

## EN Operating manual

High-pressure cleaner

**K 1050 TS**  
**K 1050 TST**



# Operating manual

EN

High-pressure cleaner

**K 1050 TS**

**K 1050 TST**

## **Operating manual!**

This manual is a translation of the original manual. 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!  
Kärnzle 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 high pressure cleaner, the following pages are intended to further explain its use. The illustrations may be subject to deviation depending on the type of equipment or accessory of high pressure cleaner purchased by you.

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## Explanatory symbols used in the operating manual



Failure to observe this note may entail environmental damage.



Note on the use of the high pressure cleaner that failure to adhere to the instructions may cause excessive wear or total breakdown of the K 1050 TS/TST.



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

## Explanatory symbols affixed to the high pressure cleaner



The high pressure cleaner must be operated in horizontal position!  
In case of improper use, the high pressure jets can be very dangerous. Do not direct high pressure jet at persons, animals or active electrical equipment or the high pressure cleaner itself.



The high pressure cleaner may not be connected directly to the public drinking water supply network.

User operating the high pressure cleaner should wear the necessary protective clothing, i.e. waterproof clothing, rubber boots, safety goggles, headwear etc. It is prohibited to use the high pressure cleaner 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 liquids! There is an explosion hazard due to spraying such materials!

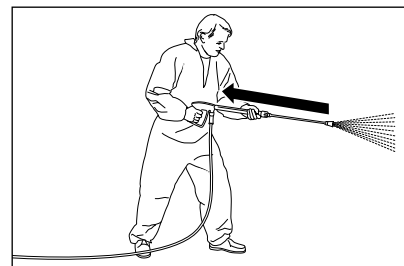
Due to the high pressure jet, damage may occur on the objects to be cleaned, e.g. car tires; therefore, a minimum distance of 30 cm is to be kept!

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

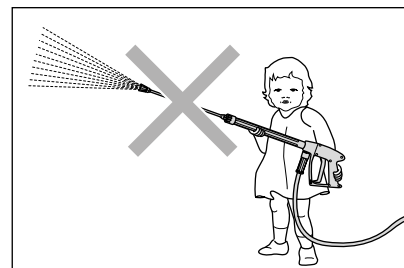
Replacement of the power supply cables is only permitted by use of an original power supply cable of the manufacturer and must be performed by a qualified electrician.

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

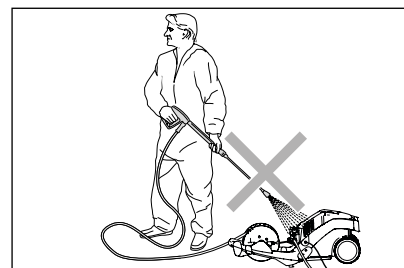
The high pressure cleaner is not intended for use by persons with reduced physical, sensory or mental capabilities, unless such persons are supervised and capable of perceiving the risks involved in the use of high pressure cleaners!



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 technical data).

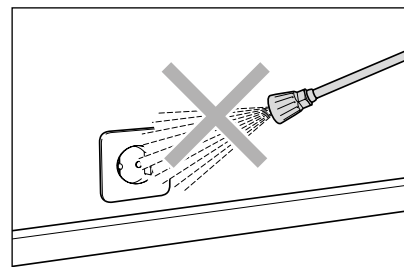


Never allow children or untrained persons to use the high pressure cleaner or to play with it!



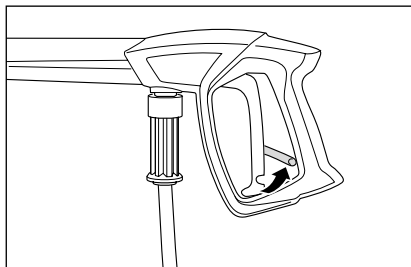
Never direct the high pressure jet at the high pressure cleaner itself!

The high pressure cleaner may not be placed within reach of the high pressure jet spray mist!

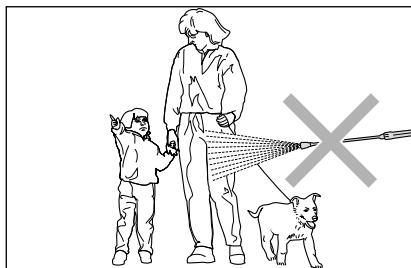


Never direct the high pressure jet at power sockets or any other electrical installations!

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

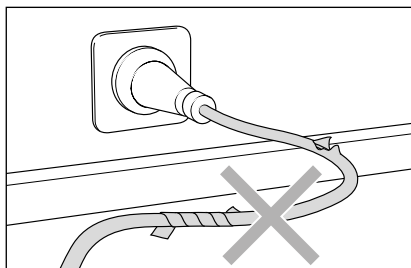


Apply the safety catch on the safety trigger gun after each use in order to prevent unintentional spraying!



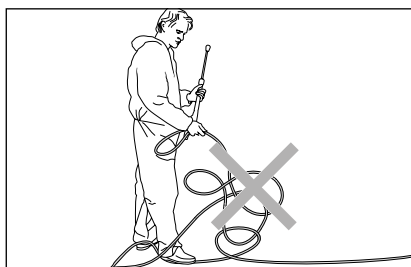
Never direct the high pressure jet at people or animals!

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



Only use a power supply cable in perfect working order!

Do not damage or improperly repair the power cable (tearing, squeezing, running over, ...).



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

Never pull the high pressure hose over sharp edges

## 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 high pressure cleaner 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 high pressure cleaner is designed for accidents to be impossible if used correctly. The user is to be notified of the risk of injury from hot machine parts and the high pressure jet. The "Guidelines for Liquid Spray Devices" must be complied with.

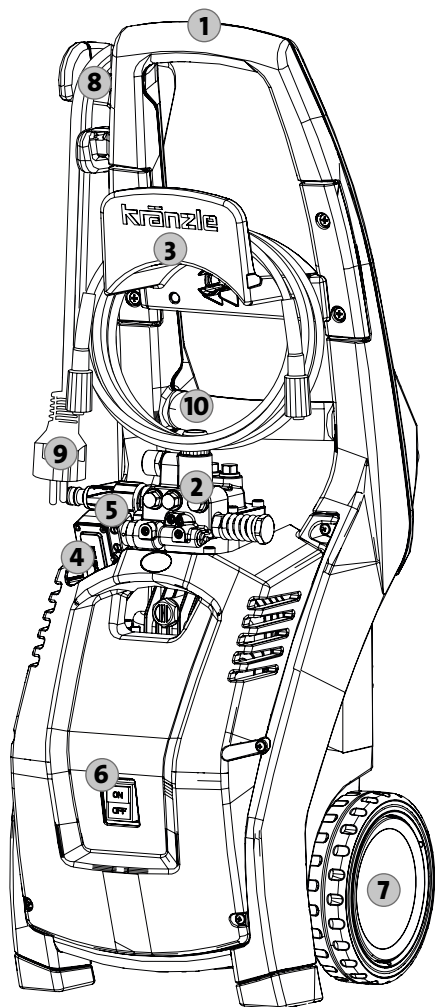


### Oil leakage

If oil leaks contact your nearest after-sales service (dealer) at once. Failure to observe this instruction may cause damage to the environment and/or transmission gearbox.

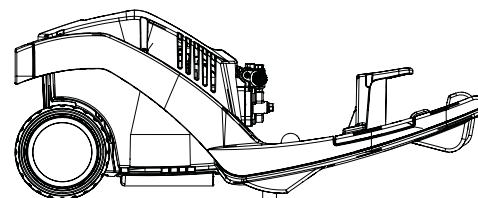
### Design: K 1050 TS (hose support with 8 m high pressure hose)

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

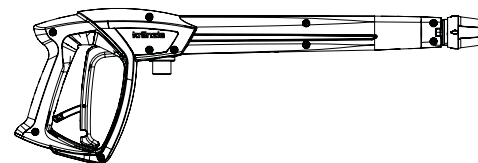


- 1 Ergonomically shaped handle
- 2 Pump head made of special brass
- 3 Hose support with 8 m high pressure hose
- 4 Start/Stop switch
- 5 Supply water inlet sieve with filter
- 6 On/Off switch
- 7 Large stair climbing wheels
- 8 Cable reel for the power supply cable
- 9 Power supply cable with mains plug
- 10 Pump outlet / high pressure hose connection

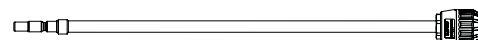
### This is what you have purchased



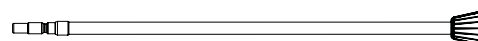
1. Kärnzle high pressure cleaner K 1050 TS



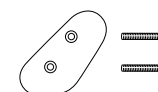
2. Safety trigger gun with insulated handle and plug coupling



3. Filth killer lance with stainless steel pipe and plugin nipple



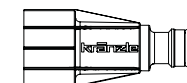
4. Flat jet nozzle with stainless steel pipe and plugin nipple



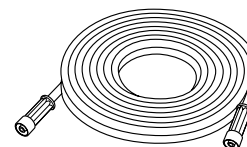
5. Crank handle with two fastening screws for the power supply cable



6. Operating manual  
Spare parts list



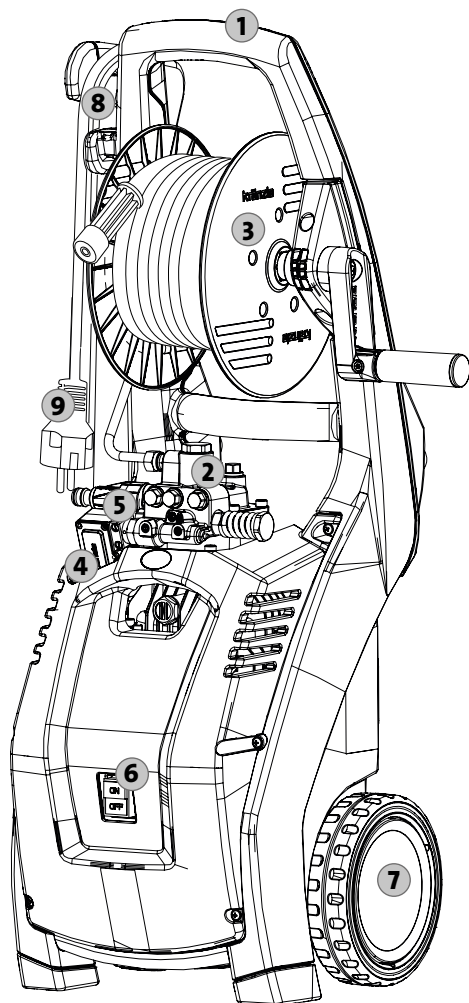
7. Water inlet sieve, plug coupling with visible filter



8. High pressure hose

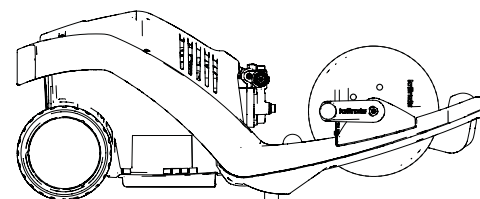
### Design: K 1050 TST (with hose drum)

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

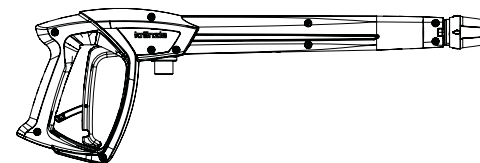


- 1 Ergonomically shaped handle
- 2 Pump head made of special brass
- 3 Hose drum with 12 m steel weave high pressure hose
- 4 Start/Stop switch
- 5 Supply water inlet sieve with filter
- 6 On/Off switch
- 7 Large stair climbing wheels
- 8 Cable reel for the power supply cable
- 9 Power supply cable with mains plug

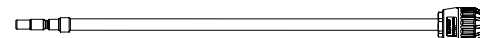
### This is what you have purchased



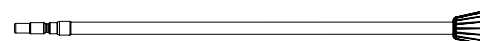
1. Kränzle high pressure cleaner K 1050 TST



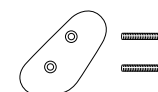
2. Safety trigger gun with insulated handle and plug coupling



3. Filth killer lance with stainless steel pipe and plugin nipple



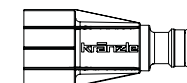
4. Flat jet nozzle with stainless steel pipe and plugin nipple



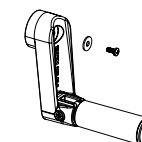
5. Crank handle with two fastening screws for the power supply cable



6. Operating manual  
Spare parts list

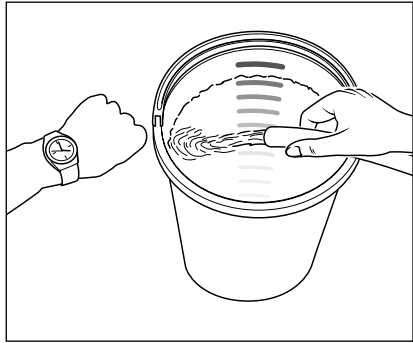


7. Water inlet sieve, plug coupling with visible filter



8. Crank handle with fastening screw

### Please note: Lack of water



Lack of water occurs more often than you probably believe. The more powerful a high pressure 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 high pressure pump, which is normally noticed too late or even not at all. **The high pressure pump will be destroyed.** Please check the available quantity of water by filling a bucket with liter scale for one minute.

### Required minimum quantity of water (see technical data).



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 (no warranty).



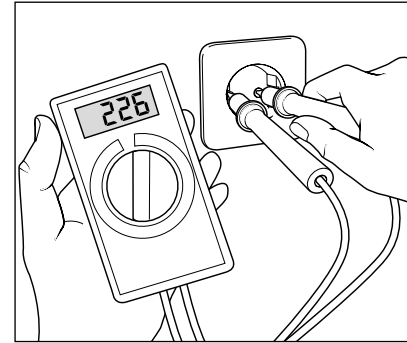
Never let the high pressure pump run dry for more than 60 seconds.

### Water supply



Please pay attention to the regulations of your waterworks company! In accordance with DIN EN 61770, the high pressure cleaner 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 item no.: 410164) 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



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 supply 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 (see technical data).

### Electrical connection

The high pressure cleaner is supplied with a 5 meters long power supply cable. The mains plug must be fitted to a standard grounded socket with a **30 mA** residual current operated device. The socket must be protected with a **16 A** 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 mm²**. Plug connections must be of a spray-proof design, and may not be located on a wet floor. For extension cables of more than **10 m** in length, the minimum cross-section must be **2.5 mm²**. When using a cable drum, the power supply cable always must be unwound all the way.



## Water and cleaning 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!**

## Safety jet pipe with safety trigger gun

The high pressure cleaner can only be operated when the trigger of the safety deactivation trigger gun's trigger is actuated. When the trigger is pulled, the safety trigger gun opens. The liquid is then transported to the nozzle. The spray pressure increases and quickly reaches the operating pressure. When the trigger is released, the safety trigger gun closes and any further spraying of liquid from the safety jet pipe is prevented. The pressure thrust serves to close the start/stop system, thus interrupting the energy supply to the motor. Operating the safety trigger gun causes the start/stop system to open, the motor is automatically activated and the high pressure pump starts to transport the water to the nozzle, where the high pressure jet is produced.



**The safety 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.**



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



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

## Motor overload protection

Motor is protected against overload by means of a motor protection switch. In case of motor overload or blocking, the motor of the high pressure cleaner switches off automatically. If motor tends to switch off repeatedly, make sure to detect and remedy the cause of the failure.



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

## Totalstop system

The K 1050-series features a totalstop system. If the main switch is switched on, the motor is started via a pressure switch when opening the safety trigger gun. When closing the safety trigger gun the motor is switched off immediately.

## High pressure hose and spray device

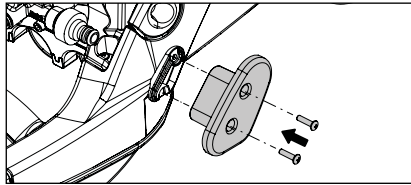
The high pressure hose and spray device which are part of the K 1050-series equipment, are made of high quality material and engineered to conform with the operating conditions of the high pressure cleaner and are duly labeled.



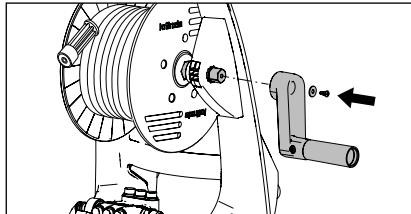
If replacement parts are required, only such parts that are authorized by the manufacturer may be used. The warranty is automatically void if spare parts of third-party providers are used! The high pressure hose and spray device must be connected in a pressure-tight manner (without leakage).



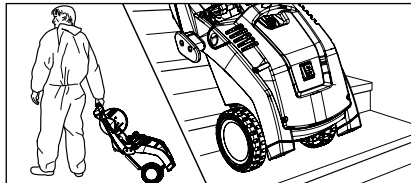
The high pressure hose may not be driven over, pulled excessively, or twisted. The high pressure hose may under no circumstances be pulled over sharp edges. Defective high pressure hoses must not be repaired (acc. to DIN 20022) but have to be replaced by new hoses approved by the manufacturer.



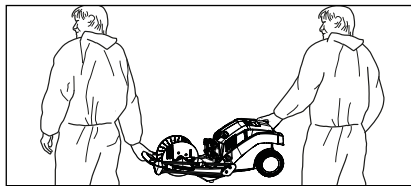
1. Use the supplied screws to fasten the lower cable retractor of the power supply cable in the place provided on the frame.



2. For high pressure cleaners with hose drum the enclosed hand crank must be applied prior to first operation. Please set up the high pressure cleaner. Plug the hand crank on to the hexagon and attach it with the enclosed screw and washer.



3. Move high pressure cleaner to the job site. The K 1050 TS/TST is a movable high pressure cleaner with sturdy trolleys ideally suited for difficult terrain and stairs.



4. Owing to its light weight and handy size, the K 1050 TS/TST can be easily carried by two persons.



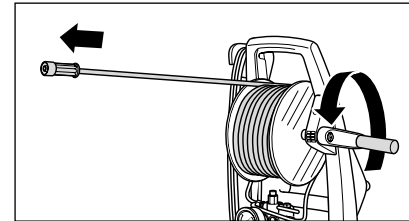
**When carrying the K 1050 TS/TST, make sure to bear in mind the weight of the high pressure cleaner (see technical data).**



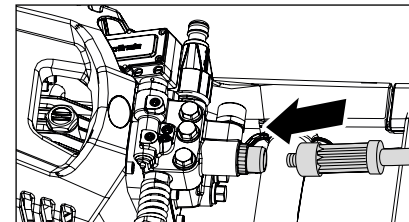
**The high pressure cleaner must be operated in horizontal position!**



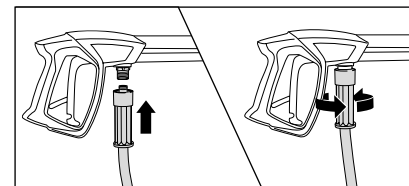
**Neither set up or operate the K 1050 TS/TST in rooms where there is a risk of fire or explosion nor put it into puddles. Do not use the high pressure cleaner under water. If, none the less, the high pressure cleaner is operated in a hazardous area, the applicable safety regulations are to be observed.**



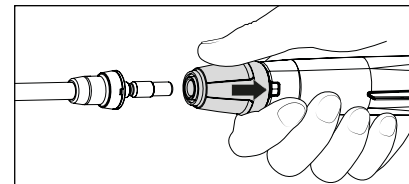
5. For high pressure cleaners with hose drum, however, it must be uncoiled completely. For high pressure cleaners without hose drum the high pressure hose included in the scope of the delivery must be screwed with the pump outlet in a tight and pressure tight manner. Unwind high pressure hose straight and without nooses.



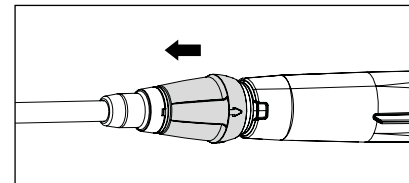
The high pressure hose may leave signs of abrasion on some floors. Alternatively, please also find non-marking high pressure hoses in our range.



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



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



8. After insertion of the lance, release retaining sleeve and make sure that the lance is in a secure position.  
**Grease quick release nipple regularly using acid-free grease.**



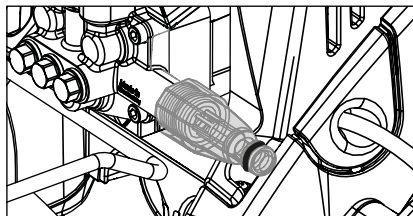
**Prior to insertion, check plug coupling connection of lance for cleanliness (sand, dirt ..) and use clear water to clean, if necessary. Impurities may damage the sealing in the plug coupling.**



**When using high pressure hose extensions take care that the max. length of 20 m is not exceeded!**

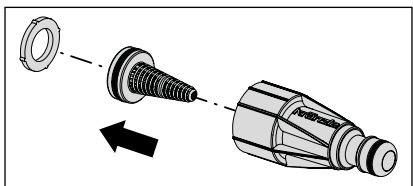


**Accessories may only be connected to a Kränzle-approved trigger gun with safety catch.**



**9. Check water inlet filter for cleanliness prior to putting the high pressure cleaner into operation.**

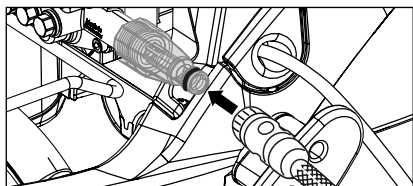
When inside filter is contaminated, remove filter and follow step 9.1. If the sieve is dirty, water cannot get through and pressure will not build up.



**9.1** If contaminated, remove the filter and thoroughly rinse it with clear water and clean it with the other parts.



**Check the water inlet sieve for damage. Do not operate the high pressure cleaner without or with a damaged filter.**

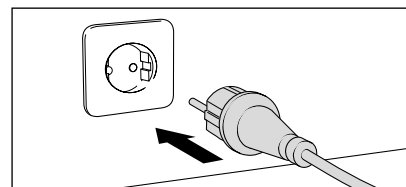


**10.** Connect the water hose to water inlet sieve. The high pressure cleaner may be connected to a water mains (1-10 bar pre-pressure) with either cold or hot water (up to 60 °C).



**Be careful when using hot water!**

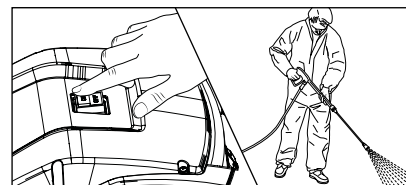
When running your high pressure cleaner with hot water of 60 °C raised temperatures occur. Do not touch the metal parts of the high pressure cleaner without safety gloves!



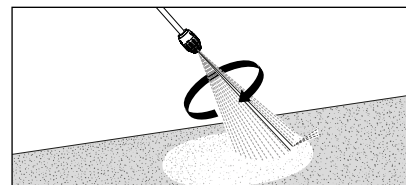
**11.** Connect to circuit (see technical data).



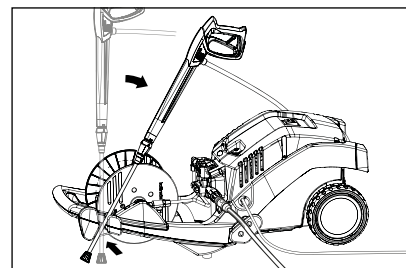
**Do not touch the mains plug or any live parts with wet or moist hands.**



**12.** Switch on high pressure cleaner with opened safety trigger gun. Bleeding of the high pressure cleaner: Pull and release trigger of safety trigger gun several times. Start cleaning task.



**13.** When using the filth killer lance make sure that lance points downward when starting.



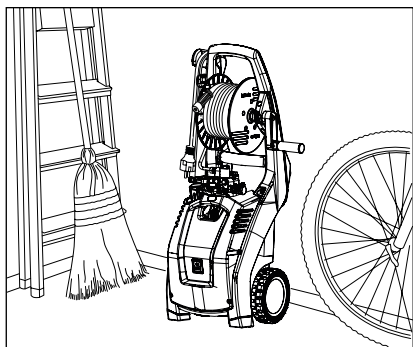
**14.** The K 1050 TS/TST units are equipped with a support for the safety trigger gun with lance during breaks.

**Operate high pressure cleaner in horizontal position.**



**It is imperative that safety instructions be observed during use of the high pressure cleaner.**

1. Switch off the high pressure cleaner
2. Cut off the water supply
3. Open the safety trigger gun catch briefly until the pressure is released
4. Apply safety catch on the trigger gun
5. Remove high pressure hose and safety trigger gun
6. Emptying high pressure pump: Hold high pressure hose and switch motor on until water jet stops escaping at the outlet.
7. Pull the plug from the socket
8. Clean high pressure hose and wind up without loops
9. Clean and wind up the power supply cable
10. Clean the water inlet sieve
11. Store high pressure cleaners in frost-free rooms in winter



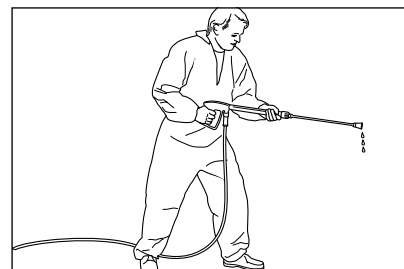
Due to their small base, the compact and mobile Kränzle high pressure cleaners are easy to store.

### Problem

No water from nozzle although the high pressure cleaner is running.

### Cause

**Most likely the nozzle is blocked.**



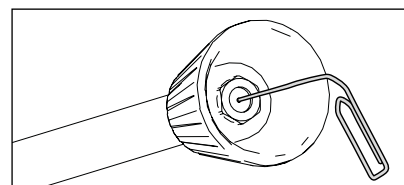
No or very little water from the lance.

### Proceeding:

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

Unscrew safety trigger gun and lance first, then rinse high pressure hose 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 this procedure is not successful, the nozzle has to be replaced.



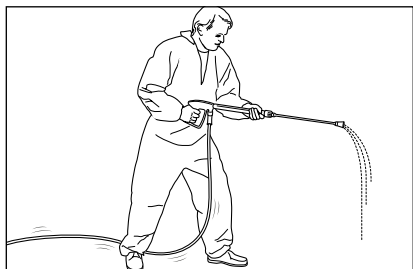
**Pull plug from socket prior to starting any repair work!**

### Problem

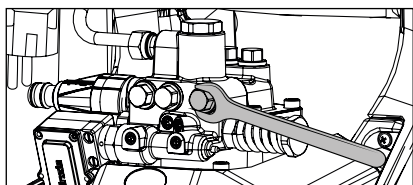
Irregular jet from nozzle.

### Cause

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

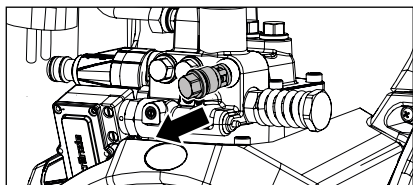


The water from the lance comes in squirts.  
The high pressure hose vibrates.

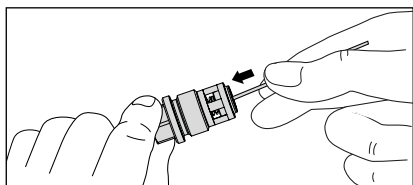


### Proceeding:

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



Take out valve body 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.

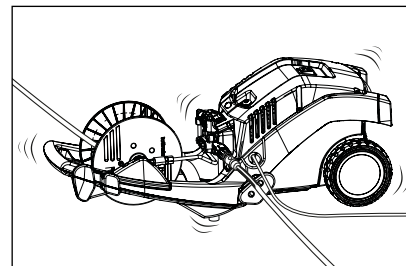
Do not forget the O-ring during reassembly!

### Problem

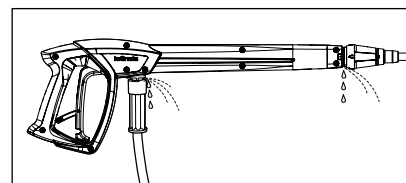
After closing the safety trigger gun the high pressure cleaner keeps switching on and off.

### Possible cause No. 1

**Leakage.**

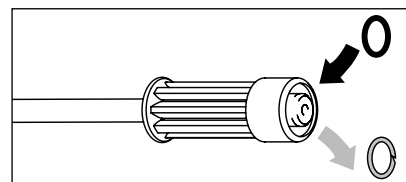


Having closed the safety trigger gun, the high pressure cleaner must shut down. Failure to shut down may be caused by leakage in the high pressure pump, the switch, the high pressure hose, the safety trigger gun or the lance.



### Proceeding:

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



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



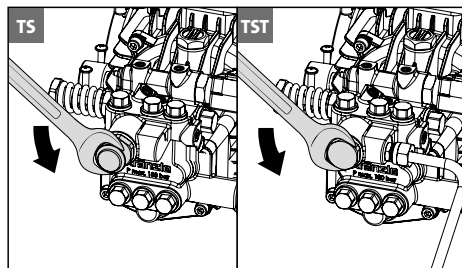
**In case of a leakage there is no guarantee for possible consequential damages.**

## Problem

After closing the safety trigger gun the high pressure cleaner keeps switching on and off.

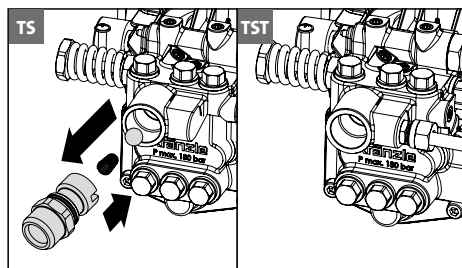
## Possible cause No. 2

The non-return valve is defective.

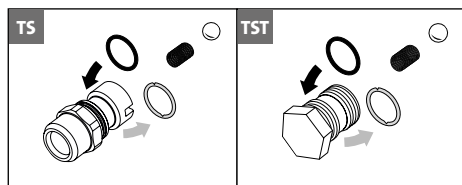


### Proceeding:

Switch off the high pressure cleaner and pull plug from socket. Stop water supply. Operate safety trigger gun catch several times to decrease the pressure. 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 high pressure pump is damaged by defective O-rings due to air induction or lack of water (cavitation).**

We here by declare that the design of the high pressure cleaners:

**Kränzle 1050 TS**  
**Kränzle 1050 TST**

Nominal flow: **450 l/h**

technical specifications available from: **Fa. Josef Kränzle GmbH & Co. KG**  
**Manfred 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

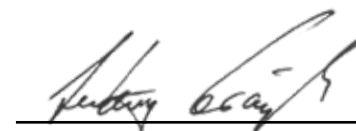
Sound level measured: **84 dB (A)**  
Sound level guaranteed: **86 dB (A)**

Applied conformity assessment procedure: **Annex V, Noise directive 2005/88/EC**

Applied specifications and standards: **EN 60 335-2-79: 2015**  
**EN 55 014-1: 2006**  
**EN 61 000-3-2: 2014**  
**EN 61 000-3-3: 2013**

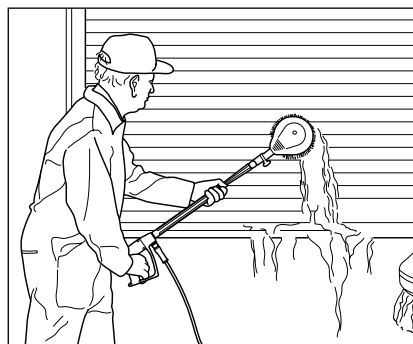
Josef Kränzle GmbH & Co. KG  
Rudolf-Diesel-Straße 20  
89257 Illertissen (Germany)

Illertissen, 2017-01-12



Ludwig Kränzle  
(Managing director)





### Rotating washing brush BRUSH light

- 210 mm
- Stainless steel extension
- Brush head Ø 180 mm
- Nozzle size 2.5 mm

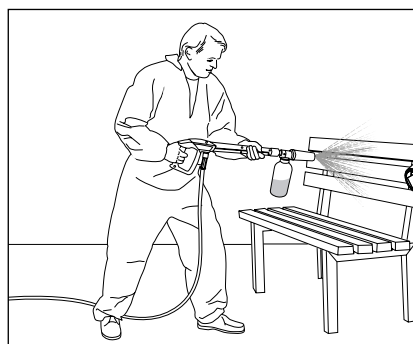
Item no.: 12800



### Floor washer Round Cleaner UFO light

- Ø 260 mm
- Nozzle system 03

Item no.: 41870



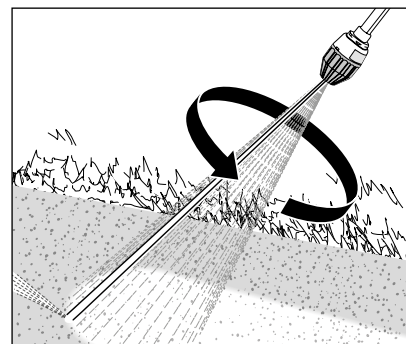
### Foam injector light

- With container
- Nozzle system 03

1 litre Item no.: 135302  
2 litre Item no.: 135312



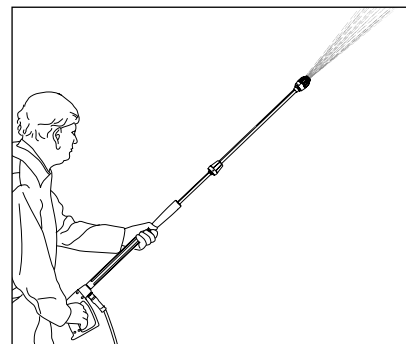
The high pressure cleaner accessories are safety components!  
Any warranty will be void if parts not authorised by Kränzle are used.



### Filth killer lance light

- 400 mm
- Nozzle system 03

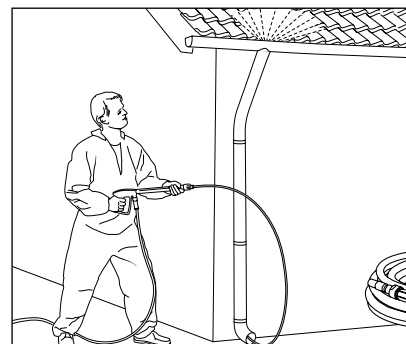
Item no.: 42403-03



### Lance extension light

- 400 mm

Item no.: 12870



### Pipe cleaning hose light

- 10 m length
- Nozzle system 03

Item no.: 12850



Please indicate the technical data of the high pressure cleaner  
(device type) when placing your order.

**Warranty**

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

The high pressure cleaner 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)**.

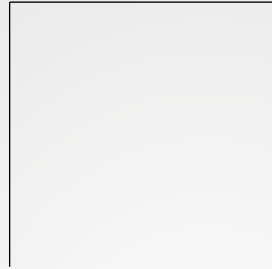
The high pressure cleaner is designed for private purposes only; no warranty shall be provided in case of industrial use.

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 high pressure cleaner.

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







**Josef Kränzle GmbH & Co. KG**

Rudolf-Diesel-Straße 20  
89257 Illertissen (Germany)

[sales@kraenzle.com](mailto:sales@kraenzle.com)

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■ Made  
■ in  
■ Germany