

ROUND BENDING MACHINE

RBM 1050 - 22



SAFETY



This is a brief manual. Consider also **manufacturer's manual** and **ask supervisor in case of doubts**.

- **Wear protective gloves (to protect from sharp components and friction + abrasions or deeper wounds)**
- **Wear safety shoes**
- **Wear proper clothing/protective clothing (garments that have a lower risk of cutting through or being ripped) → eg. no loose clothing, no necklaces, rings etc. that can be pulled into the machine**
- **Keep distance to moving parts! Especially rollers and gears. Fingers, hands etc. could be seriously hurt.**

USE AND MATERIALS

Use

This machine is used for:

- Manufacturing of round-shaped parts, such as pipes, cones, cylinders.
- Material to be bent must not exceed the max sheet thickness specified for the machine.

Material requirements

- No harmful substances or flammable substances
- Dry and clean material (free of oil)
- Diameter must correspond to specifications
- Surfaces of the areas to be bent should be smooth, level

MAX SHEET WIDTH	1000 mm
MAX SHEET THICKNESS	2,0 mm
ROLLER DIAMETER	75 mm
MIN. BEND DIAMETER	115 mm

MACHINE OVERVIEW



1. Hand crank for roller drive
2. Folding top roller
3. Bottom roller
4. Levers for height adjustment of the bottom roller
5. Levers for the height adjustment of the back roller
6. Top roller lock
7. Gear cover

BEFORE BENDING

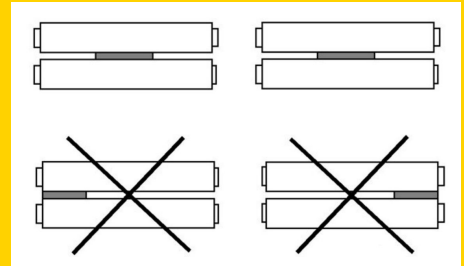
WARNINGS

- Check that the rollers are thoroughly cleaned to avoid possible slippage of the profile due to grease residue on the rollers
- A complete bend in one pass is not possible → multiple passes are required to achieve the desired result
- Tighter bends and full radius always require several passes
- DO NOT use profile that exceed the specification
- DO NOT use two profiles at a time

PROCEDURE

Before

- Remove any dirt and/or oil from the material
- Make sure the ends of the material are free of chips and residues from burning
- **Always work the piece in the center of the rollers.**



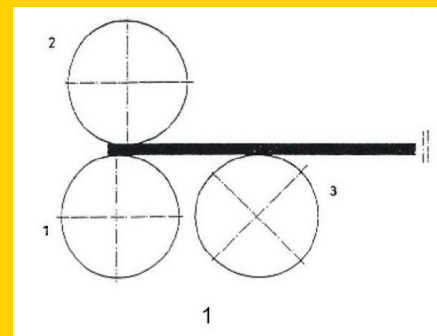
Pre-bending and bending

Pre bending means bending the ends of the material to the same radius as the end radius.

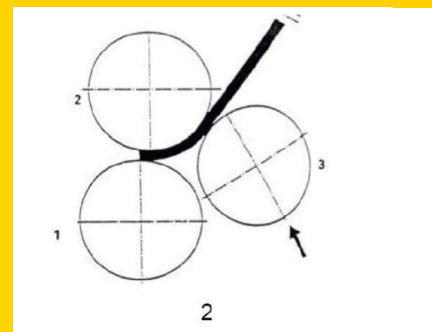
Why pre bending? Gives best results on full radius (eg. tubes)

STEP 1: Lay the beginning of the sheet metal between the rollers, making sure they are in straight position.

Clamp the block between front roller and top roller by pushing lever B backwards.

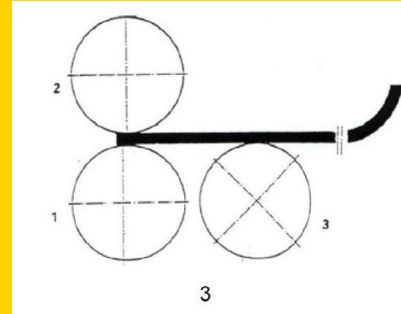


STEP 2: Bring the back roller up to complete the pre bending.

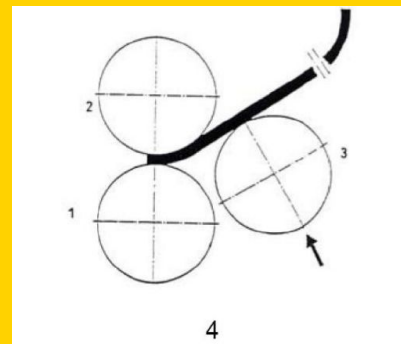


PROCEDURE

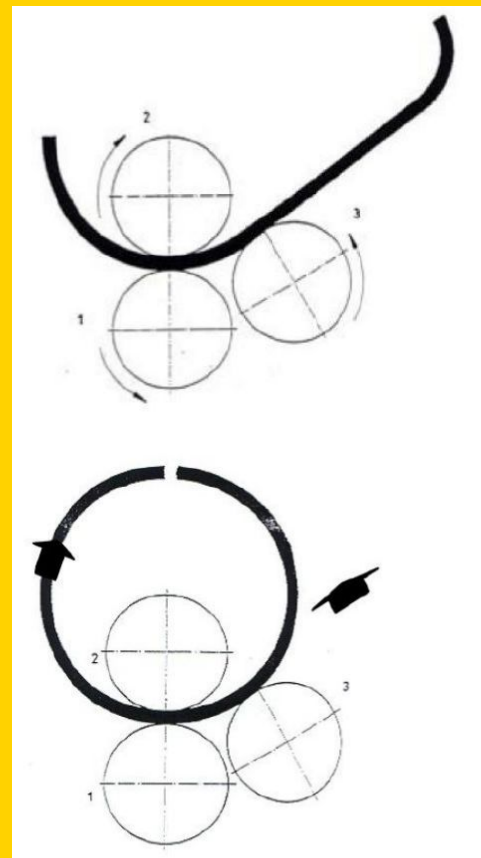
STEP 3: Turn sheet metal and position it for the second pre bending.



STEP 4: Bring back roller up again to complete pre bending.



STEP 5: Roll the cylinder reel to carry out the actual bending. Shape the sheet to the desired diameter.



PROCEDURE

Remove your workpiece

STEP 1: Unfold the top gear cover (1).

STEP 2: Rotate the caster lock up (2).

STEP 3: Roller can now be swiveled forward and the workpiece can be removed (3).



STEP 4: Proceed in reverse order to fold the roller back in.

STEP 5: After the bending process is completed, rotate the bottom and back rollers down.

ATTENTION

→ **Do not try to turn the hand crank when the top roller is open.**

→ **Material gets harder after each pass.**

→ **Several passes will be necessary when processing stainless steel.**