REMS E-Push 2

INSTRUCTION MANUAL

Powerful, electric pressure testing pump for pressure and tightness tests of piping systems and receptacles.
Required safety actions for safe handling of the pressure testing pump:

1) Work area safety
a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
b) 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.
c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety
a) 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.
b) 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.
c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
e) 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.
f) 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
a) 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.
b) Use appropriate personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-slip safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
c) 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 energizing power tools that have the switch on invites accidents.
d) 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 will increase the risk of electric shock.
e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
f) 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.

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 startuping 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. Sharp, clean cutting tools are less likely to bind and are easier to control.

5) 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.

Safety instructions for electric pressure testing pump

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2.2. Setting the pressure limit

**CAUTION**
Open the "Pressure" regulating valve (8) fully by turning to the left before switching on the electric pressure test pump. If the pressure is set too high, the pipe system or vessel to be tested could be damaged.

The "Pressure" regulating valve (8) can be preset with the pressure limit adjusting wheel (11) in 6 pressure steps form approx. 0.5 – 6 MPa (5 – 60 bar/73 – 870 psi). It is recommended to set the pressure limit adjusting wheel (11) to pressure step 1 for normal pressure and leak testing of pipe systems. This avoids undesirable overloading of the pipe system. The higher pressure settings should only be chosen in special cases in which a higher test pressure is required. The adjusting wheel should be set back to pressure step 1 after pressure testing with the higher test pressure.

To set the pressure step, open the "Pressure" regulating valve (8) to the stop (turn to the left), press in the pressure limit adjusting wheel (11) and set to the desired step.

2.3. Suction hose
Screw the suction hose (2) to the suction hose nozzle (3). Do not kink the suction hose. Only pump clean liquids. Do not remove the suction filter (4) and suction filter with check valve (10). Make sure that the pressure test pump does not suck in air.

2.4. high-pressure hose
Screw the high-pressure hose (5) with gasket to the high-pressure hose nozzle (6).

3. Operation

3.1. Pressure and leak testing of pipe systems (observe EN 806-4 standard and national regulations)
It is prohibited to connect the electric pressure test pump to the public water supply. Water may only be sucked from open vessels (buckets).

Fill and vent the pipe system, e.g. sanitary or heating system. Place the electric pressure test pump on a level surface. Place the suction hose (2) with suction filter with check valve (10) in a vessel (bucket) filled with about 10 l of water. Connect the high-pressure hose (5) to the sanitary or heating system to be checked for leaks. Open the "Test" shutoff valve (7) and the "Pressure" regulating valve (8). Switch on the electric pressure test pump at the On/Off switch (1). There is a pressure of approx. 0.5 MPa (5 bar/73 psi) on the pipe system. If not, a tapping point is open in the pipe system. If the pressure is to be increased, turn the "Pressure" regulating valve (8) and set the desired pressure: turn clockwise = pressure increase, turn counterclockwise = pressure drop. On reaching the desired pressure, close the "Test" shutoff valve (7), switch off the electric pressure test pump at the On/Off switch (1).

The electric pressure test pump can be disconnected from the pipe system, e.g. sanitary or heating system, to be checked for leaks during the pressure test if the connection piece with pressure gauge and shutoff valve (12) (accessory) is installed between the electric pressure test pump and the sanitary or heating system to be checked for leaks (do not exceed the maximum pressure display of the fine scaled pressure gauge!) In this case, on reaching the desired pressure, close the shutoff valve on the connection piece (12), open the "Pressure" regulating valve (8), switch off the pump and remove the high-pressure hose at the connection piece (12).

Attention: Before connecting the high-pressure hose (5), make sure that the pressure has been relieved completely. Note the pressure on the pressure gauge (9).

**NOTICE**
Do not operate the electric pressure test pump for long periods on a closed system or with a closed "Test" shutoff valve (7). The electric pressure test pump could be damaged by overheating. Do not operate the electric pressure test pump without water/liquid.

3.2. Pumping liquids

**WARNING**
Do not pump inflammable liquids, acids or solvents! Observe permissible values pH, viscosity and temperature of the liquids (see 1.3. Work area).

Place the suction hose (2) with suction filter (4) and suction filter with check valve (10) in the vessel with liquid that is to be pumped. Feed the high-pressure hose (5) to the sanitary or heating system to be checked for leaks. (do not exceed the maximum pressure display of the fine scaled pressure gauge!) In this case, on reaching the desired pressure, close the shutoff valve on the connection piece (12), open the "Pressure" regulating valve (8), switch off the pump and remove the high-pressure hose at the connection piece (12).

3.3. Ending the operation

After ending operation, open the "Pressure" regulating valve (8) and the "Test" shutoff valve (7) and rinse out the pump with hoses (2) and (5) for a few minutes with fresh water.

**CAUTION**
The nozzles for the suction hose (3) and the high-pressure hose (6) can get very hot in operation. Do not touch them. To remove the hoses (2) and (5), wait until they have cooled down or use suitable hand protection.

3.4. Storage and transport
Empty the electric pressure test pump and hoses completely to avoid damage. Store the electric pressure test pump at ≥ 5°C and dry.
4. Maintenance

4.1. Inspection

Pull out the mains plug before inspection! Check the high-pressure hose for damage every time before using. Do no used damaged hoses. Keep the suction filter (4) and suction filter with check valve (10) clean.

4.2. Maintenance

Pull out the mains plug before maintenance work! If the pump loses grease, the complete pressure test pump must be sent to an authorised REMS Customer Service Workshop for inspection and repair.

To clean the suction filter (4) and suction filter with check valve (10), unscrew the suction hose, pull the suction filter (4) out of the hose with a suitable tool, e.g. flat pliers, and clean both filters under running water.

5. Faults

To clear faults, switch off the electric pressure test pump at the On/Off switch (1) and pull out the mains plug!

5.1. Fault: Pressure test pump running but builds up no pressure.

Cause:
- "Pressure" regulating valve (8) is open.
- Pressure test pump sucks in air.
- Suction filter (4) and/or suction filter with check valve (10) are blocked.
- Electric pressure test pump defective.

Remedy:
- Set the desired pressure by turning the "Pressure" regulating valve (8) to the right.
- Check whether the suction filter with check valve (10) is immersed completely in the water. Seal screw connections.
- Have the electric pressure test pump inspected by an authorised REMS Customer Service Workshop.

5.2. Fault: Pressure on the pressure gauge (9) fluctuates irregularly.

Cause:
- Air in the pipe system.

Remedy:
- Vent the pipe system.

5.3. Fault: Motor does not start, hums.

Cause:
- Electric pressure test pump blocked.
- Unsuitable voltage supply.
- Unsuitable extension lead.
- Pressure is applied in the pump with closed "Test" shutoff valve (7).

Remedy:
- Have the electric pressure test pump inspected by an authorised REMS Customer Service Workshop.

5.4. Fault: Motor stops suddenly during operation.

Cause:
- Motor circuit breaker has tripped.
- Pump run hot or blocked.

Remedy:
- Switch off electric pressure test pump at the On/Off switch (1) and allow to cool down for approx. 30 minutes.
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6. Disposal

The electric pressure test pump may not be thrown in the domestic waste after use. It must be disposed of properly by law.

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).