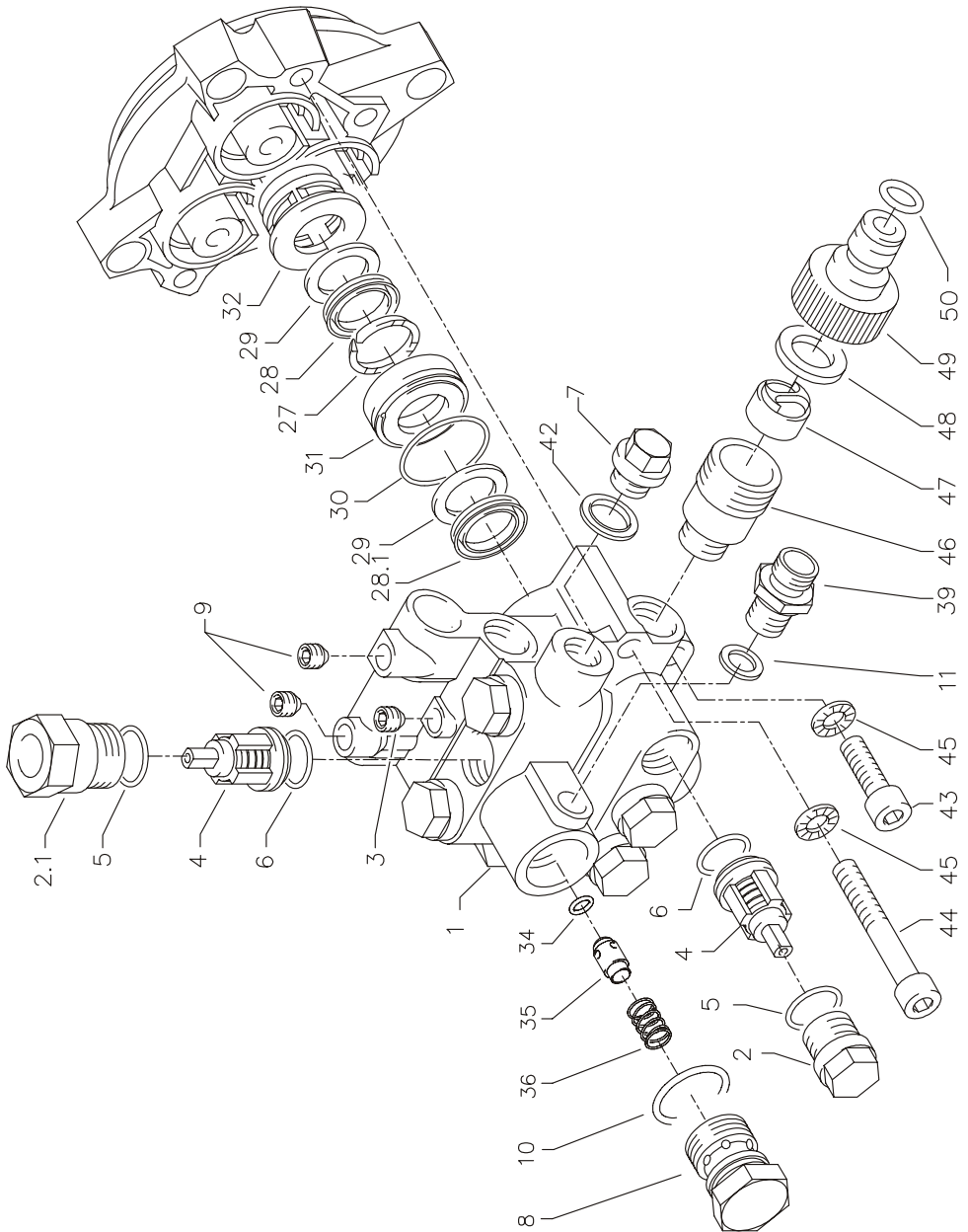


# KRÄNZLE 160 TS T / 195 TS T

## Spare parts list KRÄNZLE 160 TS T, 195 TS T Complete assembly

| No   | Description  | Qty. | Ord.-No        | No | Description                       | Qty. | Ord.-No       |
|------|--|------|----------------|----|-----------------------------------|------|---------------|
| 1    | Motor WECHSELSTROM für K 160 TS T<br>komplett mit Ölgehäuse und Lüfterrad<br>ohne Schalter | 1    | 43.302         | 24 | Gummidämpfer                      | 4    | 43.419        |
| 2    | Gehäusehälfte rechts   | 1    | 43.402         | 25 | Kunststoffschraube 4,0 x 60       | 2    | 43.420        |
| 3    | Halterung Kondensator  | 1    | 43.403         | 26 | Schraube M 6 x 12                 | 4    | 43.421        |
| 4    | Gehäusehälfte links K 160 TST  | 1    | 43.404 8       | 27 | Knickschutzfülle                  | 1    | 43.422        |
| 4.1  | Gehäusehälfte links K 195 TST  | 1    | 43.404 9       | 28 | Kabel mit Stecker (Wechselstrom)  | 1    | 41.092        |
| 5    | Gummidämpfer   | 2    | 43.405         | 29 | Kunststoffschraube 6,0 x 30       | 2    | 43.423        |
| 6    | Unterschale 1  | 1    | 43.406         | 30 | Starlock-Kappe Durchmesser 12     | 2    | 43.424        |
| 7    | Unterschale 2  | 1    | 43.407         | 31 | Schraube M 5 x 10                 | 8    | 43.021        |
| 8    | Handgriff Schale 1   | 1    | 43.408         | 32 | Kunststoffschraube                | 2    | 43.425        |
| 9    | Handgriff Schale 2   | 1    | 43.409         | 33 | Schaumstoffrohr für Kondensator   | 1    | 41.418        |
| 10   | Schlauchhalter R (rechts)  | 1    | 43.410         | 34 | Kunststoffschraube 5,0 x 14       | 4    | 43.426        |
| 11   | Schlauchhalter L (links)   | 1    | 43.411         | 35 | Haltebügel                        | 2    | 43.427        |
| 12   | Rad  | 2    | 43.412         | 36 | Bodenblech mit Motorachse         | 1    | 43.428        |
| 13   | Radkappe   | 2    | 43.413         | 37 | Kunststoffscheibe 12,5 mm         | 2    | 43.429        |
| 14   | Midi-Pistole mit Verlängerung  | 1    | 12.160         | 38 | Kunststoffschraube 3,5 x 8        | 8    | 43.430        |
| 15   | Schmutzkiller 045 für K160 TST   | 1    | 41.072 5       | 39 | Kabelklemme                       | 2    | 43.431        |
| 15.1 | Schmutzkiller 03 für K195 TST  | 1    | 41.073 8       | 40 | Kunststoffschraube 5,0 x 80       | 2    | 43.432        |
| 16   | Regeldüse 25045 für K160 TST   | 1    | 12.700-MX20042 | 41 | Kunststoffschraube 5,0 x 120      | 1    | 43.309        |
| 16.1 | Regeldüse 03 für K195 TST  | 1    | 12.700-MX20030 | 42 | Schalterblende                    | 1    | 43.433        |
| 17   | Rohr für Handgriff   | 1    | 43.414         | 43 | Kabelführung                      | 2    | 43.061        |
| 18   | Kunststoffschraube 3,5 x 20  | 5    | 43.415         | 44 | Kabelaufhänge                     | 1    | 43.062        |
| 21   | Chemikaliensaugschlauch mit Filter   | 1    | 15.038         | 50 | <b>Schlauchtrommel</b>            |      | <b>40.173</b> |
| 22   | Kunststoffschraube 4,0 x 16  | 5    | 43.417         |    | ohne Griff und ohne Anschlussrohr |      |               |
| 23   | Kunststoffschraube 5,0 x 30  | 2    | 43.418         |    |                                   |      |               |

# Valve housing



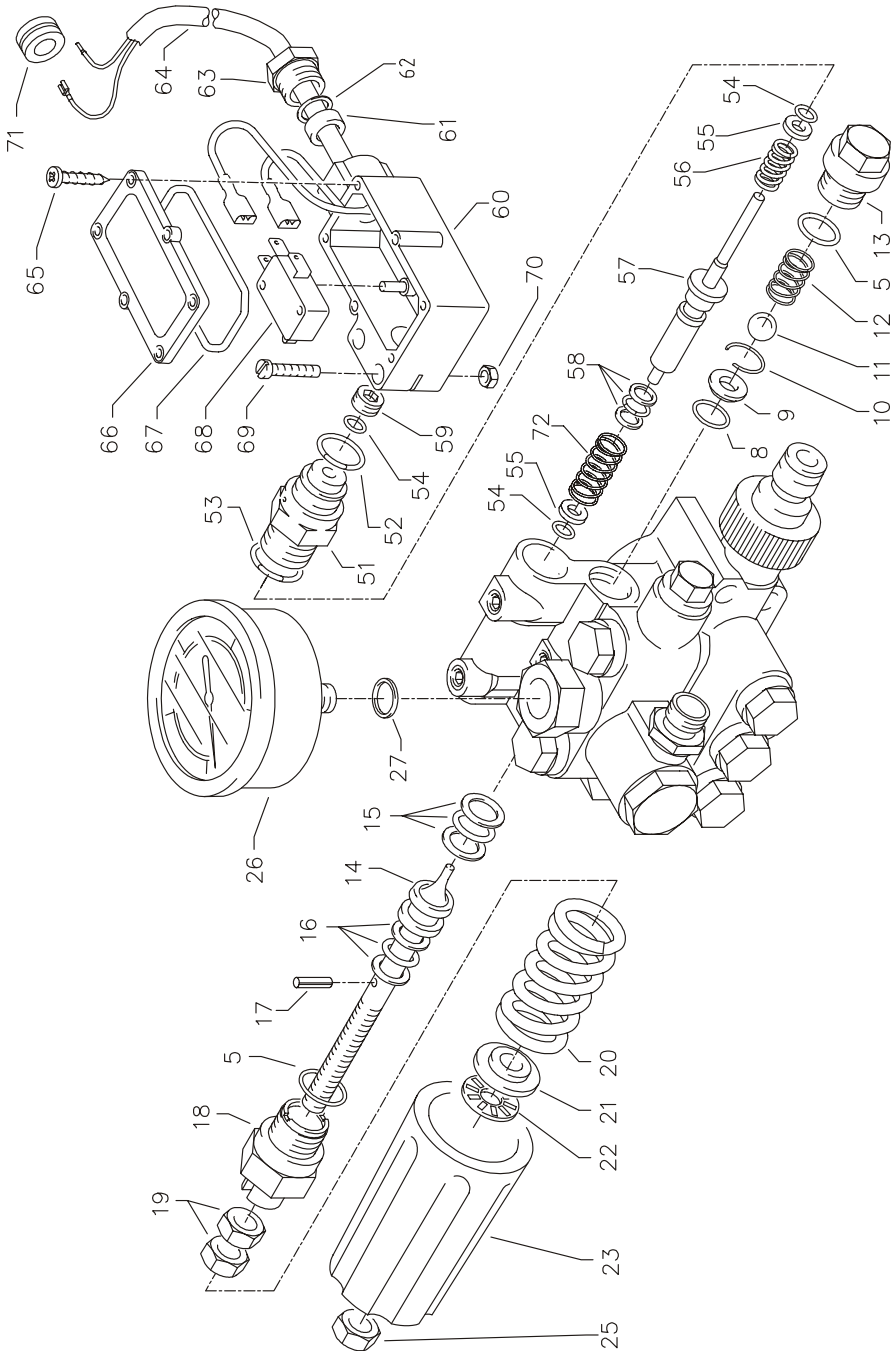


# KRÄNZLE 160 TS T

## Spare parts list KRÄNZLE 160 TS T Valve housing APG for plunger diameter 18 mm

| No   | Description                    | Qty. | Ord.-No  | No | Description                                 | Qty. | Ord.-No         |
|------|--------------------------------|------|----------|----|---|------|-----------------|
| 1    | Ventilgehäuse                  | 1    | 42.160   | 39 | Verschraubung Ermeto R1/4" x 8              | 1    | 41.042          |
| 2    | Ventilstopfen                  | 5    | 41.714   | 42 | Kupferring                                  | 1    | 42.104          |
| 2.1  | Ventilstopfen mit R1/4" IG     | 1    | 42.026 1 | 43 | Innensechskantschraube M 8 x 30             | 2    | 41.036 1        |
| 3    | Dichtstopfen M 10 x 1          | 1    | 43.043   | 44 | Innensechskantschraube M 8 x 55             | 2    | 41.017 1        |
| 4    | Ventile (grün) für APG-Pumpe   | 6    | 41.715 1 | 45 | Sicherungsring                              | 4    | 40.054          |
| 5    | O-Ring 16 x 2                  | 6    | 13.150   | 46 | Sauganschluß                                | 1    | 41.016          |
| 6    | O-Ring 15 x 2                  | 6    | 41.716   | 47 | Wasserfilter                                | 1    | 41.046 1        |
| 7    | Dichtstopfen R1/4" mit Bund    | 1    | 42.103   | 48 | Gummi Dichtring                             | 1    | 41.047 1        |
| 8    | Ausgangsteil                   | 1    | 42.161   | 49 | Steckkupplung                               | 1    | 41.047 2        |
| 9    | Dichtstopfen M 8 x 1           | 2    | 13.158   | 50 | O-Ring                                      | 1    | 41.047 3        |
| 10   | O-Ring 18 x 2                  | 1    | 43.446   |    |   |      |                 |
| 11   | Aluminium - Dichtring          | 3    | 13.275   |    | <b>Rep.-kit valves for APG-pump</b>         |      | <b>41.748 1</b> |
| 27   | Druckring                      | 3    | 41.018   |    | consisting of: 6x No. 4; 6x No. 5; 6x No. 6 |      |                 |
| 28   | Manschette 18 x 26 x 4/2       | 3    | 41.013   |    |   |      |                 |
| 28.1 | Gewebemanschette 18 x 26 x 4/2 | 3    | 41.013 1 |    | <b>Rep.-kit sleeves 18 mm</b>               |      | <b>41.049 1</b> |
| 29   | Backing 18 x 26                | 6    | 41.014   |    | consisting of: 3x No. 27; 3x No. 28;        |      |                 |
| 30   | O-Ring 28,3 x 1,78             | 3    | 40.026   |    | 3x No. 28.1; 6x No. 29; 3x No. 30           |      |                 |
| 31   | Leckagering 18 mm              | 3    | 41.066   |    |   |      |                 |
| 32   | Zwischenring 18 mm             | 3    | 41.015 2 |    | <b>Valve housing compl.</b>                 |      | <b>42.162</b>   |
| 34   | O-Ring 6 x 2                   | 1    | 14.121   |    | with integr. ULH and pressure switch        |      |                 |
| 35   | Rückschlagkörper               | 1    | 14.122   |    |   |      |                 |
| 36   | Rückschlagfeder                | 1    | 14.120   |    | <b>Steuerkolben kpl. mit Handrad</b>        |      | <b>43.444</b>   |

# Unloader valve and pressure switch



# KRÄNZLE 160 TS T / 195 TS T

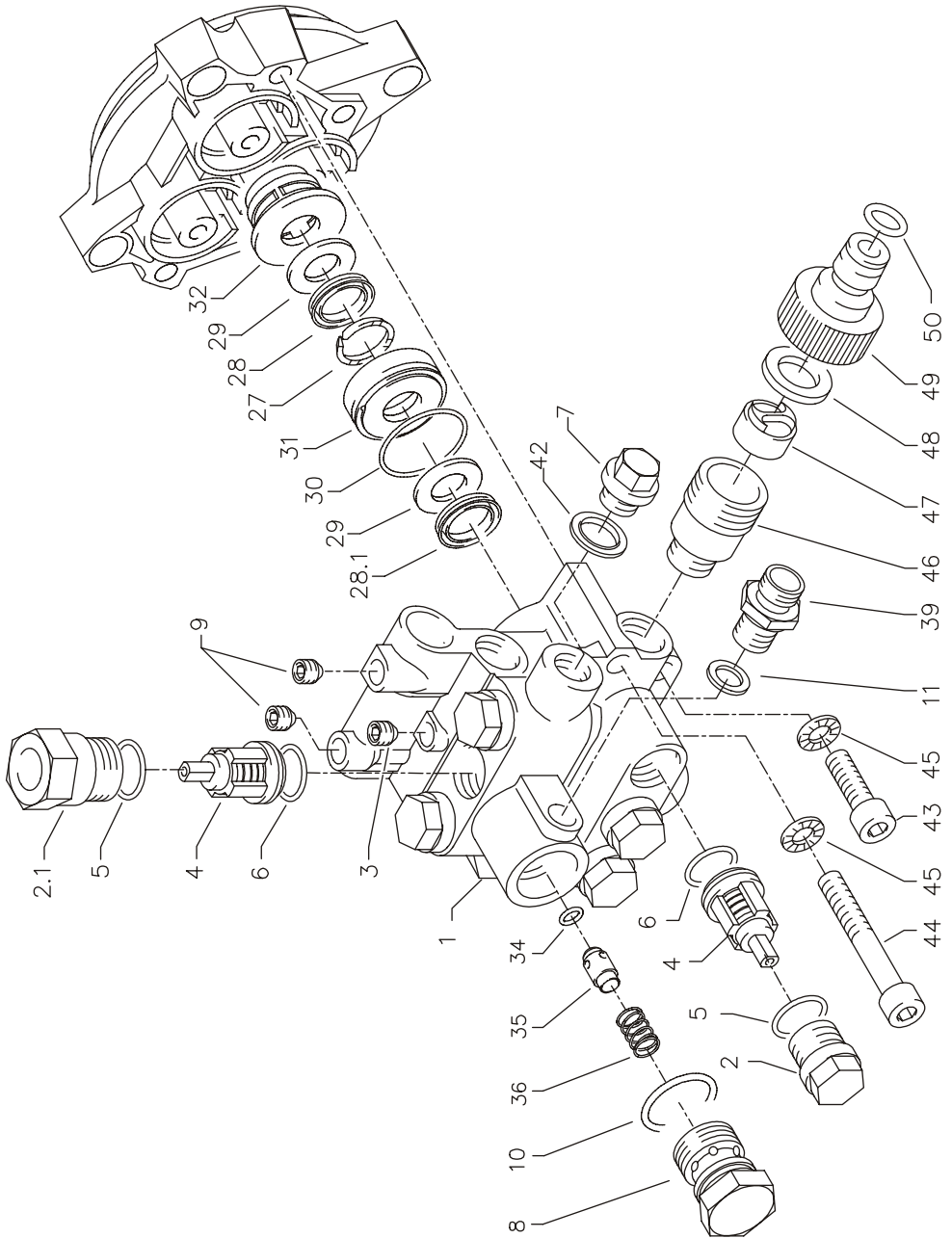
## Spare parts list KRÄNZLE 160 TS T, 195 TS T Unloader and pressure switch for valve housing APG

| No | Description            | Qty. | Ord.-No | No | Description                    | Qty. | Ord.-No  |
|----|------------------------|------|---------|----|--------------------------------|------|----------|
| 5  | O-Ring 16 x 2          | 2    | 13.150  | 51 | Führungsteil Steuerstößel      | 1    | 15.009 1 |
| 8  | O-Ring                 | 1    | 12.256  | 52 | O-Ring 12,3 x 2,4              | 1    | 15.017   |
| 9  | Edelstahlsitz          | 1    | 14.118  | 53 | O-Ring 14 x 2                  | 1    | 43.445   |
| 10 | Sicherungsring         | 1    | 13.147  | 54 | O-Ring 3,3 x 2,4               | 3    | 12.136   |
| 11 | Edelstahlkugel 8,5 mm  | 1    | 13.148  | 55 | Stützscheibe                   | 2    | 15.015 1 |
| 12 | Edelstahlfeder         | 1    | 14.119  | 56 | Edelstahlfeder                 | 1    | 15.016   |
| 13 | Verschlußschraube      | 1    | 14.113  | 57 | Steuerstößel lang              | 1    | 15.010 2 |
| 14 | Steuerkolben           | 1    | 14.134  | 58 | Parbaks                        | 1    | 15.013   |
| 15 | Parbaks 16 mm          | 1    | 13.159  | 59 | Stopfen M10x1 (durchgebohrt)   | 1    | 13.385 1 |
| 16 | Parbaks 8 mm           | 1    | 14.123  | 60 | Gehäuse Elektroschalter        | 1    | 15.007   |
| 17 | Spannstift             | 1    | 14.148  | 61 | Gummimanschette PG 9           | 1    | 15.020   |
| 18 | Kolbenführung spezial  | 1    | 42.105  | 62 | Scheibe PG 9                   | 1    | 15.021   |
| 19 | Mutter M 8 x 1         | 2    | 14.144  | 63 | Verschraubung PG 9             | 1    | 15.022   |
| 20 | Ventilfeder schwarz    | 1    | 14.125  | 64 | Kabel 2 x 1,5 mm <sup>2</sup>  | 1    | 15.019 1 |
| 21 | Federdruckscheibe      | 1    | 14.126  | 65 | Blechschaube 2,8 x 16          | 6    | 15.024   |
| 22 | Nadellager             | 1    | 14.146  | 66 | Deckel Elektroschalter         | 1    | 15.008   |
| 23 | Handrad                | 1    | 14.147  | 67 | O-Ring 44 x 2,5                | 1    | 15.023   |
| 25 | Elastic-Stop-Mutter    | 1    | 14.152  | 68 | Mikroschalter                  | 1    | 15.018   |
| 26 | Manometer 0-250 bar    | 1    | 15.039  | 69 | Zylinderschraube M 4 x 20      | 2    | 15.025   |
| 27 | Aluminium - Dichttring | 2    | 13.275  | 70 | Sechskant-Mutter M 4           | 2    | 15.026   |
|    |                        |      |         | 71 | Kabelfülle Gehäusedurchführung | 1    | 43.466   |
|    |                        |      |         | 72 | Druckfeder 1 x 8,6 x 30        | 1    | 40.520   |

**Rep.-kit pressure switch mechanism 15.009 3**  
 consisting of: 1x No.51; 1x No.52;  
 1x No.53; 3x No.54; 1x No.55; 1x No.56;  
 1x No.57; 1x No.58; 1x No.59

**Pressure switch compl.** No. 54 - 70      **41.300 5**

# Valve housing

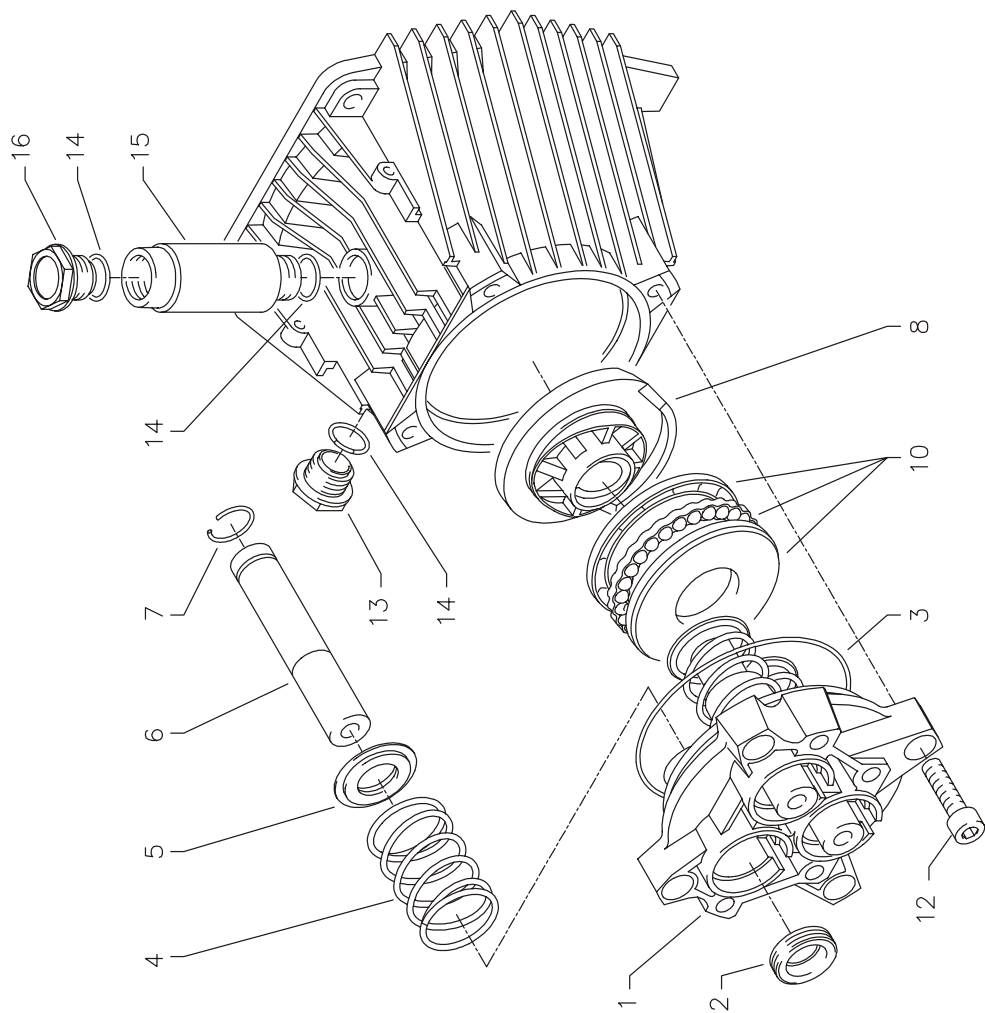


# KRÄNZLE 195 TS T

## Spare parts list KRÄNZLE 195 TS T Valve housing APG for plunger diameter 15 mm

| No   | Description                  | Qty. | Ord.-No  | No | Description                                 | Qty. | Ord.-No         |
|------|------------------------------|------|----------|----|---|------|-----------------|
| 1    | Ventilgehäuse                | 1    | 42.163   | 39 | Verschraubung Ermeto R1/4" x 8              | 1    | 41.042          |
| 2    | Ventilstopfen                | 5    | 41.714   | 42 | Kupferring                                  | 1    | 42.104          |
| 2.1  | Ventilstopfen mit R1/4" IG   | 1    | 42.026 1 | 43 | Innensechskantschraube M 8 x 30             | 2    | 41.036 1        |
| 3    | Dichtstopfen M 10 x 1        | 1    | 43.043   | 44 | Innensechskantschraube M 8 x 55             | 2    | 41.017 1        |
| 4    | Ventile (grün) für APG-Pumpe | 6    | 41.715 1 | 45 | Sicherungsring                              | 4    | 40.054          |
| 5    | O-Ring 16 x 2                | 6    | 13.150   | 46 | Sauganschluß                                | 1    | 41.016          |
| 6    | O-Ring 15 x 2                | 6    | 41.716   | 47 | Wasserfilter                                | 1    | 41.046 1        |
| 7    | Dichtstopfen R1/4" mit Bund  | 1    | 42.103   | 48 | Gummi Dichtring                             | 1    | 41.047 1        |
| 8    | Ausgangsteil                 | 1    | 42.161   | 49 | Steckkupplung                               | 1    | 41.047 2        |
| 9    | Dichtstopfen M 8 x 1         | 2    | 13.158   | 50 | O-Ring                                      | 1    | 41.047 3        |
| 10   | O-Ring 18 x 2                | 1    | 43.446   |    | Steckkupplung kpl.                          | 1    | 41.047 4        |
| 11   | Aluminium - Dichtring        | 3    | 13.275   |    |   |      |                 |
| 27   | Stützring rot 15mm           | 3    | 42.913   |    | <b>Rep.-kit valves for APG-pump</b>         |      | <b>41.748 1</b> |
| 28   | Manschette weich 15mm        | 3    | 42.902   |    | consisting of: 6x No. 4; 6x No. 5; 6x No. 6 |      |                 |
| 28.1 | Manschette Gewebe 15mm       | 3    | 42.902 1 |    |   |      |                 |
| 29   | Backring 15 x 24             | 6    | 42.903   |    | <b>Rep.-kit sleeves 15 mm</b>               |      | <b>42-911</b>   |
| 30   | O-Ring 28,3 x 1,78           | 3    | 40.026   |    | consisting of: 3x Pos. 27; 3x Pos. 28;      |      |                 |
| 31   | Leckagering 15 mm            | 3    | 42.905   |    | 3x Pos. 28.1; 3x Pos. 29; 3x Pos. 30        |      |                 |
| 32   | Zwischenring 15 mm           | 3    | 42.904 1 |    | <b>Valve housing 15 mm compli..</b>         |      | <b>42.165</b>   |
| 34   | O-Ring 6 x 2                 | 1    | 14.121   |    | with integr. ULH and pressure switch        |      |                 |
| 35   | Rückschlagkörper             | 1    | 14.122   |    |   |      |                 |
| 36   | Rückschlagfeder              | 1    | 14.120   |    | <b>Guide piston compl.with handwheel</b>    |      | <b>43.444</b>   |

# Transmission unit

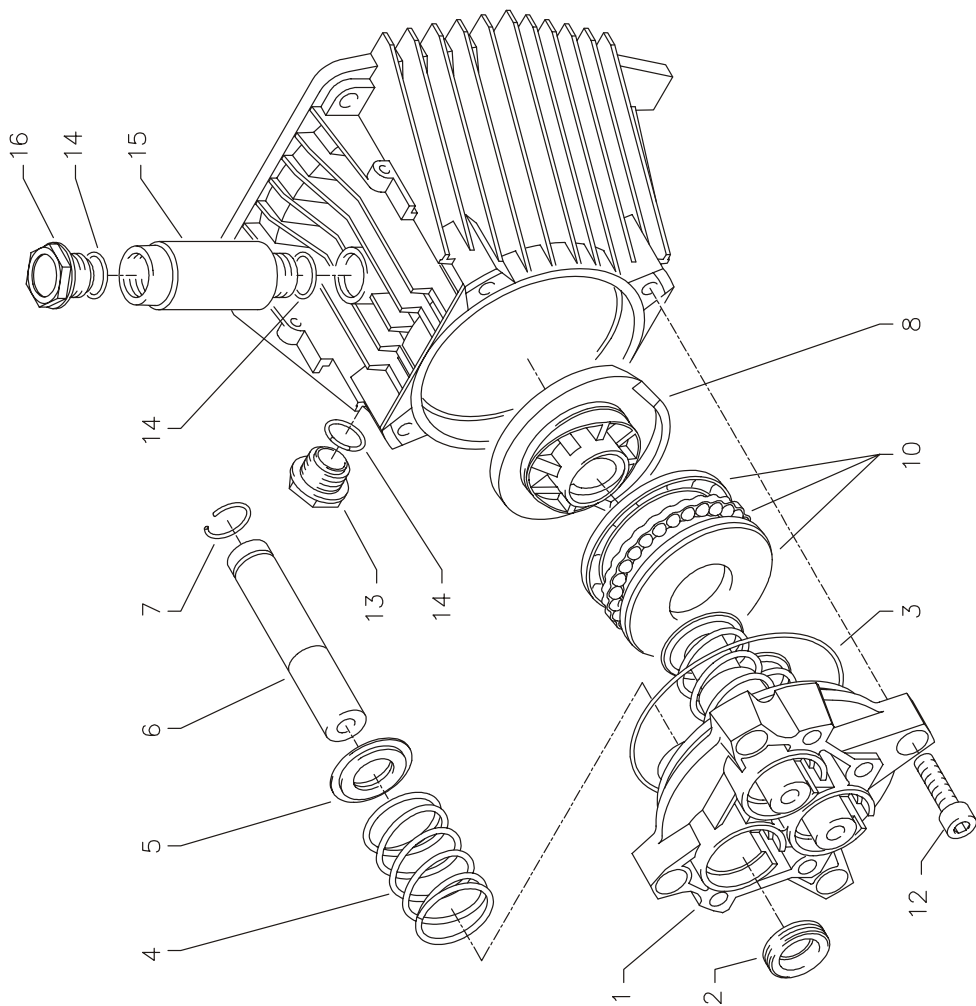


# KRÄNZLE 160 TS T

## Spare parts list KRÄNZLE 160 TS T Transmission unit for plunger diameter 18 mm

| No | Description   | Qty. | Ord.-No     |
|----|---|------|-------------|
| 1  | Gehäuseplatte für 18 mm Plunger                     | 1    | 41.020 2    |
| 2  | Öldichtung 18 x 28 x 7                              | 3    | 41.031      |
| 3  | O-Ring Viton 88 x 2                                 | 1    | 41.021 1    |
| 4  | Plungerfeder  | 3    | 41.033      |
| 5  | Federdruckscheibe 18 mm                             | 3    | 41.034      |
| 6  | Plunger 18 mm                                       | 3    | 41.032 1    |
| 7  | Sprengring 18 mm                                    | 3    | 41.035      |
| 8  | Taumscheibe 12,0°<br>bitte Taumelwinkel mit angeben | 1    | 41.028-12,0 |
| 10 | Axial-Füllenkugellager 3-teilig                     | 1    | 43.486      |
| 12 | Innensechskantschraube M 8 x 30                     | 4    | 41.036 1    |
| 13 | Ölschauglas   | 1    | 42.018 1    |
| 14 | O-Ring 14 x 2                                       | 3    | 43.445      |
| 15 | Öleinfüll-Stutzen                                   | 1    | 43.438      |
| 16 | Öl-Verschlußschraube Messing                        | 1    | 43.437 1    |

# Transmission unit



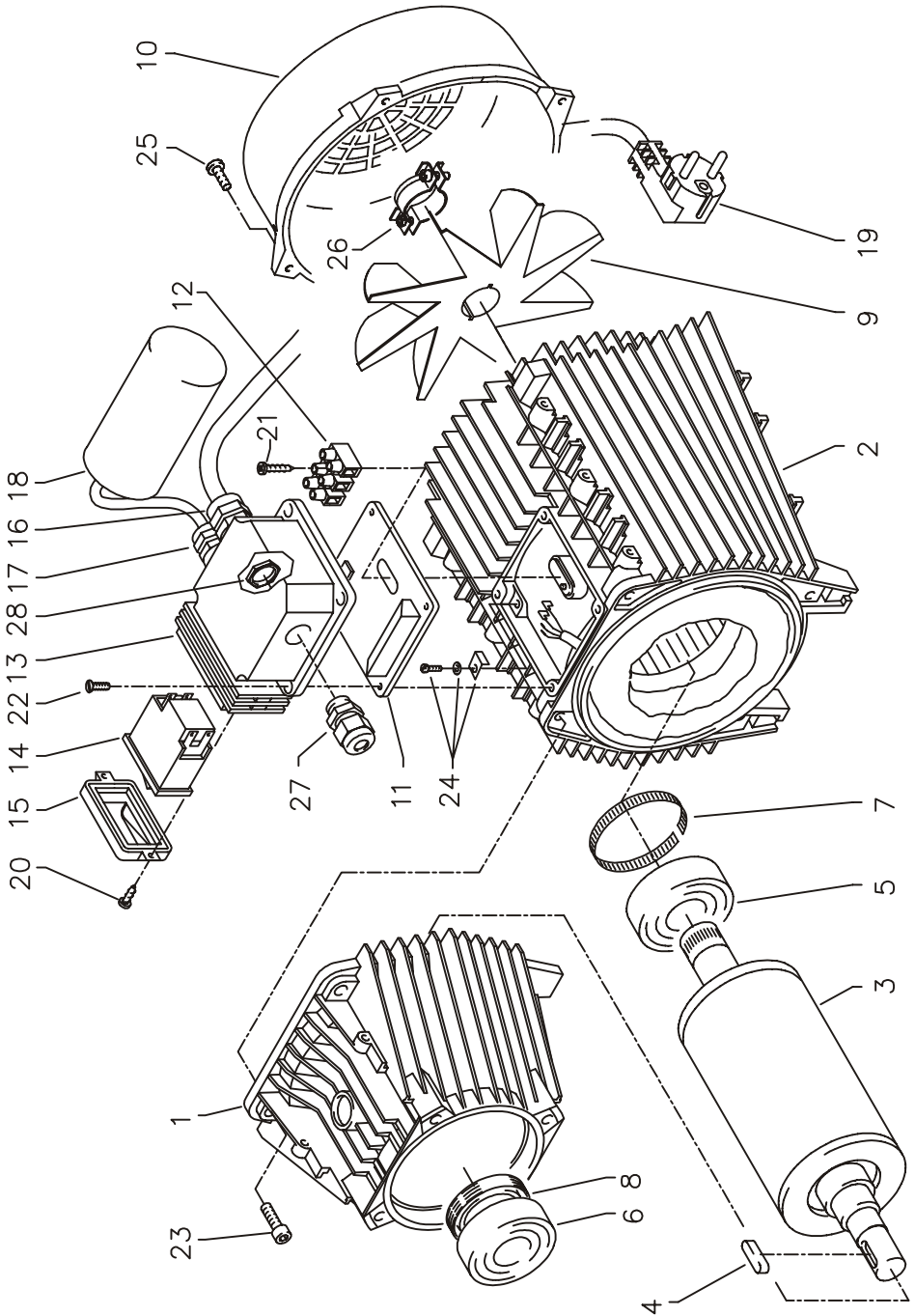


# KRÄNZLE 195 TS T

## Spare parts list KRÄNZLE 195 TS T Transmission unit for plunger diameter 15 mm

| No | Description   | Qty. | Ord.-No     |
|----|---|------|-------------|
| 1  | Gehäuseplatte für 15 mm Plunger                     | 1    | 42.906      |
| 2  | Öldichtung 15 x 24 x 7                              | 3    | 42.907      |
| 3  | O-Ring Viton 88 x 2                                 | 1    | 41.021 1    |
| 4  | Plungerfeder  | 3    | 41.033      |
| 5  | Federdruckscheibe 15 mm                             | 3    | 42.909      |
| 6  | Plunger 15 mm                                       | 3    | 42.908      |
| 7  | Sprengring 15 mm                                    | 3    | 42.910      |
| 8  | Taumscheibe 14,2°<br>bitte Taumelwinkel mit angeben | 1    | 41.028-14,2 |
| 10 | Axial-Füllenkugellager 3-teilig                     | 1    | 43.486      |
| 12 | Innensechskantschraube M 8 x 30                     | 4    | 41.036 1    |
| 13 | Ölschauglas   | 1    | 42.018 1    |
| 14 | O-Ring 14 x 2                                       | 3    | 43.445      |
| 15 | Öleinfüll-Stutzen                                   | 1    | 43.438      |
| 16 | Öl-Verschlußschraube Messing                        | 1    | 43.437 1    |

# AC - Motor

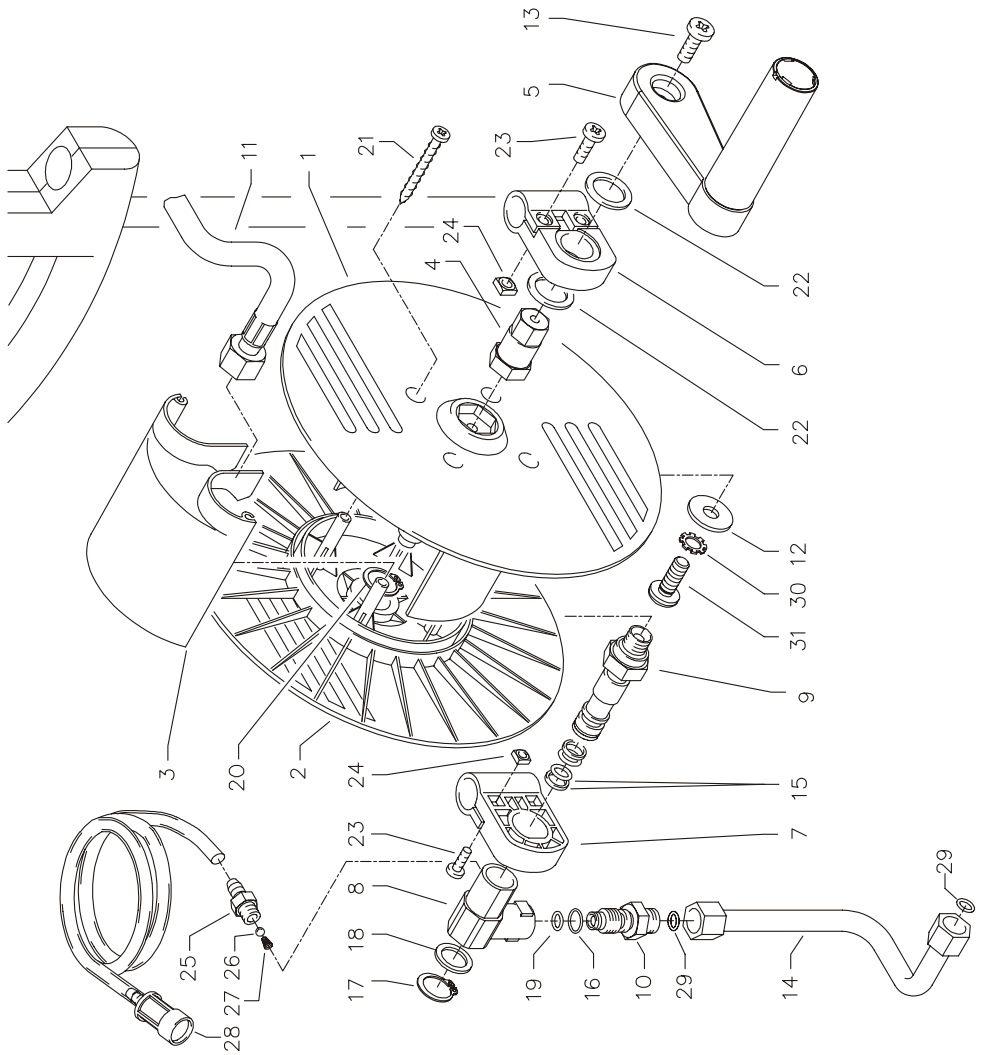


# KRÄNZLE 160 TS T / 195 TS T

## Spare parts list AC - Motor for KRÄNZLE 160 TS T, 195 TS T

| No | Description  | Qty. | Ord.-No  |
|----|--|------|----------|
| 1  | Ölgehäuse für AP   | 1    | 43.314   |
| 2  | Motorgehäuse mit Stator Wechselstrom                         | 1    | 43.315   |
| 3  | Rotor mit Motorwelle Wechselstrom                            | 1    | 43.316   |
| 4  | Paßfeder 6 x 6 x 20  | 1    | 41.483 1 |
| 5  | Motor-Lager B-Seite 6205 - 2Z                                | 1    | 43.317   |
| 6  | Motor-Lager A-Seite Schulterlager 7304 BEP                   | 1    | 41.027   |
| 7  | Toleranzhülse  | 1    | 43.330 1 |
| 8  | Öldichtung 25 x 35 x 7                                       | 1    | 41.024   |
| 9  | Lüfterrad BG 90  | 1    | 43.319   |
| 10 | Lüfterhaube BG 90  | 1    | 43.320   |
| 11 | Flachdichtung  | 1    | 43.030   |
| 12 | Lüsterklemme 3-polig   | 1    | 43.326   |
| 13 | Schaltergehäuse BG 90 für K 160 TS T                         | 1    | 41.090 5 |
| 14 | Schalter mit 14,5 A Überstromauslöser und beleuchteter Wippe | 1    | 41.111 6 |
| 15 | Klemmrahmen mit Schalterabdichtung                           | 1    | 41.110 5 |
| 16 | Kabelverschraubung PG 11                                     | 1    | 41.419   |
| 17 | Kabelverschraubung PG 9 (3-teilig)                           | 1    | 43.034   |
| 18 | Kondensator 70 µF  | 1    | 43.322   |
| 19 | Kabel mit Stecker  | 1    | 41.092   |
| 20 | Blechschaube 3,5 x 9,5                                       | 2    | 41.088   |
| 21 | Blechschaube 2,9 x 16  | 1    | 43.036   |
| 22 | Schraube M 4 x 12  | 4    | 41.489   |
| 23 | Innensechskantschraube M 6 x 30                              | 4    | 43.037   |
| 24 | Erdungsschraube kmpf.  | 1    | 43.038   |
| 25 | Schraube M 4 x 12  | 6    | 41.489   |
| 26 | Vierkant-Mutter M 4  | 2    | 43.323   |
| 27 | Kabelverschraubung PG 9                                      | 1    | 41.087   |
| 28 | Überwurfmutter für PG 9                                      | 1    | 41.087 1 |

# Hose drum

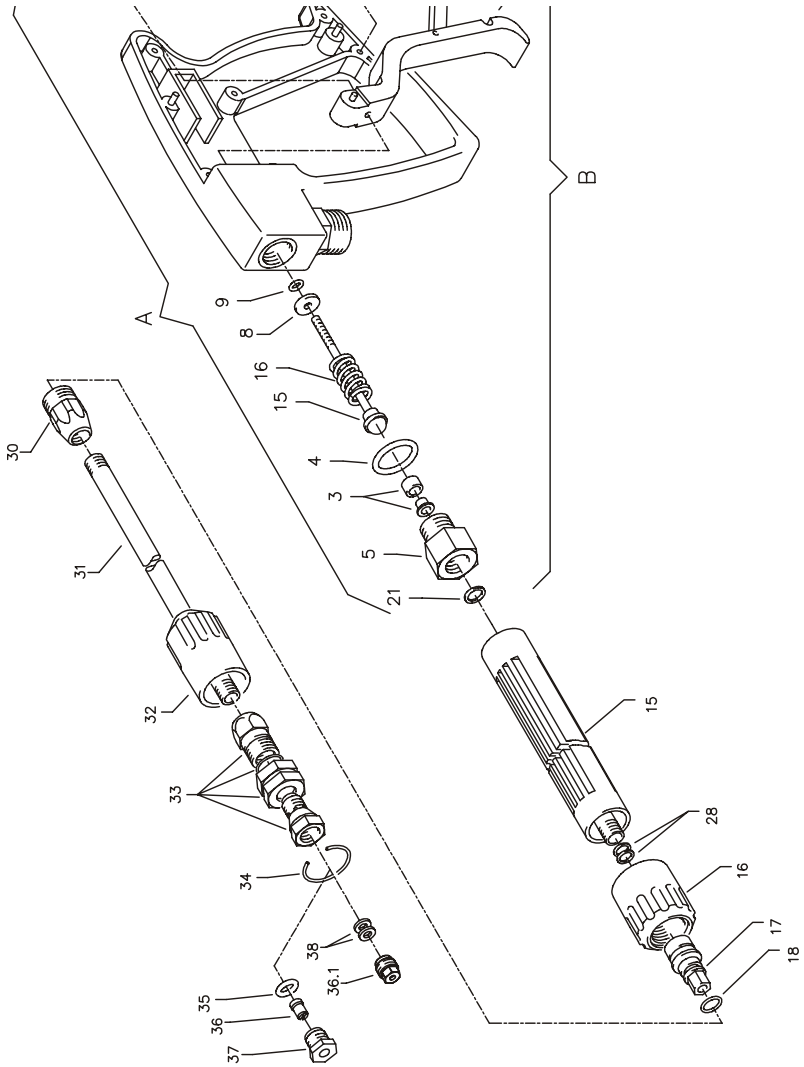


# KRÄNZLE 160 TS T / 195 TS T

## Spare parts list KRÄNZLE 160 TS T, 195 TS T Hose drum

| No | Description                        | Qty. | Ord.-No |
|----|------------------------------------|------|---------|
| 1  | Schale groß                        | 1    | 40.160  |
| 2  | Schale klein                       | 1    | 40.161  |
| 3  | Knickschutz                        | 1    | 40.162  |
| 4  | Antriebswelle                      | 1    | 40.166  |
| 5  | Kurbel                             | 1    | 40.165  |
| 6  | Lagerklotz links                   | 1    | 40.163  |
| 7  | Lagerklotz rechts                  | 1    | 40.164  |
| 8  | Drehgelenk                         | 1    | 40.167  |
| 9  | Achse mit Wasserführung            | 1    | 40.168  |
| 10 | Eingangsinjektor                   | 1    | 40.169  |
| 11 | HD-Schlauch NW 6 15 m              | 1    | 40.170  |
| 12 | Scheibe DIN9021 6,4                | 1    | 50.174  |
| 13 | Schraube M 5 x 10                  | 1    | 43.021  |
| 14 | Anschlußrohr Ermeto Edelstahl      | 1    | 40.175  |
| 15 | Parbaks 16 mm                      | 2    | 13.159  |
| 16 | O-Ring 10 x 2                      | 1    | 43.068  |
| 17 | Sicherungsring 16 mm               | 1    | 40.182  |
| 18 | Scheibe MS 16 x 24 x 2             | 1    | 40.181  |
| 19 | O-Ring 6,68 x 1,78                 | 1    | 40.585  |
| 20 | Sicherungsring 20 mm               | 1    | 40.172  |
| 21 | Kunststoffschraube 5,0 x 20        | 4    | 43.018  |
| 22 | Backing 20 mm                      | 2    | 40.025  |
| 23 | Schraube M 5 x 16                  | 4    | 40.178  |
| 24 | Vierkantmutter M 5                 | 4    | 41.416  |
| 25 | Saugzapfen Schlauchanschluß        | 1    | 13.236  |
| 26 | Edelstahlkugel 5,5 mm              | 1    | 13.238  |
| 27 | Edelstahlfeder                     | 1    | 13.239  |
| 28 | Chemikaliensaugschlauch mit Filter | 1    | 15.038  |
| 29 | O-Ring 6 x 0,8                     | 2    | 40.177  |
| 30 | Zahnscheibe 6,4                    | 1    | 40.183  |
| 31 | Schraube M 6 x 16                  | 1    | 40.171  |

# Gun with lance



# KRÄNZLE 160 TS T / 195 TS T

## Spare parts list KRÄNZLE 160 TS T, 195 TS T Midi and lance with regulator nozzle

| No   | Description                                 | Qty. | Ord.-No. |
|------|---|------|----------|
| 5    | Rohranschluss R 1/4"<br>incl. Pos. 3, 4, 21 | 1    | 12.125   |
| 6    | Scheibe 5,3 DIN9021                         | 1    | 50.152   |
| 7    | Abzug-Hebel kpl.                            | 1    | 12.144 1 |
| 15   | Rohr kunststoffumspritzt<br>bds. R 1/4" AG  | 1    | 15.004 2 |
| 16   | Überwurfmutter ST 30 M22 x 1,5 IG           | 1    | 13.276 1 |
| 17   | Außen-Sechskant-Nippel R 1/4" IG            | 1    | 13.277 1 |
| 18   | O-Ring 9,3 x 2,4                            | 1    | 13.273   |
| 28   | Aluminium Dichtring                         | 6    | 13.275   |
| 30   | ST 30-Nippel M 22 x 1,5 AG / M 12 x 1       | 1    | 13.363   |
| 31   | Rohr 400 lang, bds. M12 x 1                 | 1    | 41.527   |
| 32   | Kunststoff-Hülse                            | 1    | 13.202   |
| 33   | Regeldüse ohne Hülse                        | 1    | 43.439   |
| 34   | Sprengring                                  | 1    | 43.441   |
| 35   | O-Ring 6,0 x 3,0                            | 1    | 14.121   |
| 36   | HD-Düse MX20042                             | 1    | MX20042  |
| 36.1 | HD-Düse M20030                              | 1    | M20030   |
| 37   | Düsenhalter                                 | 1    | 26.004   |
| 38   | Aluminiumdichtring                          | 1    | 13.275 1 |

A Rep.-Kit 12.158

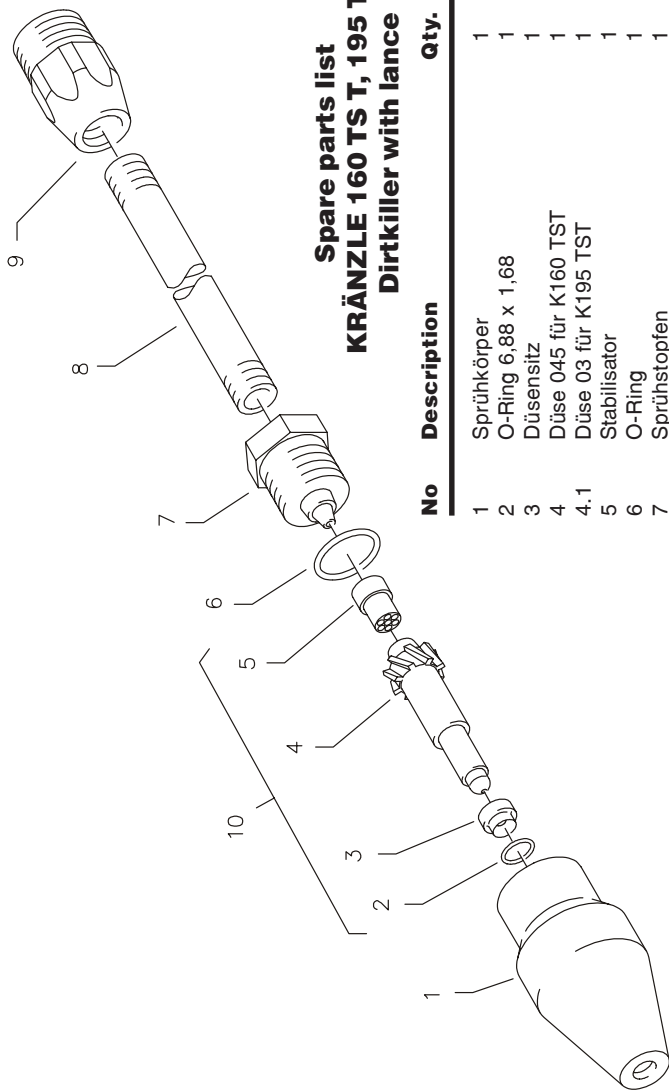
Pos: 3, 4, 5, 8, 9, 12, 15, 16; 21

B Griff komplett 12.164

**Midi-Pistole** mit Verlängerung **12.160**

**für K160 TST**  
**Lance compl.** with regulator nozzle 042 **12.700-MX20042**

**für K195 TST**  
**Lance compl.** with regulator nozzle 03 **12.700-M20030**



**Spare parts list**  
**KRÄNZLE 160 TS T, 195 TS T**  
**Dirtkiller with lance**

| No  | Description                            | Qty. | Ord.-No  |
|-----|--|------|----------|
| 1   | Sprühkörper                            | 1    | 41.520   |
| 2   | O-Ring 6,88 x 1,68                     | 1    | 41.521   |
| 3   | Düsenzitz                              | 1    | 41.522   |
| 4   | Düse 045 für K160 TST                  | 1    | 41.523   |
| 4.1 | Düse 03 für K195 TST                   | 1    | 41.523 4 |
| 5   | Stabilisator                           | 1    | 41.524   |
| 6   | O-Ring                                 | 1    | 40.016 1 |
| 7   | Sprühstopfen                           | 1    | 41.526   |
| 8   | Rohr 400 mm 2x M 12 x 1                | 1    | 41.527   |
| 9   | ST 30-Nippel M 22 x 1,5 / M 12 x 1 ISK | 1    | 13.363   |

**Rep.-kit Dirtkiller 045**

consisting of: 1x 2; 3; 4; 5

**Rep.-kit Dirtkiller 03**

consisting of: 1x 2; 3; 4.1; 5

**Dirtkiller 045 compl. with lance**

**Dirtkiller 03 compl. with lance**





# 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.

## 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 page 14 and 15)

Check the oil level at the oil sight glass prior to each use.  
(Ensure horizontal position!)

## Oil change:

The oil of your high pressure pump should be changed after approx. 40 hours of operation, or no later than when it takes on a grey or whitish colour. To change the oil, remove the two combination screws on the base-plate at the bottom, take off the base-plate and pull out the oil drainage hose. Put the hose over a container and take off the closure cap. Put the pump into horizontal position to drain off the oil. The oil must be caught in a container and disposed of in a responsible, legal manner.

New oil: 0.3 l - Motor oil: W 15/40

## 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 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.



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As date of 08. 09. 2005

Best-Nr.: 30 224 1