

Technical perfection and top design

Kränzle
HOCHDRUCKREINIGER

w w w . k r a e n z l e . c o m

Operating manual

High-pressure cleaners

1151

1151 T

CE TÜV GS DIN EN ISO 9001 



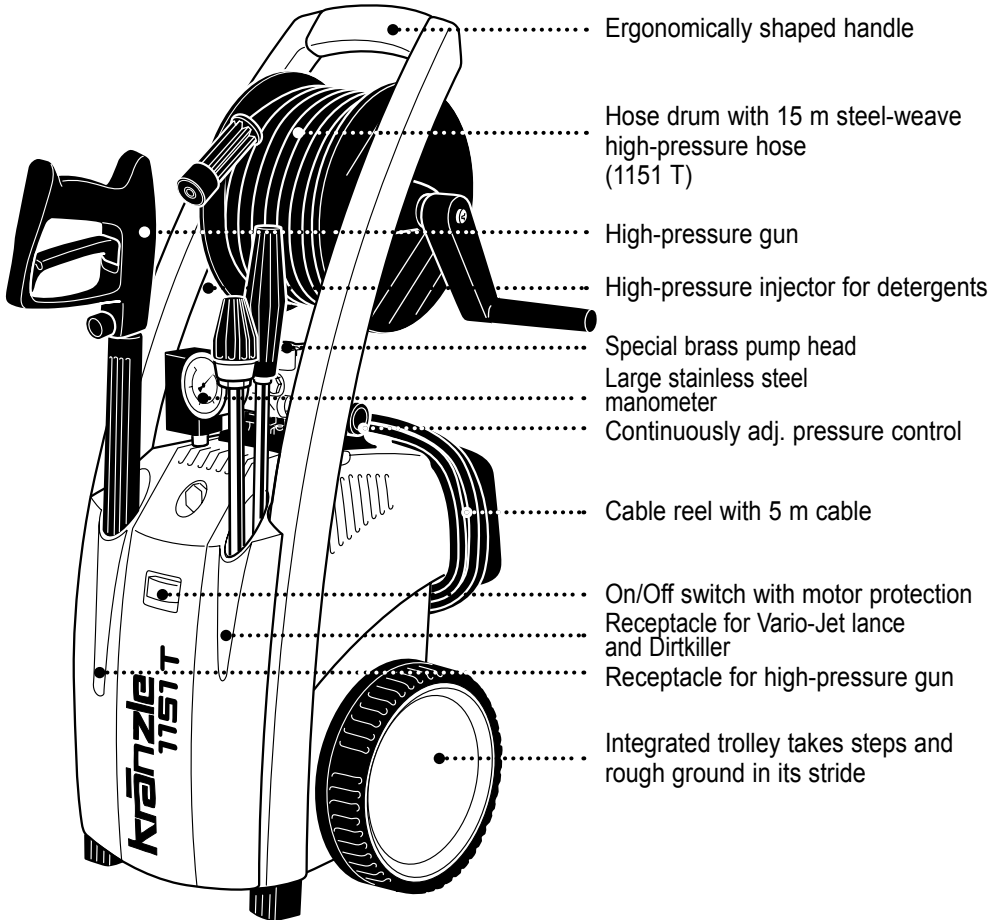
Read and conform safety instructions before use!

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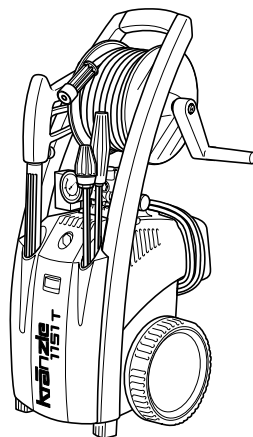
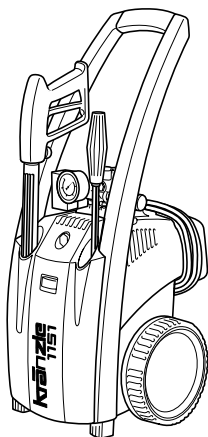
Description of appliance

Kränzle 1151 T, 1151



Contents

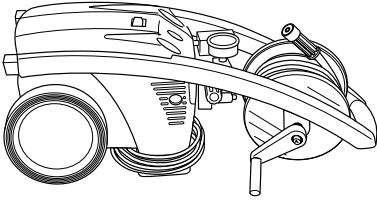
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4 Technical data

Kränzle 1151
Kränzle 1151 T

	Kränzle 1151	Kränzle 1151 T
Operating press. continuously adj.	10 - 130 bar (1900 PSI)	10 - 130 bar (1900 PSI)
Nozzle size	25045	25045
Permissible overpressure	150 bar	150 bar
Water output	at 2,800 r.p.m. 10 l/min	at 2,800 r.p.m. 10 l/min
Water inlet temperature	max. 60 °C	max. 60 °C
Suction height	1 m	1 m
Hose drum	no	yes
Steel-weave high-pressure hose	10 m	15 m
Detergent suction	yes	yes
Total stop system	yes	yes
Connected load	230 V~, 12.0 A, 50 Hz	230 V~, 12.0 A, 50 Hz
Power input	P 1 - 2.8 kW	P 1 - 2.8 kW
Power output	P 2 - 2.1kW	P 2 - 2.1 kW
Weight	22 kg	26 kg
Dim. incl. pulling handle in mm	300 x 330 x 800	300 x 330 x 800
Sound level acc. to DIN 45 635	88 dB (A)	88 dB (A)
Sound level with Dirtkiller	90 dB (A)	90 dB (A)
Acoustic power L_{WA}	93 dB (A)	93 dB (A)
Recoil at lance	approx. 27 N	approx. 27 N
Vibration at lance	1.9 m/s ²	1.9 m/s ²
Order no. with Dirtkiller	41.216 1	41.215 1

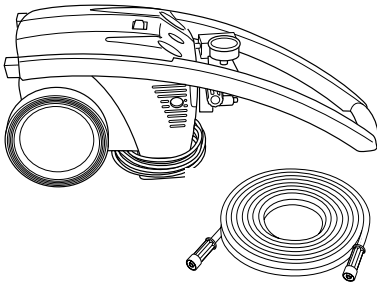
 Permissible tolerance for figures $\pm 5\%$ acc. to VDMA uniform sheet 24411

This is what you have purchased

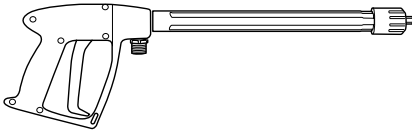


1. Kränzle high-pressure cleaner **1151 T** with 15 m steel-weave high-pressure hose and hose drum

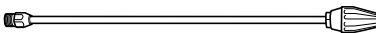
or



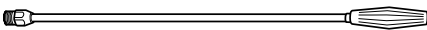
Kränzle high-pressure cleaner **1151** with 10 m steel-weave high-pressure hose but without hose drum



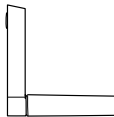
2. Safety spray gun with insulated handle and screw connection



3. Dirtkiller lance with stainless steel pipe



4. Vario-Jet lance with stainless steel pipe



5. Handle with fixing screw for hose drum



6. Operating manual

6 General rules

■ Range of application

Use machines for cleaning tasks with high-pressure water jet and detergents or with high-pressure water jet without detergents only.

■ 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. For inspection reports see pages 42-43.



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. (see pages 8 and 9).

■ Oil change:

The first oil change should be carried out after approximately **50 operating hours**. After that no further oil change will be necessary for the life cycle of the high-pressure cleaner. If it becomes necessary during repairs, or because the oil has a greyish colour to perform an oil change, then the oil draining screw should be opened and the oil emptied into a container. The oil is to be caught in the reservoir and disposed of in an approved manner. **New oil: 0.25 l - Motor oil: W 15/40.**

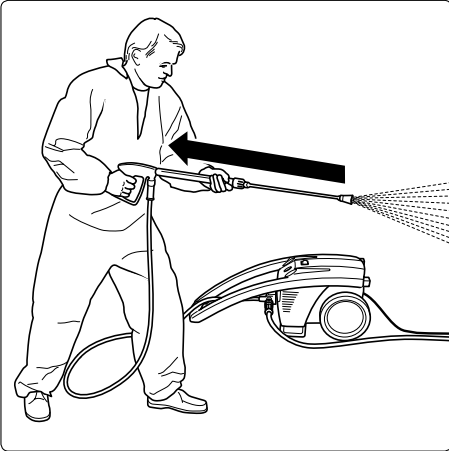


Oil leakage: If oil leaks contact your nearest after-sales service (dealer) at once. (Ecological damage, damage to the transmission)

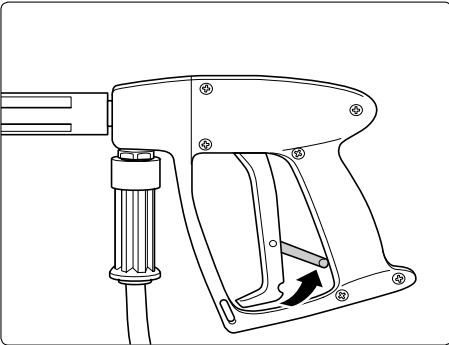


In case of increased humidity or fluctuations in temperature development of condensed water is possible; if the oil turns grey, you must change it.

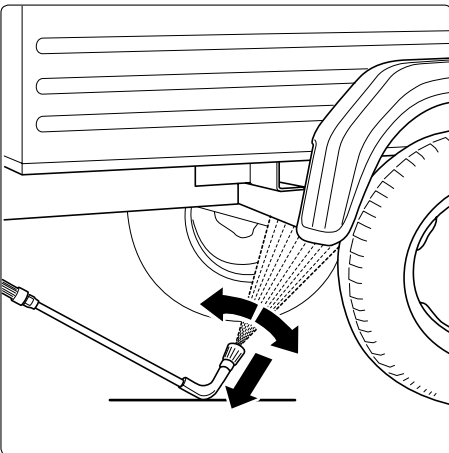
Safety precautions



Bear in mind that during cleaning tasks with a high-pressure water jet a significant recoil at the lance arises. Please stand firmly. (see technical data on page 4).

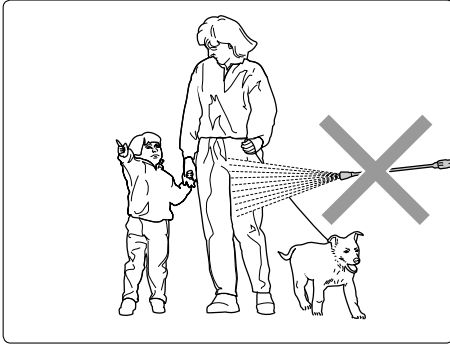


Apply the safety catch on the spray gun after each use, in order to prevent unintentional spraying!

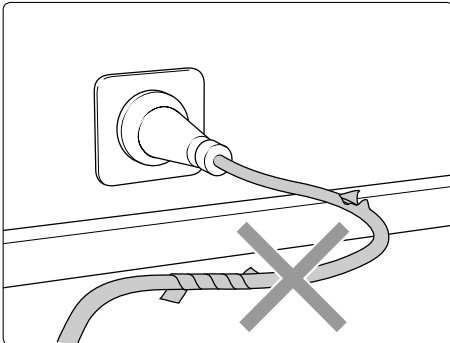


Always aim the underbody lance! Bear in mind when using a curved or angled spraying lance that there is a significant amount of torque in the recoil!

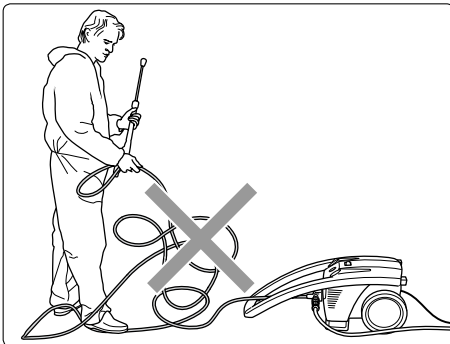
Safety precautions – This is prohibited!



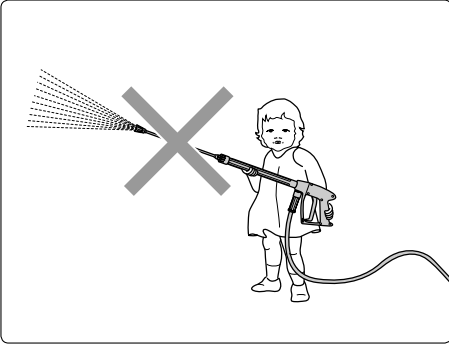
Never direct the water jet at people or animals!



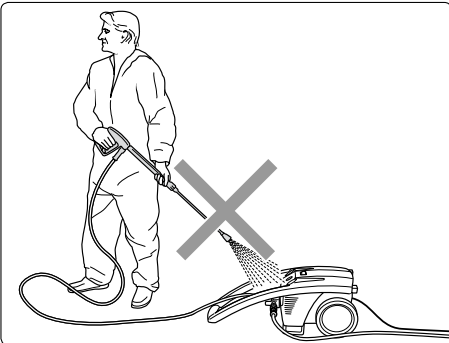
Only use power cables which are in perfect working order! Do not damage the power cable or repair it incorrectly!



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

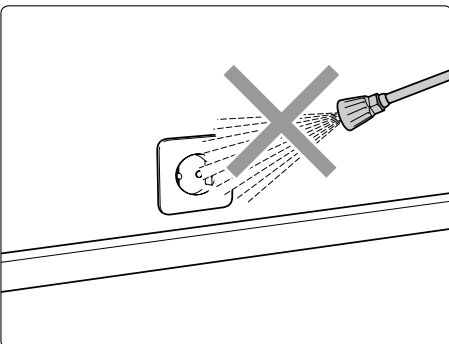


Never allow children to use the high pressure cleaner!

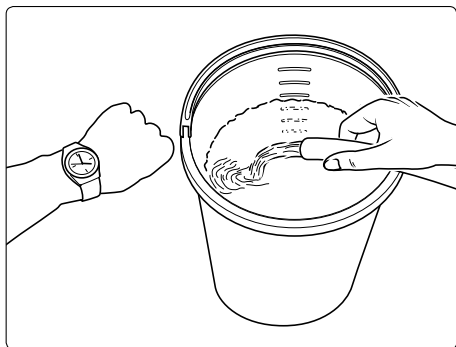


Never direct the water jet at the machine itself!

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



Never direct the water jet at a power socket!

10 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 litre scale for one minute.

A minimum water quantity of 10 litres per minute must be available to guarantee a trouble-free operation of the Kränzle 1151 T/1151.



If the metered quantity of water is too small, you have to use a different water connection, guaranteeing the necessary output.

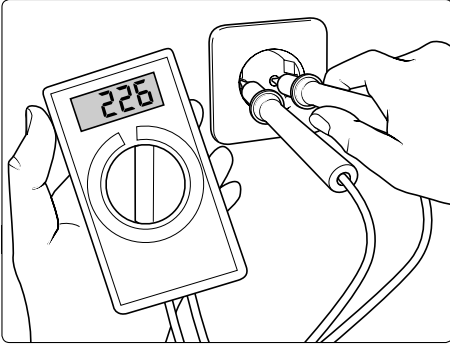


Lack of water leads to an accelerated wear of the joints (no guarantee)

■ Connection to 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 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.

■ 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 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.

Kränzle 1151 T/1151:
230 V ~, 12,0 A, 50 Hz



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 an 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 delay action** 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. With extension cables of **more than 10 m** the minimum cross section must be **2.5 mm!** When using a cable drum, always keep the cable wound as far as possible.

12 Kränzle technology

■ Wasser and cleaning system

Water can be connected at mains pressure (1-8 bar pre-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 spray gun

The machine can only be operated when the safety trigger is squeezed. When the lever is squeezed, the spray gun opens. The liquid is then pumped to the nozzle. The spray pressure increases and quickly reaches the selected operating pressure. When the trigger is released, the trigger gun closes and any further spraying of liquid from the lance is stopped. The pressure gauge must show 0 bar.

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



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

■ Pressure control valve - safety valve

The pressure control 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.

■ Motor protection switch

The motor is protected from overload by a motor protection switch, which 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 11).



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 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. (max. hose length 20 m)

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 (without leakage).



The high pressure hose may not be driven over, pulled excessively, or twisted.

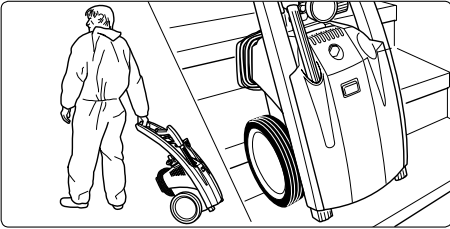
The hose may under no circumstances be pulled over sharp edges.

Defective high-pressure hoses must not be repaired (acc. to DIN 20022) but have to be replaced by new hoses approved by the manufacturer.

■ Total stop system

Kränzle 1151 and 1151 T high-pressure cleaners are equipped with a total stop system. If the main switch is switched on the motor is started by a pressure switch, as soon as the gun is operated. If the trigger is released the motor is switched off at once.

14 Putting into operation

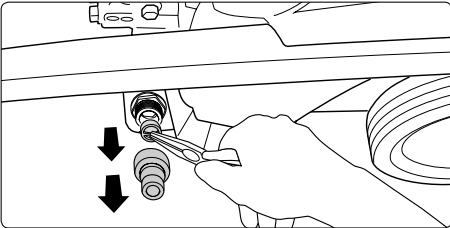


1. Move high-pressure cleaner to the job site. The Kränzle 1151 T/1151 is a movable machine with sturdy trolleys ideally suited for difficult terrain and stairs.

■ Setting up – Location

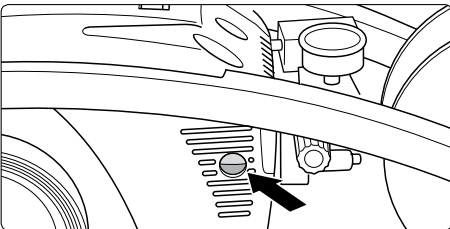


Neither set up or operate the machine in rooms where there is a risk of fire or explosion nor put it into puddles. Do not use the machine under water.



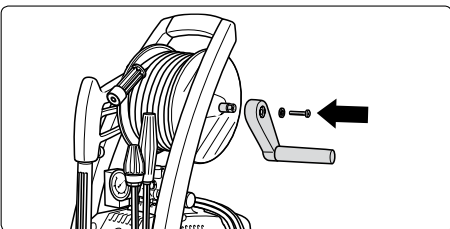
2. Check water inlet filter for cleanliness prior to putting the machine into operation!

Manually unscrew hose attachment. Take out the serial water inlet filter using needle nose pliers and clean if filter is soiled.

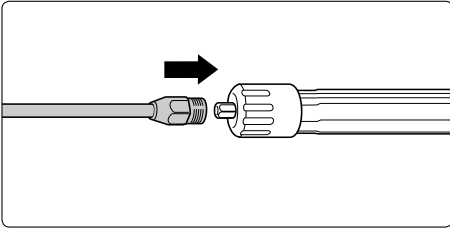


3. Each time check oil level at oil-level glass prior to putting HP cleaner into operation. (Take care that cleaner is in horizontal position!)

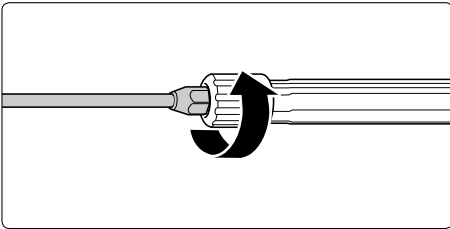
The oil level must be visible in the oil-level glass.



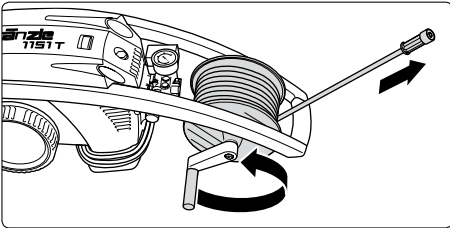
4. 1151 T: Put up machine. Release fixing screw from hexagonal base of hose drum, put tiltable handle onto the hexagonal base and fix with screw.



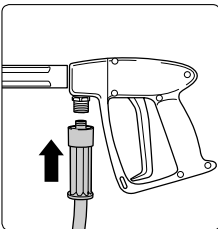
5. Push on lance or Dirtkiller lance to gun.



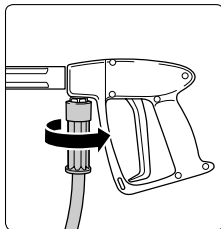
6. Screw together lance and gun.



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



8. Push on HP hose to gun.

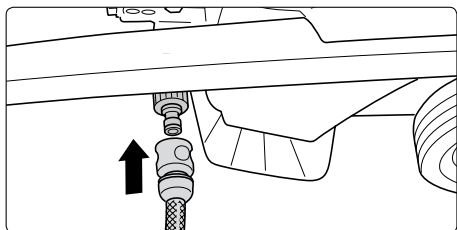


9. Tightly screw together HP hose and gun.

■ Be careful when using hot water!

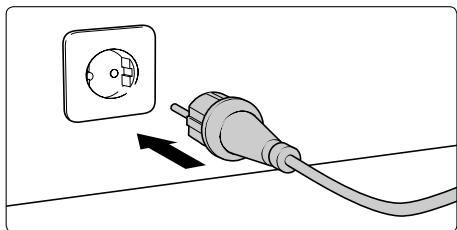


When running your high pressure cleaner with hot water of 60° C raised temperatures occur. Do not touch the metal parts of the cleaner without safety gloves!

16 Putting into operation

10. Connect water hose to water inlet.

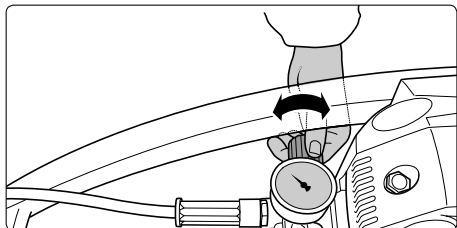
The cleaner may be connected to a water mains (1-8 bar pre-pressure) with either cold or up to 60°C warm water.



11. Connect to circuit.

Kränzle 1151 T/1151:
230 V ~, 12.0 A, 50 Hz

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



12. Steplessly adjust operating pressure with handwheel. The maximum pressure is adjusted ex work.

Kränzle 1151 T/1151: max. 130 bar



13. Put HP cleaner into horizontal position.

These machines must be operated in horizontal position!

Deaeration of the appliance: Pull and release the trigger several times.

Switch on high-pressure cleaner with **opened** spray gun. Start cleaning task.

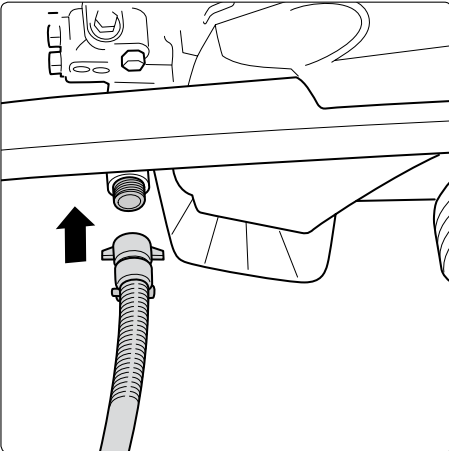
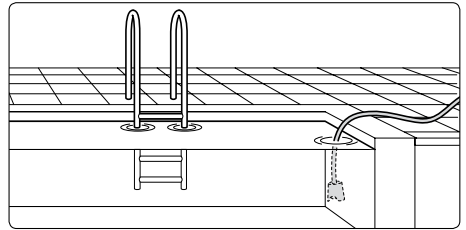
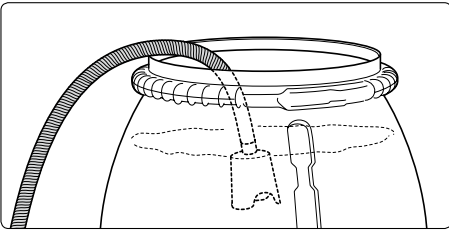
Direct suction

Sucking in water from ponds, rain butts etc.

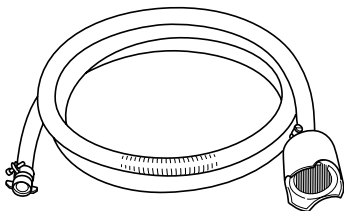
Due the suction capacity of its pump (up to 1.0 m suction height, max. hose length 2 m) this high-pressure cleaner can suck in water for cleaning purposes from separate containers or ponds.



Prior to starting the first suction the pump resp. the suction hose has to be filled with water!



Attach suction hose. The inner diameter of the hose must be at least $1/2'' = 12.7 \text{ mm}$.



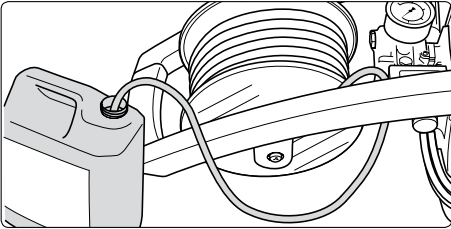
Best use suction hose with suction filter from the Kränzle accessories:
Order no. 15.038 3

Use clean water only!

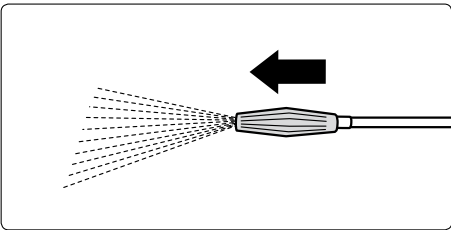
18 Suction of detergents

■ When using cleansing agents

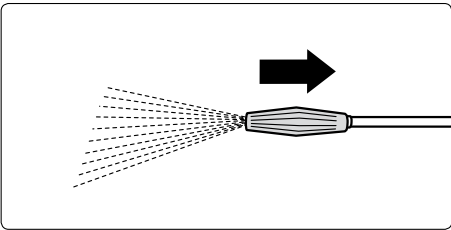
Suction of cleansing agents by means of the detergent injector is only possible if the Vario Jet lance is fitted. The lance must be set to low pressure.



1. Please chemicals filter into container with cleansing agent.



2. To reach the low pressure push Vario nozzle to the front so that the injector can suck in the cleansing agent.



3. The chemicals supply is automatically stopped when closing the Vario nozzle by pushing it backwards. Let cleansing agent take effect and then spray off with a high-pressure jet.



Observe specifications of detergent manufacturer!
e.g.: protective equipment, rules for waste water treatment etc.

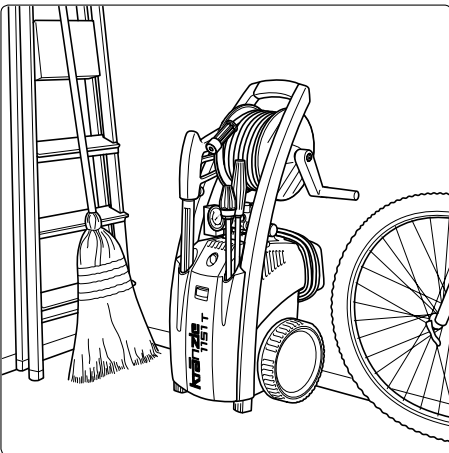


Caution: dissolvents!
Never suck in liquids containing solvents like varnish solvents, petrol, oil or similar liquid! Observe specifications of detergent manufacturers! Seals inside the appliance are no resistant against solvents! The spray mist of solvents is highly inflammable, explosive and poisonous.

To shut down the pump

1. Switch off the machine
2. Cut off the water supply
3. Open the spray gun briefly until the pressure is released
4. Apply the safety catch on the spray gun
5. Remove the water hose and spray gun
6. Drain the pump: switch on the motor for approx. 20 seconds
7. Pull the plug from the socket
8. Clean HP hose and wind up
9. Clean power cable and wind up
10. Clean water filter
11. Winter: store the pump in rooms above 0°C

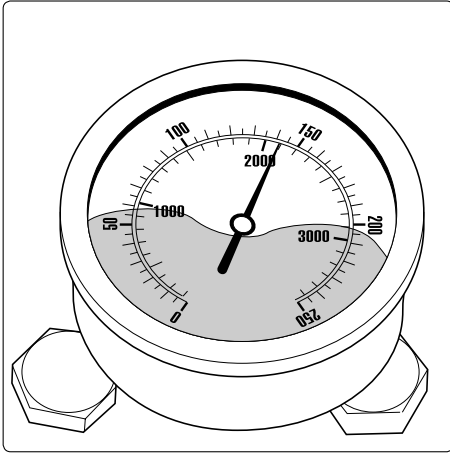
■ Store in a place-saving manner



Due to their compact and space saving design the Kränzle 1151 T/1151 cleaners can be stored practically anywhere.

Small repairs - do it yourself!

■ No water from the nozzle but the gauge shows full pressure:
Most likely the nozzle is blocked.



The pressure gauge shows full pressure, but from the nozzle comes only little water or no water at all.

(Inside the pressure gauge is no water but a filling with glycol to damp the vibration of the pointer.)

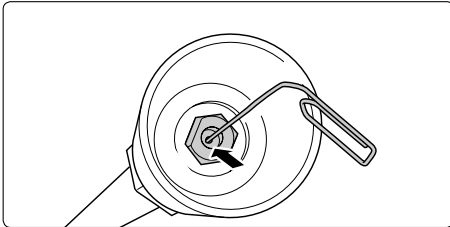
Proceeding:

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

First unscrew gun and lance, then rinse hose from any residues.

Check water inlet filter for soiling.

If the problem still exists, take wire (paper clip) and push through nozzle opening.

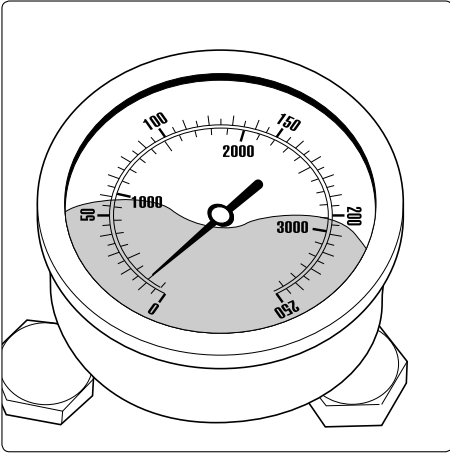


If this procedure is not successful, the nozzle has to be dismantled and cleaned or even replaced, if necessary.



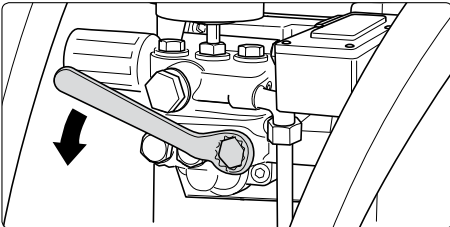
CAUTION! Pull plug from socket prior to starting any repair work!

■ **Pressure gauge shows little pressure, the water from the nozzle comes in squirts: Most likely the valves are soiled or sticky.**



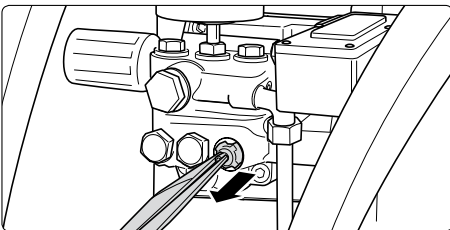
The pressure gauge shows little pressure despite fully turned up pressure regulation. The water from the lance comes in squirts. The HP hose vibrates.

(Inside the pressure gauge is no water but a filling with glycol to damp the vibration of the pointer.)

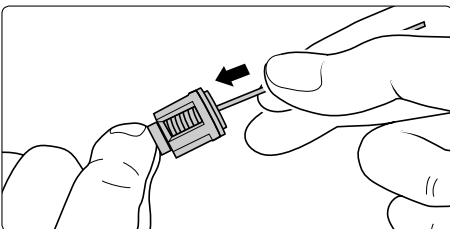


Proceeding:

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.

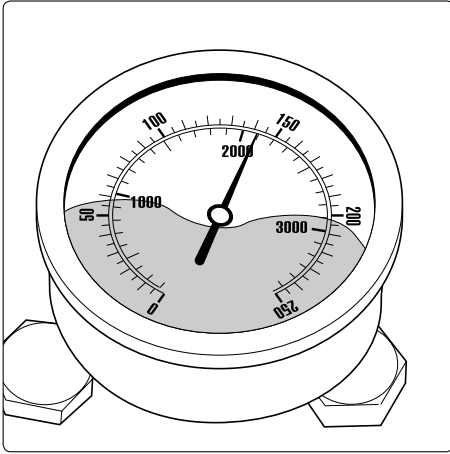


Take a wire (paper clip) and clean valves under running water.

Do not forget the O-ring during reassembly!

22 Small repairs - do it yourself!

■ The pressure gauge shows full pressure although the gun has been closed. The pressure switch valve switches constantly.

**Possible cause no.1: Leakage**

Having closed th gun, the HP cleaner must shut down and the pressure gauge must show „0“ bar.

If the pressure gauge still shows full pressure and the motor constantly switches on and off, the possible reason for this can be a leakage of the pump, the HP hose or the lance.

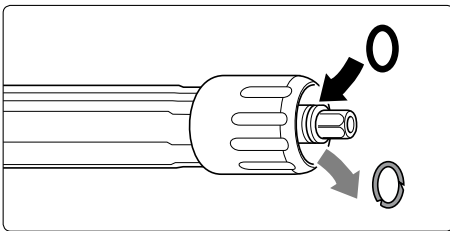
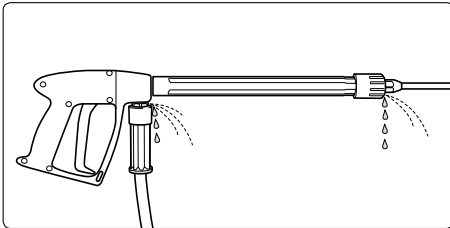
Proceeding:

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

Switch off the cleaner. Shortly press the trigger of the gun to decrease the pressure.

Unscrew HP hose, gun and lance and check the O-rings.

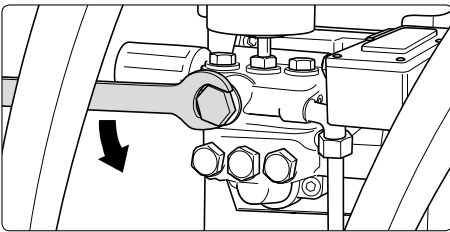
If the O-rings are damaged they have to be replaced.



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

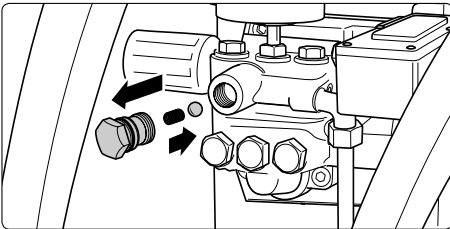
■ The pressure gauge shows full pressure although the gun has been closed. The pressure switch valve switches constantly.

Possible cause no. 2: The non-return valve is soiled or defective.

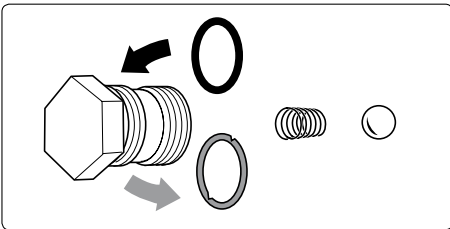


Proceeding:

Switch off machine and pull plug from socket. Stop water supply. Unscrew pump outlet.



Take out check ball and check for soiling or damage of ball or stainless steel seat inside the pump housing.



Replace non-return valve if necessary.



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

24 EC declaration of conformity

Hereby we declare that: **Kränzle 1151 T, Kränzle 1151**

technical specifications available from: **Manfred Bauer, Fa. Josef Kränzle
Rudolf-Diesel-Str. 20, 89257 Illertissen**

comply with the following guidelines **Machinery directive 89/392/EEC**
and their amendments for high-pressure **Low-voltage directive 2006/95/EC**
cleaners: **EMV-directive 2004/108/EC**
Noise directive 2005/88/EC

Sound level measured: **91 dB (A)**

Sound level guaranteed: **93 dB (A)**

Applied specifications and standards: **EN 60 335-2-79:2004**
EN 55 014-1 / A2:2002
EN 61 000-3-2 :2006
EN 61 000-3-3 :2002
EN ISO 3744 :1995



I. Kränzle GmbH
Elpke 97 D - 33605 Bielefeld

Droitsch
(Managing director)

Bielefeld, 23.03.2009

Guarantee

■ The guarantee is only valid for material and manufacturing errors. Wearing does not fall within this guarantee.

The instructions in our operating manual must be complied with..
The operating instructions form part of the guarantee.

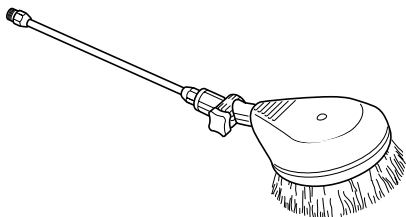
For high-pressure cleaners sold to the user the guarantee period is **24 month**.
For high-pressure cleaners sold for industrial use the guarantee period is **12 month**.

In the case of a guarantee please contact your dealer or authorized seller delivering accessories and your purchase receipt. You can find them in the internet under **www.kraenzle.com**.

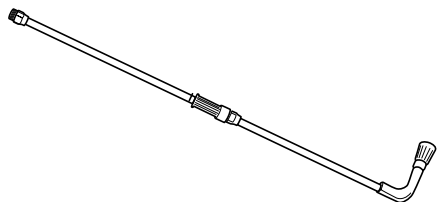
The guarantee is also void if the machine is used with exceeding the temperature and speed limits, a voltage below the required rating, with less than the required amount of water or with dirty water.

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

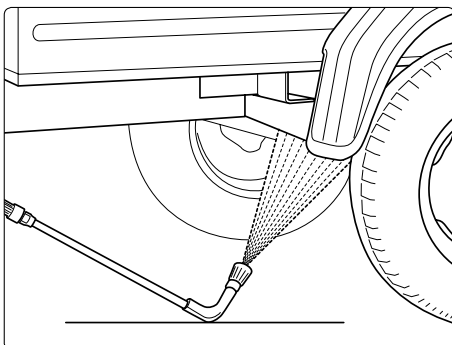
26 Versatile due to Kränzle accessories



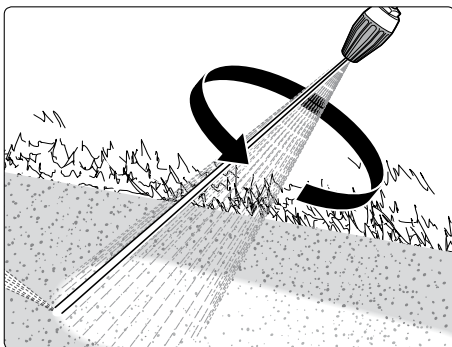
Rotating washing brush with 400 mm extension, Order no. 41 050 1

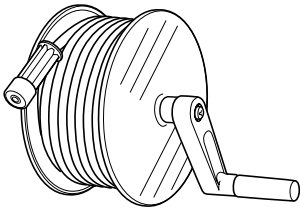


Underbody lance with 800 mm extension, Order no. 41 075

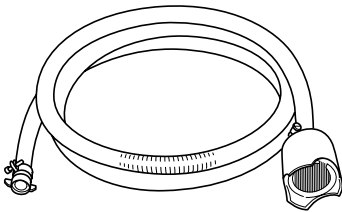
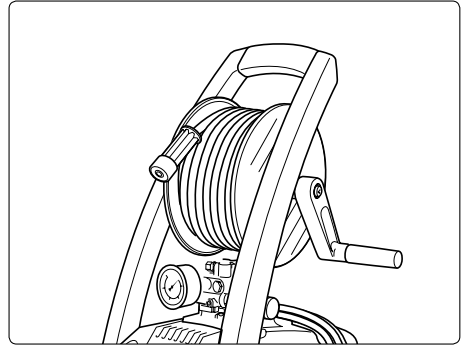


Dirtkiller lance
(rotating point jet nozzle with intensive cleaning effect)
Order no. 41.072 5

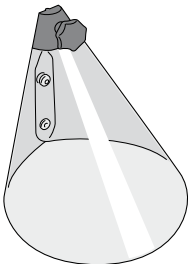
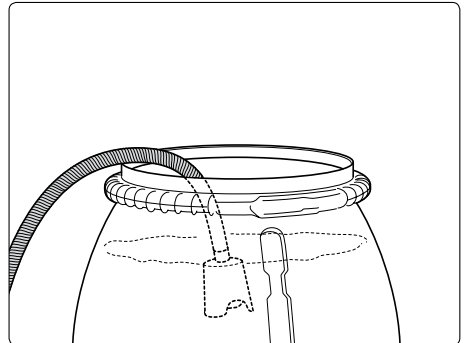




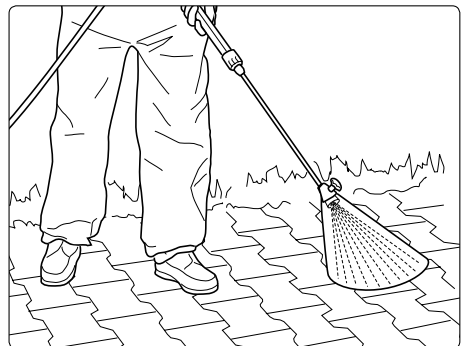
Retrofit kit for hose drum
with 15 m high-pressure hose
Order no. 40.184 2



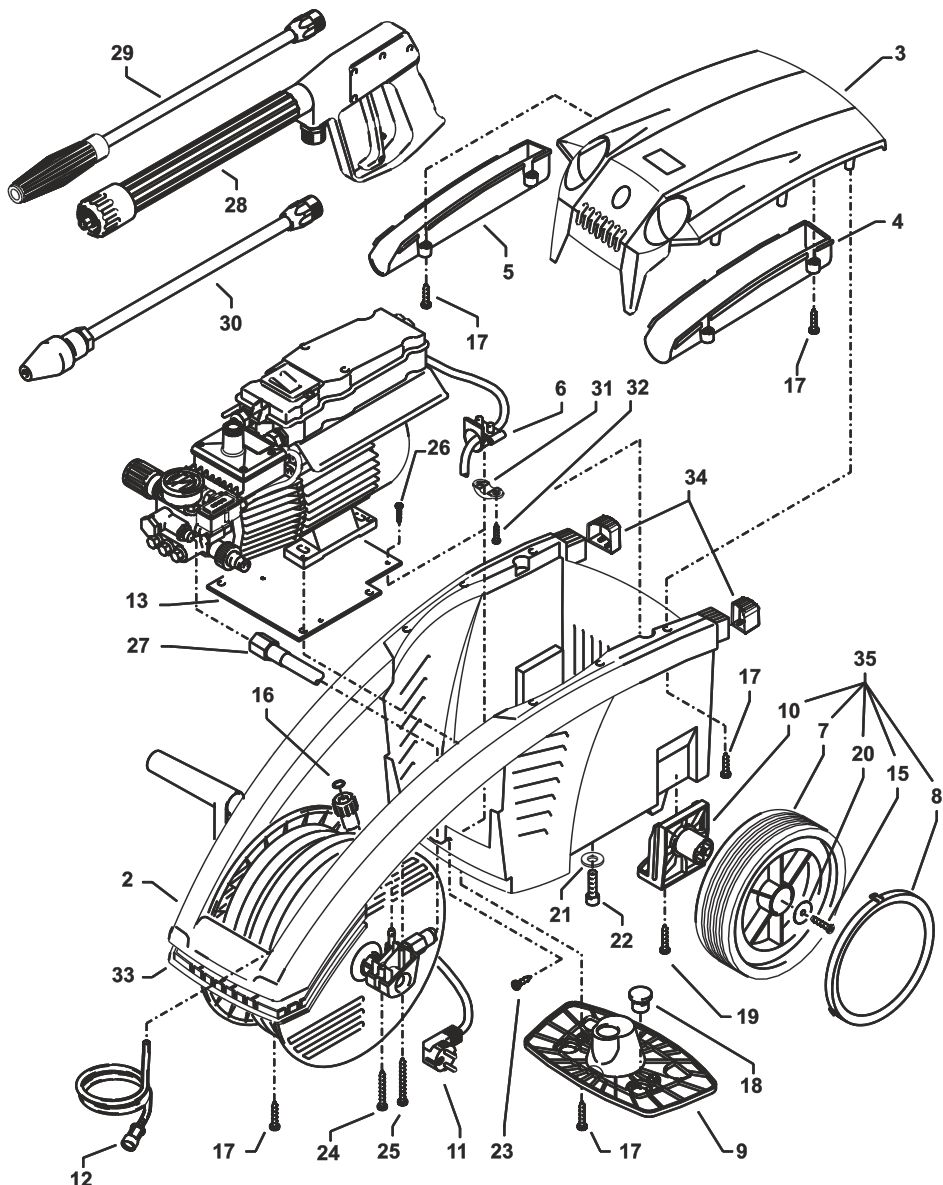
Suction hose with intake filter
Order no. 15.038 3



Spray guard
Order no.41.052



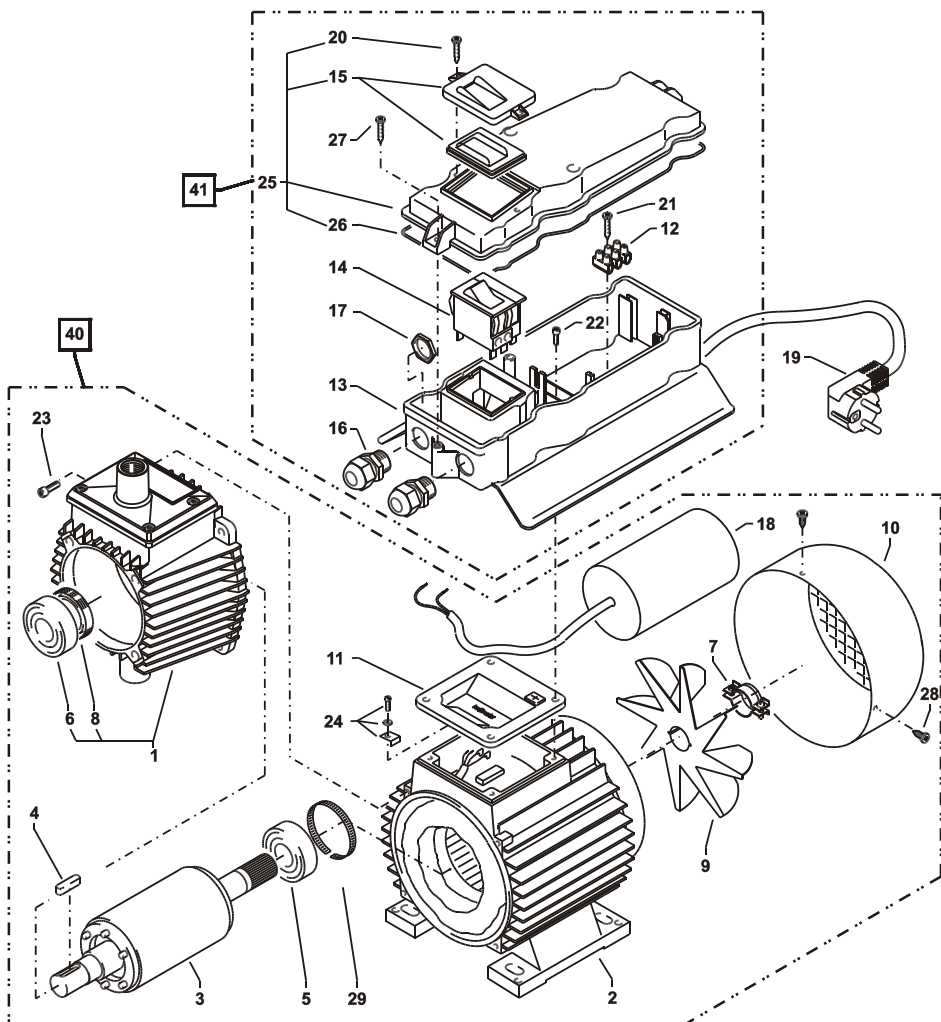
28 Spare parts list Kränzle 1151 T/1151 Complete assembly



Kränzle 1151 T/1151 - Complete assembly

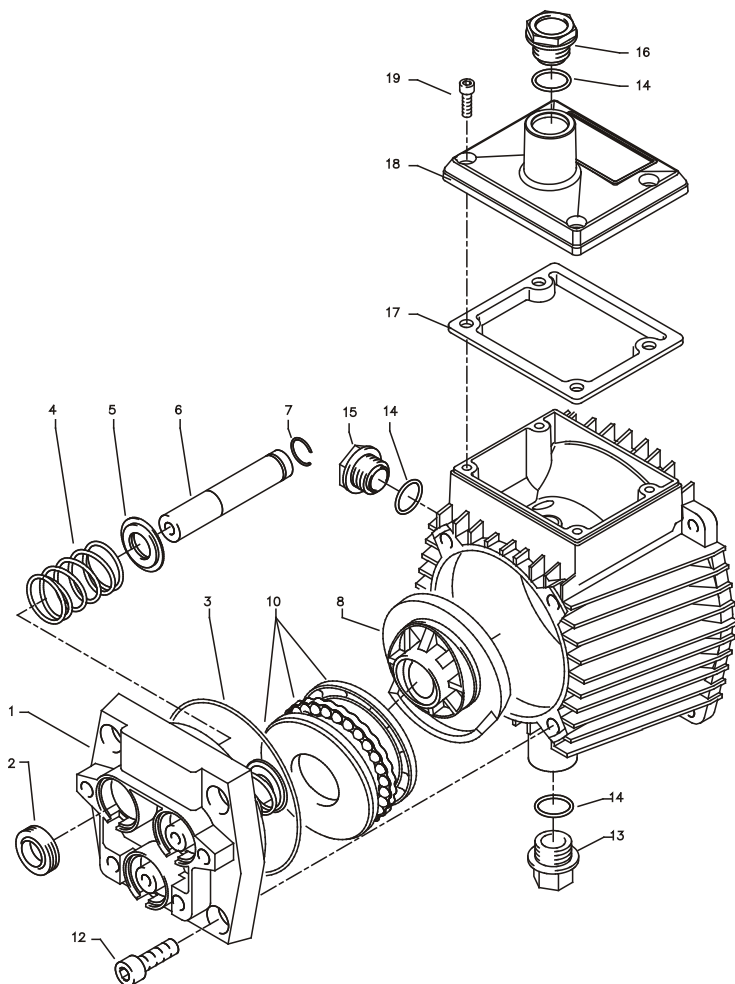
No	Description	Qty.	Ord.-No
2	Fahrgestell	1	44.502
3	Frontplatte „ K 1151 „	1	44.503 7
3.1	Frontplatte „ K 1151 T „	1	44.503 6
4	Köcher groß	1	44.506
5	Köcher klein	1	44.507
6	Knickschutz	1	44.509
7	Rad	2	44.538
8	Radkappe	2	45.200 8
9	Kabelhalteplatte	1	44.505
10	Achse	2	44.504
11	Netzanschlusskabel	1	41.092
12	Chemikaliensaugschlauch mit Filter	1	15.038
13	Versteifungsplatte	1	44.511
15	Kunststoffsenkenschraube 5,0 x 20	2	45.421 1
16	O-Ring 9,3 x 2,4	2	13.273
17	Kunststoffschraube 5,0 x 20	20	43.018
18	Auflagepuffer	2	44.510
19	Kunststoffschraube 5,0 x 30	2	43.418
20	Scheibe 40 x 6 x 1,5 (Stahl)	2	45.216 7
21	Unterlegscheibe 8,4	4	50.186
22	Innensechskantschraube M 8x 30	4	41.036 1
23	Kunststoffschraube 4,0 x 16	2	43.417
24	Kunststoffschraube 5,0 x 50	2	41.411
25	Kunststoffschraube 5,0 x 70	2	44.519
26	Kunststoffschraube 3,5 x 14	2	44.525
27	Anschlussleitung Schlauchtrommel	1	44.520
28	Midi-Pistole	1	12.160
29	Vario-Jet 045 kpl. mit Lanze	1	41.156
30	Schmutzkiller	1	41.072 5
31	Kabelklemme	1	43.431
32	Schraube 3,5 x 16	2	44.161
33	Griffabdeckung	1	44.535
34	Gummipuffer links+rechts	1	44.536
35	Rad kpl. (7, 8, 10, 15, 20)	2	44.538 2

30 Spare parts list Kränzle 1151 T/1151 Motor



Kränzle 1151 T/1151 - Motor

No	Description	Qty.	Ord.-No
1	Ölgehäuse mit Dichtung, Deckel Öldichtung, Schulterlager	1	44.501
2	Motorgehäuse mit Stator	1	23.002 4
3	Motorwelle mit Rotor	1	43.024
4	Passfeder 6 x 6 x 20	1	41.483 1
5	Motor-Lager B-Seite Z-Lager	1	43.025
6	Motor-Lager A-Seite Schulterl.	1	43.026
7	Schelle für Lüfterrad	1	44.534 1
8	Öldichtung 25 x 35 x 7	1	41.024
9	Lüfterrad	1	44.534
10	Lüfterhaube	1	41.497
11	Flachdichtung	1	44.513
12	Lüsterklemme 3-pol.	1	43.031 2
13	Schaltkasten	1	44.508 2
14	Schalter mit 12 A-Überstromauslöser	1	43.033
15	Klemmrahmen mit Schalterabdichtung	1	43.453
16	Kabelverschraubung PG 11	2	41.419
17	Gegenmutter PG 11	2	44.521
18	Kondensator 40 µF	1	43.035
19	Netzkabel für 230V / 50/60Hz	1	41.092
20	Blechschaube 3,5 x 9,5	2	41.088
21	Blechschaube 2,9 x 16	1	43.036
22	Innensechskantschr. M 5 x 12	4	40.134
23	Innensechskantschr. M 5 x 30	4	42.130
24	Erdungsschraube kpl.	1	43.038
25	Deckel für Schaltkasten	1	44.512
26	Dichtung für Deckel	1	44.522
27	Kunststoffschraube 5,0 x 20	4	43.018
28	Blechschaube 3,9 x 9,5	3	41.636
29	Toleranzhülse	1	43.063 1
40	Motor 230V / 50 Hz complet with oil housing and wheel without electrics	1	44.530
41	Switch box complete	1	44.560

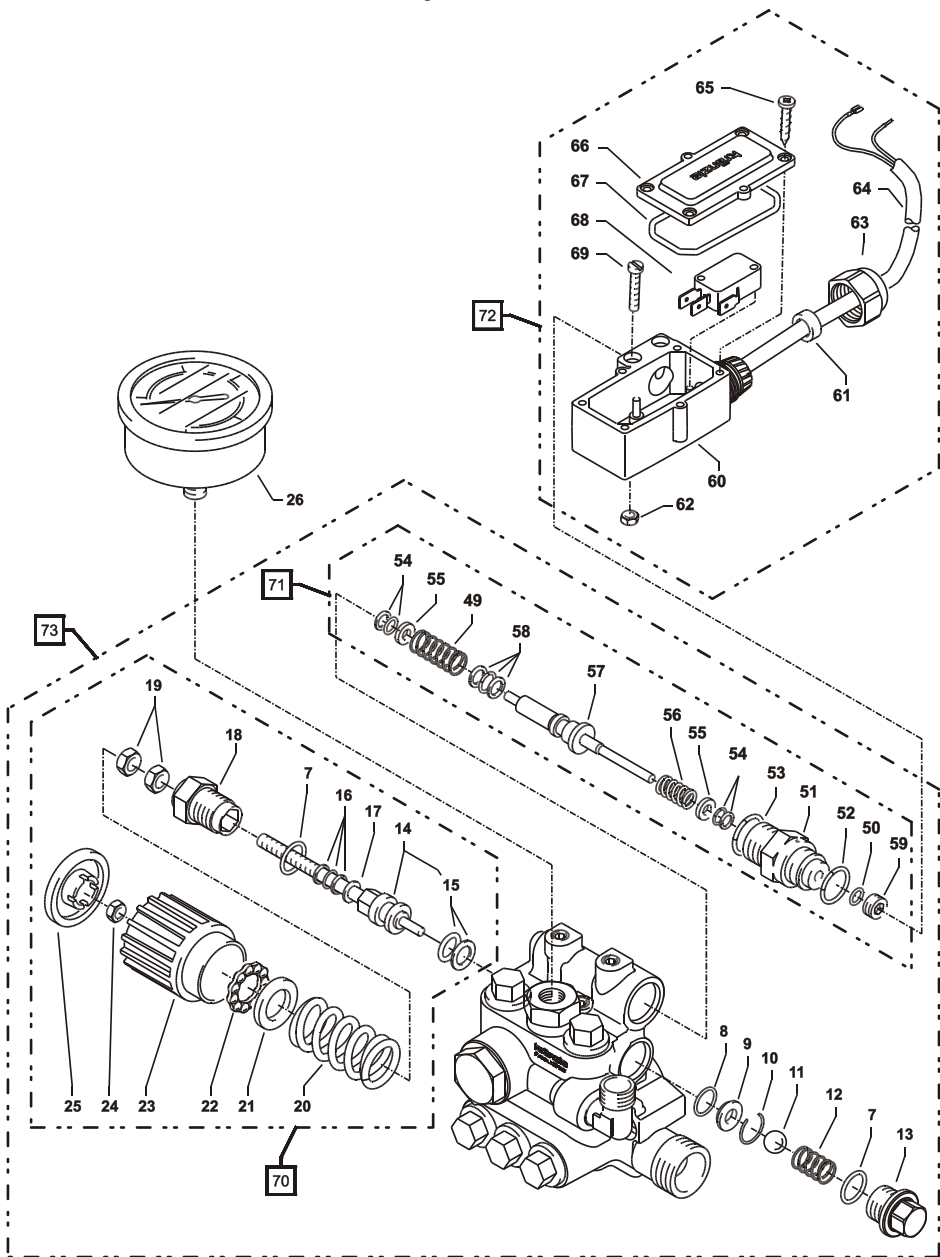
**32 Spare parts list Kränzle 1151 T/1151
Transmission unit**

Kränzle 1151 T/1151 - Transmission unit**33**

No	Description	Qty.	Ord.-No
1	Gehäuseplatte	1	43.003
2	Öldichtung 14 x 24 x 7	3	41.631
3	O-Ring 83 x 2	1	43.039
4	Plungerfeder	3	43.040
5	Federdruckscheibe 14 mm	3	43.041
6	Plunger 14 mm	3	43.005
7	Sprengring 14 mm	3	41.635
8	Taumelscheibe 9,25°	1	41.028-9,25
10	Axial-Rillenkugellager 3-teilig	1	43.486
12	Innensechskantschraube M 8 x 25	4	40.053
13	Verschlussschraube M 18 x 1,5	1	41.011
14	O-Ring 12 x 2	3	15.005 1
15	Ölschauglas	1	42.018 1
16	Ölverschlussschraube rot	1	43.437
17	Dichtung Öldeckel	1	44.501 1
18	Deckel Ölgehäuse	1	44.501 2
19	Innensechskantschraube M 5 x 12	4	41.019 4

Spare parts list Kränzle 1151 T/1151

Unloader valve and pressure switch

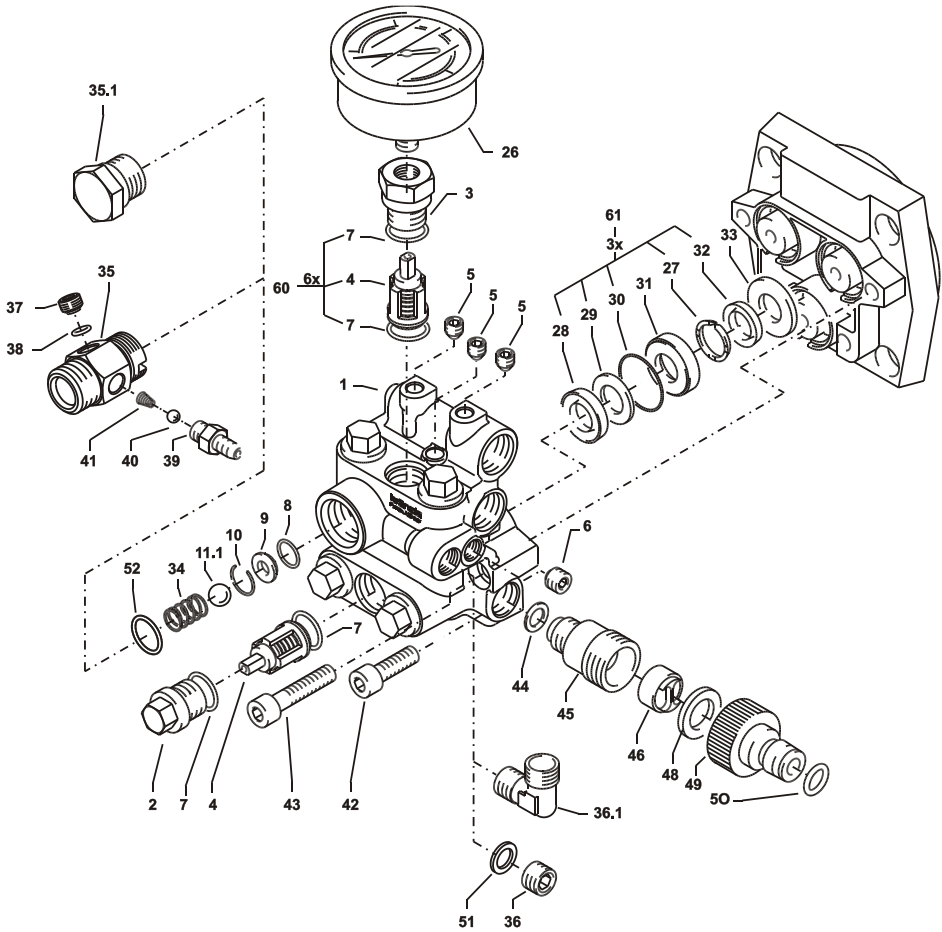


Kränzle 1151 T/1151 - Unloader valve and pressure switch

35

No	Description	Qty.	Ord.-No
7	O-Ring 12 x 2	2	15.005 1
8	O-Ring 11 x 1,5	1	12.256
9	Edelstahlsitz	1	14.118
10	Sicherungsring	1	13.147
11	Edelstahlkugel 8,5 mm	1	13.148
12	Edelstahlfeder	1	14.119
13	Verschlusschraube	1	14.113
14	Steuerkolben 6 mm für AZ mit Dichtungen	1	44.532
15	Parbaks für Kolben 14 mm	1	14.123 1
16	Parbaks für Spindel 6 mm	1	14.123 2
17	MS-Scheibe	1	43.045
18	Kolbenführung 6 mm	1	14.130 1
19	Mutter M 6	2	14.127 1
20	Feder schwarz für AZ-Pumpe	1	43.046
21	Federdruckscheibe	1	43.047
22	Kugellager	1	43.048
23	Handrad M 6 für AZ-Pumpe	1	43.049
24	Mutter M 6 mit SW 8	1	43.010
25	Kappe für Handrad AZ-Pumpe	1	43.050
26	Manometer	1	15.039
49	Druckfeder 1 x 8,6 x 30	1	40.520
50	O-Ring 3,3 x 2,4	1	12.136
51	Führungsteil Steuerstößel	1	15.009 1
52	O-Ring 13 x 2,6	1	15.017
53	O-Ring 14 x 2	1	43.445
54	Parbaks 4 mm	2	12.136 2
55	Stützscheibe	2	15.015 1
56	Edelstahlfeder	1	15.016
57	Steuerstößel lang	1	15.010 2
58	Parbaks 7 mm	1	15.013
59	Stopfen M10x1 (durchgebohrt)	1	13.385 1
60	Gehäuse Elektroschalter	1	15.200
61	Gummimanschette	1	15.202
62	Sechskant-Mutter M 4	2	12.138
63	Überwurfmutter PG 11	1	15.203
64	Kabel 2 x 1,5 mm ²	1	44.552
65	Blechschaube 2,8 x 16	6	15.024
66	Deckel Elektroschalter	1	15.201
67	O-Ring 44 x 2,5	1	15.023
68	Mikroschalter	1	15.018
69	Zylinderschraube M 4 x 22	2	15.025
70	Guide piston compl. with handwheel		44.532 1
71	Repair kit for pressure switch mech.		15.009 3
72	Pressure switch compl. without mech.		44.561
73.1	Valve housing compl. for K1151		44.562
73.1	Valve housing compl. for K1151 T		44.563

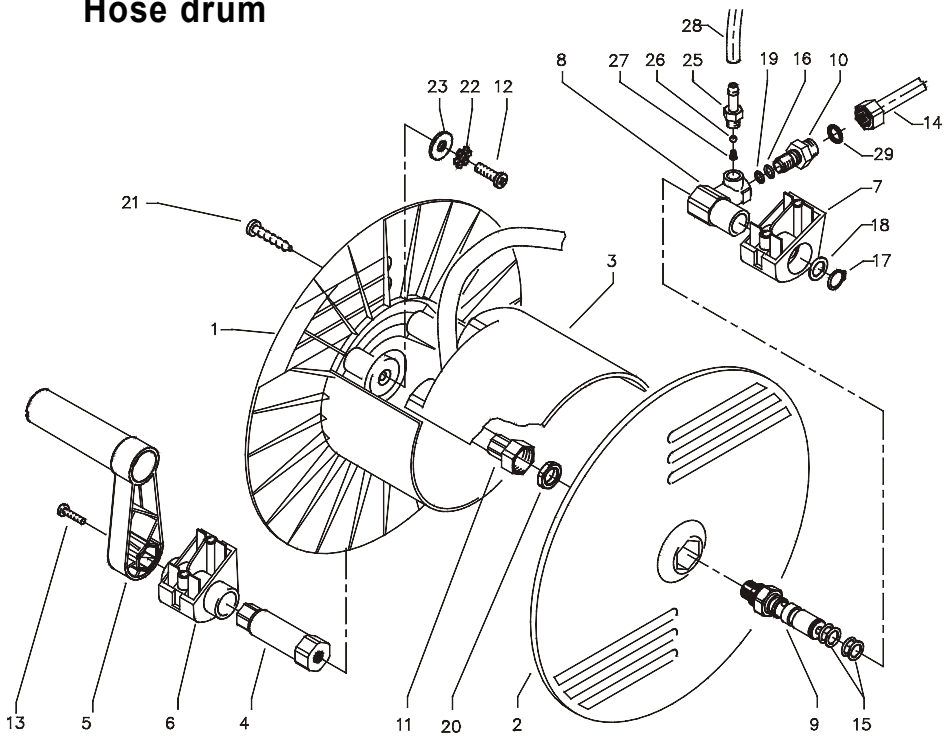
36 Spare parts list Kränzle 1151 T/1151 Valve housing



Kränzle 1151 T/1151 - Valve housing

37

No	Description	Qty.	Ord.-No
1	Ventilgehäuse	1	44.550
2	Ventilstopfen	5	41.011
3	Ventilstopfen mit R1/4" IG	1	41.011 1
4	Ventile (rot)	6	41.612
5	Dichtstopfen M 8 x 1	3	13.158
6	Dichtstopfen M 10 x 1	1	43.043
7	O-Ring 12 x 2	12	15.005 1
8	O-Ring 11 x 1,5	1	12.256
9	Edelstahlsitz	1	14.118
10	Sicherungsring	1	13.147
11.1	Edelstahlkugel 10,0 mm	1	12.122
26	Manometer	1	15.039
27	Stützring	3	43.091
28	Gewebemanschette 14x24x5	3	41.613 1
29	Backring 14 x 24	3	41.614
30	O-Ring 26 x 2	3	43.052
31	Leckagering	3	43.053
32	Manschette 14 x 20 x 4/2	3	43.054
33	Zwischenring mit Abstützung	3	43.055
34	Rückschlagfeder	1	14.120 1
35	Ausgangsst. Inj. ST30 M22x1,5 (K1151) incl. , 2x37, 2x38, 39, 40, 41, 52	1	44.544
35.1	Verschlussstopfen für Kugelrücks.v. (K1151 T)	1	44.524
36	Verschlussstopfen 1/4" (K1151)	1	13.181
36.1	Ermetowinkel R1/4"x8 (K1151 T)	1	40.179
37	Verschlussschraube M10x1	1	13.385
38	O-Ring 6x1,5	2	13.386
39	Saugzapfen Schlauchanschluss	1	13.236
40	Edelstahlkugel 5,5 mm	1	13.238
41	Edelstahlfeder	1	13.239
42	Innensechskantschr. M 8 x 25	2	40.053
43	Innensechskantschr. M 8 x 40	2	43.059
44	Dichtring Kupfer	1	14.149
45	Sauganschluss	1	41.016
46	Wasserfilter	1	41.046 2
48	Gummi Dichtring	1	41.047 1
49	Steckkupplung	1	41.047 2
50	O-Ring	1	41.047 3
51	Alu-Dichtring	1	13.275
52	O-Ring 18 x 2	1	43.446
60	Repair kit valves		41.648
61	Repair kit sleeves		43.060

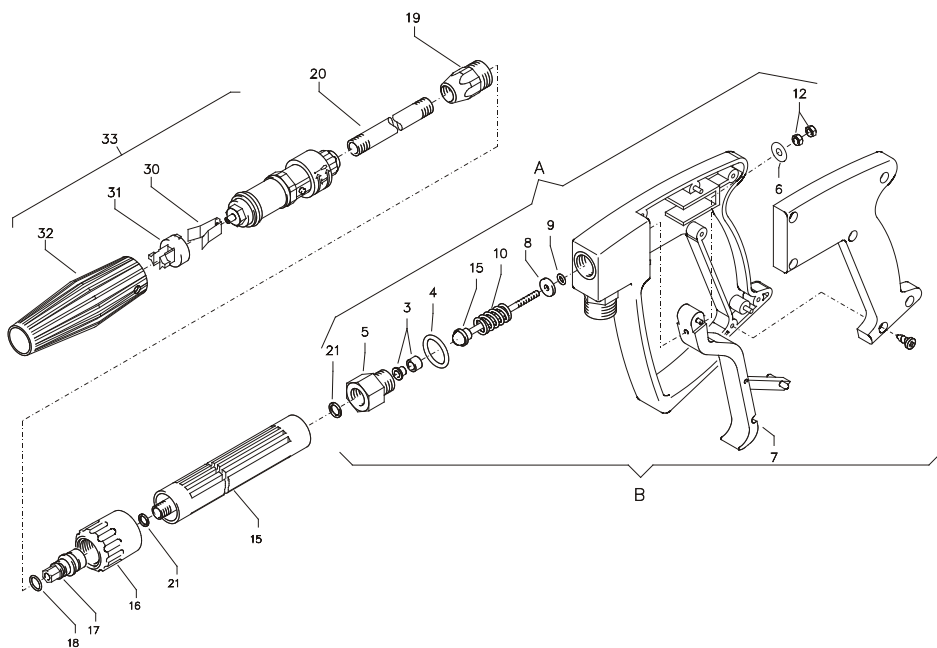
38 Spare parts list Kränzle 1151 T/1151**Hose drum**

Kränzle 1151 T/1151 - Hose drum

39

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	44.517
5	Kurbel	1	40.165
6	Lagerklotz links	1	44.515
7	Lagerklotz rechts	1	44.516
8	Drehgelenk	1	40.167
9	Achse mit Wasserführung	1	44.518
10	Eingangsinjektor	1	40.169
11	HD-Schlauch NW 6 15 m	1	40.170
12	Schraube M 6 x 16	1	40.171 1
13	Schraube M 5 x 10	1	43.021
14	Anschlussrohr Ermeto Edelstahl	1	44.520
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	Mutter M18 x 1	1	40.185
21	Kunststoffschraube 5,0 x 20	4	43.018
22	Zahnscheibe 6,4	1	40.183
23	Scheibe DIN9021 6,4	1	50.174
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

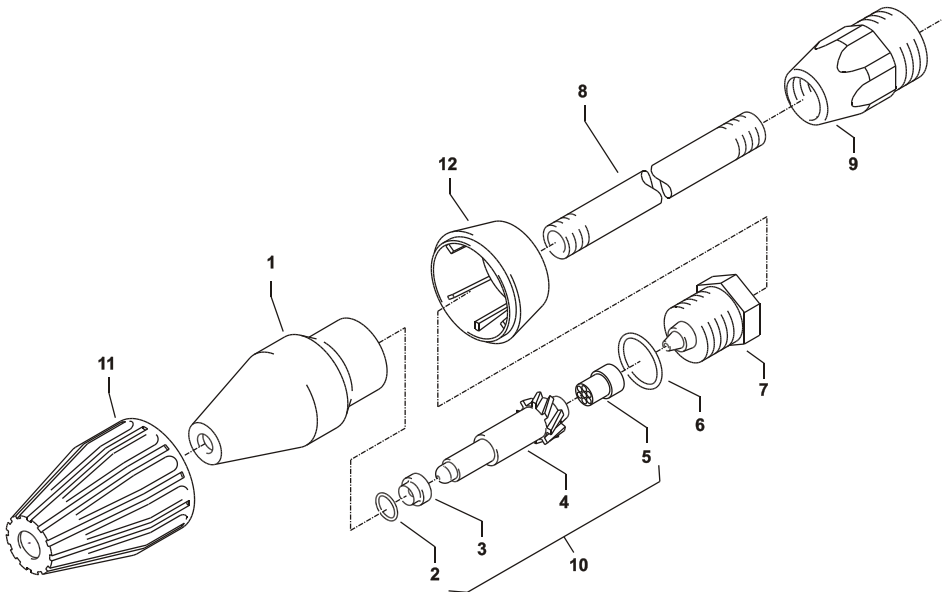
40 Spare parts list Kränzle 1151 T/1151 Gun with lance



Kränzle 1151 T/1151 - Gun with lance
41

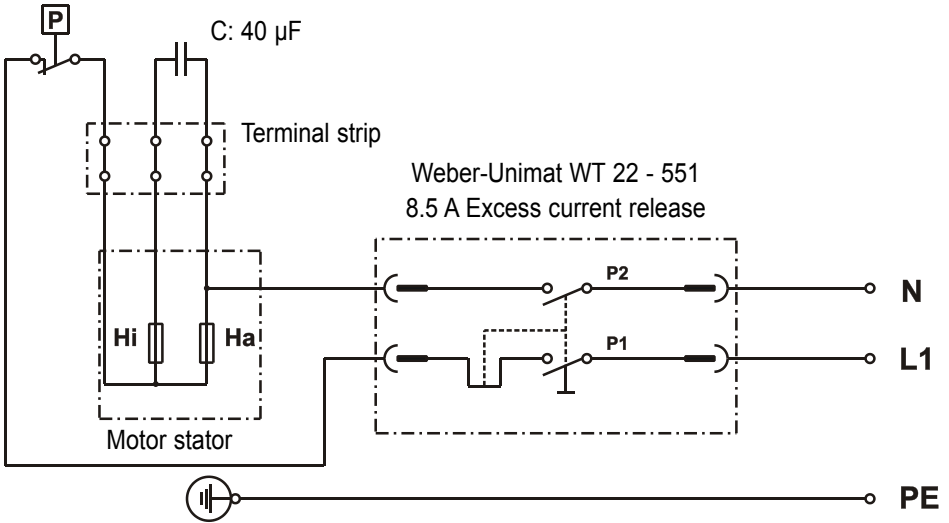
No	Description	Qty.	Ord.-No
5	Rohranschlußteil R1/4" incl. Pos. 3, 4, 21	1	12.125
6	Scheibe 5,3 DIN9021	1	50.152
7	Abzug-Hebel kpl.	1	12.144 1
15	Rohr kunststoffumspritzt bds. R 1/4" AG	1	15.004 2
16	Überwurfmutter ST 30 M22 x 1,5 IG	1	13.276 1
17	Außen-Sechskant-Nippel R 1/4" IG	1	13.277 1
18	O-Ring 9,3 x 2,4	1	13.273
19	ST 30-Nippel M 22 x 1,5	1	13.363
20	Rohr 400 lang, bds. M12 x 1	1	15.002
21	Aluminium Dichtring	6	13.275 1
30	Klemmstück	1	41.155 2
31	Halterung für Klemmstück	1	41.155 4
32	Kunststoffhülle	1	41.155 1
33	Vario-Jet 045	1	41.155 6
A	Rep.-Kit Pos: 3, 4, 5, 8, 9,10, 12, 15, 21		12.158
B	Handle compl.		12.164
	Midi-gun compl.		12.160
	Lance compl. with Vario-Jet		41.156

42 Spare parts list Kränzle 1151 T/1151 Dirtkiller



No	Description	Qty.	Ord.-No
1	Sprühkörper	1	41.520
2	O-Ring 6,88 x 1,68	1	41.521
3	Düsensitz	1	41.522
4	Düse 045	1	41.523
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
11	Front cap for Dirtkiller	1	41.528 1
12	Back cap for Dirtkiller 045	1	41.540 2
Rep.-kit Dirtkiller 045			41.097
consisting of: 1x 2; 3; 4; 5			
Dirtkiller 045 compl. with lance			41.072 5

Wiring diagram Kränzle 1151 T/1151



Inspection report for HP cleaners

HP cleaners for industrial use have to be checked by an expert every 12 months!
 Inspection report on annually carried out Labour Safety Inspection (UVV) according to the Guidelines for Liquid Spray Equipment. (This inspection sheet serves as proof for the completion of the retest and must be kept carefully!) Kränzle test seals: Order no. UVV200106

Owner: Type:.....
 Address: Serial no.:
 Rep. order no.:

Scope of inspection	o.k.	yes	no	repaired
Type plate (on hand)				
Operating manual (on hand)				
Protective covering, -device				
Pressure line (tightness)				
Pressure gauge (function)				
Float valve (tightness)				
Spraying device (marking)				
HD-hose / connector (damage, marking)				
Safety valve opens at 10 % / 20 % exceeding of operang pr.				
Power cable (damage)				
Protective conductor (connected)				
On / Off switch				
Used chemicals				
Allowed chemicals				

Inspection data	determined value	set value
High-prsure nozzle		
Operating pressure.....bar		
Switch off pressure.....bar		
Conductor reist. not exceeded / value		
Insulation		
Leakage current		
Gun locked		

Inspection result (tick)

- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment, the defects found have been rectified so that the Labour Safety can be confirmed.
- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment. The Labour Safety cannot be confirmed unless the defects found are rectified by repair or replacement of the faulty parts

The next retest according to the Guidelines for Liquid Spray Equipment has to be carried out by: Month Year

Place, date..... Signature

Inspection report for HP cleaners

HP cleaners for industrial use have to be checked by an expert every 12 months!
 Inspection report on annually carried out Labour Safety Inspection (UVV) according to the Guidelines for Liquid Spray Equipment. (This inspection sheet serves as proof for the completion of the retest and must be kept carefully!) Kränzle test seals: Order no. UVV200106

Owner: Type:.....
 Address: Serial no.:
 Rep. order no.:

Scope of inspection	o.k.	yes	no	repaired
Type plate (on hand)				
Operating manual (on hand)				
Protective covering, -device				
Pressure line (tightness)				
Pressure gauge (function)				
Float valve (tightness)				
Spraying device (marking)				
HD-hose / connector (damage, marking)				
Safety valve opens at 10 % / 20 % exceeding of operang pr.				
Power cable (damage)				
Protective conductor (connectedt)				
On / Off switch				
Used chemicals				
Allowed chemicals				

Inspection data	determined value	set value
High-prsure nozzle		
Operating pressure.....bar		
Switch off pressure.....bar		
Conductor reist. not exceeded / value		
Insulation		
Leakage current		
Gun locked		

Inspection result (tick)

- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment, the defects found have been rectified so that the Labour Safety can be confirmed.
- The appliance was checked by an expert according to the Guidelines for Liquid Spray Equipment. The Labour Safety cannot be confirmed unless the defects found are rectified by repair or replacement of the faulty parts

The next retest according to the Guidelines for Liquid Spray Equipment has to be carried out by: Month Year

Place, date..... Signature.....

I. Kränzle GmbH
Elpke 97
D - 33605 Bielefeld

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Effective 24th of April 2009