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Originalfassung

DE BETRIESANLEITUNG

Übersetzung / Translation

EN USER MANUAL

HOCHDRUCKREINIGER

HIGH PRESSURE CLEANER



ZI-HDR165

EAN: 9120039234793

ZI-HDR195

EAN: 9120039234809



**YOUR
JOB.
OUR
TOOLS.**



2 SICHERHEITSZEICHEN / SAFETY SIGNS

DE	SICHERHEITSZEICHEN BEDEUTUNG DER SYMBOLE	EN	SAFETY SIGNS DEFINITION OF SYMBOLS
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- DE** **CE-KONFORM!** - Dieses Produkt entspricht den EU-Richtlinien.
EN **CE-Conformal!** - This product complies with the EC-directives.



- DE** **BETRIEBSANLEITUNG LESEN!** Lesen Sie die Betriebs- und Wartungsanleitung Ihrer Maschine aufmerksam durch und machen Sie sich mit den Bedienelementen der Maschine gut vertraut, um die Maschine ordnungsgemäß zu bedienen und so Schäden an Mensch und Maschine vorzubeugen.
EN **READ THE MANUAL!** Read the user and maintenance carefully and get familiar with the controls in order to use the machine correctly and to avoid injuries and machine defects.



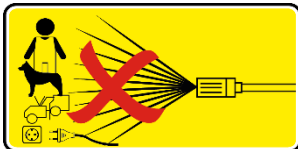
- DE** Maschine vor Wartung und Pausen ausschalten und Netzstecker ziehen!
EN Stop and pull out the power plug before any break and engine maintenance!



- DE** Schutzausrüstung tragen!
EN Wear protective equipment!



- DE** Die Maschine ist nicht dafür geeignet, direkt an die Trinkwasserversorgung angeschlossen zu werden.
EN The machine is not suitable for connection directly to the drinking water supply.

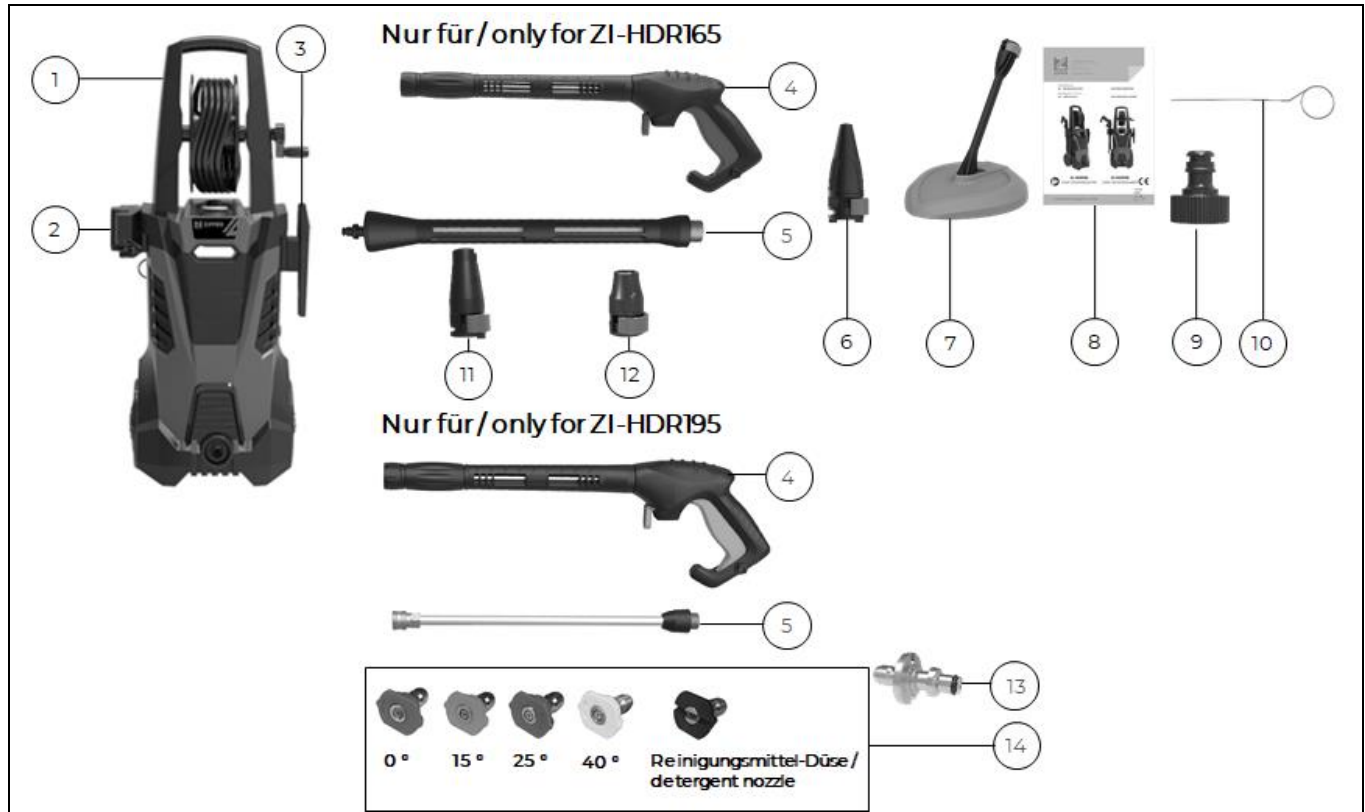


- DE** Hochdruckstrahlen können bei unsachgemäßem Gebrauch gefährlich sein. Der Strahl darf nicht auf Personen, Tiere, aktive elektrische Ausrüstungen oder auf das Gerät selbst gerichtet werden.
EN High pressure jets can be dangerous if used improperly. The jet must not be directed at persons, animals active electrical equipment or the unit itself.

- DE** **Warnschilder und/oder Aufkleber an der Maschine, die unleserlich sind oder entfernt wurden, sind umgehend zu erneuern.**
EN **Missing or non-readable security stickers have to be replaced immediately.**

3 TECHNIK / TECHNICS

3.1 Lieferumfang / Delivery content



#	Beschreibung / Description	Qty.	#	Beschreibung / Description	Qty.
1	Maschine / machine	1	9	Schlauchkupplung / water inlet connector	1
2	Halterung für Lanze / gun seat	1	10	Düsenadel / nozzle pin	1
3	Halterung für Kabel / cable seat	1	Nur für / only for ZI-HDR165:		
4	Spritzpistole / gun	1	11	Standarddüse / normal nozzle	1
5	Lanze / lance	1	12	Reinigungsmittel-Düse / detergent nozzle	1
6	Hochdruckdüse / turbo nozzle	1	Nur für / only for ZI-HDR195:		
7	Terrassen-/ Flächenreiniger / patio cleaner	1	13	HPG 16A adapter connector / HPG 16A connect adapter	1
8	Betriebsanleitung / user manual	1	14	Set von fünf Farbdüsen / set of five color nozzles 1: 0°...max. Druck / max. pressure 2: 15°...Optimal für Beton, Ziegl / use on concrete, brick 3: 25°...optimal für lackierte Oberflächen, Holz, use on painted surfaces, wood 4: 40°...optimal für Fenster / use on windows 5: Reinigungsmitteldüse/ detergent nozzle	1

3.2 Komponenten / Components



Beschreibung / Description			
1	Hochdruckpistole / trigger gun	8	Transportgriff / transport handle
2	EIN-AUS-Schalter / On-Off-switch	9	Hochdruckschlauch / high pressure hose
3	Halterung für Kabel / cable seat	10	Handkurbel für Schlauchhaspel / hose reel handle
4	Maschine / machine	11	Halterung für Lanze / gun seat
5	Lanze / gun lance	12	Reinigungsmittelbehälter / detergent bottle
6	Standarddüse / normal nozzle	13	Transportrad / wheel
7	Anschluss Wasserzufuhr / water inlet connector		



3.3 Technische Daten / Technical data

Spezifikation / Specification	ZI-HDR165	ZI-HDR195
Spannung / voltage	220-240 V / 50 Hz	230 V / 50 Hz
Motortyp / motor type	Kohlebürsten-Motor/ carbon brush motor	Induktionsmotor / in- duction motor
Motorleistung / engine power	2,2 kW	2,3 kW
Durchflußmenge / flow rate	5,8 l/min	6,5 l/min
Max. Durchflußmenge / max. flow rate	6,8 l/min	8,0 l/min
Nennndruck / rated pressure	11 MPa	13 MPa
Max. Druck / max. pressure	16,5 MPa	19,5 MPa
Vibrationswert / vibration value	< 2,5 m/s ²	< 2,5 m/s ²
Wassertemperatur / water temperature	5-60 °C	5-60 °C
IP-Schutzklasse / IP-protection	IPx5	IPx5
Schalldruckpegel / sound pressure level L _{PA}	81 ± 3dB(A)	73 ± 3dB(A)
Garantierter Schall-Leistungspegel L _{WA} / guaranteed sound power level L _{WA}	98 dB	90 dB
Nettogewicht / net weight	13,3 kg	22 kg
Bruttogewicht / gross weight	14,5 kg	23,2 kg
Maschinenmaße (LxBxH) / machine dimension (LxWxH)	320 x 330 x 860 mm	320 x 330 x 860 mm

(DE) Hinweis Geräuschangaben: Die angegebenen Werte sind Emissionswerte und müssen damit nicht zugleich auch sichere Arbeitsplatzwerte darstellen. Obwohl es eine Korrelation zwischen Emissions- und Immissionspegeln gibt, kann daraus nicht zuverlässig abgeleitet werden, ob zusätzliche Vorsichtsmaßnahmen notwendig sind oder nicht. Faktoren, welche den am Arbeitsplatz tatsächlich vorhandenen Immissionspegel beeinflussen, beinhalten die Eigenart des Arbeitsraumes und andere Geräuschquellen, d. h. die Zahl der Maschinen und anderer benachbarter Arbeitsvorgänge. Die zulässigen Arbeitsplatzwerte können ebenso von Land zu Land variieren. Diese Information soll jedoch den Anwender befähigen, eine bessere Abschätzung von Gefährdung und Risiko vorzunehmen.

(EN) Notice noise emission: The values given are emission values and therefore do not have to represent safe workplace values at the same time. Although there is a correlation between emission and immission levels, it cannot be reliably deduced whether additional precautions are necessary or not. Factors influencing the actual immission level at the workplace include the nature of the workspace and other noise sources, i.e. the number of machines and other adjacent operations. The permissible workplace values may also vary from country to country. However, this information should enable the user to make a better assessment of hazard and risk.



11 PREFACE (EN)

Dear Customer!

This manual contains information and important notes for safe commissioning and handling of the ZIPPER high pressure cleaner ZI-HDR165 and ZI-HDR195, hereinafter referred to as “machine” in this document.



This manual is part of the machine and must not be removed. Save it for later reference and if you let other people use the machine, add this manual to the machine.

Please read and note the safety instructions!

Before first use read this manual carefully. It eases the correct use of the machine and prevents misunderstanding and damages of machine.

Due to constant advancements in product design, construction, illustrations and contents may deviate slightly. If you notice any errors, please inform us.

We reserve the right to make technical changes!

Check the goods immediately after receipt and note any complaints on the consignment note when taking over the goods from the deliverer!

Transport damage must be reported to us separately to us within 24 hours.

ZIPPER MASCHINEN GmbH cannot accept any liability for transport damage that has not been reported.

Copyright

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The place of jurisdiction is the regional court Linz or the court responsible for 4707 Schlüsslberg is valid.

Customer service contact

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12 SAFETY

This section contains information and important notes on the safe commissioning and handling of the machine.



For your safety, read this manual carefully before commissioning. This will enable you to handle the machine safely and thus prevent misunderstandings as well as personal injury and damage to property. Pay special attention to the symbols and pictograms used on the machine as well as the safety information and danger warnings!

12.1 Intended use of the machine

The machine is intended exclusively for the following activities: *For cleaning machines, vehicles, sidewalks, facades, terraces, pavements and similar in private areas in accordance with the necessary cleaning instructions for such products.*

NOTE



ZIPPER MASCHINEN assumes no responsibility or warranty for any other use or use beyond this and for any resulting damage to property or injury.

12.1.1 Technical restrictions

The machine is designed for the work under the following conditions:

Relative humidity:	max. 70 %
Temperature (for operation):	+5° C to +40° C
Temperature (Storage, Transport):	+5° C to +55° C

12.1.2 Prohibited applications / Dangerous misuse

- Operating the machine without adequate physical and mental fitness.
- Operating the machine without knowledge of the manual.
- Modifying the machine design.
- Operating the machine in a potentially explosive environment.
- Operating the machine outside the technical limits specified in this manual.
- Removing of the safety markings attached to the machine.
- Modifying, circumventing or disabling the safety devices of the machine.
- Operating the machine in wet and rainy conditions.
- Spraying of hot water (above 60°C)

The non-intended use or the disregard of the explanations and instructions described in this manual will result in the expiration of all warranty claims and compensation claims for damages against ZIPPER MASCHINEN GmbH.

12.2 User Requirements

The machine is designed to be operated by one person. The prerequisites for operating the machine are physical and mental fitness as well as knowledge and understanding of the operating instructions. Persons who, due to their physical, sensory or mental capabilities, inexperience or lack of knowledge, are unable to operate the machine safely must not use the machine without supervision or instruction by a responsible person.

Please note that locally applicable laws and regulations determine the minimum age of the operator and may restrict the use of this machine!


Work on electrical components or equipment may only be carried out by a qualified electrician or under the guidance and supervision of a qualified electrician.

Put on your personal protective equipment before working on the machine.



12.3 Safety devices

The machine is equipped with the following safety devices:

Unloader valve	The unloader valve can reduce the pressure in the event of the set points being exceeded.
Thermal sensor	A thermal sensor protects the motor from being overloaded. The machine restarts after a few minutes once the motor has cooled down.
	The gun is equipped with a lock. When this is actuated, the gun cannot be operated.

12.4 General safety instructions

To avoid malfunctions, damage and health impairments when working with the machine, the following points must be observed in addition to the general rules for safe working:

- Check the machine for completeness and function before starting. Only use the machine if the separating and other non-separating protective devices required for machining have are fitted.
- Make sure that the guards are in good working order and properly maintained.
- Select a level, vibration-free surface as the installation area.
- Ensure sufficient space around the machine.
- Ensure sufficient lighting conditions at the workplace to avoid stroboscopic effects.
- Ensure a clean working environment.
- Keep the area around the machine free of obstacles.
- Only use tools that are in perfect condition and free of cracks and other defects (e.g. deformations).
- Check the machine's connections for strength before each use.
- Never leave the running machine unattended. Switch off the machine before leaving the working area and secure it against unintentional or unauthorized restarting.
- The machine may only be operated, maintained or repaired by persons who are familiar and who have been informed about the dangers arising from this work.
- Ensure that unauthorized persons keep a safety distance from the machine and keep children away from the machine.
- Always work with care and the necessary caution and never use excessive force.
- Do not overload the machine.
- Wear close fitting protective work clothing and suitable protective equipment (eye protection, ear protection and work gloves).
- Do not work on the machine if you are tired, not concentrated or under the influence of medication, alcohol or drugs!
- Do not use the machine in areas where vapours of paints, solvents or flammable liquids represent a potential danger (danger of fire or explosion!).
- Shut down the machine and disconnect it from the power supply, before adjustment, change-over, cleaning, maintenance or repair work, etc. Before starting work on the machine, wait until all tools or machine parts have come to a complete standstill and secure the machine against unintentional restart.
- Warning signs and/or stickers on the machine that are illegible or have been removed must be replaced immediately!

12.5 Electrical safety

- Make sure that the machine is grounded.
- Only use suitable extension cables.



- A damaged or tangled cable increases the risk of electric shock. Handle the cable with care. Never use the cable to carry, pull or disconnect the power tool. Keep the cable away from heat, oil, sharp edges or moving parts.
- Proper plugs and outlets reduce the risk of electric shock.
- Water entry into the machine increases the risk of electric shock. Do not expose the machine to rain or moisture.
- The machine may only be used if the power supply is protected by a residual current circuit breaker.
- Use the machine only when the ON-OFF switch is in good working order.
- Before connecting the machine always make sure that it is switches off.

12.6 Special safety instructions for this machine

- Keep the machine away from heat, direct sunlight, moisture and rain, ice and sharp edges.
- The machine must not be operated at temperatures below 0° C.
- If an extension cord is used, the plug and socket must be of watertight construction.
- Only use detergents recommended by the manufacturer. The use of other detergents or chemical products may affect the safety of the machine.
- Do not operate the machine with wet hands. If the machine becomes damp or wet, unplug it from the mains immediately. Do not place the machine into water.
- The operation the machine can be dangerous if used improperly. The high pressure jet must not be directed at persons, live electrical equipment or the machine itself.
- Do not direct the jet against yourself or others in order to clean clothes or foot-wear.
- Do not use the machine in the presence of other people unless they are wearing protective clothing.
- The operator and persons in the immediate vicinity of the cleaning area must take the necessary measures to protect themselves from flying debris while the machine is in use.
- Do not clean surfaces containing asbestos under high pressure.
- Do not spray flammable liquids or direct the water jet onto flammable liquids (risk of explosion).
- The machine is not suitable to be connected directly to the drinking water supply.
- According to the current directives, the machine must never be connected directly to the drinking water supply without a system separator. Use a system separator according to EN 12729 type BA.
- Water that flows through a system separator is classified as non-drinkable.

12.7 Hazard warnings

12.7.1 Residual risks

Despite intended use, certain residual risk factors remain.

- **Noise hazard:**
Working without hearing protection can damage your hearing permanently.
- **Danger from the working environment:**
Watch out for stones and other things that can be thrown around by the machine.
- **Danger to hands or fingers:**
Never reach into the water jet during operation.
- **Danger from high-pressure hose:**
Damaged high pressure hoses can burst and cause a potentially dangerous situation or injury. High-pressure hoses should not be kinked, squeezed, twisted or damaged in any way. If they do, replace the high-pressure hose.
- **Vibration:**
If persons with circulatory disorders are exposed to strong mechanical vibrations, damage to blood vessels and/or nervous system may occur. The following symptoms can be caused by vibrations on fingers, hands or wrists: "falling asleep" of body parts (numbness), tingling, pain, stinging, change in skin color or skin. If any of these symptoms occur, consult a doctor!



12.7.2 Hazardous situations

Due to the structure and construction of the machine, hazardous situations may occur which are identified in these operating instructions as follows:

DANGER



A safety instruction designed in this way indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING



Such a safety instruction indicates a potentially hazardous situation which, if not avoided, may result in serious injury or even death.

CAUTION



A safety instruction designed in this way indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTE



A safety note designed in this way indicates a potentially dangerous situation which, if not avoided, may result in property damage.

Regardless of all safety regulations, your common sense and your appropriate technical aptitude/training are and remain the most important safety factor in the error-free operation of the machine. **Safe working depends on you!**

13 TRANSPORT

Transport the machine in its packaging to the place of installation. To manoeuvre the machine in the packaging, a pallet truck or forklift truck with the appropriate lifting force can be used, for example. The specifications can be found in the chapter Technical data. For proper transport, also observe the instructions and information on the transport packaging regarding centre of gravity, lifting points, weight, means of transport to be used as well as the prescribed transport position etc. Ensure that the selected lifting equipment (crane, forklift, pallet truck, load sling, etc.) is in perfect condition. Ensure the correct body posture when lifting, carrying and setting down the load.

Lifting / Setting down

- When lifting/setting down, ensure that you are standing firmly (legs hip-width apart).
- Lift/set down load with knees bent and back straight.
- Do not lift/set down load with a jerk.

Carrying

- Carry load with both hands as close to body as possible.
- Carry load with straight back.
- When transporting the assembled machine, ensure to lift it only by the machine body and not by the attachments.



14 OPERATION

14.1 Preparation

14.1.1 Checking delivery content

Check the delivery immediately for transport damage and missing parts. Report any damage or missing parts to your dealer or the shipping company immediately. Visible transport damage must also be noted immediately on the delivery note in accordance with the provisions of the warranty, otherwise the goods are deemed to have been properly accepted.

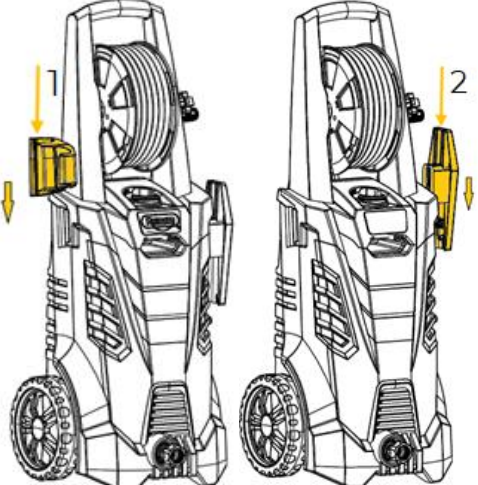
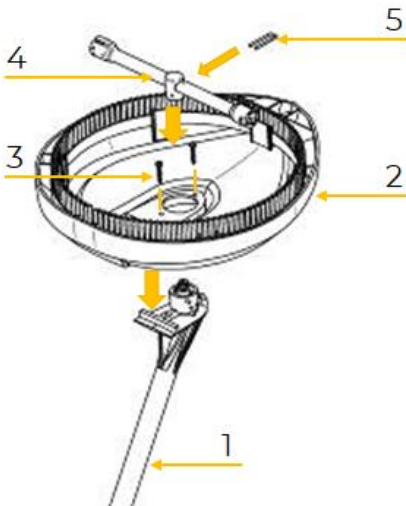
14.1.2 Requirements for the installation site

The selected installation site must ensure a suitable connection to the electrical mains, as well as water connection. Observe the safety requirements and the dimensions of the machine.

Place the machine on a level, solid surface. The chosen installation site of the machine must comply with the local safety regulations as well as the ergonomic requirements for a workplace with sufficient lighting conditions.

14.2 Assemble

The machine has been disassembled for transport and must be reassembled before use. Follow the instructions below:

	<p>1. Assembly gun and cable seat</p> <ul style="list-style-type: none">Insert the gun seat (1) and cable seat (2) into the holder.
	<p>2. Assembly patio cleaner</p> <ul style="list-style-type: none">Place the housing (2) onto the lance extension (1).Use two screws (3) to fix the housing (2) onto the lance extension (1).Insert the rotor arm (4) into the lance extension.Insert the U-pin (5) to fix the rotor arm (4). <p>NOTE: Ensure that the rotor arm is properly fixed to the lance extension with the U-pin.</p>



	<p>3. Assembly gun and lance</p> <ul style="list-style-type: none"> Press the lance (2) towards the gun (1) and screw it tight.
	<p>4. Assembly nozzles for ZI-HDR165</p> <ul style="list-style-type: none"> Press the respective nozzle (1) towards the lance until it engages. <p>NOTE: Pay attention that the button (2) pops out. Only then is the respective nozzle correctly fixed.</p>
	<p>5. Assembly nozzles for ZI-HDR195</p> <ul style="list-style-type: none"> Install the adapter (1) on the lance. Press the respective nozzle (1) towards the lance until it engages. <p>NOTE: Pay attention that the button (3) pops out. Only then is the respective nozzle correctly fixed.</p>
	<p>6. Assembly colour nozzles for ZI-HDR195</p> <ul style="list-style-type: none"> Install the respective nozzle (1) directly on quick coupling of the lance.
	<p>7. Assembly pressure hose</p> <ul style="list-style-type: none"> Connect the pressure hose (2) to the gun. The pressure hose can be dismantled again by pressing the pawl (1).
	<p>8. Assembly water inlet connector and water filter</p> <ul style="list-style-type: none"> Screw the water inlet connector (2) with the water filter (1) tight onto the water inlet. <p>NOTE: The water filter (1) must always be installed to filter out sand, lime and other impurities. These impurities can cause damages to the pump valves.</p>



14.3 Electrical connection

WARNING

**Dangerous electrical voltage!**

→ The machine may only be connected to the mains supply and the associated checks carried out by a qualified electrician or under the instruction and supervision of a qualified electrician!

- Check, whether the neutral connection (if existing) and the protective grounding function properly.
- Check, whether the supply voltage and the frequency correspond to the specifications of the machine.

NOTE

**Deviation of the supply voltage and frequency!**

A deviation from the value of the supply voltage of $\pm 5\%$ is permissible.

A short-circuit fuse must be provided in the power supply system of the machine!

- Use a supply cable of type H07RN (WDE282) and take the required cross-section of the supply cable from a current carrying capacity table. Pay attention to the measures for protection against mechanical damage.
- Make sure that the power supply is protected by a residual current circuit breaker.
- Connect the device only to a properly grounded outlet.
- When using an extension cable, make sure that the dimension matches the connected load of the machine. The connection power can be found in the technical data, the correlation of cable cross-section and cable lengths can be found in the technical literature or obtain information from a specialist electrician.
- A damaged cable must be replaced immediately.

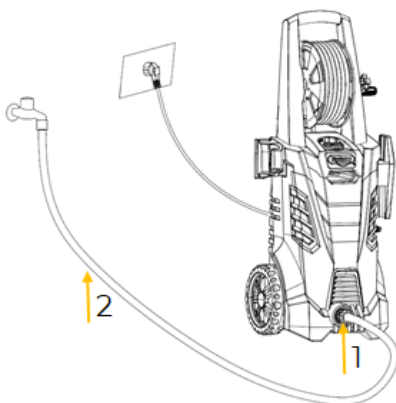
14.4 Connection to the water supply

WARNING



According to the current regulations, the device must never be operated on the drinking water supply without a system separator. Use a system separator according to EN 12729 type BA. Water that flows through a system separator is classified as non-potable.

→ Always connect the system separator to the water supply and never directly to the machine!

**Connecting to water supply**

- Connect the water hose (2) with the quick connector (water supply: max. pressure: 10 bar, max. temperature: 60°C) to the water supply (water hose and quick connector are not included in the delivery content).

NOTE: Use a reinforced water hose (external Ø: 16mm, internal Ø: 12mm, max. length: 25m).

NOTE: Please use only clean water without any impurities. If there is a risk of sand particles in the supply water (e.g. from your own domestic well), an additional filter should be installed.

- In order to prevent sand and dirt from entering into the machine, please run water through the water hose (2) before connecting it to the machine.
- Connect the water hose (2) with a quick connector to the water inlet connector (1) of the machine.
- Turn on the water supply tap.



15 OPERATION

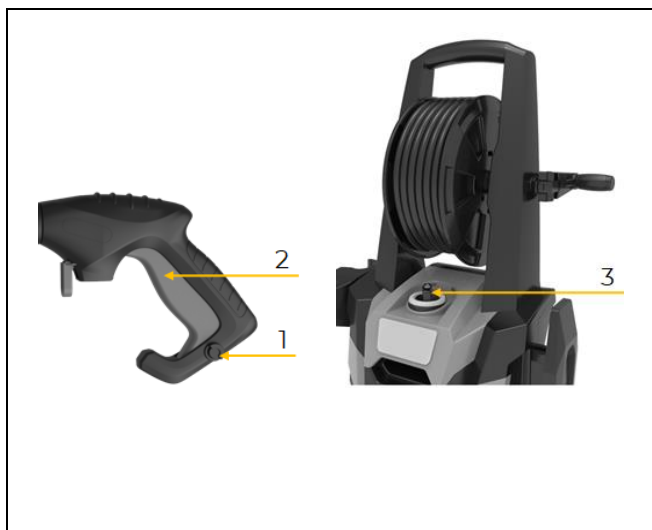
Only operate the machine when it is in a perfect condition. Before each operation, a visual inspection of the machine must be carried out. Safety devices and operating elements must be checked carefully. Check screw connections for damage and tight fit.

15.1 Operating instructions

- Ensure that the machine is standing in an upright position.
- Do not place the machine in high grass!
- Regularly check the water filter to avoid clogging or damages.
- Check that the water hose is free of kinks.
- Hold the gun firmly with both hands (danger of kickback when switching on the gun).
- Direct the water jet towards the ground.
- Always adjust the distance and thus the water pressure to the surface to be cleaned.

15.2 Handling

15.2.1 Switch the machine on



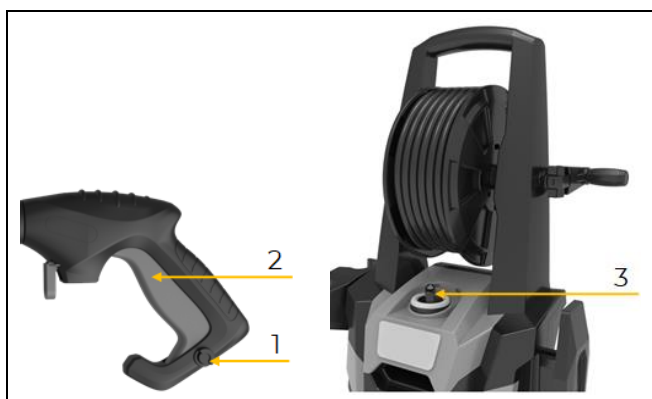
- Turn on the water supply tap.

Bleeding the machine:

- Release the lock (1) and press the trigger (2) until all the air has escaped from inside the machine and a steady jet of water is emitted from the lance.
- Then release the trigger (2) again.
- Switch on the machine by setting the ON-OFF switch (3) into position "I".
- Press the trigger (2) again in order to start cleaning.

NOTE: By releasing the trigger (2) the machine stops automatically.

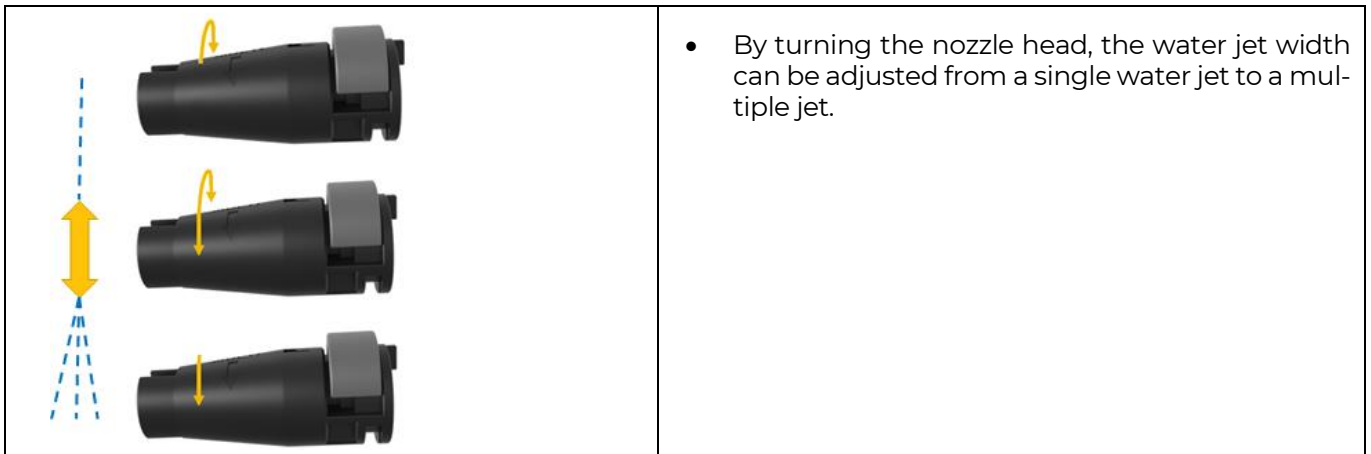
15.2.2 Switch the machine off



- Release the trigger (2).
- Set the ON-OFF switch (3) in position "O" for turning off the motor.
- Disconnect the machine from the power supply.
- Turn off the water supply tap and press the trigger (2) to release the pressure within the machine.
- Lock (1) the gun.

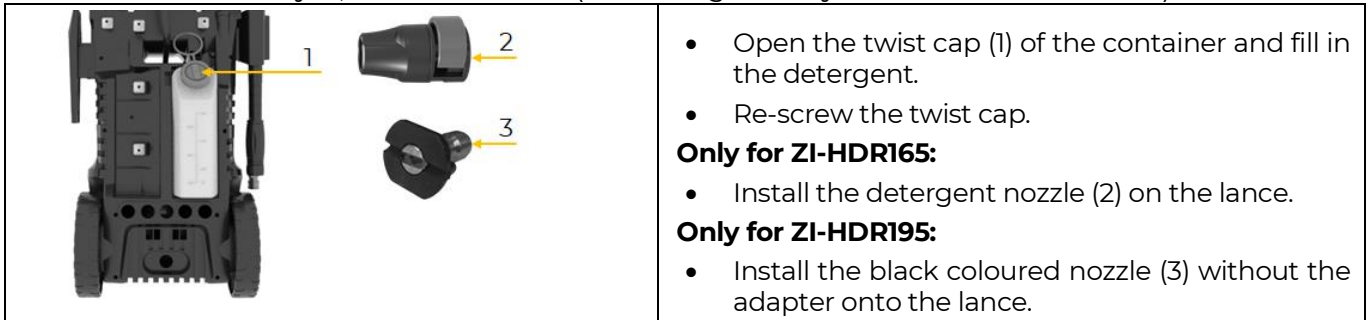
15.2.3 Adjustment of the water jet of the normal nozzle for ZI-HDR165

NOTE: Only carry out the adjustment when the machine is stopped to prevent the hand from coming into contact with the water jet.



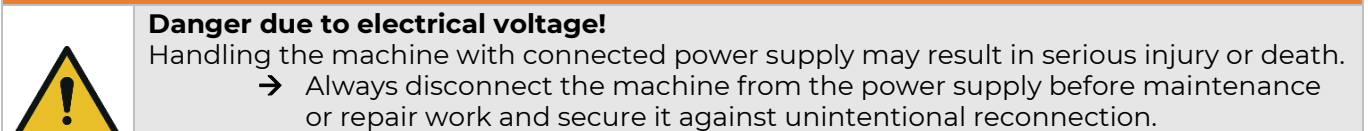
15.2.4 Using detergents

NOTE: In the event of accidental skin contact with the detergent, rinse with plenty of clean water. In case of contact with eyes, consult a doctor (the detergent may cause irritation or burns).



16 CLEANING, MAINTENANCE, STORAGE, DISPOSAL

WARNING



16.1 Cleaning

Regular cleaning guarantees the long service life of your machine and is a prerequisite for its safe operation.

NOTE: The use of solvents, aggressive chemicals or scouring agents can cause damage to the plastic parts of the machine!

Thus, when cleaning, use only water and, if necessary, mild detergents.

- We recommend cleaning the machine immediately after each use.
- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible.
- Wipe the machine housing with a moist cloth and some soft soap or blow it with compressed air at low pressure.

16.2 Maintenance

The machine is low-maintenance and only a few parts need to be serviced. Malfunctions or defects that could affect your safety must be repaired immediately!

- Before each operation, check the perfect condition of the safety devices.
- Regularly check the perfect and legible condition of the warning and safety labels of the machine.
- Use only proper and suitable tools.
- Use only original spare parts recommended by the manufacturer.

16.2.1 Maintenance plan

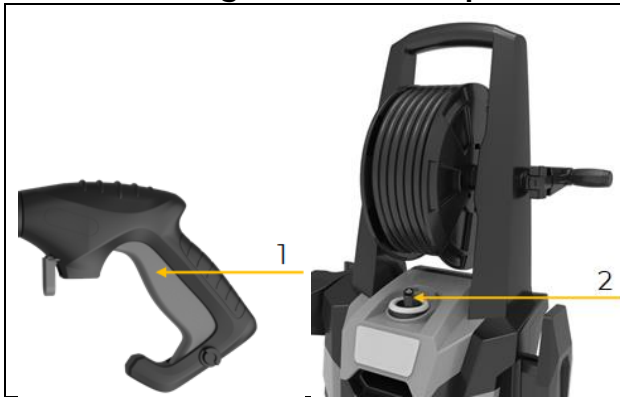
The type and degree of machine wear depends to a large extent on the operating conditions. The following intervals apply when the machine is used within the technical limits:



Interval	Components	Action
Before usage	<ul style="list-style-type: none">• Water hose• Pressure hose• Lance• Gun• Nozzles	<ul style="list-style-type: none">• Rinse with water
	<ul style="list-style-type: none">• Water inlet couplings	<ul style="list-style-type: none">• Clean from dust and sand
After usage	<ul style="list-style-type: none">• Nozzles	<ul style="list-style-type: none">• Clean
Once a month *	<ul style="list-style-type: none">• Water filter	<ul style="list-style-type: none">• Clean
Once a year	<ul style="list-style-type: none">• Water inlet couplings	<ul style="list-style-type: none">• Grease the couplings to ensure easy assembly and to prevent the O-rings from drying out.

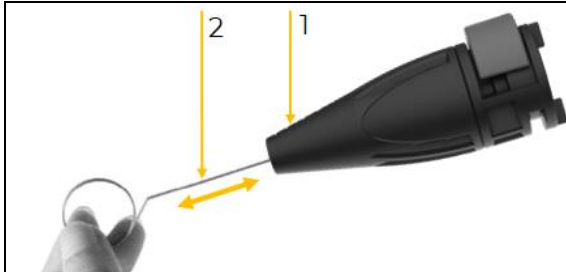
* Interval may vary depending on water quality.

16.2.2 Draining water from the pressure hose and pump



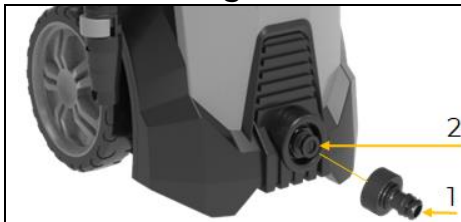
- Switch off the machine by setting the ON-OFF switch (2) to the "O" position.
- Disconnect the water hose, high pressure hose from the lance.
- (ATTENTION: Depressurize the system beforehand by pressing the trigger (1) of the spray gun).
- Then switch on the machine, ON-OFF switch (2) in position "I/ON".
- Wait a maximum of 30 seconds until no more water comes out of the high-pressure hose.
- Switch off machine

16.2.3 Cleaning nozzles



- Insert the nozzle pin (2) into the opening nozzle (1) and move it back and forth until the debris are removed.
- Remove additional deposits by rinsing water through the nozzle with the water hose.

16.2.4 Cleaning the water filter



- Dismantle the water inlet connector (1).
- Carefully loosen the water filter (2) with a screwdriver.
- Clean the water filter (2) and inspect it for integrity before re-installation.

16.3 Storage

Store the machine in a dry, frost-proof and lockable place when not in use. Make sure that unauthorised persons and especially children do not have access to the machine. Make sure that the machine is completely drained (=the water is drained from the pump/high pressure hose) and the accessories are stowed on the machine.

NOTE



Improper storage can damage and destroy important components. Only store packed or already unpacked parts under the intended ambient conditions!



16.4 Disposal



Observe the national waste disposal regulations. Never dispose of the machine, machine components or operating equipment in the residual waste. If necessary, contact your local authorities for information regarding available disposal options.

If you purchase a new machine or equivalent equipment from your specialist dealer, he is obliged in certain countries to dispose of your old machine properly.

17 TROUBLESHOOTING

WARNING



Danger due to electrical voltage!

Handling the machine with connected power supply may result in serious injury or death.

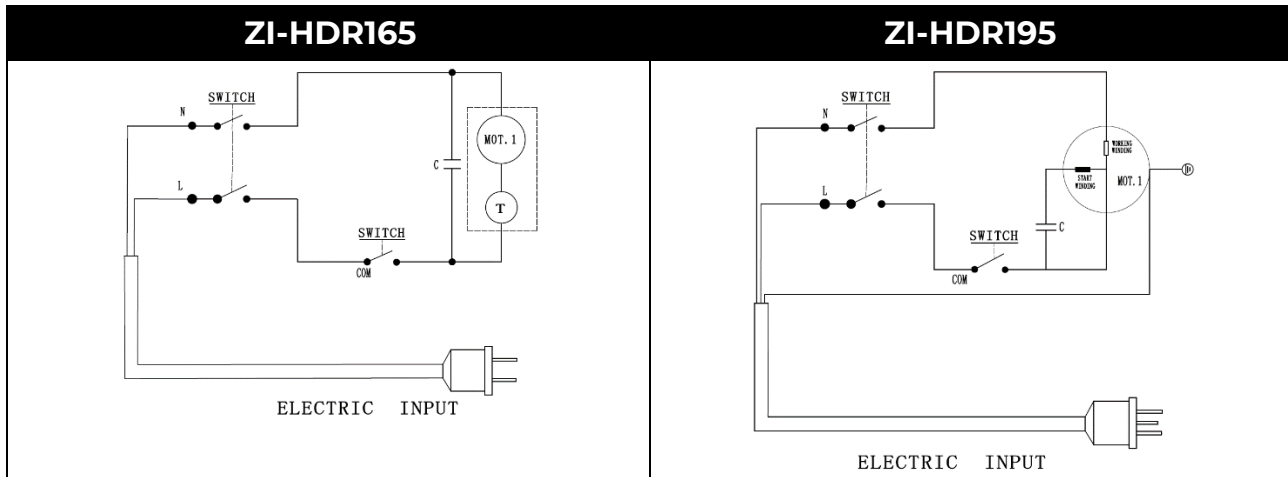
→ Always disconnect the machine from the power supply before maintenance or repair work and secure it against unintentional reconnection.

Many possible sources of error can be eliminated in advance if the machine is properly connected to the mains. If you are unable to carry out the necessary repairs properly and/or do not have the required training, always consult a specialist to solve the problem.

Trouble	Possible cause	Solution
Machine does not start	• Plug is not well connected	• Check that the machine is connected to the power supply
	• Socket is defective	• Contact a qualified electrician
	• Fuse is blown	• Replace the fuse and disconnect other devices from the power supply
	• Defective extension cable	• Contact the service team
Pressure fluctuations	• Pump sucking air	• Check the extension cable for possible damages
	• Valves dirty, worn out or stuck	• Check that hoses and connections are air-tight
	• Insufficient water supply	• Clean the machine or contact the service team
	• Pump seals worn out	• Check the water supply
Machine stops suddenly	• Fuse is blown	• Contact the service team
	• Wrong mains voltage	• Replace the fuse and disconnect other devices from the power supply
	• Thermal was activated due to overheating.	• Check whether the mains voltage corresponds to the specifications on the type plate
	• Clogged nozzle	• Allow the machine to cool down for 5 min.
Machine pulsating	• Air in water hose and pump	• Clean the nozzle with the nozzle pin, then rinse with water
	• Insufficient water supply	• Allow machine to run by holding the trigger until regular working pressure resumes
	• Clogged nozzle	• Check the water supply
	• Clogged water filter	• Clean the nozzle with the nozzle pin, then rinse with water
	• Water hose kinked	• Clean water filter
Machine starts and stops by itself	• Pump fuse and / or the trigger of the gun are defective	• Straighten out the hose to remove any kinks/blockages
	• No water supply	• Contact the service team
Machine starts, but no water jet is built up	• Clogged water filter	• Connect to water supply
	• Clogged nozzle	• Clean water filter
		• Clean the nozzle with the nozzle pin, then rinse with water



18 SCHALTPLAN / WIRING DIAGRAM



ERSATZTEILE / SPARE PARTS

18.1 Ersatzteilbestellung / Spare parts order

(DE) Mit ZIPPER-Ersatzteilen verwenden Sie Ersatzteile, die ideal aufeinander abgestimmt sind. Die optimale Passgenauigkeit der Teile verkürzen die Einbauzeiten und erhöhen die Lebensdauer.

HINWEIS



Der Einbau von anderen als Originalersatzteilen führt zum Verlust der Garantie!
Daher gilt: Beim Tausch von Komponenten/Teile nur vom Hersteller empfohlene Ersatzteile verwenden.

Bestellen Sie die Ersatzteile direkt auf unserer Homepage – Kategorie ERSATZTEILE, oder kontaktieren Sie unseren Kundendienst

- über unsere Homepage – Kategorie SERVICE/NEWS – ERSATZTEILANFORDERUNG,
- per Mail an eg01@zipper-maschinen.at.

Geben Sie stets Maschinentype, Ersatzteilnummer sowie Bezeichnung an. Um Missverständnissen vorzubeugen, empfehlen wir, mit der Ersatzteilbestellung eine Kopie der Ersatzteilzeichnung beizulegen, auf der die benötigten Ersatzteile eindeutig markiert sind, falls Sie nicht über den Online-Ersatzteilkatalog anfragen.

(EN) With original ZIPPER spare parts you use parts that are attuned to each other shorten the installation time and elongate your products lifespan.

NOTE



The installation of parts other than original spare parts leads to the loss of the guarantee!
Therefore: When replacing components/parts, only use spare parts recommended by the manufacturer.

Order the spare parts directly on our homepage – category SPARE PARTS or contact our customer service

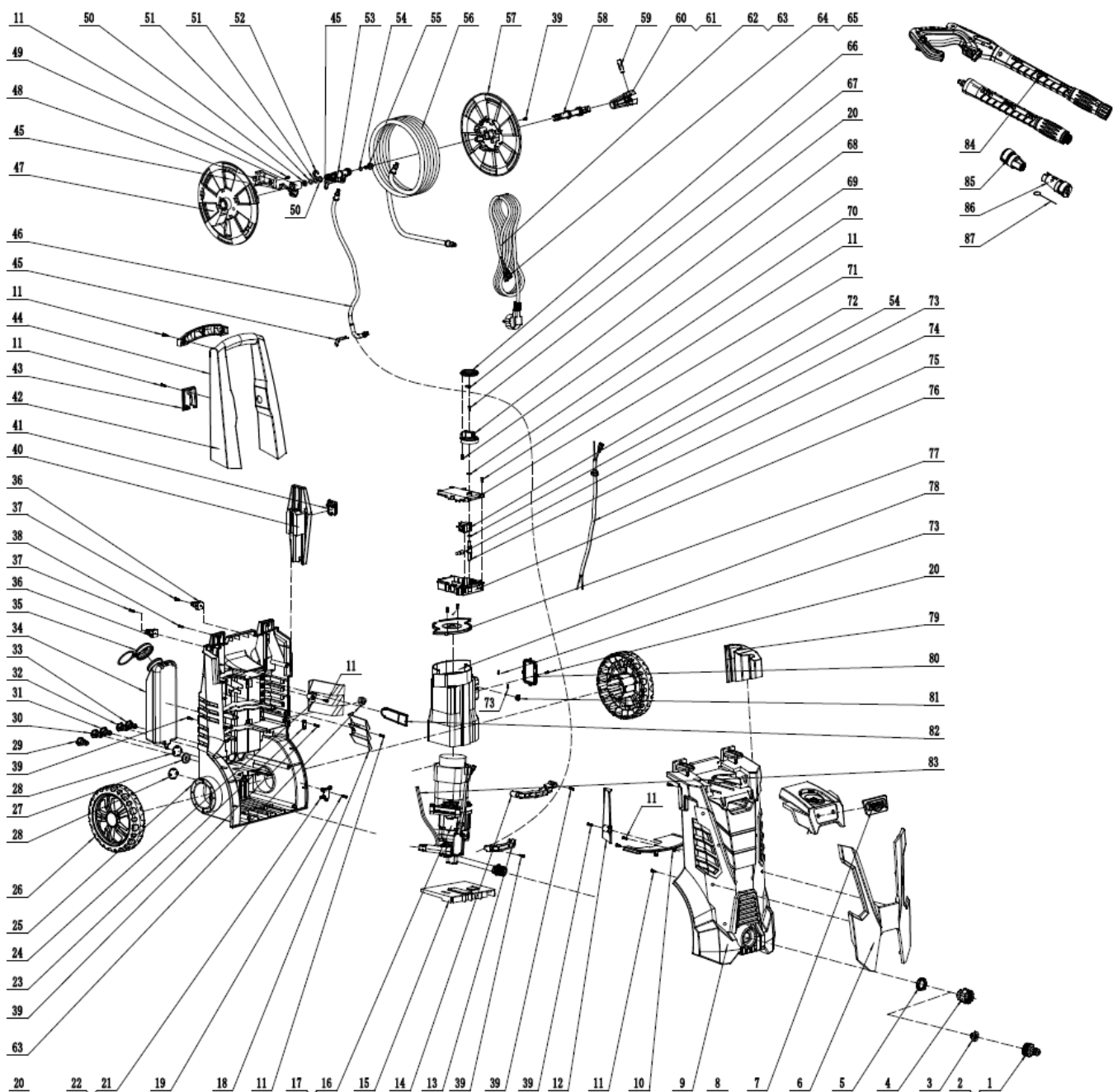
- via our Homepage – category SERVICE/NEWS - SPARE PARTS REQUEST,
- by e-mail to eg01@zipper-maschinen.at.

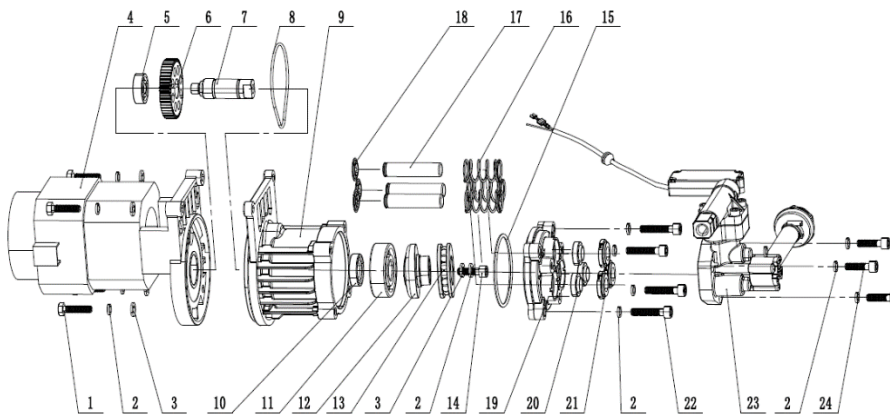
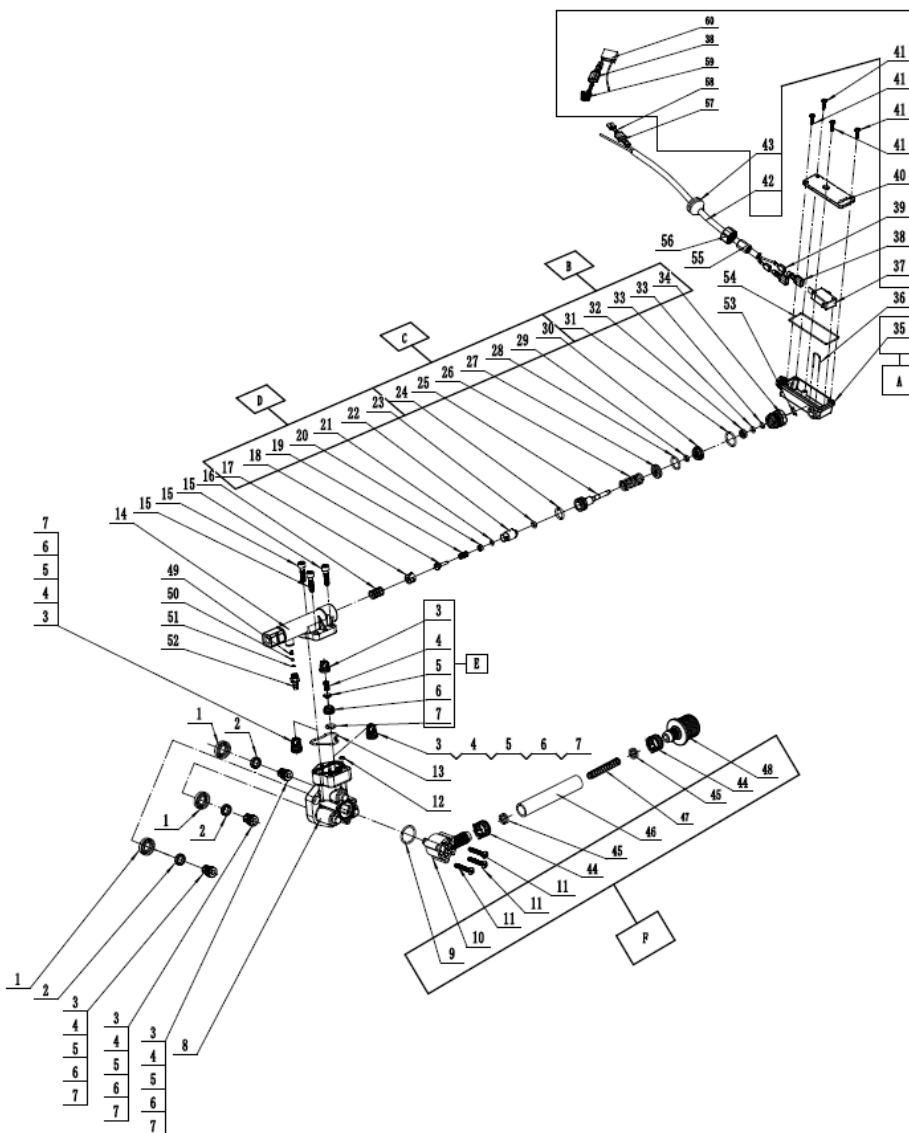
Always state the machine type, spare part number and designation. To prevent misunderstandings, we recommend that you add a copy of the spare parts drawing with the spare parts order, on which the required spare parts are clearly marked, especially when not using the online-spare-part catalogue.



18.2 Explosionszeichnung / Exploded view

18.2.1 Für ZI-HDR165







18.2.2 Für ZI-HDR195

