PIE BEVELLING MACHINE
Pipe beveling machines for pipe bevel of pipe end in pipe welding

- High cutting capacity
- Quick and secure clamping
- Rugged and extreme compact design
- Easy handling
- Membrane wall cutting down to Ø 20,0 mm

Field of application

The external portable pipe bevelling machines are used for pipe bevel of the pipe end in pipe welding applications. The portable machine is used for facing and bevelling the pipe edge. Especially for heavy wall pipe the pipe machining is fast and accurate. Pipe bevelling and facing can be done in one operation with special tool holders. Operated by one man the pipe bevelling machines can be used in the workshop and on site with low weight due to aluminum construction. High speed bevelling and facing with special tool bits provides economical manufacturing of pipes, tubes and headers. The bevellers are also used for boiler tube panel repair and removing membrane of the panel in supercritical boilers and high pressure boilers.
TECHNICAL DATA
of pipe beveling machine for weld preparation

**Working Range:**
- Pipe outside diameter: min. 20 mm, max. 38 mm
- Pipe inside diameter: min. 8 mm, max. 15 mm
- Minimum width of membrane wall ports: 37 mm
- Weld preparation form of pipe end (depends on pipe welding process): groove joint
- Feed: manual
- Spindle stroke: 25 mm

**Weight:**
- with pneumatic drive: approx. 6.4 kg
- with electric drive: approx. 7.6 kg

**Pneumatic geared motor:**
- Power: 740 W at 6 bar, 400 W at 4 bar
- Operating pressure: 6 - 7 bar
- Air consumption: 0.96 m³/min
- Compressed air connection: R 1/4"

**Electric geared motor:**
- Power consumption/Connection voltage: abt.1200W with 230 V
- ~ (single-phase alternating current)
- Protective class: II – all-insulated

The big advantage of this machine is that membrane walls down to a size of Ø 20mm can be bevelled with tool tip crown milling heads. The minimum membrane wall width is only 37,0 mm.
SPECIAL TOOL TIP HOLDERS
for portable pipe bevelling machine type MF2-25

091501105
HSS
Pipe facing and pipe bevel tool tip 0°

091501028
HSS
Pipe facing and pipe bevel tool tip 30°

091501106
HSS
Pipe facing and pipe bevel tool tip 0° (TIN)

091501108
HSS
Pipe facing and pipe bevel tool tip 30° (TIN)

091503868
Weld preparation tool tip holder 30°
(Ø 20 - Ø 38)

091504432
Weld preparation tool tip holder 0°
(Ø 20 - Ø 38)

Weld preparation tool tip holder
BOILER TUBE PANEL CUTTING AND BEVELING
with crown milling cutters

For pipe beveling machine MF2-25

- High cutting capacity
- Tool tips are reversible
- Easy to change on site
- Modular designed for different tube dimensions
- High endurance

For use in production of high pressure boilers Babcock has developed special production tools for pipe bevel and pipe preparation. Especially nowadays supercritical boilers are a big challenge in production. For pipe welding and weld preparation of boiler tube panels the crown milling cutter has been developed. The tool is equipped with tool tips to cut off the bars between the tubes of the panel wall and in the same step to bevel the pipe end of boiler tube panel.

It is mainly consisting of:
- 1 base holder for each pipe beveling machine
- 1 tool tip milling cutter for each diameter
- 2 tool tip holders 30° are for all diameters identical. Tool tips and screws are identical as well for all applications.
The following tools are necessary for beveling the boiler tube panel. For the correct pipe machining different bevel tools have to be combined to achieve the perfect result in weld preparation of the boiler tube panel. A perfect weld preparation is the basis of high quality pipe welding.

### Tool Tip Crown Milling Cutter

**Overview MF2-25**

<table>
<thead>
<tr>
<th>Tube - Ø (mm)</th>
<th>All necessary parts for one complete unit</th>
<th>Spare parts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
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<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>TT crown milling cutter with knox screws M4 and 4 screws M5x25</td>
<td>TT 0°</td>
<td>Basic holder (compl. thread-pin M8 x 10)</td>
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<tr>
<td>(Art.-No.)</td>
<td>(Pieces)</td>
<td>(Art.-No.)</td>
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<tr>
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<td>20.0</td>
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</tr>
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</tr>
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<tr>
<td>38.0</td>
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</tr>
</tbody>
</table>

One complete unit consists of 1 crown milling cutter for each diameter.

For tool tips and screws are identical as well for all applications.

**MF2-25**

- **Base holder for each pipe beveling machine**
- **1 tool tip milling cutter for each diameter**
- **2 tool tip holders 30° are for all diameters identical.**