

# Original operating manual

## High pressure cleaner

- GB -

**K 1050 TS**



Read and conform safety instructions before use!

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



# Dear customer:

We would like to congratulate you on the purchase of your new high pressure cleaner and thank you for your confidence in our products!

Your choice has fallen on an absolute quality product!

Kränzle high pressure cleaners are characterized by their convenient and compact design as well as their high suitability for everyday use.

Highest precision and dimensional accuracy in addition to a technology package consisting of a multitude of details mark the difference when it comes to performance, safety and durability.

In order to facilitate handling of the **K 1050 TS** the following pages are intended to further explain its use.

Technische Daten	K 1050 TS
Operating pressure	130 bar (13 MPa)
Nozzle size	25 030
Permissible overpressure	160 bar (16 MPa)
Water output*	7.5 l/min (450 l/h)
Max. Wasserzulaufdruck	1.0 MPa
Water inlet temperatur (1-10 bar)	max. 60 °C
High pressure hose	8 m
Connected load	230V , 9.6 A ; 50 Hz
Power input	P1: 2.2 kW
Power output	P2: 1.65 kW
Weight	21 kg
Dimensions in mm	340 x 350 x 860
Sound level acc. to DIN 45 635	75 dB (A)
Acoustic power LWA	86 dB (A)
Recoil at lance	ca. 27 N
Vibration at lance	1.9 m/s <sup>2</sup>
Art.-No. ( <b>with</b> dirtkiller)	49.505 1

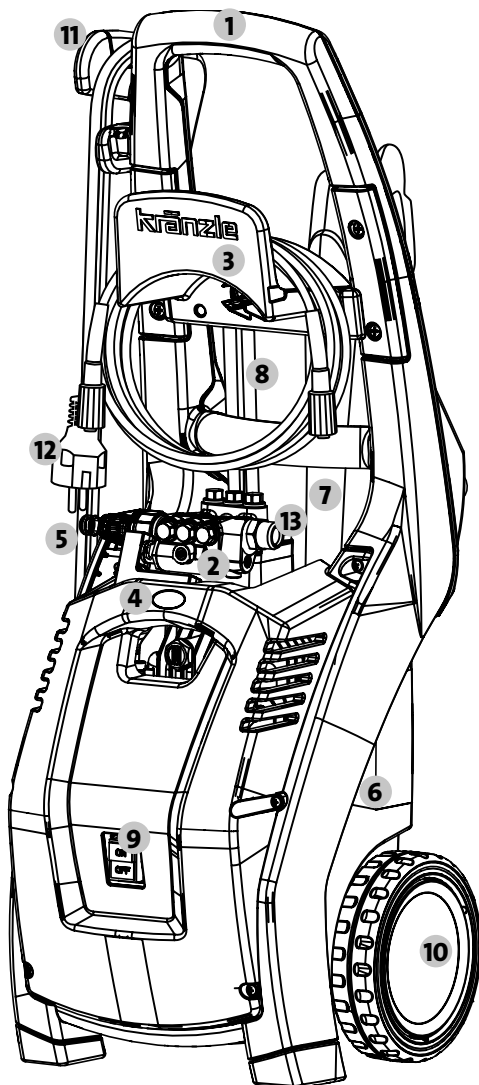
\* Must be supplied to the unit at least.

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

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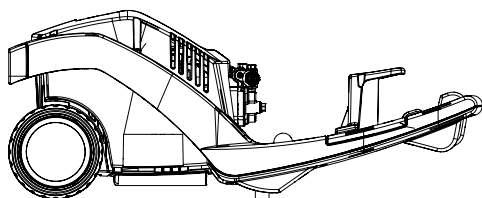
### Design

The KRÄNZLE K 1050 TS high pressure cleaner is a mobile machine with an advanced arrangement system. Please see construction scheme for more details.

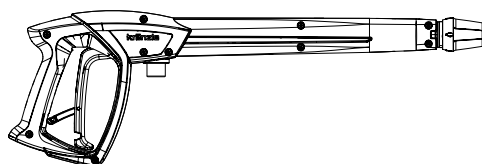


- 1 Ergonomically shaped handle
- 2 Pump head made of brass
- 3 Hose support
- 4 Start/Stop switch with pressure relief for HP hoses
- 5 Water connection supply with filter
- 6 Storage for trigger gun with lance on back of machine
- 7 Trigger gun with safety catch
- 8 Lances in storage
- 9 On/Off switch
- 10 Large stair climbing wheels
- 11 Cable reel
- 12 Power supply cable with plug
- 13 Pump outlet / high pressure hose connection

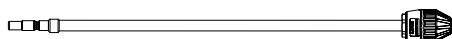
## This is what you have purchased



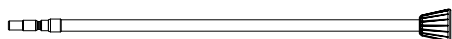
- 1.** KRÄNZLE high pressure cleaner K 1050 TS



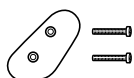
- 2.** Trigger gun with safety catch with insulated handle and plug coupling



- 3.** Dirtkiller lance with stainless steel pipe and plug-in nipple



- 4.** Flat jet nozzle with stainless steel pipe and plug-in nipple



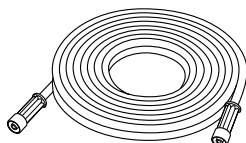
- 5.** Crank handle with fastening screw



- 6.** Operating manual



- 7.** Water connection supply, plug coupling with visible filter



- 8.** HD ho

### Explanatory symbols used in the operating manual



Failure to observe this note may entail environmental damage.



Note on the use of the machine that failure to adhere to the instructions may cause excessive wear or total breakdown of the K 1050 TS.



Warning!  
Failure to observe this note may result in serious injuries!

### Explanatory symbols affixed to the high pressure cleaner



In case of improper use, the high pressure jet can be very dangerous. Do not direct jet at persons, animals or active electrical equipment or the machine itself.



The unit may not be connected directly to the public drinking water supply network.

## Range of application

Use high pressure cleaner for cleaning purposes only using high pressure jet with or without cleaning detergent.

The high pressure cleaner is designed for use in private environment only.



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

## 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.



**High pressure cleaners used for commercial purposes have to be checked by a qualified person at least every 12 months!**

## 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.



### **Oil leakage**

If oil leaks contact your nearest after-sales service (dealer) at once. (environmental damage, damage to the transmission).



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!

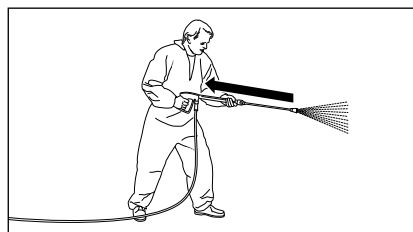
Do not spray against matter containing asbestos or other hazardous substances!

Never spray liquids containing solvents like varnish solvents, petrol, oil or similar liquid!

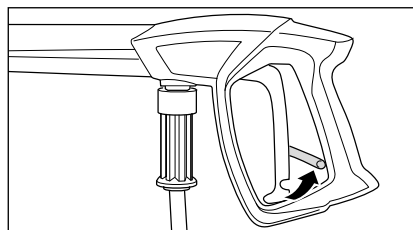
Due to the high pressure jet, damage may occur on the objects to be cleaned, e.g. car tires; therefore, a minimum distance of 30 cm is to be kept.

Prior to putting the high pressure cleaners into operation, check its components (HP hose, power supply cables, safety trigger gun) for any damage. Replace defect or damaged components!

The high pressure cleaner is to be properly used. The user is required to adhere to local requirements and to watch out for any persons in the danger zone!

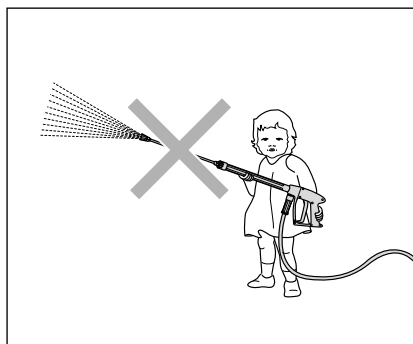


When using high pressure water for cleaning, make sure that there is a clearly noticeable recoil effect on the lance. Therefore ensure a firm footing (see chapter „Technical Data“)

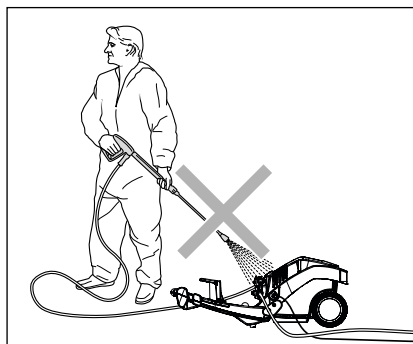


Apply the safety catch on the spray gun after each use in order to prevent unintentional spraying!



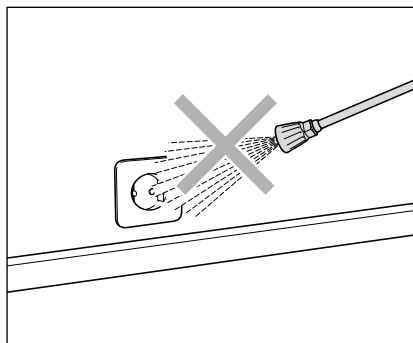


Never allow children or untrained persons to use the high pressure cleaner!



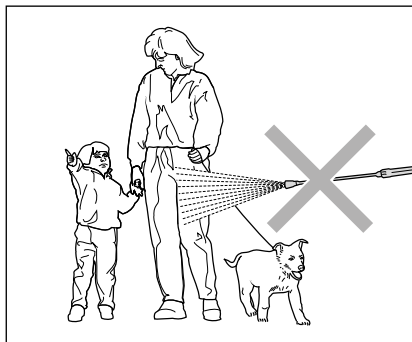
Never direct the water jet at the machine itself!

The machine may not be placed within reach of the water jet spray mist!



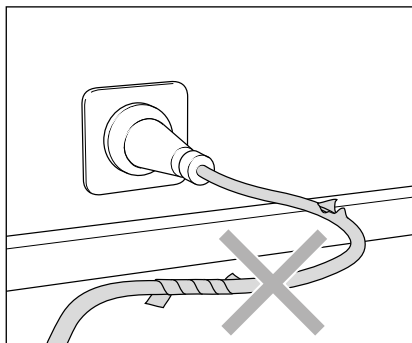
Never direct the water jet at power sockets or any other electrical installations!

Within the working area, all live parts are to be protected from both water jet and spray mist.



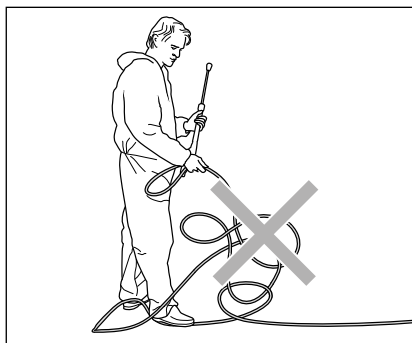
Never direct the water jet at people or animals!

Never direct the high pressure jet at yourself or other persons, not even to clean clothing or shoes.



Only use power cables which are in perfect working order!

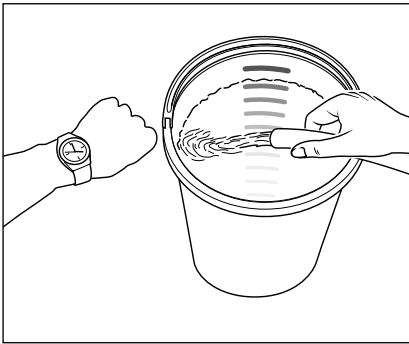
Do not damage or improperly repair cables (tearing, squeezing, running over,...).



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

Never pull the hose over sharp edges!

## Please note - important: Lack of water



Lack of water occurs more often than you probably believe. The more powerful a high-cleaner is the greater is the danger that a lack of water occurs. If there is only an insufficient amount of water available, cavitation (water-gas mixture) arises inside the pump, which is normally noticed too late or even not at all. **The pump will be destroyed.** Please check the available quantity of water by filling a bucket with liter scale for one minute.

**A minimum water quantity of 7.5 l/min is needed for the high pressure cleaner to operate.**



**If the metered quantity of water is too small, you have to use a different water connection, guaranteeing the necessary output.**  
**Lack of water leads to an accelerated wear of the joints (guarantee void).**



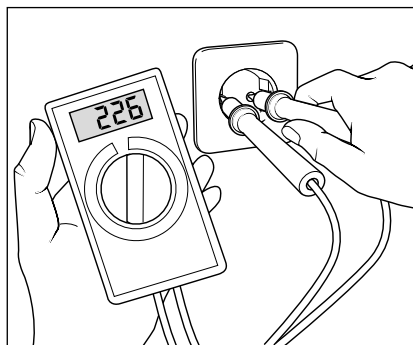
**Never let the pump run dry for more than 20 seconds.**

## Water supply



Please pay attention to the regulations of your waterworks company! In accordance with DIN EN 61770, 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 non-return valve with tube ventilator (Kränzle order no. 41.016 4) is built into the water supply. Once the water has passed through the non-return valve it is no longer considered as drinking water. 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.

### Insufficient quantity of electricity



**KRÄNZLE 1050 TS: 230 Volt / 50 Hz**

If there are too many collectors in your proximity connected to the network at the same time, the available voltage and the current intensity may decline. Consequently the motor of the high pressure cleaner does not start or even blows.

The power supply may also be insufficient if the power cable is too long or too thin.

If extension cables are too long, this may lead to a voltage drop causing malfunctions or start-up difficulties.



**Check the line fusing and have the voltage and the available current intensity checked by an expert in case of uncertainty.**

### Electrical connection

The machine is supplied with a 5 meter electrical power cable 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 fuse on the mains side. 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 the minimum cross section must be 2.5 mm<sup>2</sup>. When using a cable drum, always keep the cable wound as far as possible.

## Water and cleaning / care products system

Water can be connected at mains pressure to the high pressure pump. 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 with safety catch

The machine can only be operated when the trigger of the trigger gun with safety catch is pulled. When the trigger is pulled, the trigger 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 pressure thrust serves to close the start/stop system, thus causing interruption of the energy supply to the motor. Owing to this innovative system the high pressure hose is relieved and enables higher durability of the hose. Opening the gun causes the start/stop system to open, the electric motor is automatically restarted and the pump starts to transfer the water on to the high pressure jet where the cleaning jet is generated.



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



**Replacements, repairs, new adjustments and sealing should only be performed by qualified persons.**



**Prior to putting the machine into operation make sure that all safety instructions be observed.**

### Motor overload protection

The motor is protected against overloading by means of an overload protection device included in the motor coil. In the event of overloading or jamming, the excess temperature cut-out serves to switch off the motor. In case of repeated switching off the motor by means of the excess temperature cut-out, make sure to eliminate the cause of the failure.



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

### High pressure hose and spray device

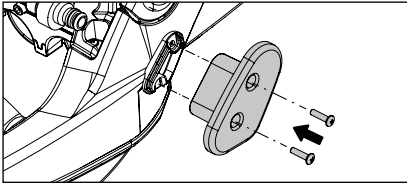
The high pressure hose and spray device which are part of the K 1050 P equipment, are made of high quality material and engineered to conform with the operating conditions of the high pressure cleaner and are duly labeled.



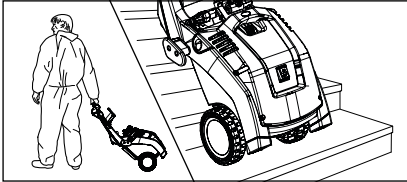
If replacement parts are required, only such parts that are authorized by the manufacturer may be used. The warranty is automatically void if spare parts of third-party providers are used! The high pressure hose and spray device must be connected in a pressure-tight manner (without leakage).



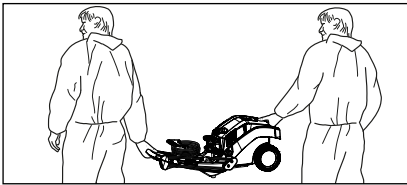
The high pressure hose may not be driven over, pulled excessively, or twisted. The hose may under no circumstances be pulled over sharp edges. Defective high pressure hoses must not be repaired (acc. to DIN 20022) but have to be replaced by new hoses approved by the manufacturer.



1. Use supplied screws to fasten the lower cable retractor of the electric cable at the place provided on the frame.



2. Move high pressure cleaner to the job site. The Kränzle 1050 TS is a movable machine with sturdy trolleys ideally suited for difficult terrain and stairs.



3. Owing to its light weight and handy size, the Kränzle 1050 TS can be easily carried by two persons.

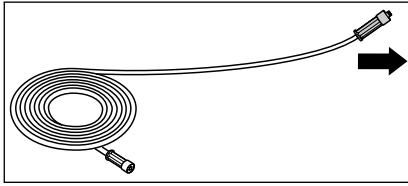


**When carrying the high pressure cleaner, make sure to bear in mind the weight of the machine, see technical data.**

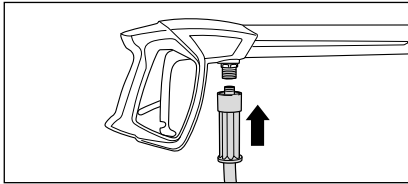


**Neither set up or operate the K 1050 TS in rooms where there is a risk of fire or explosion nor put it into puddles. Do not use the machine under water.**

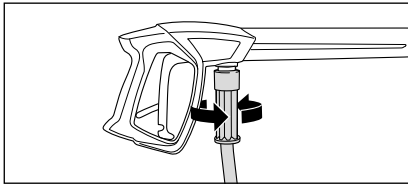
**If, none the less, the machine is operated in a hazardous area, the applicable safety regulations are to be observed.**



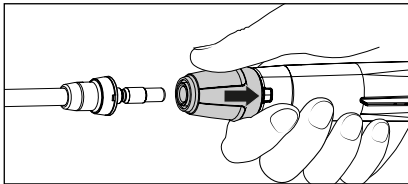
4. Unwind high pressure hose straight and without nooses. (When using hose extensions take care that the max. length of 20 m is not exceeded!)



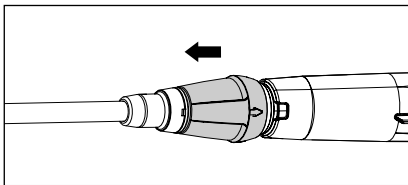
5. Push on high pressure hose to trigger gun with safety catch.



6. Tightly screw together high pressure hose and trigger gun with safety catch.



7. First pull back the retaining sleeve of the gun, then insert lance into the plug coupling connection of the gun.

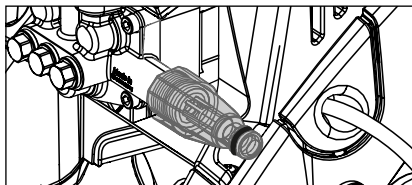


8. After insertion of the lance, release retaining sleeve and make sure that the lance is in a secure position.

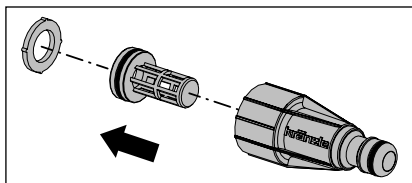


**Prior to insertion, check plug coupling connection of lance for cleanliness (sand, dirt ..) and use clear water to clean, if necessary. Impurities may damage the sealing in the plug coupling.**





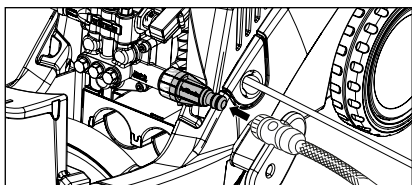
- 9. Check water inlet filter for cleanliness prior to putting the machine into operation.** When inside filter is contaminated, remove filter and follow step 9.1.



- 9.1** If contaminated, remove sieve and thoroughly rinse and clean with the rest of the parts in clear water.



**Check sieve for damages.**  
**Do not operate high pressure without or with a damaged sieve.**

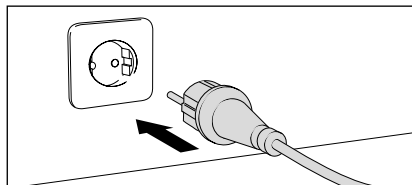


- 10.** Connect water hose to water inlet. The cleaner may be connected to a water mains (1-10 bar pre-pressure) with either cold or hot water (up to 60°C)



**Be careful when using hot water!**

When running your high pressure cleaner with hot water of 60° C raised temperatures occur. Do not touch the metal parts of the cleaner without safety gloves!



11. Connect to circuit.

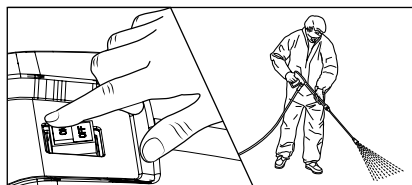
**K 1050 TS**

**230 V ~, 9,6 A, 50 Hz**

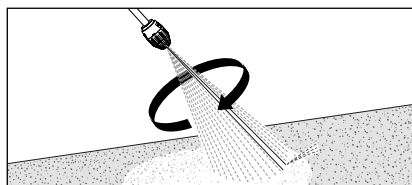
The socket must be protected with a 16A fuse on the mains side.



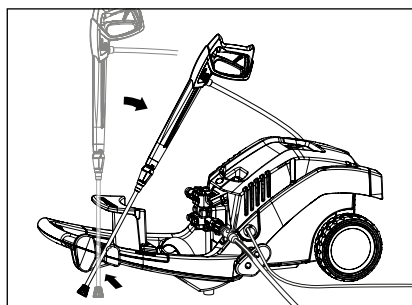
**Never touch plug or live parts with moist or wet hands.**



12. Switch on HP cleaner with opened trigger gun (trigger pulled). Bleeding of the machine: Pull and release trigger of trigger gun with safety catch several times. Start cleaning task.



13. When using the Dirtkiller make sure that lance points downward when starting.



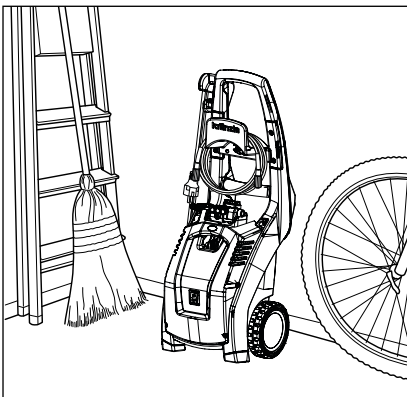
14. The 1050 TS units are equipped with a support for the safety gun with lance during breaks

15. Therefore operate high pressure cleaner in horizontal position only.



**It is imperative that safety instructions be observed during use of the machine.**

- 1.** Switch off the high pressure cleaner
- 2.** Cut off the water supply
- 3.** open the trigger gun with safety briefly until the pressure is released
- 4.** Apply safety catch on the trigger gun
- 5.** Remove water hose and trigger gun with safety catch
- 6.** Drain the pump: switch on the motor for approx. 10 seconds
- 7.** Pull the plug from the socket
- 8.** Clean HP hose and wind up without loops
- 9.** Clean power cable and wind up
- 10.** Clean water filter
- 11.** Store high pressure cleaners in frost-free rooms in winter



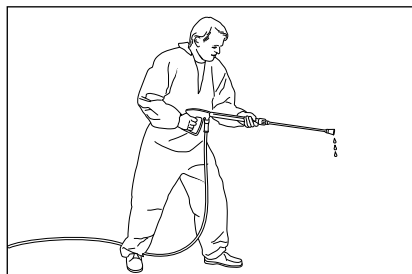
Due to their small base, the compact and mobile Kränzle machines are easy to store.

### Problem:

No water from nozzle although pump is running

### Cause:

**Most likely the nozzle is blocked**



No or very little water from the lance.

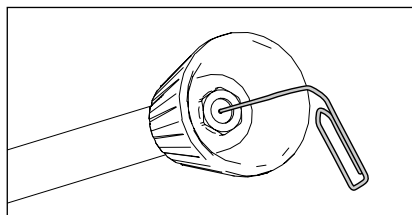
### Proceeding:

Switch off the high pressure cleaner. Pull plug from the socket. Operate trigger gun with safety catch several times to decrease the pressure.

Unscrew trigger gun and lance first, then rinse high pressure gun to remove possible soiling.

Check water inlet filter for soiling.

If the problem still exists, take wire (paper clip) and push through nozzle opening. If cleaning by means of a wire is not successful, replace lance.



**Pull plug from socket prior to starting any repair work!**

## **Problem:**

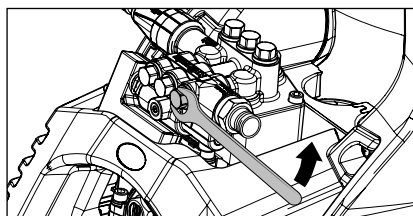
Irregular jet from nozzle

## **Cause:**

**Most likely the valves are solied or sticky.**

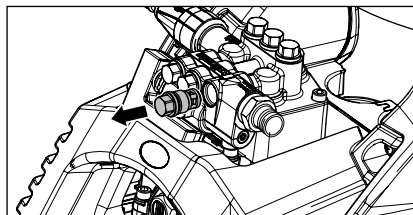


The water from the lance comes in squirts. The HP hose vibrates.

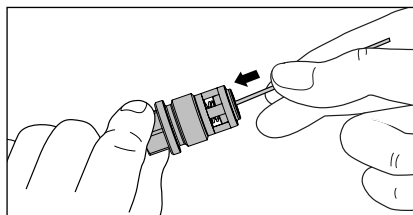


## **Proceeding:**

Unscrew all 6 valves, one after the other (hexagonal brass screws, 3 in a row, vertically and horizontally)



Take out valve body (with green or red plastic coating) and O-ring by means of needle nose pliers. Check O-ring for damage. In case of a damage the O-ring has to be replaced.



Take a wire (paper clip) and clean valves under running water.

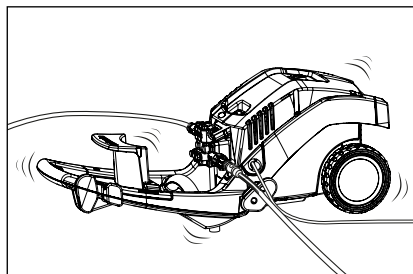
Do not forget the O-ring during reassembly!

### Problem:

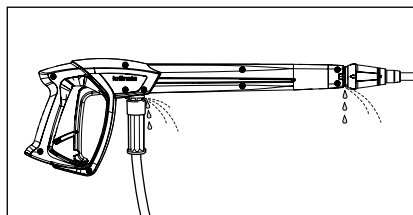
After closing of the trigger gun with safety catch the machine keeps switching on and off.

### Possible cause no.1:

#### Leakage.

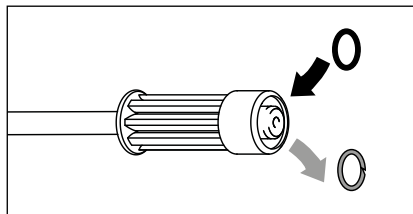


Having closed the trigger gun with safety catch, the HP cleaner must shut down. Failure to shut down may be caused by leakage in the pump, the Pressure Switch, the high pressure hose or the lance.



#### Proceeding:

Check connections from the HP cleaner to the high pressure hose and from the hose to the trigger gun and also the connection between lance and trigger gun for tightness.



Switch off the cleaner. Shortly press the trigger of the trigger gun with safety catch to decrease the pressure. Unscrew HP hose, trigger gun with safety catch and lance and check the O-rings. If the O-rings are damaged they have to be replaced.



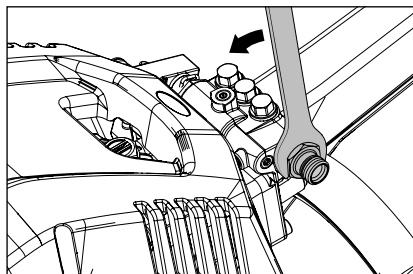
**In case of a leakage there is no guarantee for possible consequential damages.**

## Problem:

After closing of the trigger gun with safety catch the machine keeps switching on and off.

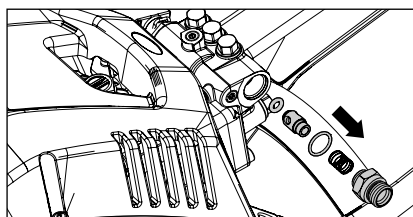
## Possible cause no. 2:

**The non-return valve is defective.**

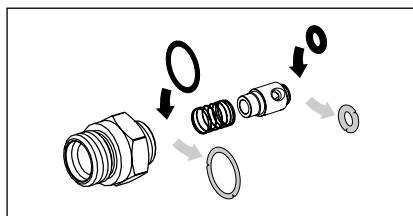


### Proceeding:

Switch off the HP cleaner and pull plug from socket. Stop water supply. Disassemble pipe connection to hose drum. Unscrew pump outlet.



Remove check body and check O-Ring for soiling or damage. Also check seal seat inside pump housing for soiling or damage.



If sealing rings are defective replace O-rings at once.



**There is no guarantee if the pump is damaged by defective O-rings due to air induction or lack of water (cavitation).**

We hereby declare that the design of the  
high pressure cleaners:

**Kränzle 1050 TS**

Nominal flow: **450 l/h**

technical specifications available from:

**Fa. Josef Kränzle GmbH & Co. KG,  
Mafred Bauer  
Rudolf-Diesel-Str. 20, 89257 Illertissen**

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

**Machinery directive 2006/42/EC  
EMC-directive 2004/108/EC  
Noise directive 2005/88/EC, Art. 13  
HP water spraying machines  
Annex 3, part B, chapter 27**

Sound level measured:  
guaranteed:

**84 dB (A)  
87 dB (A)**

Applied conformity assessment  
procedure:

**Annex V, Noise directive 2005/88/EC**

Applied specifications and standards:

**EN 60 335-2-79 :2009  
EN 55 014-1 :2006  
EN 61 000-3-2 :2006  
EN 61 000-3-3 :2008**

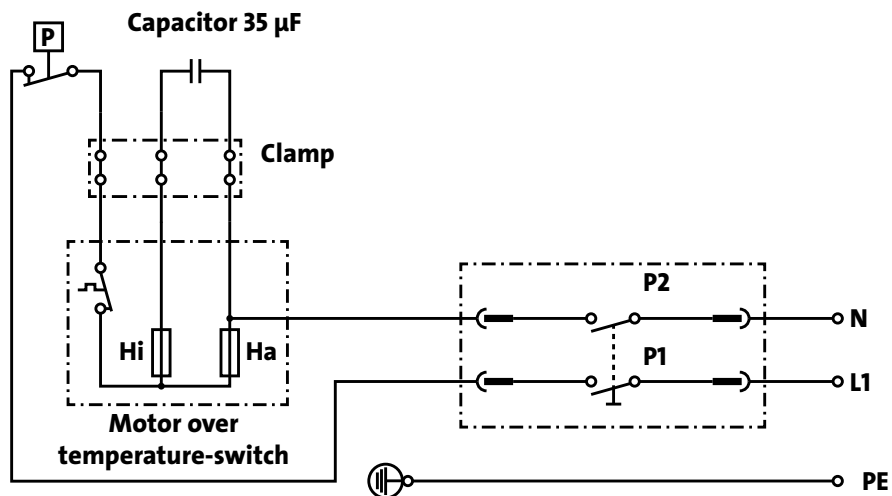
I. Kränzle GmbH  
Elpke 97  
D - 33605 Bielefeld

Bielefeld, Apr. 01, 2015



Josef Kränzle  
(Managing director)





### Warranty

Our warranty obligation is understood to exclusively cover material and manufacturing defects; wear is not covered by warranty.

The machine is to be operated in conformity with this Operating manual. The operating manual is deemed to be part of the warranty provisions. This warranty shall only apply on condition of proper use of original-Kränzle component parts and original-Kränzle replacement parts.

With regard to legal warranty claims, the limitation periods of the respective countries shall apply.

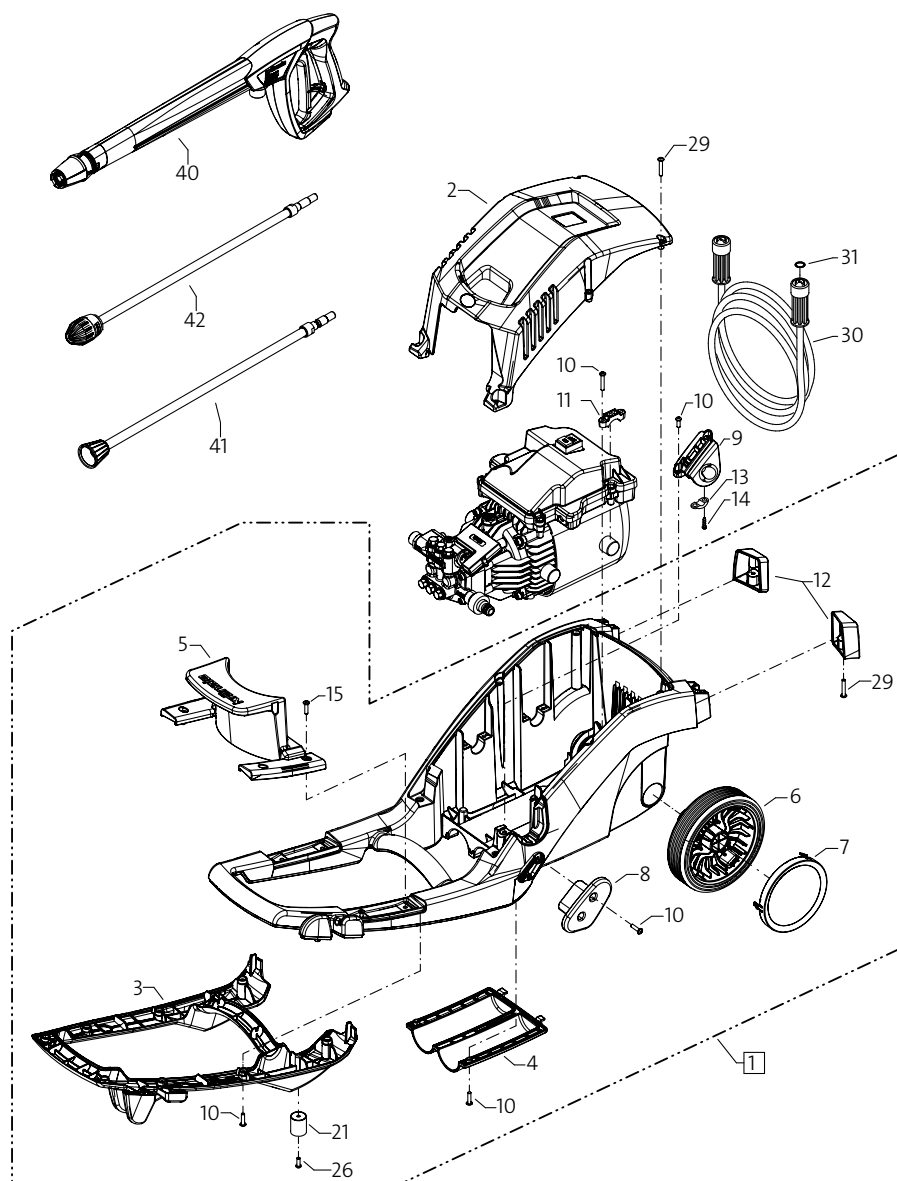
In the event of any warranty claims, please have your accessories and purchase voucher ready before contacting your local dealer or the nearest authorized customer service point, which you can also find in the internet under **[www.kraenzle.com](http://www.kraenzle.com)** .

The high pressure cleaner is designed for private purposes only; no warranty shall be provided in case of industrial use.

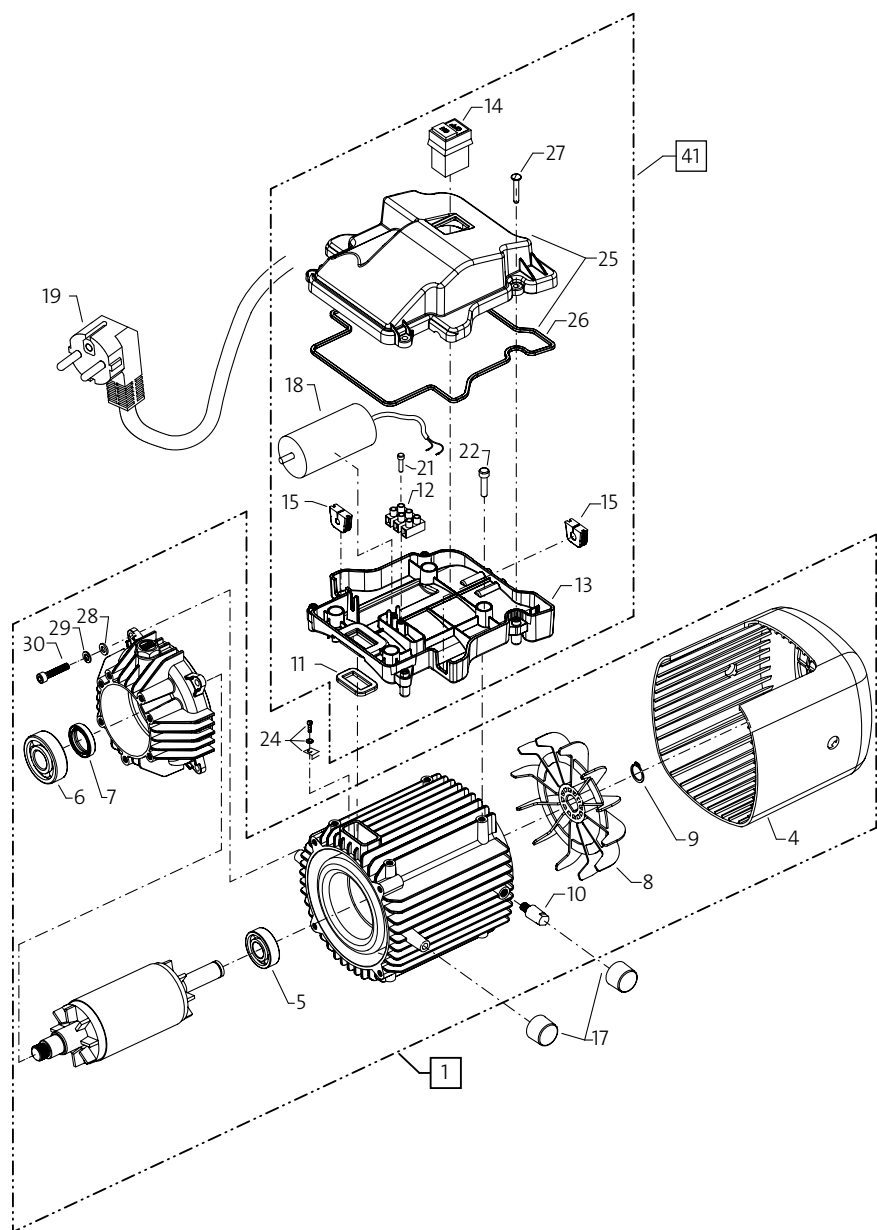
In case of any modifications on the safety installations or in case of exceeding the temperature and speed limit, any warranty claims shall become invalid - this shall also apply to undervoltage, lack of water and use of wastewater as well as any other faulty or inappropriate operation of the machine.

Pressure gauge, nozzle, valves, sleeves, high pressure hose and spray equipment are wear parts and are not covered by the Warranty obligation.

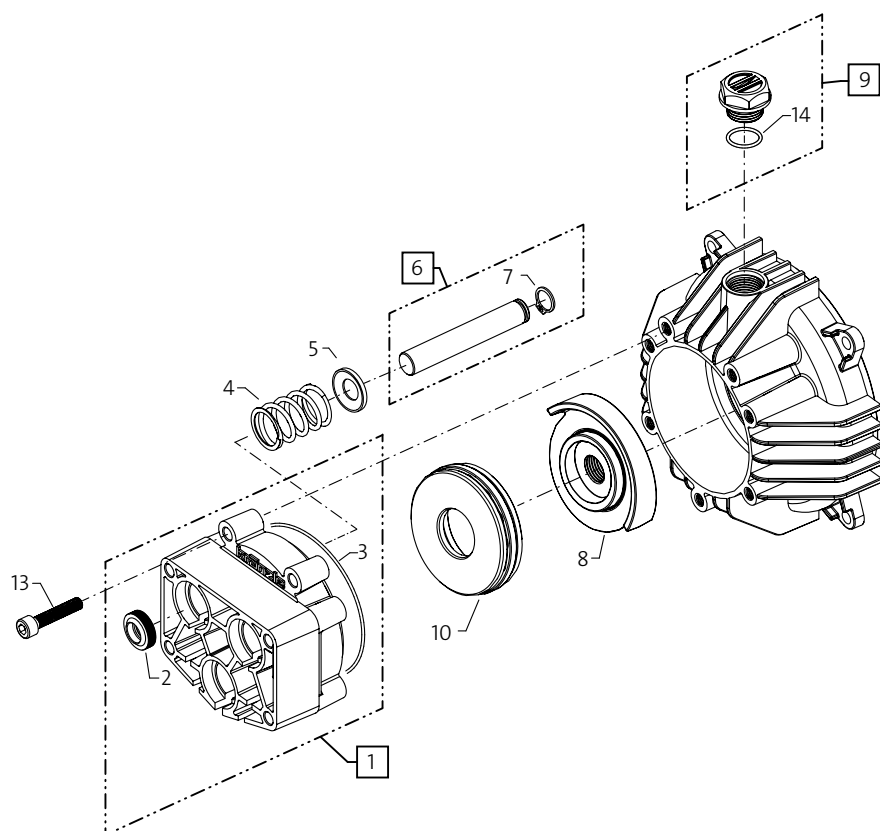




Pos.	Bezeichnung	Stück	Art.-Nr.
1	Fahrgestell mit Pos. 3; 4; 5; 2x 6; 2x 7; 12; 21	1	49.100
2	Frontplatte „K 1050 TS“	1	49.108 2
3	Abdeckung Fahrgestell	1	49.101
4	Köcher Lanzen	1	49.102
5	Schlauchhalter	1	49.103
6	Rad	2	49.109
7	Radkappe	2	49.110
8	Kabelaufwicklung	1	49.002
9	Kabeltrompete	1	49.106
10	Kunststoffschraube 5,0 x 20	23	43.018
11	Halteschelle Motor	4	49.111
12	Standfuss links + rechts	1	49.107
13	Kabelklemme	1	43.431
14	Schraube 3,5 x 14	2	44.525
15	Schraube 6,0 x 30	4	43.423
21	Gummi-Anschlagpuffer 25 x 30	2	49.010
26	Schraube 5,0 x 14	2	43.426
29	Schraube 5,0 x 30	8	43.418
30	Schlauch NW 6 8 m	1	41.054 1
40	Pistole M200 NEU	1	12.475
41	Lanze mit Flachstrahldüse	1	12.900-03
42	Lanze mit Schmutzkillerdüse	1	42.403-03



Pos.	Bezeichnung	Stück	Art.-Nr.
<b>1</b>	<b>Motor 230V / 50 Hz komplett ohne Elektrik</b>	<b>1</b>	<b>49.260</b>
4	Haube Luftführung	1	49.283
5	Motor-Lager B-Seite 6203	1	49.288
6	Motor-Lager A-Seite 7304	1	41.027
7	Öldichtung 25 x 35 x 7	1	41.024
8	Lüfterrad	1	49.281
9	Wellensicherungsring 17 x 1	1	49.282
10	Lagerbolzen Stator	2	49.284
11	Gummidichtung	1	49.287
12	Lüfterklemme 3-pol.	1	43.031 2
13	Schaltkasten Unterteil	1	49.104
14	Ein-Aus-Schalter	1	49.112
15	Durchführungstülle Druckschalter- und Netzkabel	2	49.115
17	Gummilager Stator	4	49.285
18	Kondensator 35µF	1	41.114 4
19	Netzanschlusskabel für 3 x 1,0 mm <sup>2</sup> (EU)	1	49.114
19.1	Netzanschlusskabel für 3 x 1,0 mm <sup>2</sup> (GB)	1	49.121
19.2	Netzanschlusskabel für 3 x 1,0 mm <sup>2</sup> (CH)	1	49.120
19.3	Netzanschlusskabel für 3 x 1,0 mm <sup>2</sup> (SA)	1	49.123
21	Schraube 3,5 x 20	2	43.415
22	Innensechskantschraube M6 x 16	4	44.831
24	Erdungsschraube kpl.	1	43.038
25	Deckel für Schaltkasten	1	49.105
26	Dichtung für Deckel	1	49.113
27	Kunststoffschraube 5,0 x 20	4	43.018
28	Scheibe Ø 6,4	4	50.189
29	Federling Ø 6,1	4	44.222 1
30	Schraube M 6 x 30	4	43.037
<b>41</b>	<b>Schaltkasten komplett</b>	<b>1</b>	<b>49.150</b>
	Pos. 11 - 15, 18, 21, 22, 25 - 27		



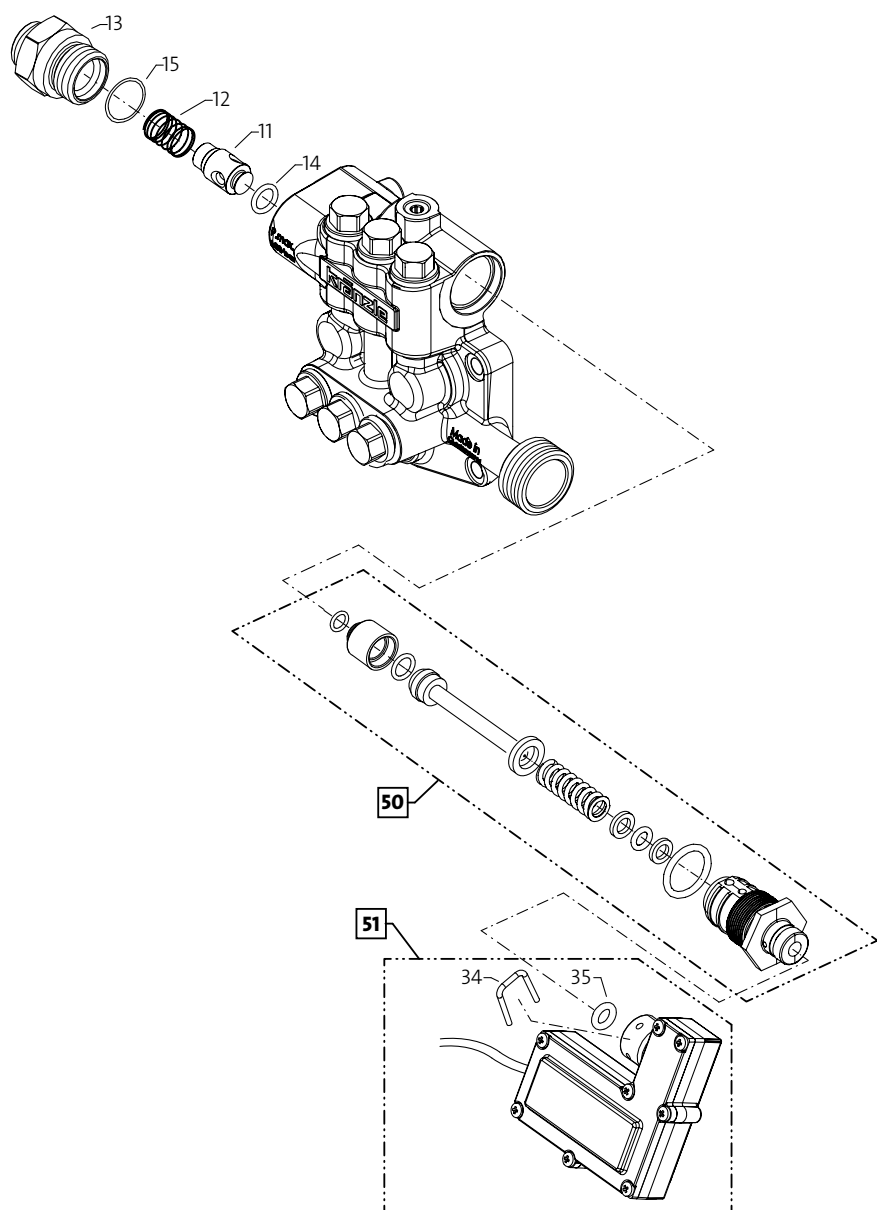


Pos.	Bezeichnung	Stück	Art.-Nr.
1	Gehäuseplatte	1	49.200
2	Öldichtung 12 x 20 x 5	3	43.081
3	O-Ring 78 x 2	1	49.201
4	Plungerfeder	3	49.203
5	Federdruckscheibe Ø12mm	3	49.219
6	Plunger 12 mm AC mit Wellensicherungsring	3	49.209
7	Wellensicherungsring Ø12mm	3	49.230
8	Taumelscheibe 10,0°	1	49.202-10,0
9	Öleinfüllschraube	1	43.437
10	Axial-Rillenkugellager 3-teilig	1	49.208
13	Schraube M 6 x 30	4	43.037
14	O-Ring 14 x 2	1	43.445

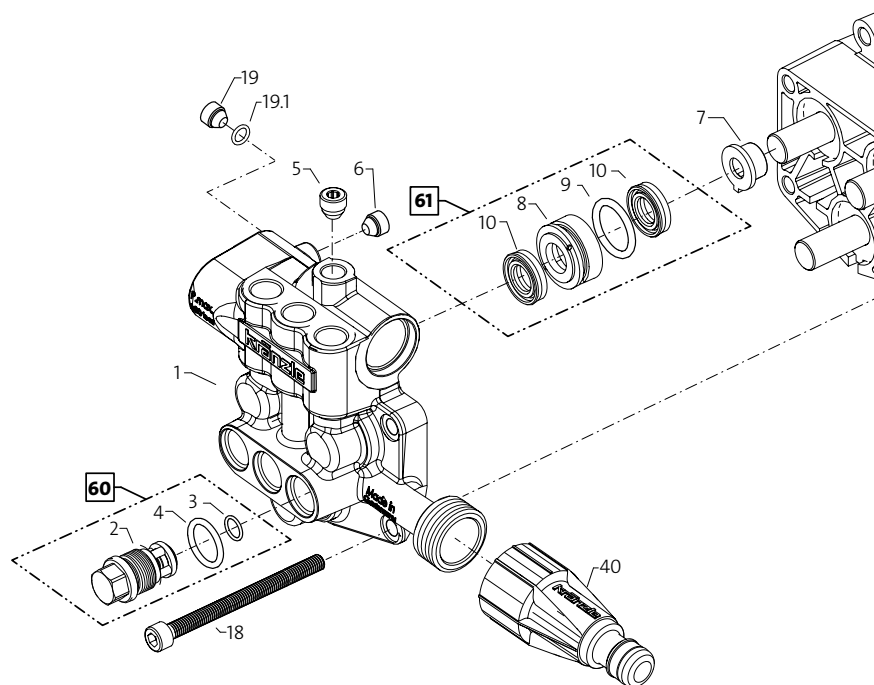
## Oil change

Should it be necessary to change the oil at a repair, then unscrew the housing plate over a canister and empty the unit. The oil must be collected in a canister and then disposed of properly.

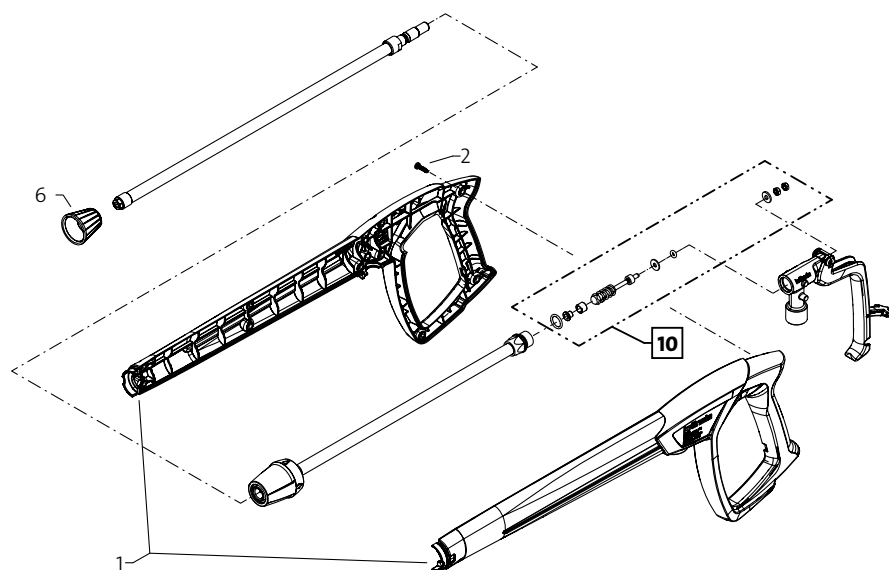
**New oil: 0,1 l - Kränzle Getriebeöl (40.092 2) or W 15/40.**



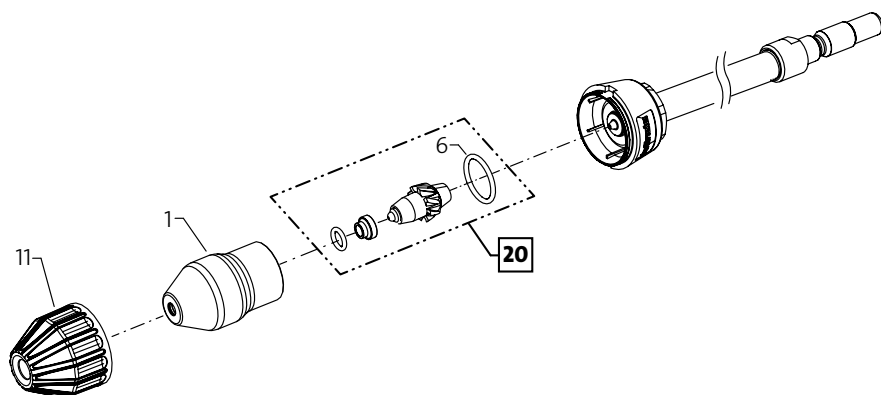
Pos.	Bezeichnung	Stück	Art.-Nr.
11	Rückschlagkörper	1	14.122
12	Rückschlagfeder	1	14.120
13	Ausgangsteil	1	49.232
14	O-Ring 6 x 3	1	49.234
15	O-Ring 16 x 2	1	13.150
35	O-Ring 6,0 x 2,5	2	49.233
37	Schraube 2,9 x 13	8	12.292
<b>50</b>	<b>Start-/Stop-Ventil komplett</b>		<b>49.240</b>
<b>51</b>	<b>Mikroschalter mit Gehäuse kpl.</b>		<b>49.241</b>



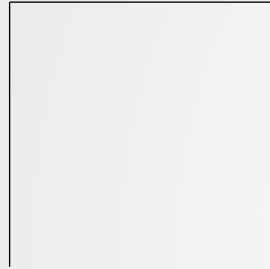
Pos.	Bezeichnung	Stück	Art.-Nr.
1	Ventilgehäuse	1	49.204
2	Ventilstopfen mit integr. Ventil	6	43.066
3	O-Ring 10 x 2	6	43.068
4	O-Ring 12 x 2	6	15.005 1
5	Dichtstopfen M 8 x 1	1	13.158
6	Dichtstopfen M 10 x 1	1	43.043
7	Distanzring mit Abstützung	3	49.205
8	Leckagering	3	49.206
9	O-Ring 22 x 2	3	49.225
10	Manschette 12 x 20 x 5,2	6	49.226
18	Innensechskantschraube M 6 x 80	4	49.227
19	Stopfen M 10 x 1	1	13.385
19.1	O-Ring 6 x 1,5	1	13.386
40	WassereingangsfILTER	1	13.311
<b>60</b>	<b>Reparatursatz Ventile</b>		<b>43.096 1</b>
<b>61</b>	<b>Reparatursatz Manschetten</b>		<b>49.242</b>



Pos.	Bezeichnung	Stück	Art.-Nr.
1	Pistolenschale rechts + links	1	12.450
2	Schraube 3,5 x 14	10	44.525
6	Düsenschutz Jet-Düse	1	26.021
<b>10</b>	<b>Reparatursatz M2000 Midi-Mechanik</b>		<b>12.461</b>



Pos.	Bezeichnung	Stück	Art.-Nr.
1	Sprühkörper	1	41.950
6	O-Ring 16 x 2	1	40.016 1
11	Schutzkappe	1	41.952
12	Kappe hinten für Schmutzkiller 03	1	41.953-03
<b>20</b>	<b>Reparatursatz Schmutzkiller 03</b>	<b>1</b>	<b>41.955-03</b>



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As date of 29.04.2015, Art.-Nr. 30.612.0  
Subject to technical modifications.

■ Made  
■ in  
■ Germany