

ROUND O

SECTION BENDING MACHINES R-2 and R-3

The main frame of the machine is of all steel welded construction, heavily proportioned and welded to a structural steel base, stress-relieved and then machined.

The three bending shafts and all other shafts are journaled in heavy SKF roller- and ball bearings.

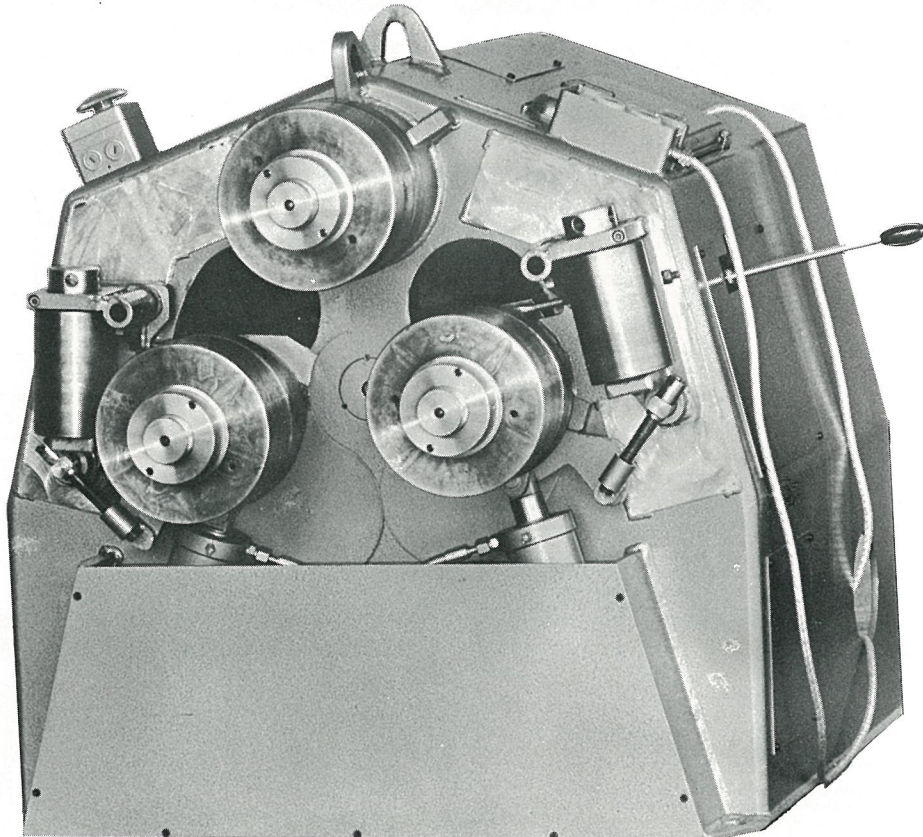
All three rolls are driven irrespective of adjustment position, by a geared motor with a magnetic brake (R-2) or by a worm gear motor (R-3).

The central roll (the top roll) is equipped with a slip clutch, compensating for the difference in surface speeds of the inner and outer diameters of the section being rolled.

The two lower rolls are individually and hydraulically adjusted by means of a motor driven hydraulic pump. The hydraulic unit is protected against overloading and non-return valves eliminate the possibility of the lower rolls changing position during the bending operation.

The drive and method of adjustment for the ROUND O Section Bending Machines give them a unique and universal range of capacities with pre-bending of both leading and trailing edge without the need to remove and turn the section being bent.

As standard the machines are operated by portable push button controls for roll rotation and by hand levers for the adjustment of the lower rolls.



STANDARD EQUIPMENT

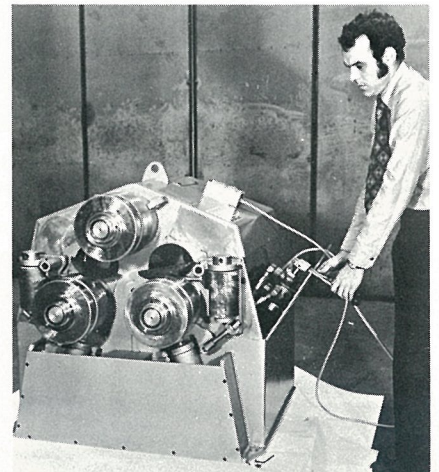
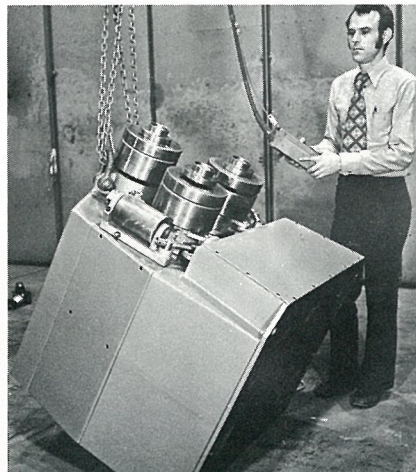
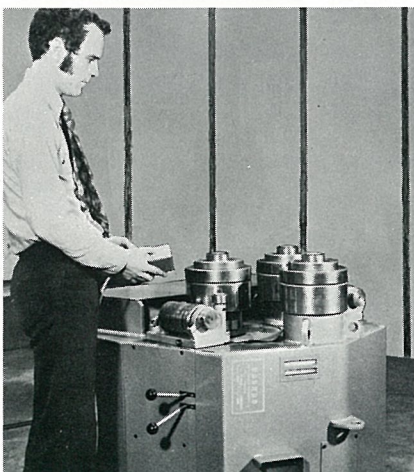
- Horizontal bending shafts.
- Three roll drive.
- Compensating slip clutch for the top roll.
- One set of standard rolls for flat bar, angle and T-sections and square bar.
- Guide rolls for bending of asymmetrical sections.
- Portable push button control for roll rotation.
- Scales showing position of the lower rolls.
- Emergency stop palm button.
- Complete set of adjusting tools.
- Operators manual and service instructions.

OPTIONAL EQUIPMENT

- Combined horizontal/vertical design.
- Bending rolls for pipes. Two pipe diameters per set.
- Bending rolls combined, for I and U Beams.
- Bending rolls for round bar.
- Spiral bending rolls for production of rings from flat bars or pipes.
- Spiralling device for production of coils and spirals from pipes or flat bars.
- Push button control for all functions.
- Bending rolls for other special sections.

The machine can as an optional extra be supplied in a combined horizontal/vertical design and can easily be turned 90° to function

in the vertical or the horizontal position depending on the type of work to be done and on the local shop conditions.

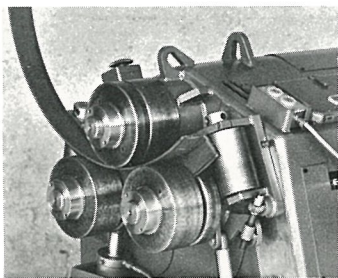


STANDARD ROLLS

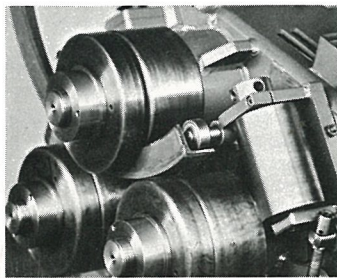
Bending rolls for flat bar on the flat and on edge, angle leg out and leg in and T-bar leg out and leg in, are supplied as standard with the machines.

The rolls are through-hardened and located on the shafts by means of a single key, thus making it easy to adjust and

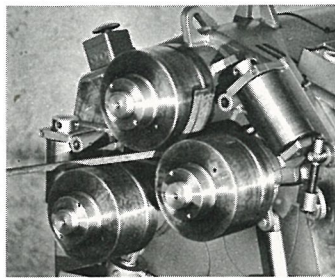
change over to the various special rolls that can be supplied as optional equipment. Guide rolls, partly self-adjusting and necessary for bending of asymmetrical sections as well as scales indicating the position of the lower rolls, are standard equipment.



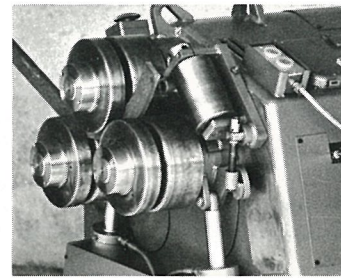
Bending of angle bar leg out with support from the guide roll.



Bending of angle bar leg in with support from the guide rolls.



Bending flat bar on the flat.



Bending flat bar on edge.

Capacities and specifications R-2

R-3

Section	With standard rolls	With special rolls	With standard rolls	With special rolls
	Max 60x6 Ø 600 ¹⁾	Small profiles to min bending dia 150 mm	Max 75x7 Ø 750 ¹⁾	Small profiles to min bending dia 160 mm
	Max 50x5 Ø 600	.. 200 mm	Max 60x6 Ø 750	.. 250 mm
	Max 60x7 Ø 600	.. 150 mm	Max 70x8 Ø 750	.. 160 mm
	Max 50x6 Ø 600	.. 200 mm	Max 60x7 Ø 750	.. 230 mm
	Max 60x7 Ø 600	.. 180 mm	Max 70x8 Ø 750	.. 200 mm
	Max 60x12 Ø 400	.. 150 mm	Max 75x15 Ø 500	.. 160 mm
	Max 150x16 Ø 400	.. 150 mm	Max 200x20 Ø 500	.. 160 mm
	Max 35x35 Ø 350	.. 150 mm	Max 45x45 Ø 450	.. 160 mm
	Small profiles	Max Ø 40. Ø 400 ¹⁾	Small profiles	Max Ø 50 Ø 500 ¹⁾
	Small profiles	Max od 50 Ø 500	Small profiles	Max od 65 Ø 650
	Small profiles	Max INP 100 Ø 500	Small profiles	Max INP 140 Ø 700
	Small profiles	Max UNP 80 Ø 500	Small profiles	Max UNP 140 Ø 700
	Small profiles	Max UNP 80 Ø 600	Small profiles	Max UNP 140 Ø 800

Max. section modulus in material with tensile strength 60-70.000 PSI/42-50 kp/mm²

Diameter of the rolls:

Motor:

Rolling speed:

Dimensions:

Net weight:

7 cm³

190 mm

2 hp

7 m/min

1010x910x810 mm

800 kg

14 cm³

225 mm

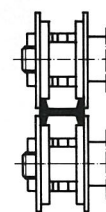
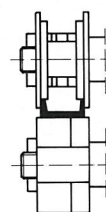
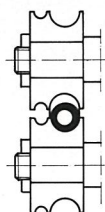
4 hp

7 m/min

980x1000x950 mm

1200 kg

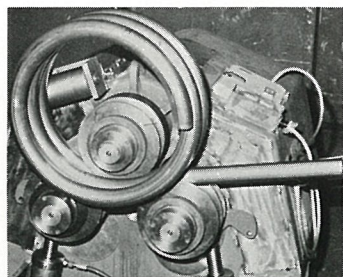
¹⁾ Indicated diameters are valid for max. sections in one or a few passes. Smaller sections can be bent to a diameter approx. 5 mm larger than the diameter of the central roll.



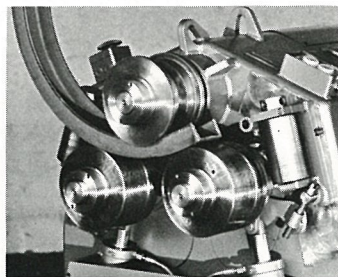
SPECIAL ROLLS

Special rolls for I and U beams, leg out and leg in and pipes in two dimensions per set of rolls are available. Rolls for production of rings by spiral bending of flat bar and pipes as well as other special rolls are available on request. The machines can be equipped with a

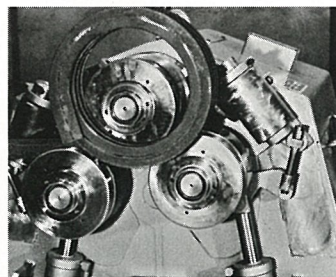
spiralling device for production of coils and spirals, with different pitches and diameters, from pipes and flat bars. Special rolls for all types of sections can be supplied. In some cases the rolls are made of a special material such as nylon to avoid marking and tearing on easily damaged sections.



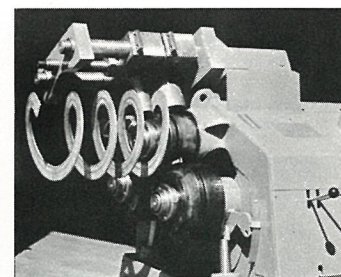
Pipe bending. Spiral bending for high production of rings.



Bending of INP/UNP leg in and leg out in a combined set of rolls.



Spiral bending of flat bar for high production of rings.



Production of coils and spirals from pipe or flat bar. Diameter and pitch can be adjusted.

The right is reserved to make changes in design, construction and specifications.

Manufactured by

DISTRIBUTOR

Hässleholms Mekaniska AB

Box 28

S-281 01 Hässleholm, Sweden

Telephone 0451-837 40 Telex 48131 Roundo S