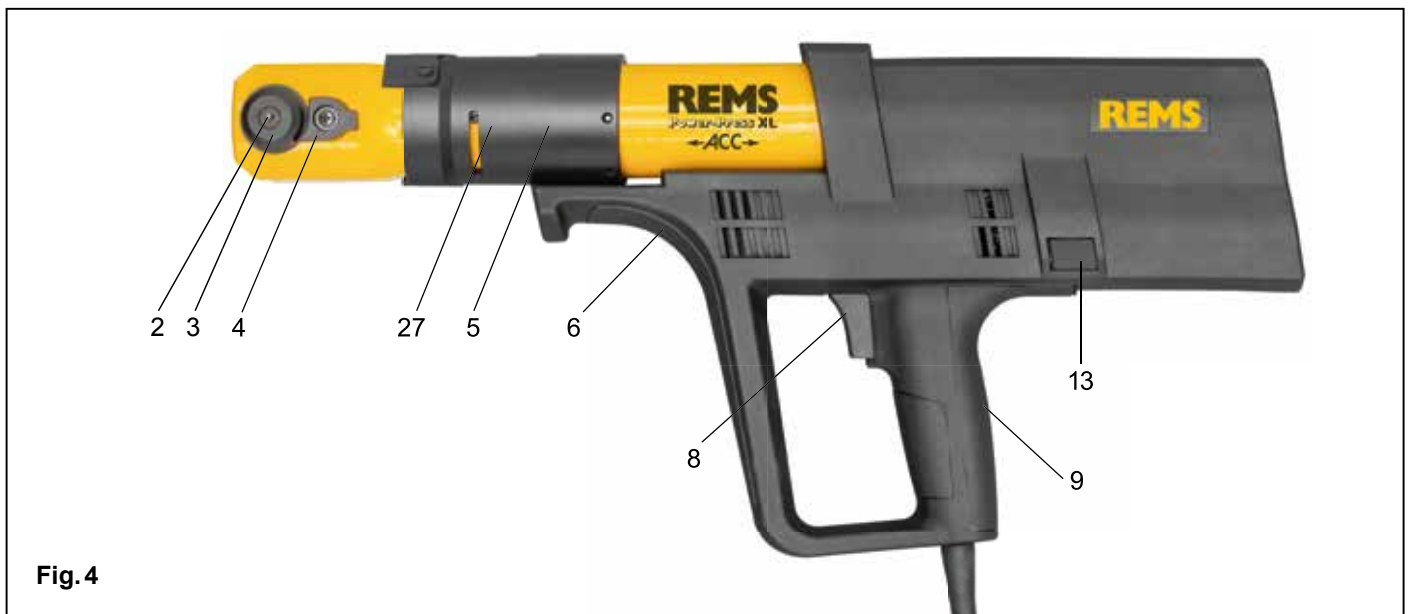
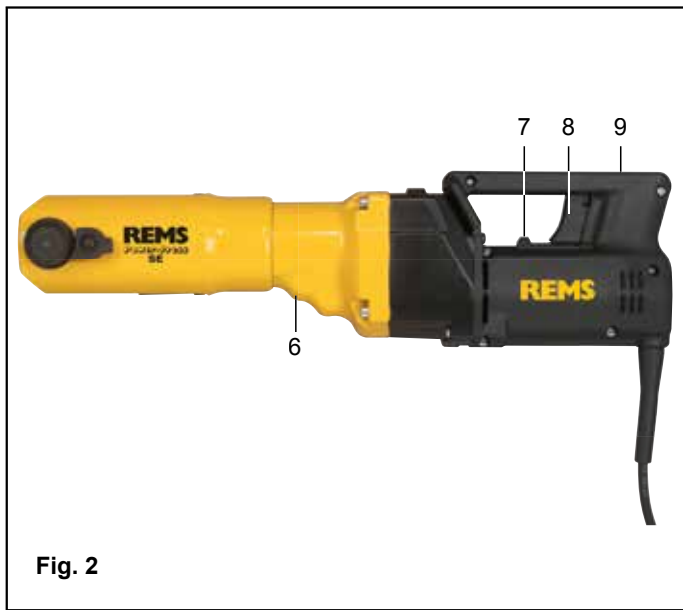
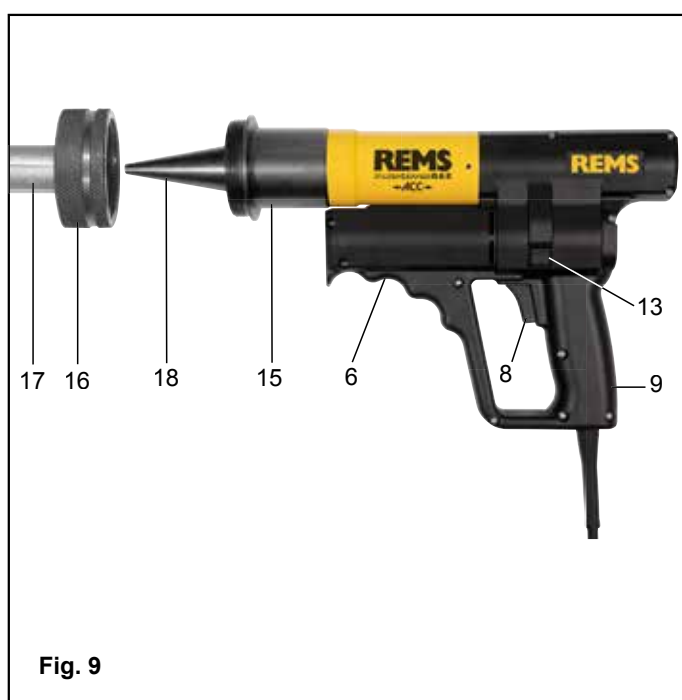
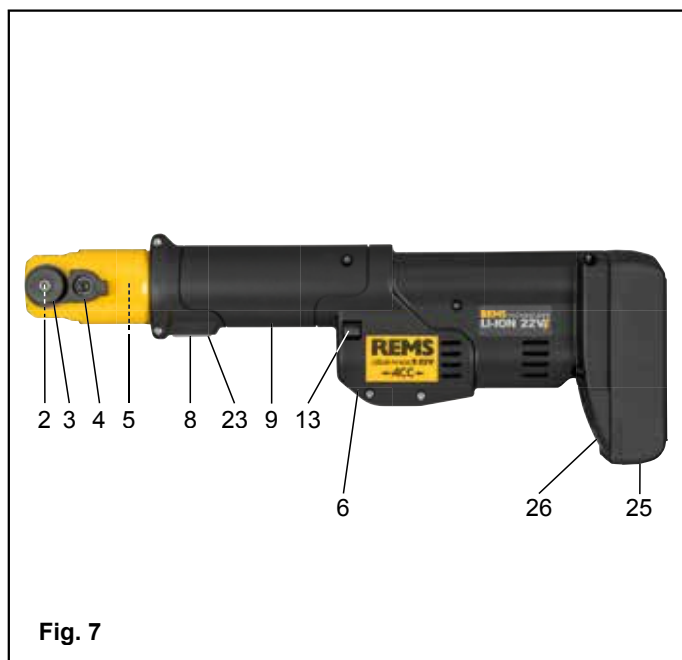


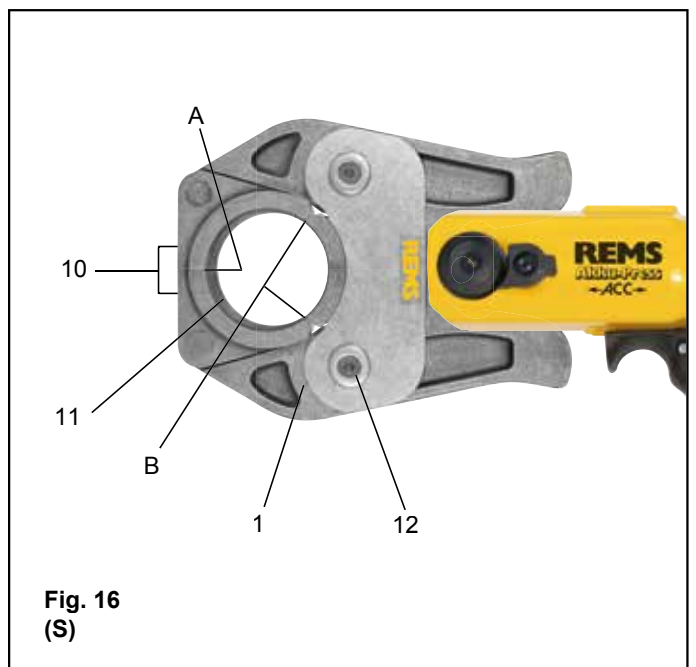
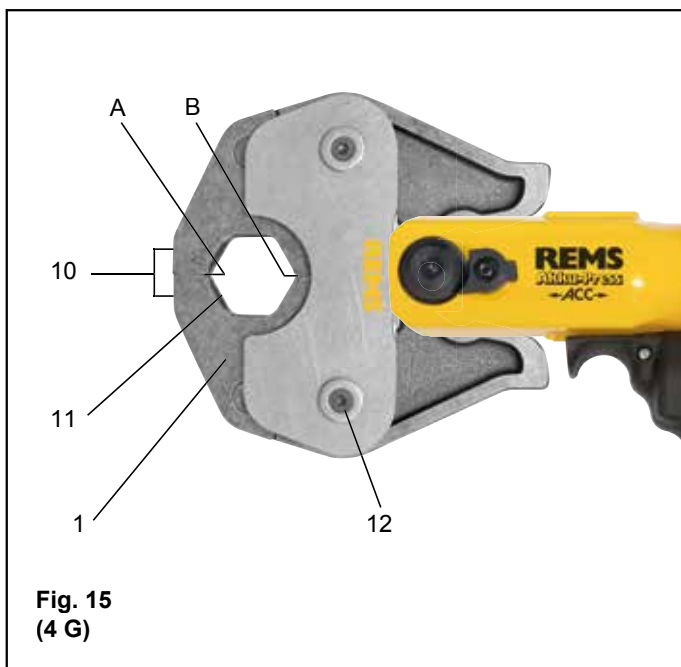
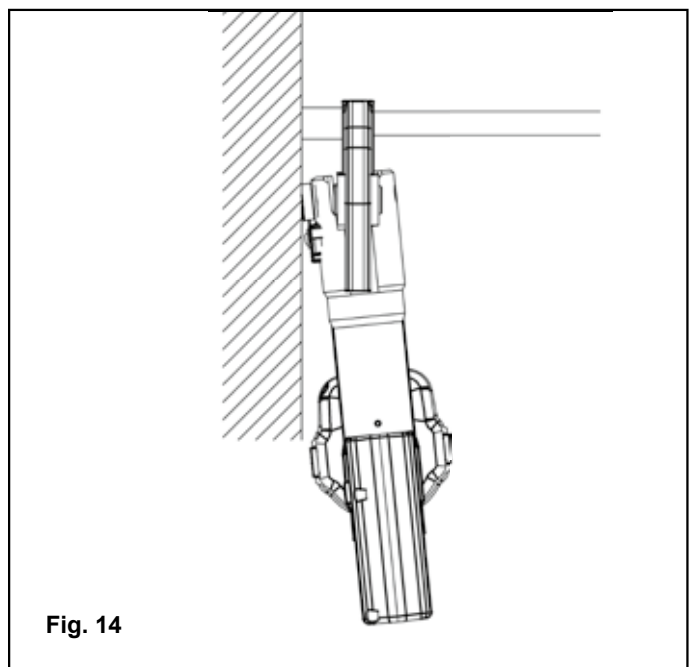
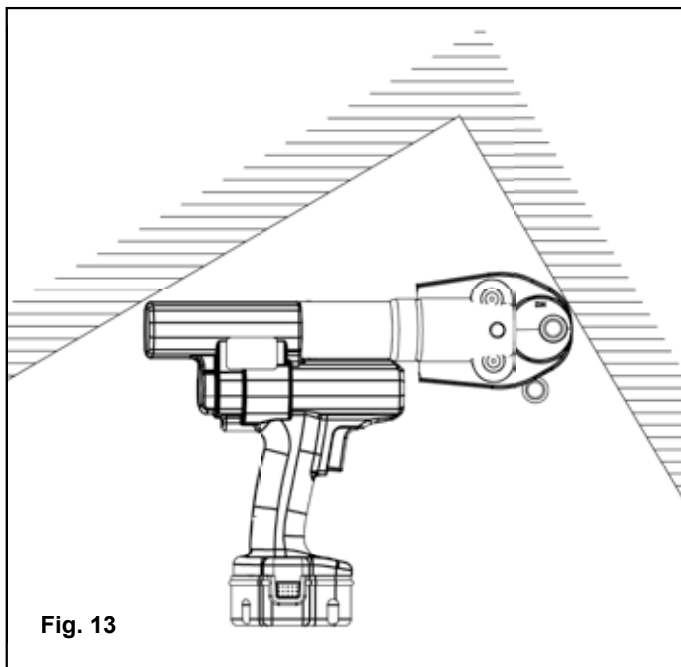
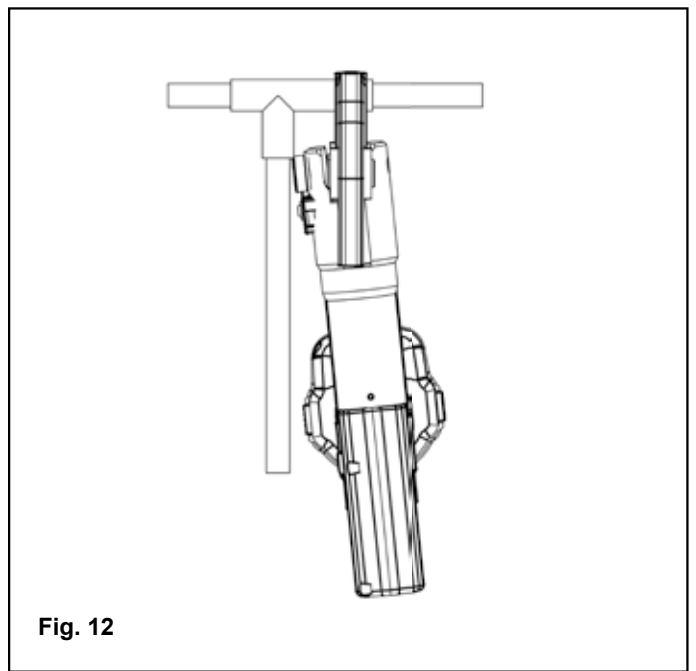
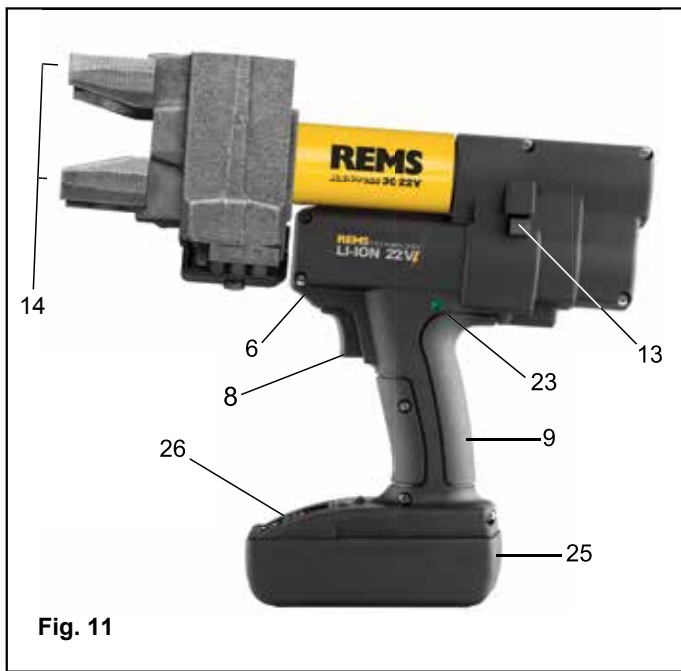
REMS Power-Press SE
REMS Power-Press
REMS Power-Press ACC
REMS Power-Press XL ACC
REMS Akku-Press
REMS Akku-Press ACC
REMS Mini-Press ACC
REMS Mini-Press 22V ACC
REMS Mini-Press S 22V ACC
REMS Ax-Press 25 22V ACC
REMS Ax-Press 25 L 22V ACC
REMS Ax-Press 30 22V
REMS Akku-Ex-Press 22V ACC
REMS Power-Ex-Press Q&E ACC



Instruction Manual







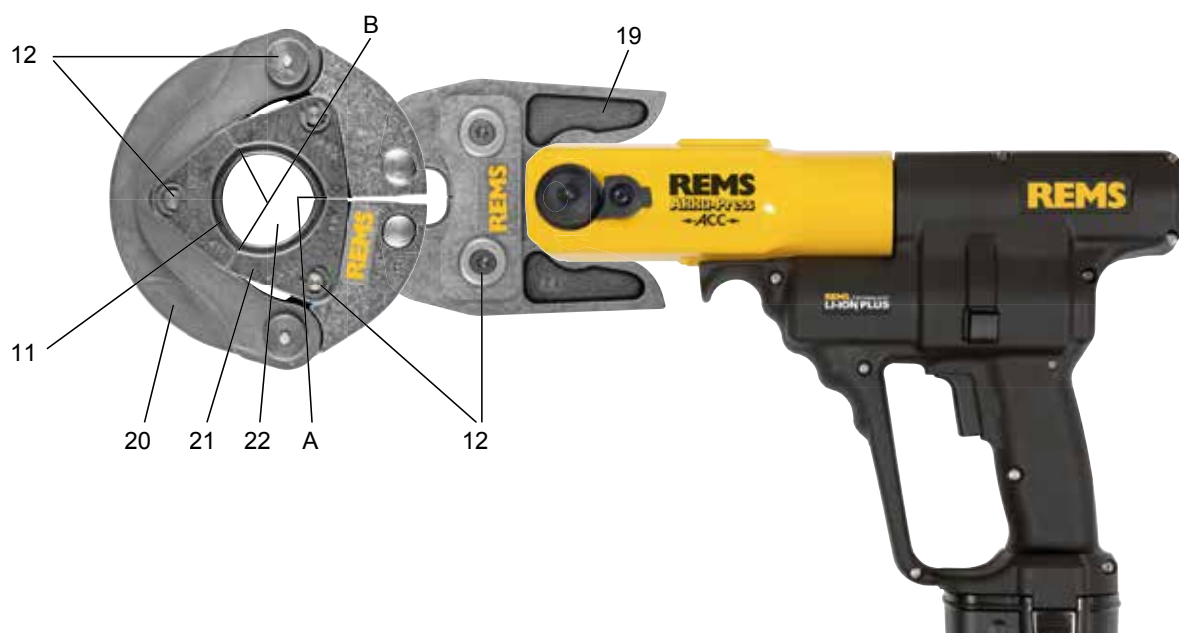


Fig. 17
(PR-3S)

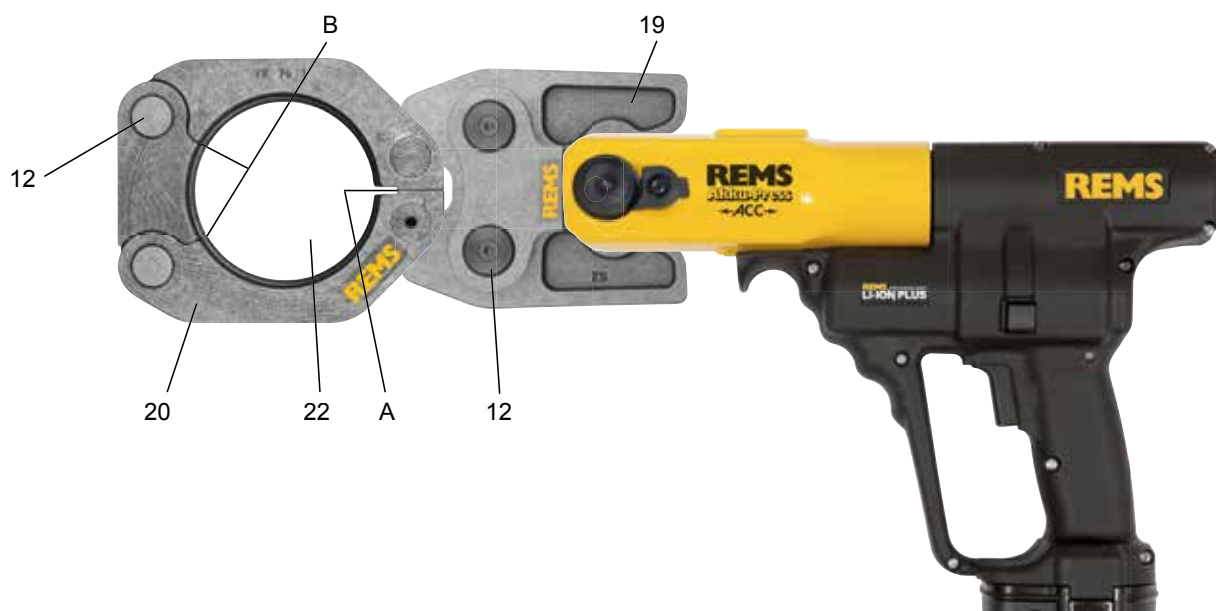


Fig. 18
(PR-3B)



Fig. 19
45° (PR-2B)

Translation of the Original Instruction Manual

The respective latest sales literature applies for the use of REMS pressing tongs, REMS Mini pressing tongs, REMS pressing rings with adapter tongs, REMS pressing heads and REMS expanding heads for the different pipe connection systems, see also www.rems.de → Downloads → Product Catalogues, Brochures. If the system manufacturer alters components of pipe connection systems or markets new ones, their current application status must be enquired about at REMS (Fax +49 7151 17 07 - 110 or e-mail info@rem.de). Subject to change and error.

Fig. 1–19

1 Pressing tongs/ Mini pressing tongs	16 Expanding head
2 Tongs retaining bolt	17 Expanding jaws
3 Pressure plate/button	18 Expanding mandrel
4 Locking pin/bolt	19 Adapter tongs/ adapter tongs Mini
5 Press rollers	20 Pressing ring
6 Housing grip	21 Pressing segment
7 Rotation direction lever	22 Pressing contour (pressing ring or pressing segments)
8 Safety inching switch	23 Battery charge indicator
9 Pistol grip	24 Locking nut
10 Pressing jaw	25 Battery
11 Pressing contour (pressing tongs)	26 Graduated charging level indicator (REMS batteries 21.6 V)
12 Bolt	27 Rotary sleeve (REMS Power-Press XL ACC)
13 Reset button	
14 Pressing heads	
15 Expander	

General Safety Instructions for power tools

WARNING

Read all the safety notes, instructions, illustrations and technical data which come with this power tool. Failure to heed the following instructions can lead to electric shock, fire and/or severe injuries.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way.** Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not misuse the connecting cable to carry or hang up the power tool or to pull the plug out of the socket.** Keep the connecting cable away from heat, oil, sharp edges or moving tool parts. Damaged or knotted cables increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool.** Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting.** Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly.** Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- h) Do not take your safety for granted and ignore the safety rules for power tools even if you are very familiar with the power tool after frequent use. Careless handling can lead to severe injury within split seconds.
- 4) Power tool use and care
- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- h) Keep handles and gripping surfaces dry, clean and free from oil and grease. Slippery handles and gripping surfaces prevent safe handling and control of the power tool in unforeseeable situations.
- 5) Battery tool use and care
- a) Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- b) Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- c) When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- d) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- e) Do not use a damaged or modified battery. Damaged or modified batteries can behave unexpectedly and lead to fires, explosions or injuries.
- f) Do not expose a battery for fire or high temperatures. Fire or temperatures above 130 °C (265 °F) can cause an explosion.
- g) Follow all the instructions for charging and never charge the battery or the cordless tool outside the temperature range specified in the operating instructions. Incorrect charging or charging outside the permitted temperature range can destroy the battery and increase the fire risk.
- 6) Service
- a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- b) Never service damaged batteries. All maintenance of batteries should only be carried out by the manufacturer or authorised customer service points.

Safety instructions for presses

WARNING

Read all the safety notes, instructions, illustrations and technical data which come with this power tool. Failure to heed the following instructions can lead to electric shock, fire and/or severe injuries.

Save all warnings and instructions for future reference.

- Do not use the power tool if it is damaged. There is a danger of accident.
- Hold the power tool firmly by the housing grip (6) and pistol grip (9) and make sure you are standing firmly when working. The power tool produces a very high pressing force. It is safer to hold the tool with both hands. Therefore be very careful. Keep children and bystanders away while operating the power tool.
- Do not reach into moving parts in the pressing area/expanding area. There is a risk of injury by crushing fingers or hands.
- Never operate radial presses with the tongs retaining bolt unlocked (2). There is a risk of fracture and flying parts can cause serious injuries.
- Always position the radial press with pressing tongs, Mini pressing tongs, pressing ring with adapter tongs on the press fitting at a right angle to the pipe axis. If the radial press is positioned askew to the pipe axis, its high drive force will pull it to a right angle to the pipe axis. This could crush hands or other parts of the body and/or there is a risk of fracture whereby flying parts can cause serious injuries.
- Do not start radial presses without pressing tongs, Mini pressing tongs or pressing ring with adapter tongs. Do not start the pressing process except to

make a press joint. Unless counter pressure is applied by the press fitting, the drive unit, pressing tongs, Mini pressing tongs, pressing ring and adapter tongs will be needlessly stressed.

- Before using pressing tongs, pressing rings with adapter tongs (pressing jaws, pressing slings with adapter jaws) from other manufacturers, check whether these are suitable for the REMS radial presses. Pressing tongs, pressing rings with adapter tongs of other makes can be used in REMS Power-Press SE, REMS Power-Press, REMS Power-Press ACC, REMS Power-Press XL ACC, REMS Akku-Press and REMS Akku-Press ACC if they are designed for the necessary thrust force of 32 kN, fit mechanically in the REMS drive unit, can be properly locked and break without danger, e.g. without the risk of flying parts of the press jaws, at the end of their life or when overloaded. It is recommended to only use pressing tongs and pressing rings with adapter tongs which are designed with a safety factor ≥ 1.4 against permanent fracture, i.e. withstand a necessary thrust force of 32 kN up to a thrust force of 45 kN. Also read and observe the instruction manuals and safety instructions of the respective manufacturer/supplier of the pressing tongs, pressing rings with adapter tongs and the installation and assembly instructions of the manufacturer supplier of the press fitting system to be pressed and observe any restrictions for use that are specified there. Failure to do so could lead to fracture and flying parts can cause serious injuries.
- Only operate the axial press with pressing heads fully inserted. Failure to do so could lead to fracture and flying parts can cause serious injuries.
- Always screw expanding heads as far as they will go onto the expander. Failure to do so could lead to fracture and flying parts can cause serious injuries.
- Use only undamaged pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and expanding heads. Damaged pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and expanding heads can jam or fracture and/or the press fitting will be faulty. Do not attempt to repair damaged pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and expanding heads. Failure to do so could lead to fracture and flying parts can cause serious injuries.
- Pull out the plug or remove the battery before assembly/disassembly of pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and expanding heads. There is a risk of injury.
- Position the rotary sleeve (27) of Power-Press XL ACC according to the pressing tongs/adapter tongs being used, see 2.2. There is a risk of injury.
- Comply with the maintenance regulations for the power tool and follow the maintenance instructions for pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and expanding heads. Following the maintenance instructions has a positive effect on the life of the power tool, the pressing tongs, Mini pressing tongs, pressing rings, adapter tongs, pressing heads and widening heads.
- Never let the power tool operate unattended. Switch off the power tool during longer work breaks, pull out the mains plug/battery. Electrical devices can cause hazards which lead to material damage or injury when left unattended.
- Check the power cable, extension leads of the power tool and the power supply regularly for damage. Have these renewed by qualified experts or an authorised REMS customer service workshop in case of damage.
- Only allow trained persons to use the power tool. Apprentices may only use the power tool when they are over 16, when this is necessary for their training and when they are supervised by a trained operative.
- Children and persons who, due to their physical, sensory or mental abilities or lack of experience and knowledge are unable to operate the power tool safely may not use this power tool without supervision or instruction by a responsible person. Otherwise there is a risk of injury due to false operation.
- Only use approved and appropriately marked extension leads with a sufficient cable cross-section. Use extension leads up to a length of 10 m with cable cross-section 1.5 mm², from 10–30 m with cable cross-section 2.5 mm².

Safety instructions for batteries

WARNING










Read all the safety notes, instructions, illustrations and technical data which come with this power tool. Failure to heed the following instructions can lead to electric shock, fire and/or severe injuries.

Save all warnings and instructions for future reference.

- Only use the battery in REMS power tools. Only then is the battery safe from dangerous overloading.
- Only use original REMS batteries with the voltage specified on the rating plate. Using other batteries can lead to injuries and risk of fire due to exploding batteries.
- Use the battery and the rapid charger only in the specified operating temperature range.
- Only recharge REMS batteries in the REMS rapid charger. There is a risk of fire if an unsuitable battery charger is used.
- Charge the battery to full capacity in the REMS rapid charger before using for the first time. Batteries are delivered partly charged.
- Never charge batteries unattended. Battery chargers and batteries can cause hazards which lead to material damage and/or injury when charged unattended.
- Insert the battery into the battery compartment straight and without force. There is a risk of bending the battery contacts and damaging the battery.
- Protect the batteries against heat, sunlight, fire, moisture and wet. There is a risk of explosion and fire.
- Do not use the batteries in areas where there is a risk of explosion and in the vicinity of inflammable gases, solvents, dust, fumes, liquids for example. There is a risk of explosion and fire.

- **Do not open the battery or modify its construction.** *There is a risk of explosion and fire due to short-circuiting.*
- **Non utilizzare batterie con alloggiamento difettoso o con contatti danneggiati.** *Damage to or improper use of the battery can cause fumes to escape. The fumes can irritate the respiratory tracts. Let in fresh air and consult a doctor in case of symptoms.*
- **Fluid can leak from the battery when used improperly. Do not touch the fluid.** *Leaking battery fluid can cause skin irritation and burns. Rinse off immediately with water in case of contact. Also consult a doctor if the fluid gets into the eyes.*
- **Observe the safety instructions on the battery and the rapid charger.**
- **Keep unused batteries away from paper clips, coins, keys, nails, screws or other small metal objects which could cause bridging of the contacts.** *There is a risk of explosion and fire due to short-circuiting.*
- **Remove the battery before stowing/storing the power tool for long periods of time.** *Protect the battery contacts against short-circuiting, e.g. with a cap. This reduces the risk of fluids escaping from the batteries.*
- **Do not throw defective batteries in the normal household waste.** *Hand the defective batteries over to an authorised REMS contract service workshop or a recognised disposal company. Observe the national regulations. See also page 6. Disposal.*
- **Keep batteries out of reach of children.** *Batteries can be life threatening if swallowed, seek medical assistance immediately.*
- **Avoid contact with leaking batteries.** *Leaking fluid can cause skin irritation and burns. Rinse off immediately with water in case of contact. Also consult a doctor if the fluid gets into the eyes.*
- **Take the batteries out of the power tool when they are empty.** *This reduces the risk of fluids escaping from the batteries.*
- **Never recharge the non-rechargeable batteries, open them, throw them on fires or create a short-circuit.** *The batteries can cause fires and burst. There is a risk of injury.*

Explanation of symbols

	Danger with a medium degree of risk which could result in death or severe injury (irreversible) if not heeded.
	Danger with a low degree of risk which could result in minor injury (reversible) if not heeded.
	Material damage, no safety note! No danger of injury.
	Read the operating manual before starting
	Use eye protection
	Use ear protection
	Electrical device complies with protection class II
	Environmental friendly disposal
	CE conformity mark

1. Technical Data

Intended use

WARNING

REMS radial presses are intended for the purpose of making press joints of all common pressfitting systems.

REMS cropping tongs are intended for the purpose of cropping threaded bars up to the strength class 4.8 (400 N/mm²).

REMS cable shears are intended for the purpose of cropping electric cables ≤ 300 mm² (Ø 30 mm).

REMS axial presses are intended for the purpose of making compression sleeve connections.

REMS pipe expanders are intended for the purpose of expanding and calibrating pipes.

REMS batteries are intended for supplying energy to the REMS cordless drive units and the REMS cordless LED lamp. Note voltage of the batteries.

Rapid chargers are intended for charging the REMS batteries.

All other uses are not for the intended purpose and are prohibited.

1.1. Scope of Supply

Electrical radial presses/pipe expanders: Drive unit, instruction manual, sheet steel case

Cordless presses/pipe expanders: Drive unit, Li-Ion battery, rapid charger, instruction manual, sheet steel case

1.2. Article numbers

REMS Power-Press SE drive unit	572101
REMS Power-Press drive unit	577001
REMS Power-Press ACC drive unit	577000
REMS Power-Press XL ACC drive unit	579000
REMS Mini-Press ACC drive unit	578001
REMS Mini-Press 22V ACC drive unit	578002
REMS Mini-Press S 22V ACC drive unit	578003
REMS Akku-Press drive unit	571003
REMS Akku-Press ACC drive unit	571004

REMS Ax-Press 25 22V ACC drive unit	573020
REMS Ax-Press 25 L 22V ACC drive unit	573021
REMS Ax-Press 30 22V drive unit	573008
REMS Akku-Ex-Press 22V ACC drive unit	575010
REMS Power-Ex-Press Q & E ACC drive unit	575007
Expander device Cu (REMS Akku-Ex-Press 22V ACC)	575252
Expander device P (REMS Akku-Ex-Press 22V ACC)	575253
Expander device Q & E (REMS Akku-Ex-Press 22V ACC)	575256
Expanding device 16–40 mm, ½–1½"	
(REMS Power-Ex-Press Q & E ACC)	575100
Expanding device 50–63 mm, 2"	
(REMS Power-Ex-Press Q & E ACC)	575101
REMS battery Li-Ion 14.4 V, 1.5 Ah	571545
REMS battery Li-Ion 14.4 V, 3.0 Ah	571555
REMS battery Li-Ion 21.6 V, 1.5 Ah	571570
REMS battery Li-Ion 21.6 V, 2.5 Ah	571571
Rapid charger Li-Ion/Ni-Cd 230 V	571560
Rapid charger Li-Ion 230 V	571575
Voltage supply 230 V, instead of 14.4 V batteries	571565
Voltage supply 230 V, instead of 21.6 V batteries	571567
Sheet steel case, REMS Power-Press SE	570280
Sheet steel case, REMS Power-Press	570280
Sheet steel case, REMS Power-Press ACC	570280
Transport box XL REMS Power-Press XL ACC	579240
Sheet steel case, REMS Mini-Press ACC / Mini-Press 22V ACC / REMS Mini-Press S 22V ACC	578290
System case L-Boxx REMS Mini-Press ACC / REMS Mini-Press 22V ACC / REMS Mini-Press S 22V ACC	578299
Sheet steel case, REMS Akku-Press / REMS Akku-Press ACC	571290
Sheet steel case, REMS Ax-Press 25 22V ACC / Ax-Press 25 L 22V ACC	578290
Sheet steel case, REMS Ax-Press 30 22V	573282
Sheet steel case, REMS Akku-Ex-Press 22V ACC	578290
Sheet steel case, REMS Power-Ex-Press Q & E ACC	575278
REMS CleanM	140119

1.3. Capacity

REMS Mini-Press ACC / Mini-Press 22V ACC / REMS Mini-Press S 22V ACC Radial press for making press joints in all standard press fitting systems on steel pipes, stainless steel pipes, copper pipes, plastic pipes, composite pipes

Ø 10–40 mm
Ø ¾–1¼"

REMS Power-Press SE / REMS Power-Press / Power-Press ACC / Power-Press XL ACC / REMS Akku-Press / Akku-Press ACC for making press joints of all common pressfitting systems on steel pipes, stainless steel pipes, copper pipes, plastic pipes, composite pipes

Ø 10 – 108 (110) mm
Ø ¾ – 4"

REMS Ax-Press 25 22 V ACC / 25 L 22 V ACC for making compression sleeve joints (sliding sleeve joints) on plastic pipes, composite pipes

Ø 12 – 40 mm

REMS Ax-Press 30 22 V for making compression sleeve joints (sliding sleeve joints) with pinch sleeve on plastic pipes, composite pipes

Ø 12 – 32 mm

REMS Akku-Ex-Press 22 V ACC with expander Cu for expanding and calibrating soft copper pipes s ≤ 1.5 mm, soft aluminium pipes s ≤ 1.2 mm, soft precision steel pipes s ≤ 1.2 mm, soft stainless steel pipes s ≤ 1 mm

Ø 8 – 42 mm
Ø ¾ – 1¾"

REMS Akku-Ex-Press 22 V ACC with expander P for expanding plastic pipes, composite pipes

Ø 12 – 40 mm

REMS Akku-Ex-Press 22 V ACC with expander Q & E for expanding pipes/rings for the Uponor system Quick & Easy and Giacomini GX System

Ø 16 – 40 mm
Ø ½ – 1½"
s ≤ 4.95 mm

REMS Power-Ex-Press Q & E ACC for expanding pipes/rings for the Uponor system Quick & Easy and Giacomini GX System

Ø 16 – 63 mm
Ø ½ – 2"
s ≤ 6.3 mm

Operating temperature range

REMS cordless presses –10 °C – +60 °C (14 °F – +140 °F)

Battery –10 °C – +60 °C (14 °F – +140 °F)

Rapid charger 0 °C – +40 °C (32 °F – +113 °F)

Mains operated presses –10 °C – +60 °C (14 °F – +140 °F)

Storage temperature range > 0 °C (32 °F)

1.4. Thrust

Thrust of radial presses, without Mini radial press 32 kN

Thrust REMS Mini-Press ACC / Mini Press 22V ACC / REMS Mini-Press S 22V ACC 22 kN

Thrust REMS Ax-Press 25 22V ACC	20 kN
Thrust REMS Ax-Press 25 L 22V ACC	13 kN
Thrust REMS Ax-Press 30 22V	30 kN
Thrust REMS Akku-Ex-Press 22V ACC	20 kN
Thrust REMS Power-Ex-Press Q & E ACC	34 kN

The specified forces are nominal forces.

1.5. Electric Data

REMS Power-Press SE	$\left. \begin{array}{l} 230 \text{ V~}; 50-60 \text{ Hz}; 450 \text{ W}; 1.8 \text{ A} \\ 110 \text{ V~}; 50-60 \text{ Hz}; 450 \text{ W} \\ \text{S3 20\% (AB 2/10 min)} \\ \text{all-insulated, interference-suppressed} \end{array} \right\}$	
REMS Power-Press		
REMS Power-Press ACC		
REMS Power-Press XL ACC		
REMS Power-Ex-Press Q & E ACC		
REMS Mini-Press ACC	14.4 V ~; 1.5 Ah	
	14.4 V ~; 3.0 Ah	
REMS Mini-Press 22V ACC	$\left. \begin{array}{l} 21.6 \text{ V~}; 1.5 \text{ Ah} \\ 21.6 \text{ V~}; 2.5 \text{ Ah} \end{array} \right\}$	
REMS Mini-Press S 22V ACC		
REMS Ax-Press 25 22V ACC		
REMS Ax-Press 25 L 22V ACC		
REMS Ax-Press 30 22V		
REMS Akku-Ex-Press 22V ACC		
REMS Akku-Press, Akku-Press ACC	14.4 V ~; 3.0 Ah	
Rapid charger Li-Ion/Ni-Cd	Input 230 V~; 50-60 Hz; 65 W	
(Plug-in battery, Art. No. 571560)	Output 10.8-18 V ~	
	all-insulated, interference-suppressed	
	Input 110 V~; 50-60 Hz; 65 W	
	Output 10.8-18 V ~	
	all-insulated, interference-suppressed	
Rapid charger Li-Ion	Input 230 V~; 50-60 Hz; 70 W	
(Slide-in battery, Art. No. 571575)	Output 10.8-21.6 V ~	
	all-insulated, interference-suppressed	
	Input 110 V~; 50-60 Hz; 70 W	
	Output 10.8-21.6 V ~	
	all-insulated, interference-suppressed	
Voltage supply 230 V / 14.4 V	Input 230 V~; 50-60 Hz	
	Output 14.4 V ~; 6 A-33 A	
	all-insulated, interference-suppressed	
	Input 110 V~; 50-60 Hz	
	Output 14.4 V ~; 6 A-33 A	
	all-insulated, interference-suppressed	
Voltage supply 230 V / 21.6 V	Input 230 V~; 50-60 Hz; 350 W	
	Output 21.6 V ~; $\leq 15 \text{ A}$	
	all-insulated, interference-suppressed	

1.6. Dimensions

REMS Power-Press SE	430×118×85 mm (16.9"×4.6"×3.3")
REMS Power-Press, Power-Press ACC	370×235×85 mm (14.6"×9.2"×3.3")
REMS Power-Press XL ACC	525×255×90 mm (20.7"×10.0"×3.5")
REMS Mini-Press ACC	288×260×80 mm (11.3"×10.2"×3.1")
REMS Mini-Press 22V ACC	273×260×75 mm (10.7"×10.2"×3.0")
REMS Mini-Press S 22V ACC	405×145×75 mm (15.9"×5.7"×3.0")
REMS Akku-Press, Akku-Press ACC	338×298×85 mm (13.3"×11.7"×3.3")
REMS Ax-Press 25 22V ACC	280×260×75 mm (11.0"×10.2"×3.0")
REMS Ax-Press 25 L 22V ACC	305×260×75 mm (12.0"×10.2"×3.0")
REMS Ax-Press 30 22V	275×290×75 mm (10.8"×11.4"×3.0")
REMS Akku-Ex-Press 22V ACC	200×250×75 mm (7.9"×9.8"×3.0")
REMS Power-Ex-Press Q & E ACC	420×245×81 mm (16.5"×9.6"×3.2")

1.7. Weights

REMS Power-Press SE drive unit	4.7 kg (10.4 lb)
REMS Power-Press / ACC drive unit	4.7 kg (10.4 lb)
REMS Power-Press XL ACC	5.5 kg (12.1 lb)
REMS Mini-Press ACC drive unit without battery	2.1 kg (4.5 lb)
REMS Mini-Press 22V ACC drive unit without battery	2.1 kg (4.5 lb)
REMS Mini-Press S 22V ACC drive unit without battery	2.2 kg (4.9 lb)
REMS Akku-Press / ACC drive unit without battery	3.8 kg (8.3 lb)
REMS Ax-Press 25 22V ACC drive unit without battery	2.6 kg (5.6 lb)
REMS Ax-Press 25 L 22V ACC drive unit without battery	2.8 kg (6.1 lb)
REMS Ax-Press 30 22V drive unit without battery	4.2 kg (9.3 lb)
REMS Akku-Ex-Press 22V ACC drive unit without battery	
without expander	2.0 kg (4.4 lb)
Expander Cu (REMS Akku-Ex-Press 22V ACC)	0.3 kg (0.7 lb)
Expander P (REMS Akku-Ex-Press 22V ACC)	0.3 kg (0.7 lb)
Expander Q & E (REMS Akku-Ex-Press 22V ACC)	0.3 kg (0.7 lb)
REMS Power-Ex-Press Q & E ACC drive unit	5.6 kg (12.2 lb)
REMS battery Li-Ion 14.4 V, 1.5 Ah	0.3 kg (0.6 lb)
REMS battery Li-Ion 14.4 V, 3.0 Ah	0.5 kg (1.1 lb)
REMS battery Li-Ion 21.6 V, 1.5 Ah	0.4 kg (0.9 lb)
REMS battery Li-Ion 21.6 V, 2.5 Ah	0.4 kg (0.9 lb)
Pressing tongs (average)	1.8 kg (3.9 lb)
Pressing tongs Mini (average)	1.2 kg (2.6 lb)
Pressing heads (pair, average)	0.3 kg (0.6 lb)
Expanding head (average)	0.2 kg (0.4 lb)
Adapter tongs Z2	2.0 kg (4.8 lb)

Adapter tongs Z4	3.6 kg (7.8 lb)
Adapter tongs Z5	3.8 kg (8.2 lb)
Adapter tongs Z6 XL	5.5 kg (12.1 lb)
Pressing ring M54 (PR-3S)	3.1 kg (6.7 lb)
Pressing ring U75 (PR-3B)	2.7 kg (5.9 lb)

1.8. Noise information

Emission at workplace			
REMS Power-Press SE	$L_{pA} = 76 \text{ dB}$	$L_{WA} = 87 \text{ dB}$	$K = 3 \text{ dB}$
REMS Power-Press / ACC / XL ACC	$L_{pA} = 81 \text{ dB}$	$L_{WA} = 92 \text{ dB}$	$K = 3 \text{ dB}$
REMS Mini-Press ACC / 22V ACC / S 22V ACC	$L_{pA} = 73 \text{ dB}$	$L_{WA} = 84 \text{ dB}$	$K = 3 \text{ dB}$
REMS Akku-Press / ACC	$L_{pA} = 74 \text{ dB}$	$L_{WA} = 85 \text{ dB}$	$K = 3 \text{ dB}$
REMS Ax-Press 25 22V ACC / L 22V ACC	$L_{pA} = 73 \text{ dB}$	$L_{WA} = 84 \text{ dB}$	$K = 3 \text{ dB}$
REMS Ax-Press 30 22V	$L_{pA} = 74 \text{ dB}$	$L_{WA} = 85 \text{ dB}$	$K = 3 \text{ dB}$
REMS Akku-Ex-Press 22V ACC	$L_{pA} = 73 \text{ dB}$	$L_{WA} = 84 \text{ dB}$	$K = 3 \text{ dB}$
REMS Power-Ex-Press Q & E ACC	$L_{pA} = 81 \text{ dB}$	$L_{WA} = 92 \text{ dB}$	$K = 3 \text{ dB}$

1.9. Vibrations

Weighted effective value of acceleration	$< 2.5 \text{ m/s}^2$ $K = 1.5 \text{ m/s}^2$
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The specified vibration emission value was measured according to a standard test method and can be used for comparison with another power tool. The specified vibration emission value can also be used for an initial estimation of the cut-out.

CAUTION

The vibration emission value may differ from the specified value during actual use of the power tool depending on the manner in which the power tool is used. Dependent upon the actual conditions of use (periodic duty) it may be necessary to establish safety precautions for the protection of the operator.

2. Preparations for Use

CAUTION

After the drive unit has been in storage for a long period of time, the overpressure valve must be actuated first by pressing the reset button (13) before putting back into operation. If it is stuck or stiff, it may not be pressed. The drive unit must be handed over to an authorized REMS customer service workshop for inspection.

CAUTION

Transport weights above 35 kg must be carried by at least 2 persons.

The respective latest sales literature applies for the use of REMS pressing tongs, REMS Mini pressing tongs, REMS pressing rings with adapter tongs, REMS pressing heads and REMS expanding heads for the different pipe connection systems, see also www.rems.de → Downloads → Product Catalogues, Brochures. If the system manufacturer alters components of pipe connection systems or markets new ones, their current application status must be enquired about at REMS (Fax +49 7151 17 07 - 110 or e-mail info@rems.de). Subject to change and error.

2.1. Electrical connection

WARNING

Note the mains voltage! Before connecting the drive unit or the rapid charger, check whether the voltage given on the rating plate corresponds to the mains voltage. On building sites, in a wet environment, indoors and outdoors or under similar installation conditions, only operate the power tool on the mains with a fault current protection switch (FI switch) which interrupts the power supply as soon as the leakage current to earth exceeds 30 mA for 200 ms.

Rechargeable batteries

NOTICE

Always hold the battery 14.4 V (25) upright when inserting it in the drive unit or the rapid charger. If inserted at an angle it can cause damage to the contacts and result in a short circuit which damages the battery.

Total discharging by undervoltage

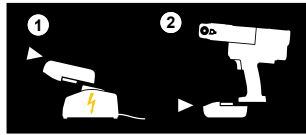
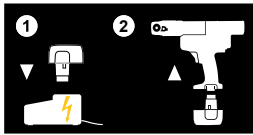
The Li-Ion batteries may not drop below a minimum voltage because otherwise the battery could be damaged by "total discharge". The cells of the REMS Li-Ion battery are delivered pre-charged to approx. 40 %. Therefore the Li-Ion batteries must be charged before use and recharged regularly. Failure to observe this regulation of the cell manufacturer can lead to damage to the Li-Ion battery by total discharging.

Total discharging due to storage

If a relatively low charged Li-Ion battery is stored, self discharging can lead to total discharge damage of the battery after longer storage. Li-Ion batteries must therefore be charged before storing and recharged every six months at the latest and charged again before use.

NOTICE

Charge the battery before use. Recharge Li-Ion batteries regularly to avoid their total discharge. The rechargeable battery will be damaged by total discharge.



Only use a REMS rapid charger for charging. New Li-Ion batteries and Li-Ion batteries which have not been used for a long time only reach full capacity after several charges. Non-rechargeable batteries may not be charged.

Battery charging status check for all Li-Ion cordless presses

All REMS cordless presses made as of 2011-01-01 are equipped with an electronic battery charging status check with battery charge indication by a 2-coloured green/red LED (23). The LED lights green when the battery is fully or still sufficiently charged. The LED lights red when the battery must be charged. If this condition occurs during pressing and the pressing process is not finished, the pressing must be completed with a fully charged Li-Ion battery. If the drive unit is not used, the LED goes out after approx. 2 hours but comes on again when the drive unit is switched back on.

Graduated charging level indicator (28) of the Li-Ion 21.6 V battery

The graduated charging level indicator shows the charging level of the battery with 4 LEDs. At least one LED lights for a few seconds after pressing the key with the battery symbol. The more LEDs that light green, the higher the charging level of the battery. If a LED flashes red, the battery must be recharged.

Rapid charger Li-Ion/NiCd and rapid charger Li-Ion (Art. No. 571560 and 571575)

The left control lamp lights up and remains green when the mains plug is plugged in. If a battery is inserted in the rapid charger, the green control lamp flashes to indicate that the battery is charging. The green light stops flashing and remains on to signal that the battery is fully charged. If the red control lamp flashes, the battery is defective. If the red control lamp comes on and remains on, this indicates that the temperature of the rapid charger and / or the battery is outside the permissible operating range of the rapid charger of 0°C to +40°C.

NOTICE

The rapid chargers are not suitable for outdoor use.

2.2. Installing (changing) the pressing tongs, pressing tongs Mini (Fig. 1 (1)), pressing tongs (4G) (Fig. 15), pressing tongs (S) (Fig. 16), the pressing ring (PR-3S) with adapter tongs (Fig. 17), the pressing ring (PR-3B) with adapter tongs (Fig. 18), the pressing ring 45° (PR-2B) with adapter tongs (Fig. 19) in radial presses

Pull out the mains plug or remove the battery. Only use pressing tongs, pressing tongs Mini or pressing rings with system-specific pressing contour according to the pressfitting system to be pressed. Pressing tongs, pressing tongs Mini or pressing rings have letters on the pressing jaws or pressing segments to identify the pressing contour and a number to identify the size. The adapter tongs are marked by the letter Z and a number which serves for assignment to the permissible pressing ring which carries the same identification. The pressing ring 45° (PR-2B) may only be applied at an angle of 45° to the adapter tongs Z1/adapter tongs Mini Z1 (Fig. 19). Read and observe the installation and assembly instructions of the manufacturer/supplier of the press fitting system to be pressed. Never use non-matching pressing tongs, pressing tongs Mini, pressing ring, adapter tongs and adapter tongs Mini (pressing contour, size). The press joint could be rendered useless and the machine and pressing tongs, pressing tongs Mini, pressing ring, adapter tongs and adapter tongs Mini could be damaged.

It is best to place the drive machine on a bench or on the floor. The rotary sleeve (Fig. 20 (27)) of REMS Power-Press XL ACC must be positioned according to the pressing tongs/adapter tongs being used. To use the adapter tongs Z6 XL, the rotary sleeve (27) must be turned until it snaps in so that the slit of the drive housing is not covered. For all other pressing tongs/adapter tongs, turn the rotary sleeve (27) until it snaps in so that it covers the slit of the drive housing. The pressing tongs, pressing tongs Mini, adapter tongs and adapter tongs Mini can only be installed (changed) when the press rollers (5) are fully retracted. On REMS Power-Press SE push the rotation direction lever (7) to the left and actuate the safety inching switch (8) if necessary, on REMS Mini-Press ACC, REMS Mini-Press 22V ACC / REMS Mini-Press S 22V ACC / REMS Power-Press / Power-Press ACC / Power-Press XL ACC and REMS Akku-Press / Akku-Press ACC, press the reset button (13), until the press rollers (5) have moved right back.

CAUTION

Always position the rotary sleeve (27) according to the pressing tongs/adapter tongs being used until these snap in, danger of crushing!

Open the tongs retaining bolt (2). To do this, press the locking pin/bolt (4) and the tongs retaining bolt (2) springs out. Insert the chosen pressing tongs, Mini pressing tongs (1), adapter tongs and adapter tongs Mini (19). Push the tongs retaining bolt (2) forward until the locking pin/bolt (4) snaps in. At the same time, press down the pressure plate/button (3) directly over the tongs retaining bolt (2). Do not start radial presses without pressing tongs, pressing tongs Mini or pressing ring with adapter tongs and adapter tongs Mini inserted. Only start the pressing process to make a press joint. Without pressing counterpressure by the press fitting the drive machine or pressing tongs, pressing tongs Mini, pressing ring, adapter tongs and adapter tongs Mini will be exposed to unnecessarily high stress.

CAUTION

Never press when the tong retainer bolt (2) is unlocked. Risk of fracture, flying parts can cause serious injuries!

2.3. Installing (changing) the pressing heads (14) in axial presses (Figs. 10, 11)

Remove the battery. Only use system-specific pressing heads. REMS pressing heads have a letter to identify the compression sleeve system and a number to identify the size. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used compression sleeve system. Never use non-matching pressing heads (compression sleeve system, size) for pressing work. The press joint could be unserviceable, and both the machine and the pressing heads might be damaged.

Push the selected pressing heads (14) right in, if necessary turning them until they engage (ball catch). Keep the pressing heads and locating hole inside the pressing device clean.

2.4. Installing (changing) the expanding head (16) in REMS Akku-Ex-Press Q & E ACC and REMS Power-Ex-Press Q & E ACC (Fig. 9)

Pull out the mains plug. Only use genuine expanding heads for Uponor Quick & Easy. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system. Never use non-matching expanding heads (system, size) for expansion work. The joint could be unserviceable, and both the machine and the expanding heads might be damaged. Grease the cone of the expanding mandrel (18) lightly. Screw the selected expanding head as far as it will go onto the expander. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system. REMS P and Cu expanding heads are unsuitable for the REMS Power-Ex-Press Q & E ACC and may therefore not be used..

Changing the expanding device on the REMS Power-Ex-Press Q & E ACC

Pull out the mains plug. Unscrew the expanding device (15) from the REMS Power-Ex-Press Q & E ACC. Screw on the selected expander as far as it will go and tighten by hand.

2.5. Assembly (changing) of the expander (15), the expanding head (16) on REMS Akku-Ex-Press 22 V ACC (Fig. 8)

Choose an expander (15) to match the expanding head (16). Use the expander Cu for the REMS Cu expanding heads. Use the expander P for the REMS P expanding heads. Only use system-specific expanding heads. REMS P expanding heads are labelled with letters to identify the compression sleeve system and a number to identify the size, REMS Cu expanding heads only with a number to identify the size. The expanding heads of the Uponor systems Quick & Easy and Giacomini GX fit the Q & E expander. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system. Never expand with an unsuitable expander, unsuitable expanding heads (system, size). The joint could be useless and the machine and expanding heads could be damaged. Grease the cone of the expanding mandrel (18) lightly. Screw the selected expanding head onto the expanding device (15) to the stop. The expanding device must now be set so that the thrust of the drive machine is taken up by the drive machine and not the expanding head at the end of the expanding. Unscrew the expanding device (15) complete with screwed on expanding head from the drive machine for this. Let the feed piston run forward as far as possible without the machine switching into reverse. In this position the expander with screwed-on expanding head must be screwed onto the drive unit until the expanding jaws (17) of the expanding head (16) are fully open. The expanding head must be secured with the locking nut (24) in this position.

NOTICE

Make sure that the compression sleeve is far enough away from the expanding head (16) in the expanding process because otherwise the expanding jaws (17) can bend or break.

3. Operation

CAUTION

After the drive unit has been in storage for a long period of time, the overpressure valve must be actuated first by pressing the reset button (13) before putting back into operation. If it is stuck or stiff, it may not be pressed. The drive unit must be handed over to an authorized REMS customer service workshop for inspection.

3.1. Radial presses (Figs. 1 to 7 and 15 to 19)

The pressing tongs, Mini pressing tongs, pressing ring, adapter tongs and Mini adapter tongs, especially the pressing contour (11, 22) of the pressing jaws (10) or all 3 pressing segments (21) must be checked for damage and wear before every use. Damaged or worn pressing tongs, Mini pressing tongs, pressing rings, adapter tongs and Mini adapter tongs may no longer be used. There is otherwise a risk of incorrect pressing or accidents.

A trial pressing with inserted press fitting must be made with the drive unit and the respectively used pressing tongs, Mini pressing tongs and the respectively used pressing ring with adapter tongs or Mini adapter tongs before every use. The pressing tongs, Mini pressing tongs (1), the pressing ring (20) with adapter tongs or Mini adapter tongs must fit into the drive unit mechanically and be properly lockable. After completing the pressing check that the pressing jaws (10), pressing rings (20), pressing segments (21) close fully both at their tip (Fig. 1 and Fig. 15 to 19 at "A") and on the opposite side (Fig. 1 and Fig. 15 to 19 at "B"). Check the tightness of the connection (observe national specifications, standards, regulations, etc.)

If during closing of the pressing tongs, pressing tongs Mini or pressing rings a marked ridge is created on the compression sleeve, the pressing may be defective or not tight (see 5. Trouble).

⚠ CAUTION

For preventing damages make sure to avoid operating situations like exemplarily shown in Fig. 12 through 14, that no distortion between pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini, fitting and drive unit occurs. Failure to do so could lead to fracture and flying parts can cause serious injuries.

3.1.1. Working procedure

Press the pressing tongs, pressing tongs Mini (1) together manually until they can be pushed over the press fitting. Always position the drive unit with the pressing tongs on the press fitting at right angles to the pipe axis. Release the pressing tongs so that they close around the press fitting. Hold the drive unit by the housing grip (6) and the pistol grip (9).

Place the pressing ring (20) around the pressing fitting. Insert the adapter tongs/Mini adapter tongs (19) into the drive unit and lock the tong retainer bolt, position the rotary sleeve (27) if necessary, see 2.2. Insert the adapter tongs/Mini adapter tongs (19) into the drive unit and lock the tongs retaining bolt. Press the adapter tongs/Mini adapter tongs (19) together with your hand so that the adapter tongs/Mini adapter tongs can be placed on the pressing ring. Release the adapter tongs/Mini adapter tongs so that the radii/hemispheres of the adapter tongs/Mini adapter tongs lie firmly on the cylinder rollers/ball sockets of the pressing ring and the pressing ring on the press fitting. With adapter tongs Z1 and Mini adapter tongs Z1, please note that the pressing ring may only be applied below 45°.

On REMS Power-Press SE push the rotation direction lever (7) to the right (feed) and press the safety inching switch (8). Keep the safety inching switch (8) pressed until the pressing is finished and the pressing tongs or pressing ring are closed. Release the safety inching switch immediately. Push the rotation direction lever (7) to the left (return) and press the switch (8) until the press rollers have moved back and the safety slip clutch responds. Release the safety inching switch immediately.

NOTICE

Do not needlessly stress the safety slip clutch. Release the safety inching switch immediately after closing the pressing tongs, the pressing ring or moving back the pressing rollers. The safety slip clutch is subject to normal wear like any slip clutch. However, if it is needlessly stressed, it wears more quickly and can be destroyed.

In the case of the REMS Power-Press and REMS Akku-Press, keep the safety inching switch (8) pressed until the pressing is finished and the pressing tongs or pressing ring is completely closed. This is indicated by an acoustic signal (clicking). Press the reset button (13) until the press rollers (5) are fully retracted.

In the case of the REMS Mini-Press ACC, REMS Mini-Press 22 V ACC, REMS Mini-Press S 22 V ACC, REMS Akku-Press ACC, REMS Power-Press ACC and REMS Power-Press XL ACC, keep the safety inching switch (8) pressed until the pressing is finished and the pressing tongs or pressing ring is completely closed. After completion of pressing, the drive unit switches automatically to return (forced return). This is indicated by an acoustic signal (click).

Press the pressing tongs, pressing tongs Mini together with your hand so that they can be removed from the pressfitting together with the drive unit. Press the adapter tongs, adapter tongs Mini together with your hand so that they can be removed from the pressing ring together with the drive unit. Open the pressing ring by hand so that it can be pulled off the pressfitting.

3.1.2. Operating safety

On REMS Power-Press SE the pressing process is ended by releasing the safety inching switch (8). A torque-dependent safety slip clutch acts in both end positions of the press rollers for the mechanical safety of the drive unit. Do not needlessly stress the safety slip clutch! REMS Power-Press SE is also equipped with an electronic safety circuit which switches off the drive unit at high load. As long as the pressing jaws (10), pressing rings (20) and pressing segments (21) at "A" and "B" (Fig. 1, and Fig. 15 to 19) closed, this is not critical. However, if the drive unit already switches off before pressing is complete (pressing jaws, pressing rings and pressing segments at "A" and "B" not closed), work may not be continued and the drive unit must be checked/repared immediately by an authorised REMS contract customer service workshop.

The REMS Power-Press and REMS Akku-Press ends the pressing operation automatically, emitting an acoustic signal (clicking).

The REMS Mini-Press ACC, REMS Mini-Press ACC 22 V, REMS Mini-Press S 22 V ACC, REMS Akku-Press ACC, REMS Power-Press ACC and REMS Power-Press XL ACC ends the pressing operation automatically, emitting an acoustic signal (clicking), and returns automatically (forced movement).

NOTICE

A perfect pressing is only produced with full closure of the pressing tongs, pressing tongs Mini, pressing ring or pressing segment. Full closure of the pressing jaws (10), pressing rings (20) or pressing segment (21) both at their tips (Fig. 1 and Fig. 15 to 19 at "A") and on the opposite side (Fig. 1 and Fig. 15 to 19 at "B") can be observed after completing the pressing. If a visible burr is created on the pressing sleeve when closing the pressing tongs, pressing tongs Mini, pressing ring or pressing segment, the pressing may be faulty or leaking (see 5. Trouble).

3.1.3. Working safety

To ensure safe working, the drive units are equipped with a safety inching switch (8). This permits immediate switching off of the drive units at any time, particularly if a potential hazard arises. The drive units can be switched to the return function in any position.

3.2. Axial presses (Figs. 10, 11)

Note the different working range of the axial presses. The respectively latest REMS sales literature applies, see also www.rems.de → Downloads → Product Catalogues, Brochures. Make sure that the pressing heads (14) are inserted into the drive unit in such a way that the pressing can be made in one stroke if possible. This is not possible in some cases and pre-pressing and finish pressing is necessary. For this, one pressing head or both pressing heads must be inserted turned 180° before the second pressing process so that they are closer together.

3.2.1. REMS Ax-Press 30 22 V (Fig. 11)

Place the preassembled compression sleeve fitting inside the pressing heads (14). Hold the drive unit by the housing grip (6) and the pistol grip (9), and keep the safety inching switch (8) pressed until the compression sleeve is in contact with the collar of the compression sleeve fitting. This is also indicated by an acoustic signal (clicking). Press the reset button (13) until the pressing heads (14) are fully retracted. REMS Ax-Press 30: Upon completion of the pressing, the drive unit switches over automatically to return (forced switch-off). This is indicated by an acoustic signal (click). REMS Ax-Press 40: Hold the reset button (13) until the pressing heads (14) have moved back completely.

If there is a noticeable gap between the compression sleeve and the collar of the compression sleeve connector after closing the compression heads, the pressing may be faulty or leaking (see 5. Faults). Read and observe the installation and assembly instructions of the manufacturer/supplier of the pressing sleeve system to be pressed.

⚠ CAUTION

Danger of crushing! Keep your hands away from the moving pressing heads (14)!

3.2.2. REMS Ax-Press 25 22 V ACC, REMS Ax-Press 25 L 22 V ACC (Fig. 10)

Insert the pre-assembled pressing sleeve fitting into the pressing heads (14). On the REMS Ax-Press 25 L ACC the closer distance of the pressing heads may have to be achieved by moving the outer pressing head into the centre pressing head position. Hold the drive machine either with one hand on the switch handle (9) or two hands on the housing handle (6) and the switch handle (9). Keep the safety inching switch (8) pressed until the compression sleeve is touching the collar of the compression sleeve connector. The drive machine then switches automatically to return (forced return).

If there is a noticeable gap between the compression sleeve and the collar of the compression sleeve connector after closing the compression heads, the pressing may be faulty or leaking (see 5. Faults). Read and observe the installation and assembly instructions of the manufacturer/supplier of the pressing sleeve system to be pressed.

With the compression sleeve system IV, various pressing heads are needed for one pipe size. Consult and comply with the instructions for installation and fitting of the system's manufacturer.

⚠ CAUTION

Danger of crushing! Keep your hands away from the moving pressing heads (14)!

3.3. Pipe expanders

3.3.1. REMS Akku-Ex-Press 22 V ACC with expander Cu (Fig. 8)

Insert the expanding head into the pipe up to the stop and press the expanding head/drive unit against the pipe. Switch on the drive unit. If the expanding head is open, the drive unit switches automatically to return and the expanding head is closed again. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system.

3.3.2. REMS Akku-Ex-Press 22 V ACC with expander P (Fig. 8)

Push the compression sleeve over the pipe, insert the expanding head into the pipe up to the stop and press the expanding head/drive unit against the pipe. Switch on the drive unit (8). Make sure that the compression sleeve is far enough away from the expanding head in the expanding process because otherwise the expanding jaws (17) can bend or break. Keep the safety inching switch (8) pressed until the pipe is expanded. This is indicated by an acoustic signal (click). Expand several times if necessary. Turn the pipe slightly. Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system.

3.3.3. REMS Akku-Ex-Press 22 V ACC with expander Q & E, REMS Power-Ex-Press Q & E ACC (Fig. 8, 9)

Read and observe the installation and assembly instructions of the manufacturer/supplier of the used system. Slide a Q & E ring of appropriate size onto the pipe. Insert the expansion head into the pipe and press the expanding head/drive unit against the pipe. Switch on the drive unit (8). When the expanding head is opened, the drive unit switches automatically to return and the expanding head is closed again. Keep holding the safety inching switch (8) down in the REMS Akku-Ex-Press 22 V ACC and push the expanding head/drive unit further. Turn the pipe slightly. Keep repeating the expansion process until the expanding jaws (17) are slid all the way into the pipe. Release the safety inching switch

(8) after every expanding process in the REMS Power-Ex-Press Q & E ACC, wait until the expanding mandrel has moved back completely and then press the inching switch (8) again. Repeat the expanding process until the expanding jaws (17) are pushed into the pipe up to the stop.

3.4. Battery charging status check with complete discharge protection

All REMS cordless presses made as of 2011-01-01 are equipped with an electronic battery charging status check with battery charge indication by a 2-coloured green/red LED (23). The LED lights green when the battery is fully or still sufficiently charged. The LED lights red when the battery must be charged. If this condition occurs during pressing and the pressing process is not finished, the pressing must be completed with a fully charged Li-Ion battery. If the drive unit is not used, the LED goes out after approx. 2 hours but comes on again when the drive unit is switched back on.

3.5. Graduated charging level indicator (26) of the Li-Ion 21.6 V battery

The graduated charging level indicator shows the charging level of the battery with 4 LEDs. At least one LED lights for a few seconds after pressing the key with the battery symbol. The more LEDs that light green, the higher the charging level of the battery. If a LED flashes red, the battery must be recharged.

4. Maintenance

Notwithstanding the maintenance mentioned below, it is recommended to send in the REMS drive units together with all tools (e.g. pressing tongs, Mini pressing tongs, pressing rings with adapter tongs, Mini adapter tongs, pressing heads, expanding heads) and accessories (e.g. batteries, rapid chargers) at least once a year to an authorised REMS contract customer service workshop for inspection and re-inspection of electrical devices. In Germany, such periodic testing of electrical devices should be performed in accordance with DIN VDE 0701-0702 and also prescribed for mobile electrical equipment according to the accident prevention rules DGUV, regulation 3 "Electrical Systems and Equipment". In addition, the respective national safety provisions, rules and regulations valid for the application site must be considered and observed.

⚠ WARNING

Notwithstanding the servicing listed below it is recommended to send in the REMS drive units together with all the tools (e.g. pressing tongs, pressing tongs Mini, pressing rings with adapter tongs, adapter tongs Mini, compression heads, expanding heads) and accessories (e.g. batteries, rapid chargers) at least once a year to an authorised REMS customer service station for inspection and repeated inspection of electrical equipment in accordance with EN 62638:2010-08 (VDE 0702).

4.1. Inspection/repair

⚠ WARNING

Before any repair work, pull the mains plug or remove the battery! This work may only be performed by qualified personnel.

The gearbox of the drive unit in the REMS Power-Press SE is maintenance-free. They operate in a permanent grease filling and therefore require no lubrication. The motor of the REMS Power-Press SE, REMS Power-Press, REMS Power-Press ACC, REMS Power-Press XL ACC and REMS Power-Ex-Press Q & E ACC has carbon brushes. These are subject to wear and must therefore be inspected or replaced from time to time. Only use genuine REMS carbon brushes. The REMS Power-Press SE drive unit has a safety slip clutch. This is subject to wear and must therefore be checked and renewed from time to time. Use only an original REMS safety slip clutch. In the battery-operated drive units, the carbon brushes of the motor are subject to wear. These cannot be replaced; the DC motor must be replaced. The sealing rings (O-rings) wear in all electro-hydraulic drive units. These must therefore be checked and renewed from time to time. If the pressing power is insufficient or oil is lost, the drive unit must be inspected and if necessary repaired by an authorised REMS after-sales service facility.

5. Trouble

For preventing damages make sure to avoid operating situations like exemplarily shown in Fig. 12 through 14, that no distortion between pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini, fitting and drive unit occurs.

⚠ CAUTION

After the drive unit has been in storage for a long period of time, the overpressure valve must be actuated first by pressing the reset button (13) before putting back into operation. If it is stuck or stiff, it may not be pressed. The drive unit must be handed over to an authorized REMS customer service workshop for inspection.

5.1. Fault: Drive unit does not work.

Cause:

- Worn carbon brushes.
- Mains lead defective (REMS Power-Press SE, REMS Power-Press, REMS Power-Press ACC, REMS Power Press XL ACC, REMS Power-Ex-Press Q & E ACC).
- Battery depleted or defective (REMS cordless drive units).
- Drive unit defective.

Remedy:

- Have the carbon brushes or DC motor changed by qualified personnel or an authorised REMS customer service workshop.
- Have the mains lead replaced by qualified personnel or an authorised REMS customer service workshop.
- Charge the battery with the Li-Ion/Ni-Cd rapid charger or change the battery.
- Have the drive unit checked/repaired by an authorised REMS customer service workshop.

NOTICE

Damaged or worn pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, pressing heads or expanding heads cannot be repaired.

4.2. Servicing

⚠ WARNING

Before service work, pull the mains plug or remove the battery!

Keep the pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini pressing heads and expandin , and particularly their receptacles, clean. Clean heavily soiled metal parts with the REMS CleanM (Art. No. 140119) cleaner, for example, and then protect against rust.

Clean plastic parts (e.g. housing, batteries) only with the REMS CleanM (Art. No. 140119) or a mild soap and a damp cloth. Do not use domestic cleaning agents. These frequently contain chemicals that can attack plastic parts. On no account use petrol, turpentine oil, thinners or similar products to clean plastic parts.

Make sure that liquids never get inside the power tool. Never immerse the power tool in liquid.

4.2.1. Pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini

Pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, *adapter tongs Mini* must be checked regularly for smooth action. Clean pressing tongs, pressing tongs Mini, pressing rings and adapter tongs, *adapter tongs Mini* if necessary and lightly grease the bolts (12) of the pressing jaws, pressing segments and adapter jaws, adapter tongs Mini (Fig. 1, 15–19) with machine oil. Remove deposits from the pressing contour (11, 22). Check the proper functioning of all pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini regularly with a test pressing with inserted pressing fitting. A perfect pressing is only produced with full closure of the pressing tongs, pressing tongs Mini, pressing ring or pressing segment. Full closure of the pressing jaws (10), pressing rings (20) or pressing segment (21) both at their tips (Fig. 1 and Fig. 15–19 at "A") and on the opposite side (Fig. 1 and Fig. 15–19 at "B") can be observed after completing the pressing. If a visible burr is created on the pressing sleeve when closing the pressing tongs, pressing tongs Mini, pressing ring or pressing segment, the pressing may be faulty or leaking (see 5. Trouble).

Damaged or worn pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini may no longer be used. In case of doubt, send in the drive machine together with all pressing tongs, pressing tongs Mini, pressing rings, adapter tongs, adapter tongs Mini to an authorised REMS service shop for inspection.

4.2.2. Radial presses

Keep the press tongs receptacle clean, in particular clean the press rollers (5) and tongs shank (2) at regular intervals and then lightly grease them with machine oil. Check the functional safety of the drive unit regularly by making a pressing with the press fitting that requires the greatest pressing force. If the pressing tongs, Mini pressing tongs, pressing ring or pressing segments close completely in this pressing (see above), the drive unit is functioning reliably.

4.2.3. Axial presses

Keep the compression heads (14) and mounting bores in the pressing device and the pressing device itself clean.

4.2.4. Pipe expanders

Keep the expanding device (15), expanding heads (16) and expanding mandrel (18) in REMS Akku-Ex-Press Cu ACC, REMS Akku-Ex-Press P, REMS Akku-Ex-Press P ACC, REMS Akku-Ex-Press Q & E ACC, REMS Power-Ex-Press Q & E ACC clean. Grease the expanding mandrel (18) lightly from time to time.

5.2. Fault: Radial press does not finish the pressing, pressing tongs, Mini pressing tongs, pressing ring, adapter tongs, pressing segment do not close fully.

Cause:

- Drive unit overheated (REMS Power-Press SE, REMS Power-Press, REMS Power-Press ACC, REMS Power Press XL ACC.).
- Worn carbon brushes.
- Slip clutch defective (REMS Power-Press SE).
- Battery depleted or defective (REMS cordless drive units).
- Drive unit defective.
- Wrong pressing tongs, Mini pressing tongs, pressing ring (pressing contour, size) or adapter tongs, adapter tongs Mini inserted.
- Pressing tongs, Mini pressing tongs, pressing ring or adapter tongs, adapter tongs Mini stiff or defective.

Remedy:

- Let the drive unit cool down for about 10 minutes.
- Have the carbon brushes or DC motor changed by qualified personnel or an authorised REMS customer service workshop.
- Have the slipping clutch checked/repared by an authorised REMS customer service workshop.
- Charge the battery with the Li-Ion/Ni-Cd rapid charger or change the battery.
- Have the drive unit checked/repared by an authorised REMS customer service workshop.
- Check the labelling on the pressing tongs, Mini pressing tongs, pressing ring or adapter tongs, adapter tongs Mini and change if necessary.
- Do not use the pressing tongs, Mini pressing tongs, pressing ring or adapter tongs, adapter tongs Mini any further! Clean and lightly grease the pressing tongs, Mini pressing tongs, adapter tongs, adapter tongs Mini with machine oil or replace them with new ones.

5.3. Fault: REMS Power-Press SE switches of repeatedly at the end of the pressing.

Cause:

- Defective drive unit.

Remedy:

- Have the drive unit checked/repared by an authorised REMS customer service workshop.

5.4. Fault: A prominent burr is produced on the press fitting when closing the pressing tongs, Mini pressing tongs, pressing ring or pressing segments.

Cause:

- Damaged or worn pressing tongs, Mini pressing tongs, pressing ring, pressing segments or pressing contour.
- Wrong pressing tongs, Mini pressing tongs, pressing ring (pressing contour, size) or adapter tongs, adapter tongs Mini inserted.
- Unsuitable matching of press fitting, pipe and support sleeve.

Remedy:

- Replace the pressing tongs, Mini pressing tongs, pressing ring with new ones.
- Check the labelling on the pressing tongs, Mini pressing tongs, pressing ring or adapter tongs, adapter tongs Mini and change if necessary
- Check the compatibility of the press fitting, pipe and support sleeve. Observe the installation and assembly instructions of the manufacturer/supplier of the press fitting system to be pressed and contact him if necessary.

5.5. Fault: Pressing jaws close without load on the pressing tongs, Mini pressing tongs offset at "A" and "B" (Fig. 1).

Cause:

- Pressing tongs, Mini pressing tongs fell to the floor, compression spring bent.

Remedy:

- Send the pressing tongs, Mini pressing tongs to an authorised REMS customer service workshop for inspection.

5.6. Fault: The pipe is crushed between the press fitting and the fitting joint in axial pressing.

Cause:

- Expansion too long.
- Pipe pushed too wide onto the support sleeve of the press fitting.
- Wrong expanding head (press fitting system, size) inserted.
- Unsuitable matching of press fitting, pipe and support sleeve.

Remedy:

- Check whether the right expanding head was used. Pipe expanded several times, observe the installation and assembly instructions of the manufacturer/supplier of the press fitting system to be pressed.
- Check whether the right expanding head was used. Pipe expanded several times, observe the installation and assembly instructions of the manufacturer/supplier of the press fitting system to be pressed.
- Change expanding head.
- Check the compatibility of the press fitting, pipe and support sleeve and contact the manufacturer/supplier of the press fitting system to be pressed if necessary.

5.7. Fault: A prominent gap is left between the press fitting and the fitting joint after closing the pressing heads in axial pressing.

Cause:

- Pipe crushed between the compression sleeve and the fitting collar, see 5.6.
- Wrong compression head (compression sleeve system, size) used.
- Battery depleted or defective (REMS cordless drive units).
- Drive unit defective.

Remedy:

- Check whether the right expanding head was used. Pipe expanded several times, observe the installation and assembly instructions of the manufacturer/supplier of the press fitting system to be pressed.
- Change pressing head.
- Charge the battery with the Li-Ion/Ni-Cd rapid charger, change the battery.
- Have the drive unit checked/repared by an authorised REMS customer service workshop.

5.8. Fault: Expander does not complete the expanding, expanding head does not open fully.

Cause:

- Drive unit overheated (REMS Power-Ex-Press Q & E ACC).
- Worn carbon brushes (REMS Power-Ex-Press Q & E ACC).
- Battery depleted or defective (REMS cordless drive units).
- Drive unit defective.
- Wrong expanding head (press fitting system, size) inserted.
- Expanding head stiff or defective.
- Expander set incorrectly (REMS Akku-Ex-Press 22V ACC).
- Distance from the press fitting to the expanding head too small.

Remedy:

- Let the drive unit cool down for about 10 minutes.
- Have the carbon brushes or DC motor changed by qualified personnel or an authorised REMS customer service workshop.
- Charge the battery with the Li-Ion/Ni-Cd rapid charger or change the battery.
- Have the drive unit checked/repared by an authorised REMS customer service workshop.
- Change expanding head.
- Do not use the expanding head anymore! Clean the expanding head and grease lightly with machine oil or change.
- Reset the expander, see 2.5.
- Increase the distance between the press fitting and the expanding head.

6. Disposal

The drive units, batteries and rapid chargers may not be thrown in the household waste when they are finished with. They must be disposed of properly by law. Lithium batteries and battery packs of all battery systems may only be disposed of in the discharged state, all contacts of incompletely discharged lithium batteries and battery packs must be covered with insulating tape.

7. Manufacturer's Warranty

The warranty period shall be 12 months from delivery of the new product to the first user. The date of delivery shall be documented by the submission of the original purchase documents, which must include the date of purchase and the designation of the product. All functional defects occurring within the warranty period, which are clearly the consequence of defects in production or materials, will be remedied free of charge. The remedy of defects shall not extend or renew the warranty period for the product. Damage attributable to natural wear and tear, incorrect treatment or misuse, failure to observe the operational instructions, unsuitable operating materials, excessive demand, use for unauthorized purposes, interventions by the customer or a third party or other reasons, for which REMS is not responsible, shall be excluded from the warranty.

Services under the warranty may only be provided by customer service stations authorized for this purpose by REMS. Complaints will only be accepted if the product is returned to a customer service station authorized by REMS without prior interference in an unassembled condition. Replaced products and parts shall become the property of REMS.

The user shall be responsible for the cost of shipping and returning the product.

The legal rights of the user, in particular the right to make claims against the seller under the warranty terms, shall not be affected. This manufacturer's warranty only applies for new products which are purchased in the European Union, in Norway or in Switzerland.

This warranty is subject to German law with the exclusion of the United Nations Convention on Contracts for the International Sales of Goods (CISG).

8. Extension of the manufacturer's guarantee to 5 years

For the drive units listed in these operating instructions it is possible to extend the guarantee time of the above manufacturer guarantee to 5 years by registering the drive unit under www.rems.de/service within 30 days of handover to the first user. Claims from the extension of the manufacturer guarantee can only be made by the registered first users on condition that the rating plate on the drive unit is not removed or changed and the data are legible. Cession of the claims is excluded.

9. Spare parts lists

For spare parts lists, see www.rems.de → Downloads → Parts lists.