Installation Instructions

Bending Device
SinglePowerLine 0812

Order number:
081010
Drawing number:
08-V015-0026

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1 Function of the Bending Device

This bending device can be used to bend conductor rails horizontally and vertically. In horizontal bends, a maximum radius of $R = 15 \text{ m}$ can be achieved.

2 Notes

**Danger of crushing!**

There is a risk that fingers can be crushed if you reach into the machine while it is running.

$\rightarrow$ Wear protective clothing (safety gloves, safety boots, etc.).

$\rightarrow$ Do not reach into the running machine.

**In case of intervention from below, the intervention opening in the insulation profile must be always face away from the machine!**

Be sure when placing it into the machine that the intervention opening is always facing away from the machine. This will also prevent the slot from being pressed together (due to the play).

**Observe safe speed!**

The speed of the crank should not exceed 60 rpm.
3 Producing a Curve

→ Place the conductor rails in front of the bending device (e.g. on roller stands).

→ Since the profile is asymmetrical, a slight twisting cannot be entirely ruled out.

→ Installing the rail bend in the hanger clamp generally orients the rails correctly, so that the passage of the current collector is not impeded.

**CAUTION!**

The conductor bar can deform during the horizontal bending!
If the profile cross-section is deformed, there is a risk that the sliding contact could be caught.

→ Use the plastic inserts provided (see Fig. 1) to counteract the deformation of the profile cross-section.

![Fig. 1: Plastic insert (included in scope of supply)](image)

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Copper conductor bar</td>
</tr>
<tr>
<td>2</td>
<td>Inserts for bending device (material no.: 081011)</td>
</tr>
</tbody>
</table>
If the adjustable roller is set to 8.6 using the scale, the resulting radius will be about 15 m.

→ The conductor bar is gradually bent into smaller and smaller radii. The direction of rotation in which the conductor bar is deformed should always be the same, i.e. after reaching an intermediate radius, turn the conductor bar again and only then reposition it.
4 Preventing Stripping/Clamping of the Collector Head on the Insulation Profile

To prevent the collector head from being stripped/clamped, the following procedure can also be used for larger radii: The insulation profile can be slotted in horizontal bends to prevent stripping/clamping of the insulation (2). The slotting reduces the degree of protection to IP 20 and may only be carried out with a safety extra-low voltage DC 48 V/AC 65 V. The slotting is not allowed to be carried out with a safety extra-low voltage DC 48 V/AC 65 V. For higher voltages, additional protective devices (e.g. enclosure or protection by distance) must be provided.

Before inserting into the insulation profile, a layer of packing tape/strapping band (1) must be inserted into the inside of the insulation profile to prevent the intervention opening in the insulation profile from narrowing. The packing tape/strapping band (1) must not just from the insulation profile and remains in the conductor rail. The quantity of packing tape/strapping band (1) depends on the number and length of the curves. So it must always be ordered the double quantity of packing tape/strapping band per conductor rail. After that push the conductor bar into the insulation profile.

![Diagram](image)

**Fig. 4: Packing tape**

Radii up to min. 3,000 mm are recommended. The limit range is 2,500 mm.

<table>
<thead>
<tr>
<th>Item</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Packing tape/strapping band (15x07 mm) of plastic (not included in scope of delivery)</td>
</tr>
<tr>
<td>2</td>
<td>Slot</td>
</tr>
</tbody>
</table>

1 = Slotting device for insulation profile. Only for conductor rails for safety extra-low voltage DC 48 V/AC 65 V

For higher voltages, additional protective devices (e.g. enclosure or protection by distance) must be provided.

![Diagram](image)

**Fig. 5: Cutter 0812**
5 Auxiliary Tools and Others

ATTENTION!

If the rail is twisted after bending, it can be straightened using the optional Setting Tool 0812 (Order No.: 08-W100-0594) (see Fig. 6). The Setting Tool 0812 is not included in the scope of delivery.

Fig. 6: Setting Tool 0812 (Order No.: 08-W100-0594)