

# GRINDING OF THE INNER DIAMETER OF TUBES



For pipes of larger diameters, the inner surface needs to be sanded, internal surface defects removed, or just clean the inner surface of scaling. During grinding, the pipe is laid on radial rollers and rotated at a constant speed.

From the front side, an abrasive stone disc mounted on the mandrel is inserted into the pipe. The mandrel with the disc passes lengthwise inside the pipe. On the other side, sanded material and scales are sucked out of the pipe.

The lengthwise feed of the disc is controlled by the travel of the grinder's drive station along the rail line. When the mandrel comes out of the pipe, the mandrel is supported by a mobile support. The feed of the mandrel with the blade and the pressure of the blade is manual or automatic from the control panel.

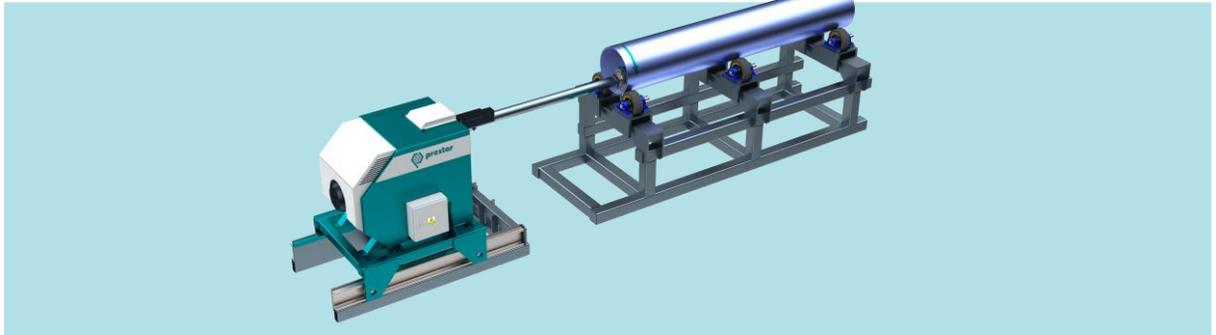


## Technical parameters of the machine

Inner diameter of pipes:	180 – 600 mm
Length of pipes for single-sided grinding:	Up to 8 000 mm
Max. length of pipes when grinding from both sides:	Up to 16 000 mm
Material removal in one cycle of passage:	Up to 0,20 mm
Repeated grinding cycles on a defined section in order to grind:	Up to 1,6 Ra
Automatic mode allows for:	<ul style="list-style-type: none"> <li>✓ Repeated grinding cycles along the entire length of the pipe</li> <li>✓ Repeated grinding cycles on a defined section in order to grind surface defects</li> <li>✓ Monitoring the force of blade pressure on the pipe surface</li> </ul>
Abrasion extraction:	By connecting an elastic abrasion-resistant hose to the end of the pipe using a replaceable conical head



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## Other equipment of the machine

- Input tray tables with automatic loaders. The loaders move the pipe from the table to the radial rollers to the grinding axis
- Loaders for moving the pipe from the rollers to the side table
- Filtration device with a fan for suction of particles after grinding. Filtration device can be set up in the production hall.
- Semi-automatic insertion of the suction hose to the suction end of the pipe
- For long pipes over 8 m, the alignment of two mirror grinders for grinding the pipe from both ends is necessary. This solution increases productivity of the production of long pipes and saves handling times incl. rotation of the pipes by 180 degrees.
- Manual ultrasound tube wall thickness measurement
- Extended visualization with an emphasis on intuitive and detailed display of operating states and the place of failure of the grinder
- Extended service with the possibility of displaying guides, service manuals and other necessary documentation on HMI machines in order to minimize service times
- Collection of agreed production parameters with automatic saving, display and data export.

