



PROFACTOR[®]
DER DEUTSCHE QUALITÄTSSTANDARD

EN

TECHNICAL DATA SHEET AND USER MANUAL



PRODUCT
CODE

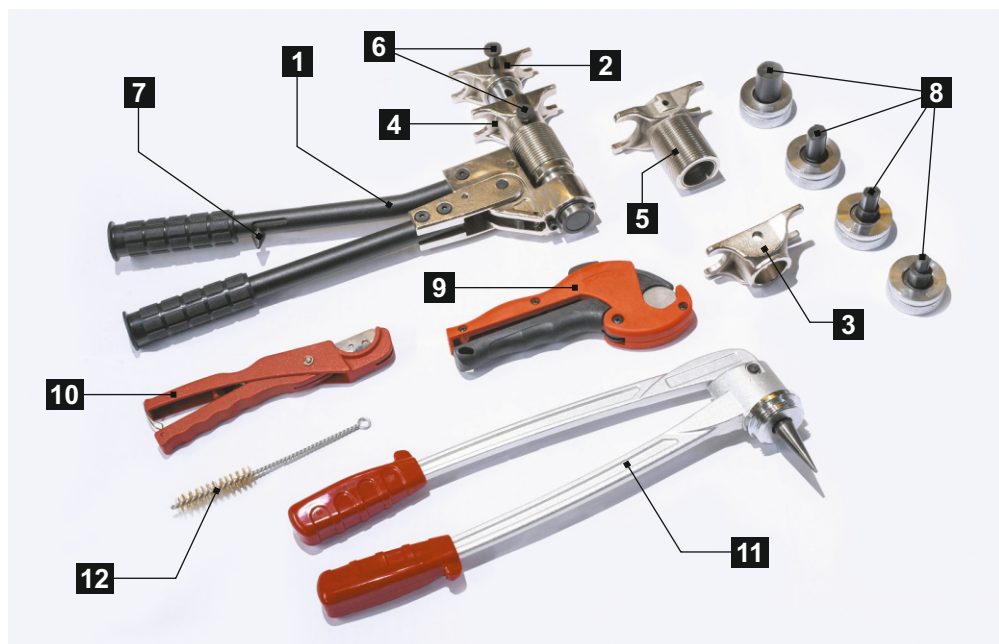
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**AXIAL FITTINGS
INSTALLATION TOOL (SET)**

1. TECHNICAL REQUIREMENTS FOR PIPES

Outer pipe diameter: 16 mm (wall thickness 2.0–2.2 mm); 20 mm (wall thickness 2.0–2.8 mm); 25 mm (wall thickness 3.5 mm); 32 mm (wall thickness 4.4 mm)

2. SET CONTENTS



1. Installation pliers (with a pre-installed set of jaw attachments) — 1 pc
2. Fixed jaw attachment 16 – 20 mm — 1 pc
3. Fixed jaw attachment 25 – 32 mm — 1 pc
4. Movable jaw attachment 16 – 20 mm — 1 pc
5. Movable jaw attachment 25 – 32 mm — 1 pc
6. Jaw attachment fixing pins — 2 pcs
7. Working stroke selector (lever) for the installation pliers
8. Expander heads (sizes: 16 mm, 20 mm, 25 mm, 32 mm) — 4 pcs
9. Pipe cutter with plastic handles for polymer pipes, size 16 – 25 mm — 1 pc
10. Pipe cutter with metal handles for polymer pipes, size 25 – 32 mm — 1 pc
11. Manual pipe expander — 1 pc
12. Cleaning brush for tool maintenance — 1 pc

Total weight of the kit — 7.4 kg

3. SAFETY REQUIREMENTS

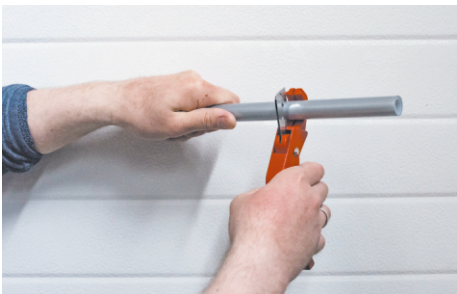
- Before operating the tool, carefully read this manual and strictly follow all requirements and recommendations.
- Before starting work, wear appropriate protective clothing, gloves, and safety goggles to prevent injuries and accidents.
- Do not operate the installation pliers with attachments that have lost their original geometry, have cracks, or show any mechanical damage.
- Do not use the tool for installing pipes with diameters other than those specified in this manual. Using attachments that do not match the dimensions of the pipes being connected may cause tool failure.
- Do not hold the sliding sleeve by hand during the connection process. Avoid touching moving parts while the tool is in operation to prevent finger pinching and injuries.
- Perform regular maintenance and cleaning of the tool. After completing work, use the special brush included in the kit to clean the tool from dirt, plastic, and other debris.
- The use of lubricants, sealants, or any other unapproved substances during the installation of axial systems is strictly prohibited.

WARNING!

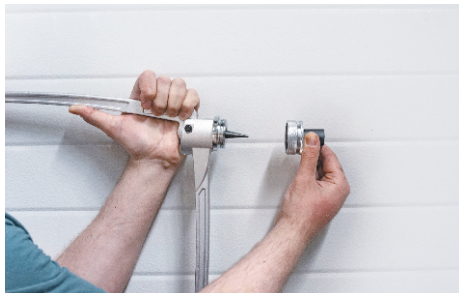
Profactor Armaturen GmbH is not responsible for any damage or injury caused by improper use of the tool or use for purposes other than those intended.

4. TOOL OPERATING PROCEDURE

4.1. Cut the pipe to the required length using one of the two pipe cutters included in the kit. Choose the cutter that is most convenient for your work and test it on a spare piece of pipe beforehand. It is recommended to cut polymer pipes using the cutter by pressing the handle firmly, maintaining a strict right angle to the pipe.



4.2. Expand the end of the cut pipe using the manual expander. First, select the appropriate expander head (16 mm, 20 mm, 25 mm, or 32 mm) corresponding to the pipe size. Then fully open the expander handles to a 90° angle and screw the selected expander head on until it is securely tightened.



4.3. Before placing the polymer pipe onto the expander head, slide the sleeve onto the pipe with the inner chamfer facing toward the fitting to be connected. During pipe expansion, the sleeve must be kept at a distance from the expander head equal to at least the length of two sleeves.



4.4. Insert the pipe with the sleeve onto the expander head until it stops, and perform the first expansion by fully closing the expander handles. Then open the handles again, rotate the expander head with the pipe by 30°, and perform a second expansion.



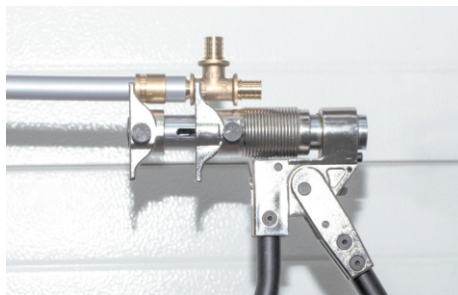
4.5. After completing the pipe expansion procedure, remove the pipe from the expander head, then insert the fitting's spigot into the expanded end of the pipe until it stops. A small gap should remain between the edge of the pipe and the fitting flange. Since the pipe may quickly contract around the fitting spigot due to its "shape memory" effect, proceed promptly to the next stage of the process using the clamping tool.



4.6. Working with the Installation Pliers. Select the jaw attachments of the required size. Open the handles of the installation pliers fully to a 90° angle. Then place the selected jaw attachments onto the plier body and secure each attachment with the fixing pins.



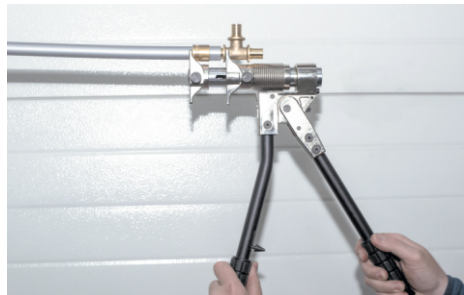
4.7. Place the pipe with the fitting into the pliers, ensuring that the pliers firmly grip both the fitting and the sleeve at a right angle, without any misalignment.



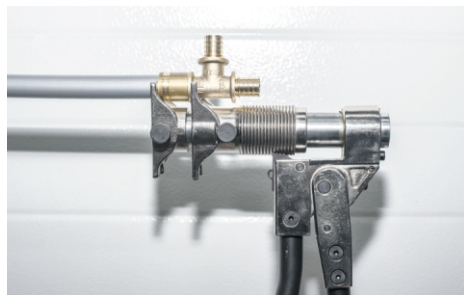
4.8. Move the selector (lever) on the fixed handle of the installation pliers to the working position by pushing it downward.



4.9. Slowly begin closing the handles of the installation pliers, gradually pushing the sleeve toward the fitting flange. This procedure should be performed in several stages, applying moderate physical force.



4.10. Once the sliding sleeve reaches the fitting flange, stop pressing to avoid damaging the fitting or jamming the tool. Visually inspect the completed connection to ensure there are no damages.



4.11. After completing the pressing operation, return the selector (lever) to its original position — upward. Then open the handles of the installation pliers to a 90° angle and release the pressed fitting from the pliers.



4.12. Completed connection.



5. TOOL OPERATION INSTRUCTIONS AND WARRANTY

The tool must be kept clean and thoroughly cleaned after each pressing operation.

As needed, the axes of the tool's moving parts should be lubricated with machine oil.

Installing axial fittings at temperatures below -10°C or above $+45^{\circ}\text{C}$ may damage the connecting components or the tool.

A damaged tool must not be used further. It should be taken to a service center for diagnostics and repair.

Do not attempt any repairs on the tool yourself.

In case of a malfunction, tool repair must be carried out by a specialized service center. For detailed information, contact the official distributors of the PROFACTOR® brand.

The warranty period is 6 months from the date of sale to the end consumer, provided the consumer follows the rules for storage, transportation, installation, operation, and maintenance of the product. The warranty does not cover natural wear of the tool's working parts that occurs during normal use.

6. STORAGE AND TRANSPORT CONDITIONS

The tool must be stored in a plastic case in a dry room at temperatures from $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$ and a relative humidity of no more than 80%. Otherwise, exposure to a humid environment may cause corrosion and tool failure. The tool should be transported only in its packaged state inside the plastic case.

Profactor Armaturen GmbH reserves the right to make changes to the tool's design that do not affect its technical specifications or functional features.



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