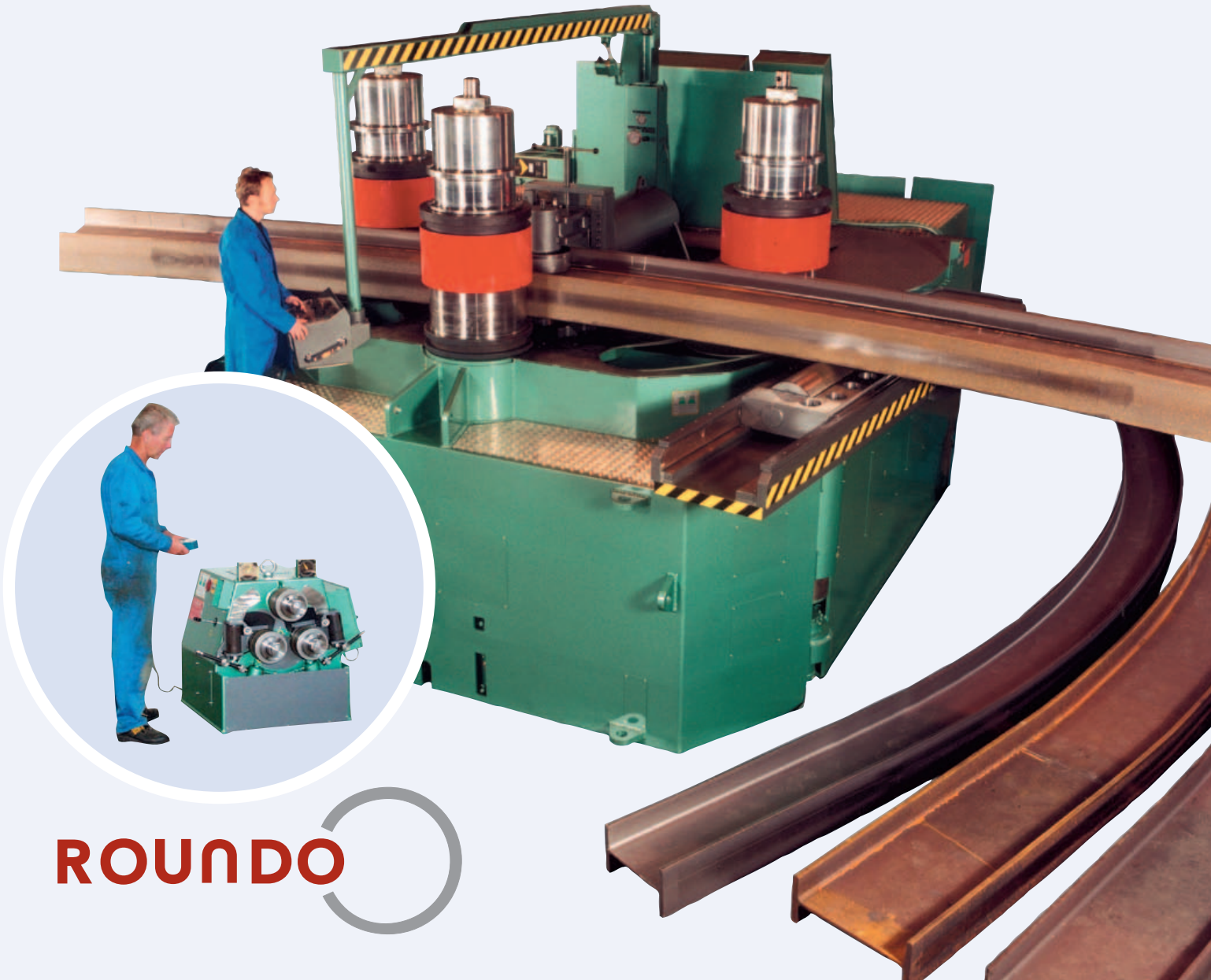
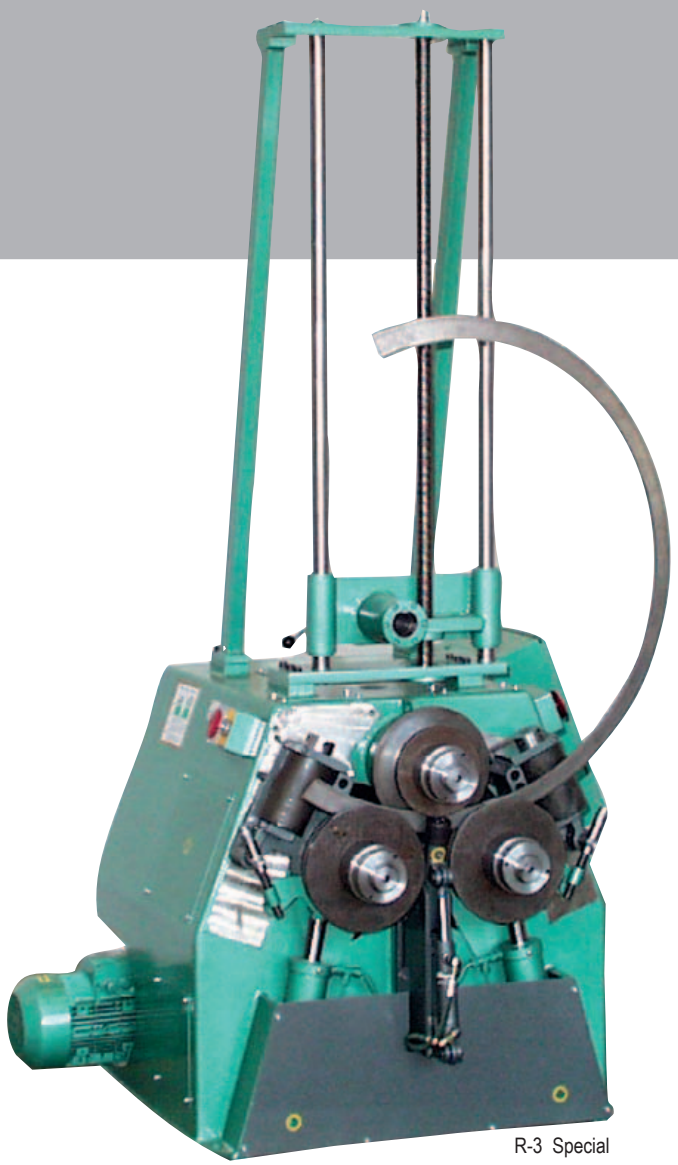
ROUNDO
Section Bending Machines
Type R-1 through R-21-S



Roundo Section Bending Machines
- Largest selection on the market



R-3 Special

ROUNDO is the world's leading manufacturer of plate and section bending machines. The company was formed in 1964, and has since delivered almost 16000 machines to satisfied customers around the globe. ROUNDO machines are world-renowned for outstanding performance, reliability and quality.

ROUNDO offers the largest selection of section bending machines on the market. We produce over 20 different standard sizes, from the R-1, our smallest machine, to the R-21-S, the strongest section bending machine in the world! Our machines are always more powerful and more heavily proportioned in terms of frame, shaft size, bearings and drive torque than machines from other suppliers. CNC controls and a wide array of options are available for all models.

TWO BROAD RANGES

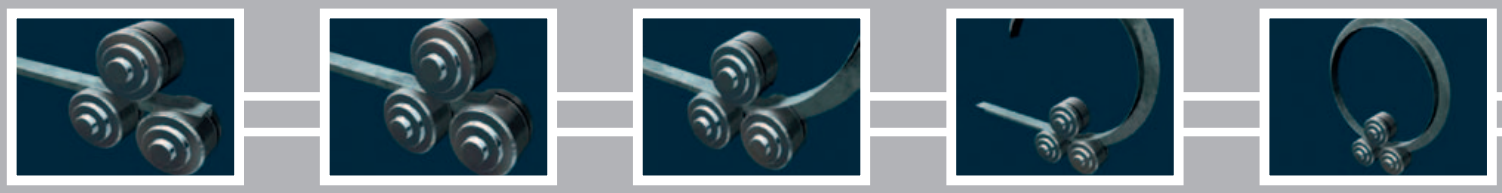
R-1 to R-6 are basic machines for all types of section bending. The guide rolls are manually adjusted and fixed to the swing arms. The range of "S"-models, R-2-S to R-21-S, offers enhanced versatility due to the unique design of the hydraulic guide rolls.

MAIN ADVANTAGES WITH ROUNDO BENDING MACHINES

- **Heaviest proportioned main frame**
  The main frame on all ROUNDO section bending machines is welded steel construction, machined and line bored using the heaviest components of any comparable machine for added strength and rigidity. ROUNDO is the only manufacturer who stress-relieves every frame after welding.
- **Largest shaft diameters and bearing sizes**
  Roll shafts are made from high-strength chrome-nickel alloy steel, and are the largest diameter shafts of any comparable machine. These heavily proportioned shafts help minimize deflection, resulting in improved bending. The roll shafts are journalled in oversized SKF roller bearings for greatest efficiency and long life. The standard tooling is a combination set for bending angles both leg-out and leg-in, flat bar on flat and on edge, T-bar stem-out and stem-in as well as stem-down, small square bar and even small solid round bar. Normally, no additional spacers are required.
- **Highest drive torque and rotation speed**
  ROUNDO section bending machines provide the greatest drive torque of any comparable machine. Greater drive torque means the section can generally be rolled in fewer passes, often resulting in less deformation to the section being rolled. All three rolls are driven at all times. The maximum rotation speed on all models is generally 7 m/min, considerably higher than other comparable machines.
- **Greatest bending roll force**
  The two lower rolls are individually adjusted by hydraulic cylinders. The rolls are sized to allow ROUNDO section bending machines to generate more bending power than any comparable machine, providing the largest section modulus capacity.
- **Most powerful guide rolls**
  ROUNDO section bending machines feature the largest, most powerful guide rolls available on the market. This allows them to take the twist out of the most massive sections within the capacity of the machine. The hardened steel guide rolls, including "leg-in" guide rolls, are standard on every model.

R-73 spiral bending
28 x 114 mm to ø 406 mm

Pictures on the cover page:
Model R-15-S, Vertical
Model R-1, Horizontal



CONTROLS

The ROUNDO wCNC² Control is a PC-based CNC control running under Microsoft® Windows, providing an operator-friendly graphical interface. This highly advanced and powerful system can control up to 24 axes, including the main bending rolls, the powered pushing rolls and support devices, and even the special devices used to bend beams and channels on X-X axis.

The ROUNDO wCNC² Control software includes a library of bending wizards to rapidly produce good parts. Even short runs can be efficiently rolled using this system. The CNC Control is available for all models.

The ROUNDO RLC/3 Logic Control System is a PLC based control system designed and developed normally for small section and plate bending machines. This system can control up to 7-axes and the possibility to use USB memory allows infinite number of bending programs.

The ROUNDO RLC/1 Position Control System is a basic positioning control with possibility to preset two values for each axis.
The positioning control automatically stops the movement of the bending roll when the pre-set value is reached. The system is designed to make repetitive bends.

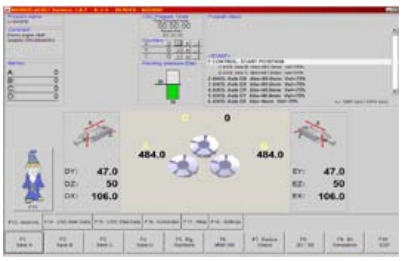
Electronic digital readouts are available for all models to improve the positioning accuracy of the bending rolls when adjusted by the operator.

ROUNDO RLC/3
logic control

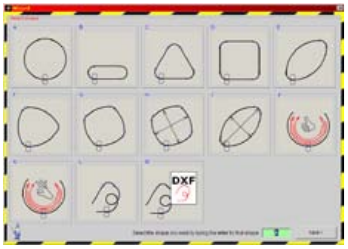
ROUNDO wCNC² control

Portable control with minijoysticks for variable speed adjustment on all functions and digital readouts.

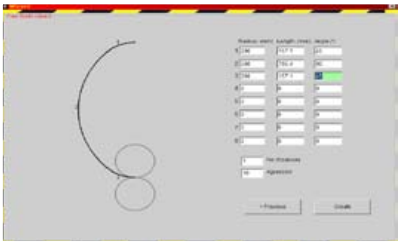
ROUNDO wCNC² IS AS EASY AS 1,2,3...



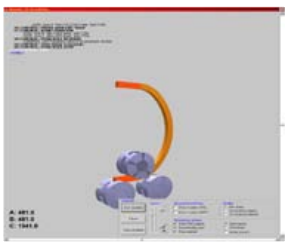
Select the wizard function and a new CNC program will automatically be generated with all necessary steps.



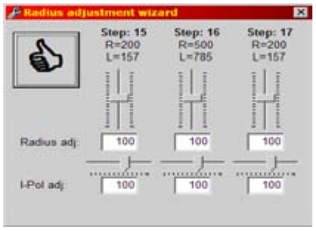
Select the shape you want or create your own.



Enter the values for the different radii and lengths.

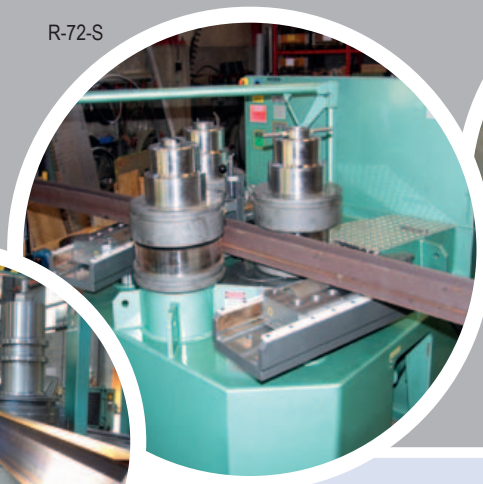


Simulate in full 3D to verify that the programmed part corresponds to the print.

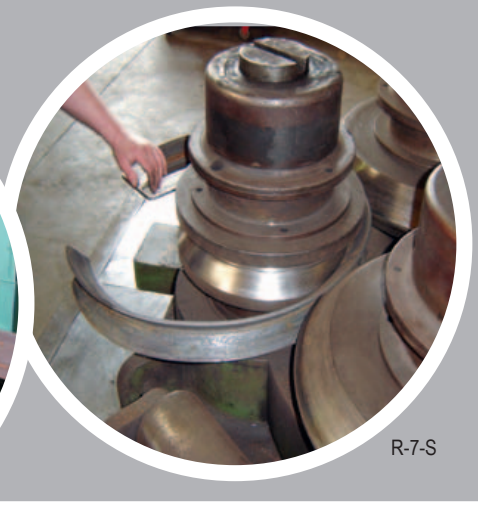


Make easy adjustments to get the program adapted to your material.

Type R-2-S to R-21-S


R-72-S


R-11-S


R-7-S


Hydraulic Beam
on edge device
("pulling unit") R-15-S


Hydraulic tooling
adjustment
R-13-S


Special rolls
R-72-S


R-7-S with
spiralling device.

The "S" models are suitable for all types of section bending and reach up to R-21-S, the most powerful section bending machine in the world. The three bending shafts are journalled in heavy duty SKF ball bearings. The guide rolls are hydraulically adjustable in three directions on most of the models (two directions on R-2-S to R-4-S). The hardened steel guide rolls are used to control the attitude of the material going into and coming out of the bending rolls. They are used when bending angle leg-out and leg-in and can be effective in many other bending applications.

STANDARD EQUIPMENT R-2-S TO R-21-S

- Drive on all three rolls.
  - Combined horizontal/vertical design (R-2-S to R-4-S)
  - R-2-S to R-7-S: Infinitely variable rotation speed via hydraulic motor.
  - R-52-S to R-72-S: Infinitely variable rotation speed via double hydraulic motors one for the top roll and one for the lower rolls.
  - R-8-S to R-16-S: Infinitely variable rotation speed via hydraulic motors, one for each roll.
- Automatic compensation for the speed difference between the rolls.
  - R-2-S to R-7-S: Via adjustable slip clutch.
  - Other models: Compensation built into the hydraulic system.
- Hydraulic adjustment of the lower rolls.
- Digital display showing the position of the lower rolls (R-8-S to R-16-S).
- Hydraulically operated guide rolls.
- Set of standard rolls combined for standard angle leg-out and leg-in, flat bar on flat and on edge, "T", small round bar and square bar. (R-2-S to R-7-S)
- Universal rolls for standard angle leg-out and leg-in, flat bar on flat and on edge, I and U beams the easy way, small round bar and square bar. (R-8-S to R-16-S)
- SKF roller bearings in all main journals.
- Emergency stop button.
- Portable push button control for all functions (R-2-S to R-4-S).
- Pendant push button control for all functions including electrical speed adjustment by potentiometer (R-5-S to R-72-S).
- Control panel on swing arm for all functions including electronic speed adjustment by joysticks for rotation and adjustment of lower rolls. (R-8-S to R-16-S).

SPECIAL ROLLS

- Rolls for pipe. Each set of rolls can be designed for one or two different sizes of pipe.
- Rolls for round bar.
- Rolls for square and rectangular tubing.
- Combined rolls for I and U beams the easy way, adjustable for all different sizes covering the capacity of the machine.
- Rolls for high production of rings by spiral bending of flat bar, pipe and other profiles.
- Rolls for special sections and profiles are designed on request. In some cases the rolls are made of nylon to avoid marking and tearing on easily damaged sections. (R-5-S to R-72-S)
- Universal rolls.
- Beam bending rolls.

R-3-S

R-62-S

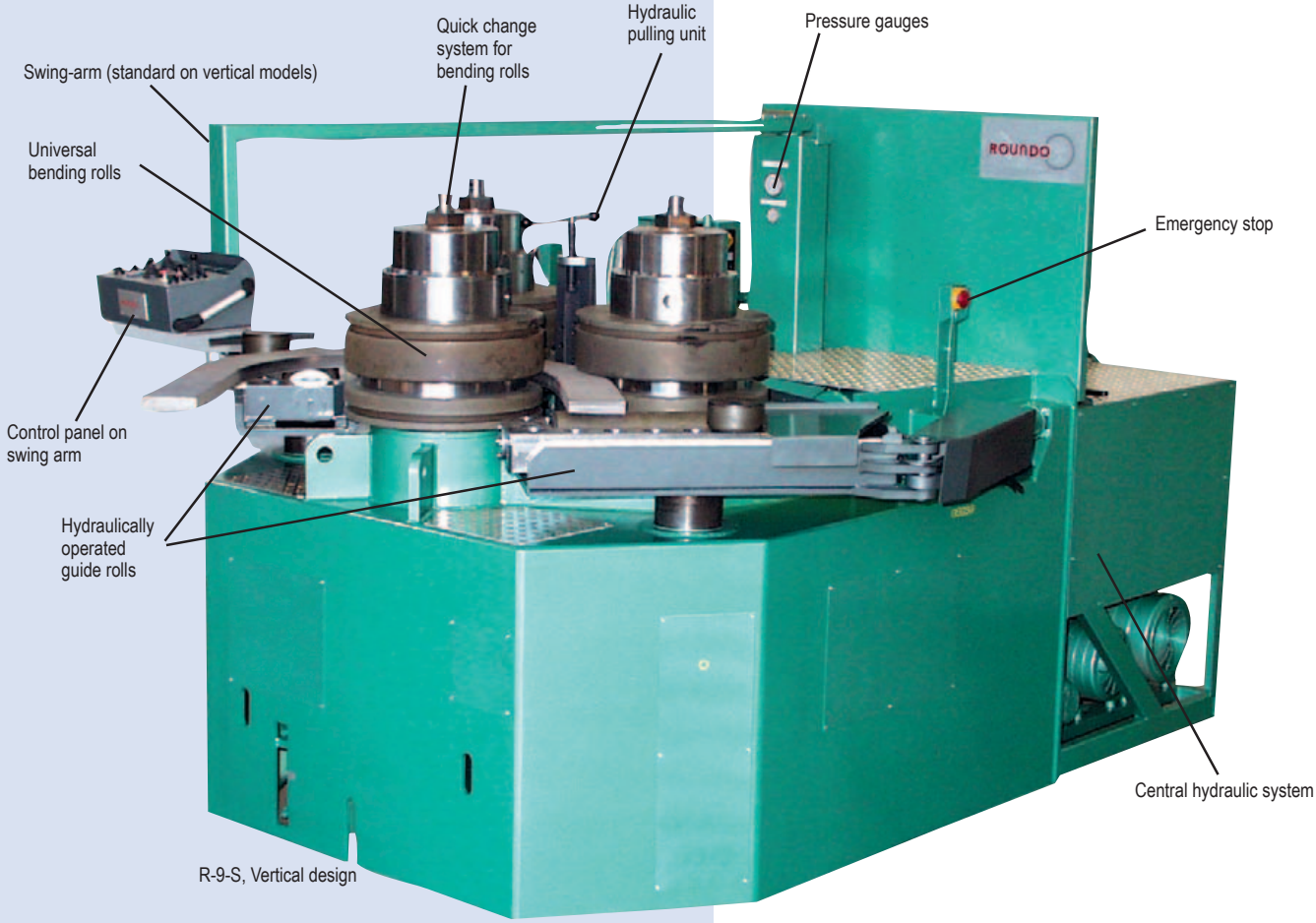
R-5-S

OPTIONAL EQUIPMENT R-2-S TO R-21-S

- Combined horizontal/vertical design (R-5-S to R-72-S).
- Increased rolling speed with full drive torque.
- Digital display showing the positions of the lower rolls (R-2-S to R-72-S).
- Microhydraulic adjustment of the lower rolls.
- Hydraulic turning of guide rolls (R-2-S to R-4-S).
- Separate hydraulic drive on the top shaft (R-2-S to R-7-S).
- Motorized height adjustment on swing arm.
- Spiral bending device for production of coils (R-2-S to R-72-S).
- Hydraulic pulling roll unit for bending 1- U- and H-beams the hard way.
- Special guide unit for bending 1- and U-beams the hard way (R-5-S to R-13-S).
- Pushing roll unit for improved bending of thin sections and angle bars
- (R-2-S to R-72-S).
- Wide selection of special rolls.
- Mandrel system to improve bending results on hollow sections.
- Pushing unit for small diameters and heavy bending.
- Hydraulic tooling adjustment.
- ROUNDO wCNC2 control.
- ROUNDO RLC/3 Logic control.
- ROUNDO RLC/1 Position control.

R-14-S

R-14-S
Bending flat bar 250x100 mm (10” x 4”)



R-9-S, Vertical design

R-15-S

R-13-S

R-8-S

Capacities and Specifications R-2-S to R-16-S

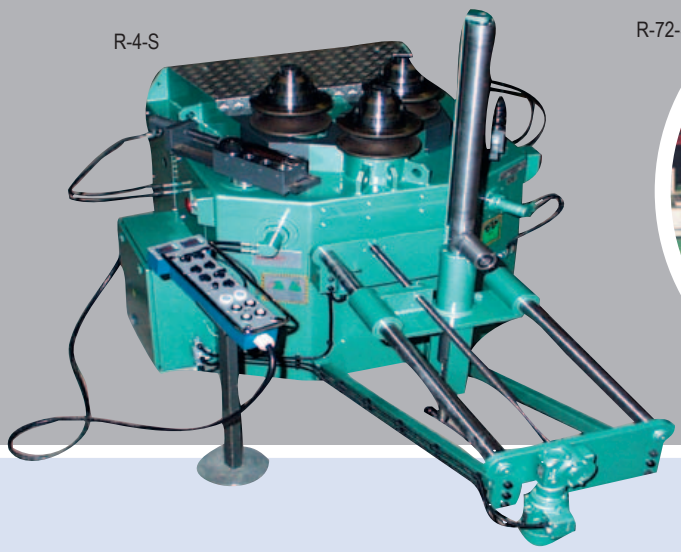
Section	R-2-S	R-3-S	R-4-S	R-5-S R-52-S	R-6-S R-62-S	R-7-S R-72-S	R-8-S	R-9-S	R-10-S
	2.5x2.5x3/8 To Ø 28	3 x 3 x 3/8 To Ø 33	4 x 4 x 1/2 To Ø 45	5 x 5 x 1/2 To Ø 50	6 x 6 x 5/8 To Ø 85	6 x 6 x 1 To Ø 100	8 x 8 x 1 To Ø 120	8 x 8 x 1-1/8 To Ø 80	8 x 8 x 1-1/8 To Ø 70
	2.5x2.5x5/16 To Ø 30	3 x 3 x 3/8 To Ø 40	4 x 4 x 3/8 To Ø 48	4 x 4 x 1/2 To Ø 50	5 x 5 x 3/4 To Ø 85	6 x 6 x 1 To Ø 130	8 x 8 x 3/4 To Ø 140	8 x 8 x 1 To Ø 100	8 x 8 x 1-1/8 To Ø 85
	WT 2.5x9.5 To Ø 20	WT 3x12.5 To Ø 30	WT 4 To Ø 40	WT 5 To Ø 45	WT 6 To Ø 60	WT 6 To Ø 90	WT 8 To Ø 100	WT 8 To Ø 70	WT 8 To Ø 60
	WT 2.5x9.5 To Ø 30	WT 3x12.5 To Ø 50	WT 4 To Ø 60	WT 5 To Ø 60	WT 5 To Ø 65	WT 6 To Ø 110	WT 8 To Ø 120	WT 8 To Ø 100	WT 8 To Ø 80
	WT 3 x 6 To Ø 25	WT 3x12.5 To Ø 28	WT 4 To Ø 40	WT 5 To Ø 40	WT 6 To Ø 60	WT 6 To Ø 85	WT 8 To Ø 100	WT 7 x 116.5 To Ø 70	WT 7 x 171 To Ø 60
	2-1/2 x 1 To Ø 20	3-1/2 x 3/4 To Ø 23	5 x 5/8 To Ø 30	6 x 5/8 To Ø 45	6 x 1-1/2 To Ø 70	8 x 1-1/4 To Ø 100	8 x 2 To Ø 80	10 x 2-1/2 To Ø 80	10 x 3 To Ø 70
	5 x 1 To Ø 20	6 x 1-1/4 To Ø 25	7 x 1-1/2 To Ø 25	8 x 2 To Ø 40	10 x 2 To Ø 40	12 x 2-1/2 To Ø 45	16 x 3 To Ø 80	20 x 3 To Ø 80	20 x 3-1/2 To Ø 60
	1-3/4 To Ø 20	2 To Ø 22	2-1/2 To Ø 25	2-3/4 To Ø 32	3-1/2 To Ø 45	4-1/2 To Ø 60	5-1/2 To Ø 60	6 To Ø 80	6-1/2 To Ø 80
	Ø 2 To Ø 20	Ø 2½ To Ø 30	Ø 3 To Ø 25	Ø 3-1/2 To Ø 40	Ø 4 3/8 To Ø 55	Ø 5 To Ø 50	Ø 6 To Ø 60	Ø 7 To Ø 80	Ø 7-1/2 To Ø 72
	2 Sch. 40 To Ø 20	3 Sch. 40 To Ø 40	4 Sch. 40 To Ø 45	5 Sch. 40 To Ø 70	6 Sch. 40 To Ø 85	8 Sch. 40 To Ø 100	10 Sch. 40 To Ø 160	12 Sch. 40 To Ø 160	12 Sch. 80 To Ø 200
	2 x 1/4	2½ x 1/4	3-1/2 x 1/4	4 x 1/4	5 x 5/16	6 x 3/8	7 x 1/2	9 x 1/2	10 x 1/2
	S5 x 10 To Ø 24	S6 x 17.25 To Ø 25	S7 x 20 To Ø 35	W8 x 21 To Ø 40	W12 x 35 To Ø 45	W14 x 38 To Ø 60	W18 x 76 To Ø 100	W21 x 93 To Ø 80	W24 x 104 To Ø 80
	--	W4 x 13 To Ø 50	W6 x 16 To Ø 35	W6 x 20 To Ø 40	W8 x 31 To Ø 45	W12 x 53 To Ø 60	W16 x 67 To Ø 80	W16 x 77 To Ø 80	W18 x 119 To Ø 80
	C5 x 9.0 To Ø 24	C6 x 13.0 To Ø 24	C7 x 14.75 To Ø 30	C8 x 22.8 To Ø 30	C12 x 30 To Ø 40	C15 x 50 To Ø 60	MC18 x 58 To Ø 60	MC18 x 58 To Ø 40	MC18 x 58 To Ø 38
	C5 x 9.0 To Ø 28	C6 x 13.0 To Ø 33	C7 x 14.75 To Ø 35	C8 x 22.8 To Ø 35	C12 x 30 To Ø 45	C15 x 50 To Ø 70	MC18 x 58 To Ø 60	MC18 x 58 To Ø 40	MC18 x 58 To Ø 40
	Max. section modulus 1 in.³	Max. section modulus 1.6 in.³	C5 x 6.7 To Ø 200	C5 x 9 To Ø 300	C7 x 12.25 To Ø 350	C8 x 18.75 To Ø 410	MC10 x 41.1 To Ø 450	MC12 x 50 To Ø 350	MC12 x 50 To Ø 300
	Max. section modulus 1 in.³	Max. section modulus 1.6 in.³	S3 x 7.5 To Ø 80	S5 x 10 To Ø 100	W6 x 16 To Ø 120	W8 x 21 To Ø 200	W10 x 33 To Ø 400	W12 x 35 To Ø 500	W12 x 50 To Ø 450
	--		Max. section modulus 4 in.³	W3 x 13 To Ø 80	W5 x 19 To Ø 100	W6 x 25 To Ø 150	W8 x 40 To Ø 400	W10 x 39 To Ø 400	W10 x 60 To Ø 300

All data valid for ASTM A-36 steel. All dimensions in inches unless otherwise noted.

Max. Section Modulus (in.³):	0.7 - 1.0	1.3 - 1.9	2 - 4	3 - 5	6 - 10	11 - 20	19 - 38	25 - 45	37 - 85
Diameter of Standard Rolls:	8.7"	10"	12.2"	15.2"	18.1"	21.7"	26"	29"	31.5"
Motor HP at 480 V:	4-1/2	8	12	17.5	23	45	55	95	100
Approx. Weight (lbs.):	3100	4000	6400	10200	17200	25100	40700	55000	70400

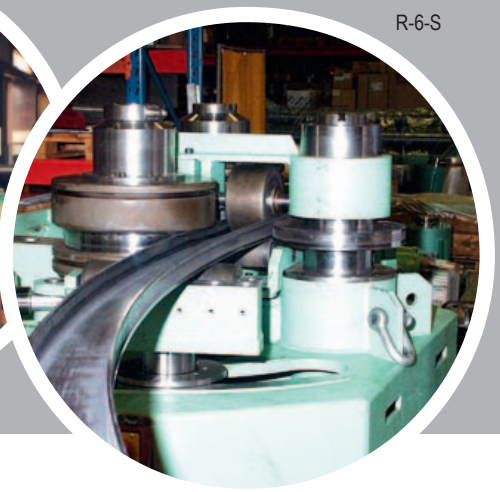
1) Min. bendingdiameter depends on grade of deformation that can be accepted.
2) Machine with extended shafts allows wider sections than specified. = With Special Rolls
3) Depending on bending diameter
4) With beam-on-edge device for rolling beams and channels on X-X axis

R-4-S



R-72-S

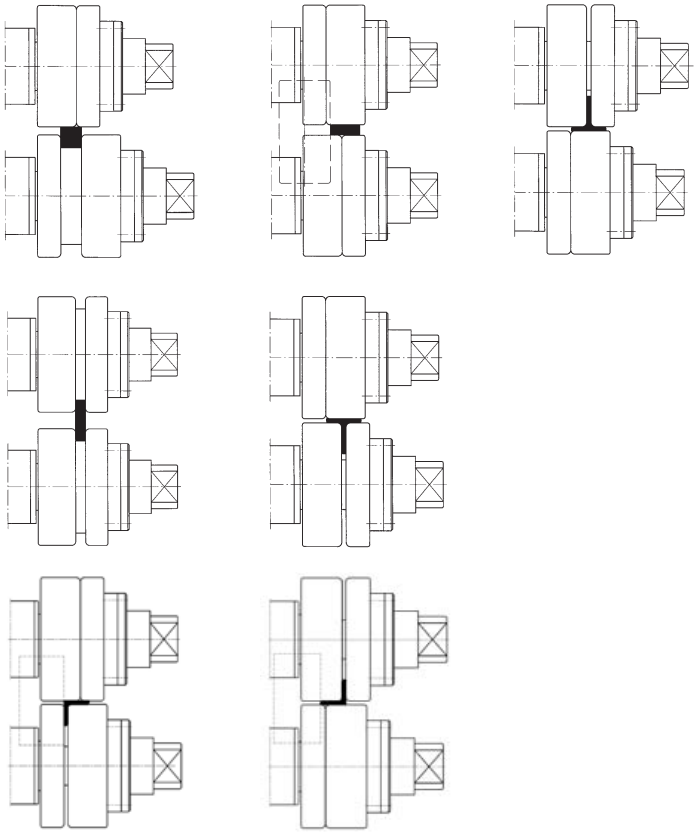
R-6-S



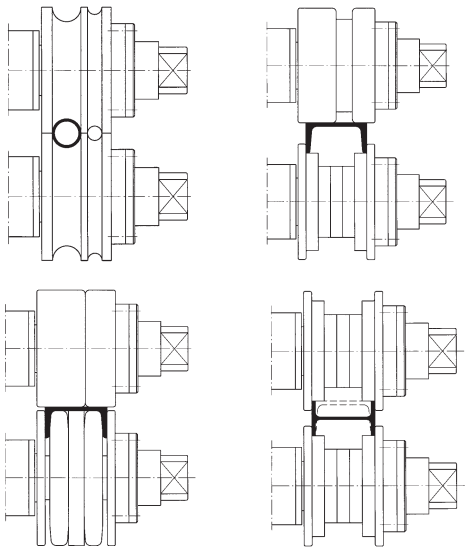
R-11-S	R-13-S	R-14-S	R-15-S	R-16-S
8 x 8 x 1-1/4 To Ø 60	8 x 8 x 1-1/4 To Ø 60	8 x 6 x 1 To Ø 60	8 x 8 x1-1/4 To Ø 70	8 x 8 x 1-1/4 To Ø 135
8 x 8 x 1-1/4 To Ø 70	8 x 8 x 1-1/4 To Ø 70	8 x 6 x 1 To Ø 60	8 x 8 x 1-1/4 To Ø 80	8 x 8 x 1-1/4 To Ø 135
WT 8 To Ø 55	WT 8 To Ø 50	WT 7x213 To Ø 60	WT 8 To Ø 60	WT 7 x 404 To Ø 135
WT 8 To Ø 70	WT 8 To Ø 60	WT 7x213 To Ø 70	WT 8 To Ø 60	WT 7 x 404 To Ø 135
WT 7 x 199 To Ø 60	WT 7 x 213 To Ø 60	WT 7 x 365 To Ø 70	WT 7 x 365 To Ø 80	WT 7 x 404 To Ø 135
12 x 3 To Ø 100	16 x 2-3/8 To Ø 120	10 x 4 To Ø 60	20 x 5 To Ø 120	20 x 6 To Ø 120
20 x 4 To Ø 80	22 x 4 To Ø 70	12 x 6 To Ø 60	40 x 6 To Ø 70	40 x 7 To Ø 120
8 To Ø 100	10 To Ø 100	7-1/2 To Ø 80	12 To Ø 100	14 To Ø 120
Ø 9 To Ø 80	Ø 10½ To Ø 80	Ø 8 To Ø 80	Ø 14 To Ø 90	Ø 16-1/2 To Ø 150
16 Sch. 40 To Ø 300	20 Sch. 40 To Ø 600	14 Sch. 80 To Ø 200	24 Sch. 40 To Ø 600	24 Sch. 80 To Ø 750
12 x 1/2	16 x 5/8	12 x 1/2	20 x 3/4	24 x 3/4
W27 x 146 To Ø 100	W36 x 210 To Ø 200	W24 x 146 To Ø 100	W40 x 503 To Ø 200	W40 x 593 To 200
W24 x 124 To Ø 100	W33 x 241 To Ø 200	W18 x 234 To Ø 100	W36 x 527 To Ø 200	W40 x 593 To 200
MC18 x 58 To Ø 38	MC18 x 58 To Ø 60	MC18 x 58 To Ø 60	MC18 x 58 To Ø 60	MC18 x 58 To Ø 135
MC18 x 58 To Ø 40	MC18 x 58 To Ø 70	MC18 x 58 To Ø 60	MC18 x 58 To Ø 60	MC18 x 58 To Ø 135
MC18 x 58 To Ø 1000	MC18 x 58 To Ø 700	MC12 x 50 To Ø 300	MC18 x 58 To Ø 700	MC18 x 58 To Ø 700
W18 x 60 To Ø 1500	W24 x 117 To Ø 1800	W12 x 50 To Ø 450	W30 x 132 To Ø 2500	W40 x 183 To Ø 2000
W14 x 68 To Ø 700	W16 x 100 To Ø 1300	W10 x 60 To Ø 300	W24 x 162 To Ø 1300	W40 x 211 To Ø 1400

55 - 95	80 - 290	55 - 110	240 - 420	425 - 675
31.5"	31.5"	31.5"	33"	33"
100	105	130	160	235
83600	96800	88000	165000	187000

Example of Standard Rolls

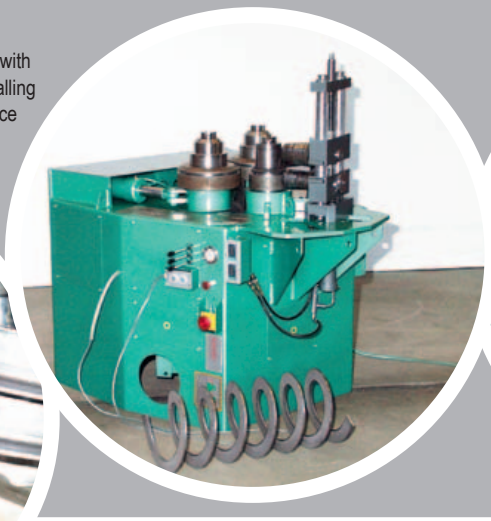


Example of Special Rolls



Type R-1 to R-6

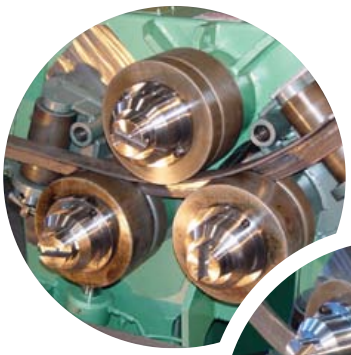
R-3 with spiralling device



R-4 with spiralling device

R-5, Vertical

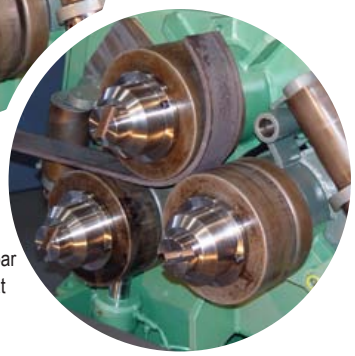
Standard Rolls



Angle leg-out. The guide rolls support the angle, avoiding twist.

Angle leg-in. The guide rolls are used to avoid twist and deformation.

Flat bar on-edge



Flat bar on-flat

Bending rolls for angle leg-out and leg-in, flat bar on-flat and on-edge, square bar, and T-bar stem-out and stem-in are supplied as standard equipment. The rolls are through-hardened and are mounted 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.

The R-1 to R-6 models of ROUNDO section bending machines are basic machines with a strong and rigid design. The three bending shafts are journalled in heavy SKF bearings. The top roll is equipped with a slip clutch, compensating for the difference in speed of the inner and outer diameters of the section being bent. Mechanically operated guide rolls, which facilitate bending of non-symmetrical sections, especially angles, are standard equipment.

R-1, R-2, R-3 and R-4-M worm gear motor drives all three rolls irrespective of adjustment position.

R-4 H, R-5 and R-6 All three rolls are driven irrespective of adjustment position by hydraulic motors, providing infinitely variable rotation speed.

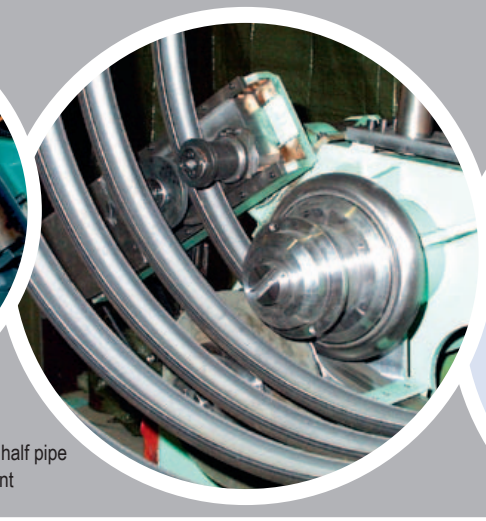
STANDARD EQUIPMENT R-1 to R-6

- Combined horizontal/vertical design
- Compensating and adjustable slip clutch for the top roll.
- Set of standard rolls combined for standard angle leg-out and leg-in, flat bar on flat and on edge, "T", small round bar and square bar.
- Complete guide roll assemblies which automatically follow the operation of the hydraulically operated lower rolls, including leg-in attachment.
- Dial indicators showing the position of the lower rolls.
- Hydraulic adjustment of the two lower rolls.
- SKF bearings in all journals.
- Emergency stop button.
- Roll adjustment by hand levers and portable push button control for roll rotation (R-1 and R-2).
- Portable push button control for all functions (R-3 to R-6).

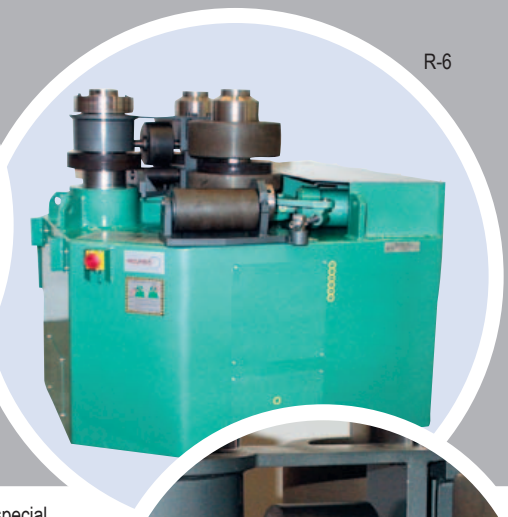
SPECIAL ROLLS

- Rolls for pipe. Each set of rolls can be designed for one or two different sizes of pipe.
- Rolls for round bar.
- Rolls for square and rectangular tubing.
- Combined rolls for I and U beams the easy way, adjustable for all different sizes covering the capacity of the machine.
- Rolls for high production of rings by spiral bending of flat bar, pipe and other profiles.
- Rolls for special sections and profiles are designed on request. In some cases the rolls are made of nylon to avoid marking and tearing on easily damaged sections.

R-3 with
spiralling device



R-5 with half pipe
equipment

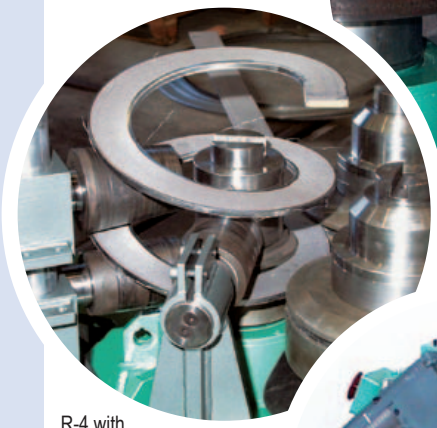


R-6

R-6 with special
guide unit for bending
I & U-beams, hard way

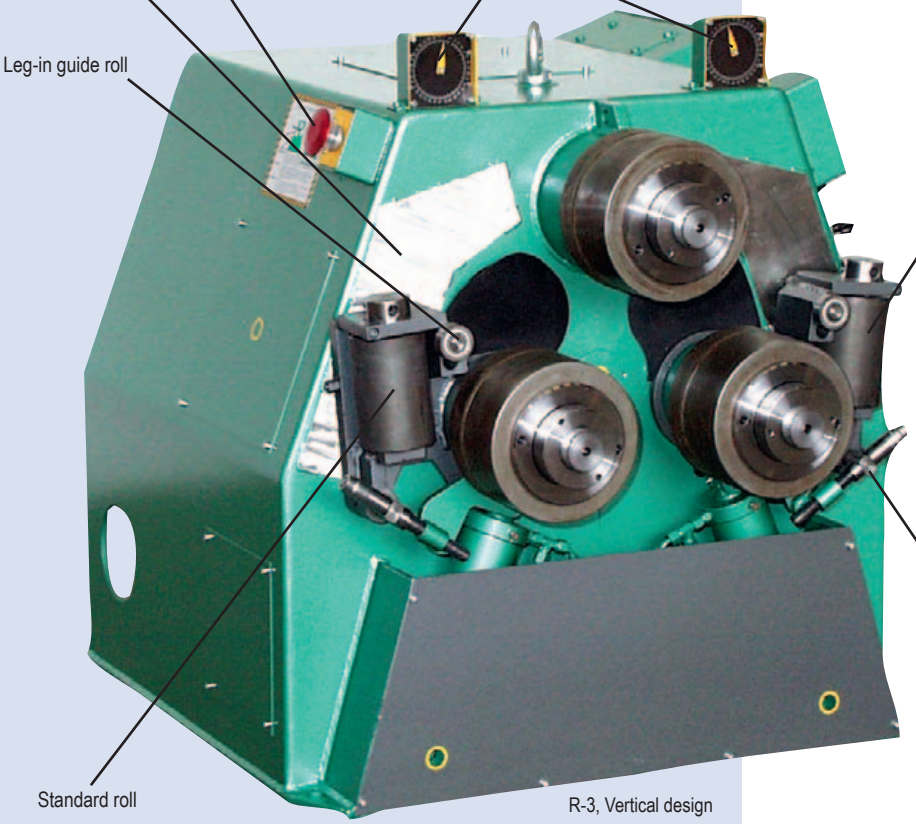
OPTIONAL EQUIPMENT R1 to R6

- Hydraulic infinitely variable drive on all three rolls. (R-1 to R-3).
- Infinitely variable drive via frequency changer (R-1 to R-4).
- Portable push button control for all functions (R-1, R-2).
- Digital display showing the positions of the lower rolls.
- Microhydraulic adjustment of the lower rolls.
- Pushing roll unit for improved bending of thin sectional and angle bars.
- Special guide unit for bending I- and U-beams the hard way (R-5 and R-6).
- Spiral bending device for pipes and flat bar.
- Half pipe equipment to form and bend a half pipe from a flat strip.
- Wide selection of special rolls.
- ROUNDO wCNC² Control.
- ROUNDO RLC/3 Logic control.
- ROUNDO RLC/1 Position control.

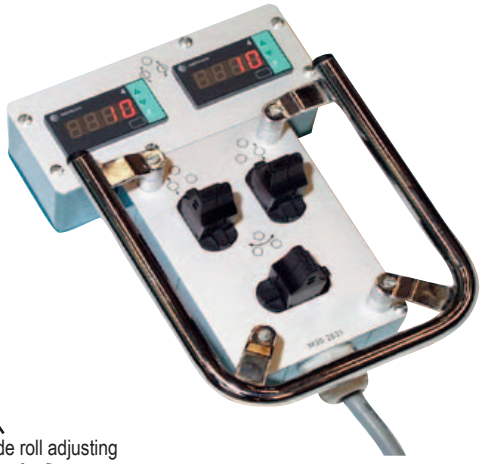


R-4 with
spiralling device

Calibrating unit
R-3



R-3, Vertical design



Portable control with minijoy-sticks for variable speed adjust-ment on all functions and digital readouts.

Capacities and Specifications Type R-1 to R-6

R-3 Square bar on the diamond

R-3 Special pushing roll

Section	R-1		R-2		R-3		R-4		R-5		R-6	
	Standard Rolls	*Special Rolls*	*Standard Rolls*	*Special Rolls*	*Standard Rolls*	*Special Rolls*	*Standard Rolls*	*Special Rolls*	*Standard Rolls*	*Special Rolls*	*Standard Rolls*	*Special Rolls*
	2 x 2 x 3/16 To Ø 20	Small Sections To Ø 5	2 x 2 x 5/16 To Ø 20	Small Sections To Ø 6	3 x 3 x 5/16 To Ø 30	Small Sections To Ø 7	3½ x 3½ x 3/8 To Ø 36	Small Sections To Ø 10	4½ x 4½ x ½ To Ø 50	Small Sections To Ø 13	5 x 5 x 5/8 To Ø 65	1½ x 1½ x 1/4 To Ø 16
	2 x 2 x 3/16 To Ø 27	Small Sections To To Ø 6 ½	2 x 2 x 1/4 To To Ø 24	Small Sections To To Ø 8	2½ x 2½ x 5/16 To Ø 40	Small Sections To Ø 10	3 x 3 x3 /8 To Ø 44	Small Sections To Ø 14	4 x 4 x 3/8 To Ø 60	Small Sections To Ø 16	5 x 5 x 1/2 To Ø 90	1½ x 1½ x 1/4 To Ø 18
	2 x 2 x 3/16 To Ø 16	Small Sections To Ø 5	2 x 2 x 5/16 To Ø 18	Small Sections To Ø 6	3 x 3 x 5/16 To Ø 30	Small Sections To Ø 7	3½ x 3½ x 3/8 To Ø 36	Small Sections To Ø 10	WT 4 x 29 To Ø 40	Small Sections To Ø 13	WT 5 x 50 To Ø 60	Small Sections To Ø 16
	2 x 2 x 3/16 To Ø 20	Small Sections To Ø 5 ½	2 x 2 x 1/4 To Ø 22	Small Sections To Ø 8	3 x 3x 5/16 To Ø 35	Small Sections To Ø 10	WT 3 x 12.5 To Ø 36	Small Sections To Ø 12	WT 4 x 29 To Ø 60	Small Sections To Ø 14	WT 5 x 44 To Ø 65	Small Sections To Ø 16
	2 x 2 x 3/16 To Ø 16	Small Sections To Ø 5	2 x 2 x 1/4 To Ø 18	Small Sections To Ø 8	3 x 3 x 5/16 To Ø 30	Small Sections To Ø 8	WT 3 x 7.5 To Ø 36	Small Sections To Ø 11	WT 4 x 12 To Ø 50	Small Sections To Ø 13	WT 5 x 13 To Ø 60	Small Sections To Ø 16
	2 x 3/8 To Ø 12	Small Sections To Ø 4 ½	2-1/4 x 1/2 To Ø 16	Small Sections To Ø 6	3 x 5/8 To Ø 20	Small Sections To Ø 7	4 x 3/4 To Ø 32	Small Sections To Ø 10	5 x 3/4 To Ø 36	Small Sections To Ø 13	5 x 1-1/4 To Ø 50	Small Sections To Ø 16
	4 x 5/8 To Ø 12	Small Sections To Ø 5	6 x 5/8 To Ø 16	Small Sections To Ø 6	8 x 3/4 To Ø 20	Small Sections To Ø 7	8 x 1-3/16 To Ø 32	Small Sections To Ø 10	10 x 1-3/16 To Ø 36	Small Sections To Ø 13	10 x 1-1/2 To Ø 50	Small Sections To Ø 16
	1-3/16 To Ø 16	Small Sections To Ø 4 ½	1-3/8 To Ø 18	Small Sections To Ø 6	1-3/4 To Ø 18	Small Sections To Ø 7	2 To Ø 20	Small Sections To Ø 10	2-1/2 To Ø 26	Small Sections To Ø 13	2-3/4 To Ø 40	Small Sections To Ø 16
	Small Sections	Ø 1-3/8 To Ø 20	Small Sections	Ø 1-5/8 To Ø 18	Small Sections	Ø 2 To Ø 20	Small Sections	Ø 2-1/4 To Ø 20	Small Sections	Ø 2-3/4 To Ø 28	Small Sections	Ø 3-1/2 To Ø 40
	Special Rolls Only	1-1/2 Sch. 40 To Ø 20	Special Rolls Only	2 Sch. 40 To Ø 24	Special Rolls Only	2 1/2 Sch. 40 To Ø 32	Special Rolls Only	3 Sch. 40 To Ø 36	Special Rolls Only	4 Sch. 40 To Ø 48	Special Rolls Only	6 Sch. 40 To Ø 90
	Special Rolls Only	2-1/2 O.D.	Special Rolls Only	3 O.D.	Special Rolls Only	3-1/2 O.D.	Special Rolls Only	4 O.D.	Special Rolls Only	5 O.D.	Special Rolls Only	7 O.D.
	Small Sections	1½ x 1 ½ x 1/8	Small Sections	2 x 2 x 3/16	Small Sections	2½ x 2½ x 3/16	Small Sections	3 x 3 x 3/16	Small Sections	4 x 4 x 1/4	Small Sections	5 x 5 x 5/16
	Small Sections	3 To Ø 20	Small Sections	4 To Ø 24	Small Sections	5 To Ø 28	Small Sections	S6 x 17.25 To Ø 32	Small Sections	S8 x 23 To Ø 36	Small Sections	S12 x 50 To Ø 45
	--	--	--	--	--	--	--	W6 x 16 To Ø 40	Small Sections	W8 x 18 To Ø 45	Small Sections	W12 x 30 To Ø 40
	Small Sections	C3 x 6.0 To Ø 20	Small Sections	C4 x 7.25 To Ø 20	Small Sections	C5 x 9 To Ø 28	Small Sections	C7 x 14.75 To Ø 32	Small Sections	C8 x 18.75 To Ø 36	Small Sections	C12 x 30 To Ø 45
	Small Sections	C3 x 6.0 To Ø 20	Small Sections	C4 x 7.25 To Ø 24	Small Sections	C5 x 9 To Ø 32	Small Sections	C7 x 14.75 To Ø 36	Small Sections	C8 x 18.75 To Ø 40	Small Sections	C12 x 30 To Ø 45
	--	--	--	--	--	--	Special Rolls Only	C3 x 6 To Ø 200	Special Rolls Only	C4 x 7.25 To Ø 300	Small Sections	C7 x 12.25 To Ø 400
	--	--	--	--	--	--	Special Rolls Only	S3 x 7.5 To Ø 60	Special Rolls Only	S4 x 7.7 To Ø 100	Special Rolls Only	W6 x 16 To Ø 250

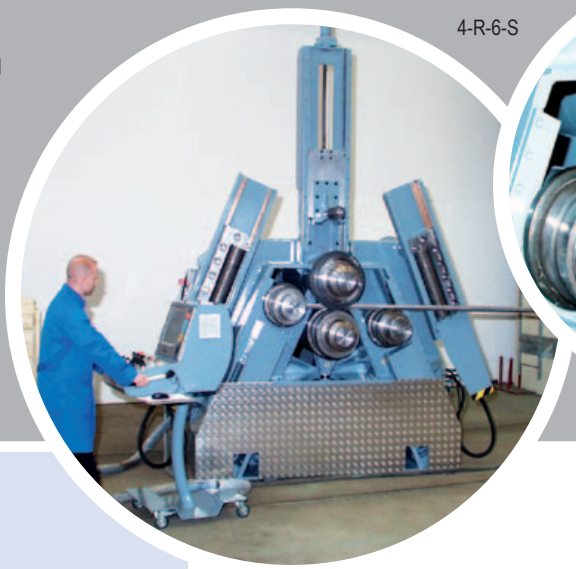
All data valid for ASTM A-36 steel. **All dimensions in inches unless otherwise noted.**

Max. Section Modulus (in.³):	0.24 - 0.4	0.42 - 0.6	0.85 - 1.10	1.8 - 2.2	2.9 - 3.5	5.9 - 7.0
Diameter of standard Rolls:	6-7/8"	7-1/2"	9"	11"	14-1/4"	17-3/8"
Rolling Speed (FPM):	23	28	30	23 0 - 23	0 - 23	0 - 23
Motor HP at 480 V:	2,5	4	5	9	12	17,5
Approx. Weight (lbs.):	1500	1765	2800	5300	7700	11600

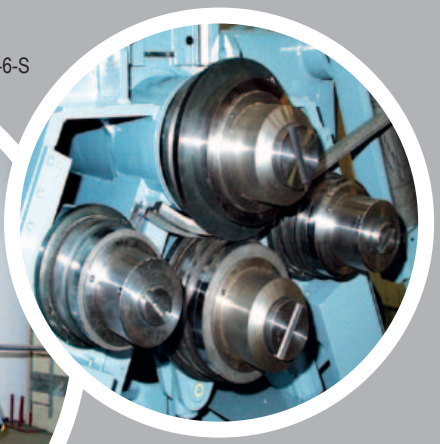
1 Indicated diameters are valid for max. section in one or few passes. Smaller sections can be bent to smaller diameters.
2) Smallest bending diameter depends on grade of deformation that can be accepted.
3) Machine with extended shafts allows wider sections than specified.

ROUNDO
Wide range of Special Section Bending machines

SR-2



4-R-6-S



RS-5

These speciality machines are developed for spiral bending of sections with high precision.

4-Roll section bending machines type 4-R-2-S to 4-R-8-S

- ROUNDO also supplies a range of section bending machines with four rolls.
- In the 4-Roll section bending machine the sections are pinched between top and lower roll,which are also the driven rolls. This offers the possiblity for prebending with extremely short remaining straight ends.
- Perfect machine for vehicle chasis components that require three dimensional bending.
- Machine with hydraulic guide rolls offers total flexibility.
- Models available with section modulus capacity 10–500 cm³.

R-21-S

The world's most powerful section bending machine

Model R-21-S is designed mainly to bend solid profiles. The capacity of this machine makes it possible to bend flat bar 500 x 100 mm (20" x 4") the hard way, or square bar 350 x 350 mm (14" x 14"), both in steel with yield point 360 N/mm² (52,500 PSI). Each lower roll can apply a force of up to 1000 Tons.

B-15000-S

Beam Bending Machines

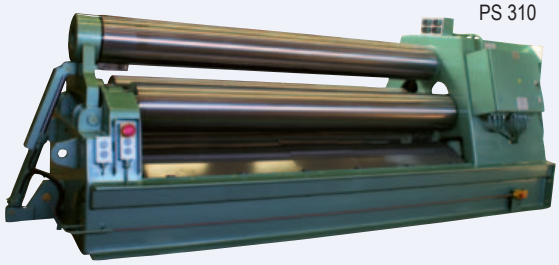
This range of machines is specially developed for heavy beam bending, aiming for the highest possible demands of production speed, quality and capacity. With features like adjustable bending distance and simultaneous movement of pushing and pulling roll, the versatility of these machines is unique. The different ROUNDO models cover up to 15 000 cm³ (940 in.³) section modulus and up to 1100 (940 in.³) mm beams over X-X axis.

Other Machines from Roundo

PASS 255

4-Roll Plate Bending Machines
The standard range of 4-roll plate bending machines covers plate thicknesses of 3-100 mm (1/8” to 4”) and widths of 1000-8000 mm (3’ to 26’).

PS 310



3-Roll Plate Bending Machines
Three-Roll Double-Pinch plate bending machines. Available in lengths up to 8000 mm (26’) and thickness to 100 mm (4").

PM-1

Quick Rolling Machines
Plate bending machines for large production runs of cylinders with cycle times as short as 10 seconds. For plate thicknesses up to 12 mm (1/2”) and widths up to about 2000 mm (6’).

SF-2

Flanging and Punching Machines
For flanging and punching cylinders in the same operation. Cylinder diameters of 350-3000 mm (14” to 120”) and plate thicknesses up to 8 mm (5/16”).

PRH-560

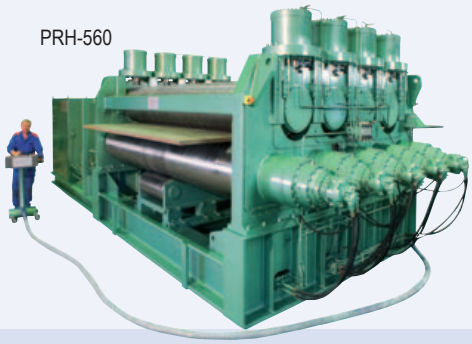


Plate Straightening Machines
Straighten plates with thicknesses of 2-40 mm (0,074” to 1 9/16”) and widths up to 4000 mm (13’). Produced with 5, 7 or 9 rolls depending on tolerance requirement.

ROUNDO also produces: Beading and joggling machines, welding positioners and other customized machines.

trilogy machinery

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