



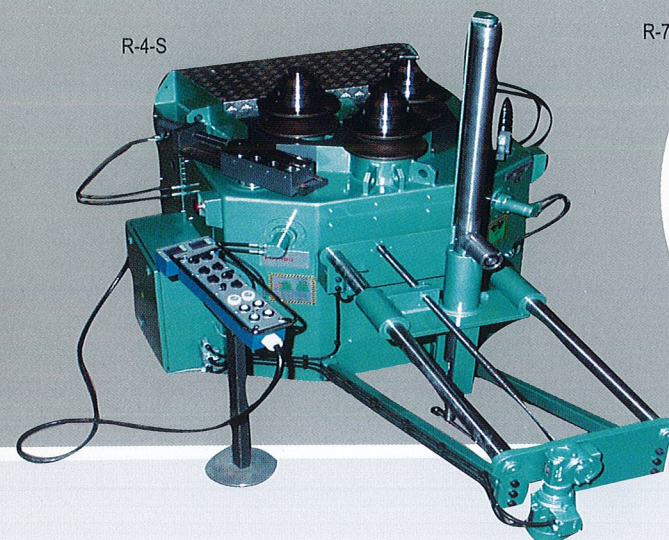
R-15-S



R-13-S



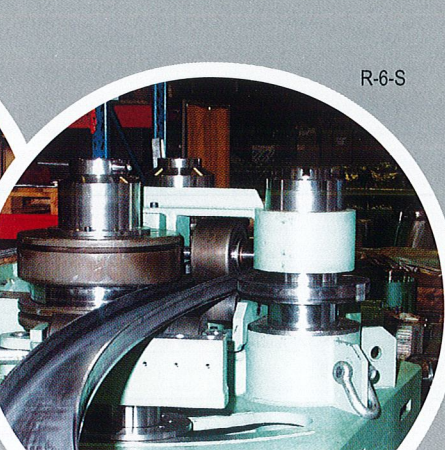
R-8-S



R-4-S



R-72-S



R-6-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	R-11-S	R-13-S	R-14-S	R-15-S	R-16-S
	60x60x8 To Ø 700	80x80x10 To Ø 800	100x100x12 To Ø 1000	120x120x12 To Ø 1250	150x150x16 To Ø 1000	160x160x20 To Ø 1600	200x200x20 To Ø 3000	200x200x28 To Ø 2000	200x200x28 To Ø 1800	200x200x28 To Ø 1800	200x200x28 To Ø 1600	180x180x35 To Ø 1700	200x200x28 To Ø 1700	200x200x28 To Ø 3500
	60x60x7 To Ø 750	80x80x10 To Ø 1000	100x100x10 To Ø 1000	100x100x12 To Ø 1250	130x130x15 To Ø 1200	150x150x20 To Ø 1600	180x180x18 To Ø 2000	200x200x20 To Ø 2000	200x200x28 To Ø 2000	200x200x28 To Ø 2000	200x200x28 To Ø 1800	180x180x32 To Ø 2000	200x200x28 To Ø 2000	200x200x28 To Ø 3500
	60x60x8 To Ø 500	80x80x9 To Ø 700	100x100x12 To Ø 800	120x120x13 To Ø 1250	150x150x15 To Ø 1200	160x160x20 To Ø 1400	200x200x20 To Ø 1600	200x200x28 To Ø 1800	200x200x28 To Ø 1600	200x200x28 To Ø 1600	200x200x28 To Ø 1500	180x180x35 To Ø 1500	200x200x28 To Ø 1600	200x200x28 To Ø 3500
	60x60x7 To Ø 750	80x80x9 To Ø 1300	100x100x12 To Ø 1500	100x100x12 To Ø 1500	130x130x15 To Ø 1700	150x150x20 To Ø 2000	180x180x18 To Ø 2500	200x200x20 To Ø 2800	200x200x28 To Ø 2500	200x200x28 To Ø 2500	200x200x28 To Ø 2300	180x180x32 To Ø 2500	200x200x28 To Ø 2300	200x200x30 To Ø 3500
	60x60x8 To Ø 640	100x100x12 To Ø 1000	120x120x13 To Ø 1200	140x140x15 To Ø 1250	150x150x15 To Ø 1300	160x160x20 To Ø 1500	200x200x20 To Ø 1800	200x200x28 To Ø 1800	200x200x28 To Ø 1600	200x200x28 To Ø 1600	200x200x30 To Ø 1600	180x180x35 To Ø 1600	200x200x30 To Ø 1600	200x200x30 To Ø 3500
	70x15 To Ø 500	80x18 To Ø 800	100x25 To Ø 700	120x25 To Ø 1000	150x30 To Ø 1000	175x40 To Ø 1200	200x50 To Ø 2000	250x50 To Ø 1800	250x70 To Ø 1800	250x100 To Ø 2000	400x60 To Ø 3000	250x100 To Ø 1500	500x125 To Ø 3000	500x150 To Ø 3000
	125x25 To Ø 500	180x20 To Ø 500	200x35 To Ø 600	250x30 To Ø 1000	250x40 To Ø 1000	350x50 To Ø 900	400x60 To Ø 2000	450x70 To Ø 1000	500x80 To Ø 1200	500x100 To Ø 1600	650x100 To Ø 2000	300x150 To Ø 1500	1000x150 To Ø 2000	1000x180 To Ø 3500
	40x40 To Ø 500	50x50 To Ø 500	60x60 To Ø 600	70x70 To Ø 800	90x90 To Ø 1200	110x110 To Ø 1500	130x130 To Ø 1800	145x145 To Ø 2000	165x165 To Ø 2200	200x200 To Ø 2500	240x240 To Ø 2500	190x190 To Ø 2000	310x310 To Ø 2500	350x350 To Ø 3000
	Ø 50 To Ø 500	Ø 60 To Ø 600	Ø 70 To Ø 700	Ø 80 To Ø 800	Ø 100 To Ø 1000	Ø 125 To Ø 1200	Ø 150 To Ø 1500	Ø 170 To Ø 1700	Ø 190 To Ø 1900	Ø 220 To Ø 2200	Ø 260 To Ø 2000	Ø 200 To Ø 2000	Ø 380 To Ø 2500	Ø 420 To Ø 3500
	OD 60 To Ø 500	OD 76 To Ø 700	OD 100 To Ø 1100	OD 142 To Ø 1800	OD 170 To Ø 2000	OD 190 To Ø 2500	OD 220 To Ø 3000	OD 300 To Ø 4000	OD 330 To Ø 5000	OD 400 To Ø 6500	OD 508 To Ø 15000	OD 350 To Ø 5000	OD 610 1)	OD 660 1)
	50x50x6 1)	65x65x6 1)	90x90x5 1)	100x100x6,5 1)	120x120x8 1)	150x150x8 1)	180x180x10 1)	200x200x13 1)	250x250x13 1)	300x300x13 1)	400x400x16 1)	300x300x12 1)	500x500x20 1)	600x600x20 1)
	IPE 100 To Ø 600 2)	IPE 140 To Ø 600 2)	IPE 160 To Ø 800 2)	IPE 200 To Ø 900 2)	IPE 300 To Ø 1100 2)	IPE 360 To Ø 1500 2)	IPE 450 To Ø 2000 2)	IPE 600 To Ø 2500 2)	IPE 550 To Ø 2200 2)	IPE 600 To Ø 2500	IPE 1000 To Ø 5000	IPE 600 To Ø 2500	INP 1000 To Ø 5000	INP 1000 To Ø 5000
	Max section modulus 10-15cm³	Max section modulus 18-25cm³	HEA 120 To Ø 800	HEA 140 To Ø 900	HEA 180 To Ø 1100	HEA 240 To Ø 1500	HEA 280 To Ø 2000	HEA 320 To Ø 2500	HEA 450 To Ø 2700	HEA 600 To Ø 3000	HEA 1000 To Ø 6000	HEM 600 To Ø 3000	HEM 1000 To Ø 8000	HEM 1000 To Ø 500
	Max section modulus 10-15cm³	Max section modulus 18-25cm³	HEB 100 To Ø 800	HEB 120 To Ø 900	HEB 160 To Ø 1100	HEB 200 To Ø 1500	HEB 240 To Ø 2000	HEB 280 To Ø 2000	HEB 320 To Ø 2200	HEB 500 To Ø 3000	HEB 1000 To Ø 8000	HEB 600 To Ø 2500	HEB 1000 To Ø 6000	HEB 1000 To Ø 5000
	U-120 To Ø 600	UPN 140x60 To Ø 600	UPN 160x65 To Ø 800	UPN 200x75 To Ø 900	UPN 300x100 To Ø 1100	UPN 360 To Ø 1200	UPN 450 To Ø 2000	UPN 500 To Ø 2000	UPN 550 To Ø 2200	UPN 600 To Ø 1500	UPN 1000 To Ø 4000	UPN 600 To Ø 1500	UPN 1000 To Ø 4000	UPN 1000 To Ø 4000
	U-120 To Ø 700	UPN 140x60 To Ø 800	UPN 160x65 To Ø 1000	UPN 200x75 To Ø 1000	UPN 300x100 To Ø 1100	UPN 360 To Ø 1400	UPN 450 To Ø 3000	UPN 500 To Ø 2000	UPN 550 To Ø 2200	UPN 600 To Ø 1500	UPN 1000 To Ø 4000	UPN 600 To Ø 1500	UPN 1000 To Ø 4000	UPN 1000 To Ø 4000
	Max section modulus 15cm³	UPN 65x42 To Ø 4000	UPN 80x45 To Ø 5000	UPN 100x50 To Ø 8000	UPN 160x65 To Ø 9000	UPN 200x75 To Ø 11000	UPN 240x85 To Ø 12000	UPN 260x90 To Ø 10000	UPN 300x100 To Ø 15000	UPN 320x100 To Ø 20000	UPN 400x110 To Ø 40000	UPN 300 To Ø 30000	UPN 700 To Ø 100000	UPN 800 To Ø 100000
	Max section modulus 15cm³	IPE 80 To Ø 1200	IPE 100 To Ø 1500	IPE 120 To Ø 2500	IPE 160 To Ø 3500	IPE 200 To Ø 5000	IPE 240 To Ø 10000	IPE 300 To Ø 13000	IPE 330 To Ø 20000	IPE 360 To Ø 22000	IPE 600 To Ø 30000	IPE 330 To Ø 20000	IPE 800 To Ø 50000	IPE 1000 To Ø 60000
	Max section modulus 10-15cm³	Max section modulus 18-25cm³	Max section modulus 30-40cm³	Max section modulus 45-50cm³	HEA 140 To Ø 6000	HEA 180 To Ø 4500	HEA 200 To Ø 9000	HEA 220 To Ø 9600	HEA 240 To Ø 11000	HEA 320 To Ø 30000	HEA 550 To Ø 40000	HEA 280 To Ø 25000	HEA 800 To Ø 55000	HEA 1000 To Ø 60000
Max Section Modulus (cm³) 3):	10-15	18-25	30-40	45-50	95-110	180-320	300-600	400-700	600-1000	900-1500	1300-4700	900-1800	4000-7000	7000-11000
Diameter of standard Rolls (mm):	220	250	310	385	460	550	660	740	800	800	800	800	840	840
Diameter of top shaft / lower shaft (mm):	70/70	85/85	105/105	140/120	180/160	240/220	280/260	300/280	360/320	360/360	360/360	420/420	400/400	520/420
Motor output (kW):	3/4	5,1/5,5	11	11	15	30	37	64	67	67	70	90	110	160

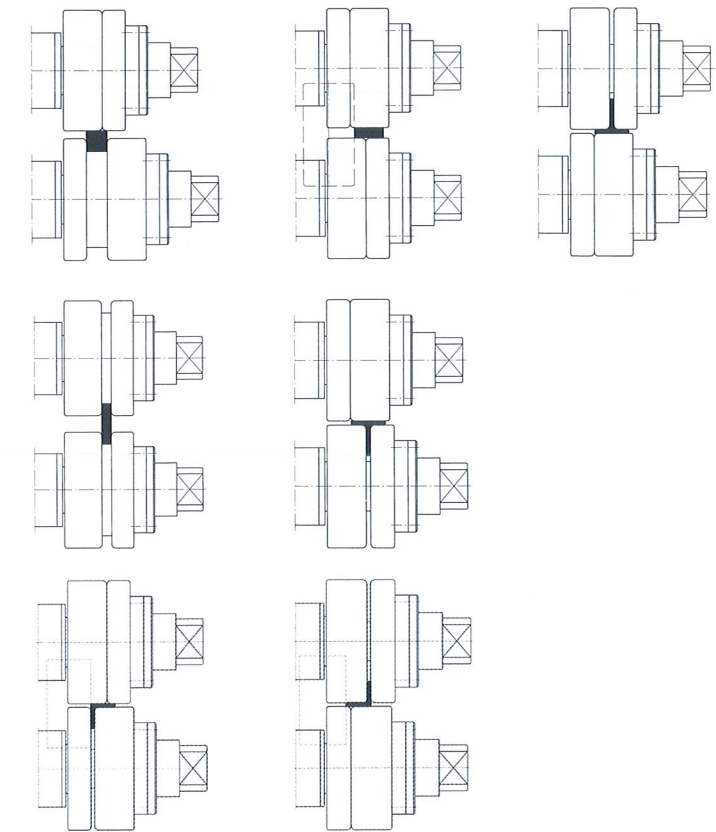
All data are valid for mild steel with yield point 270 N/mm².

1) Min. bending diameter depends on grade of deformation that can be accepted.

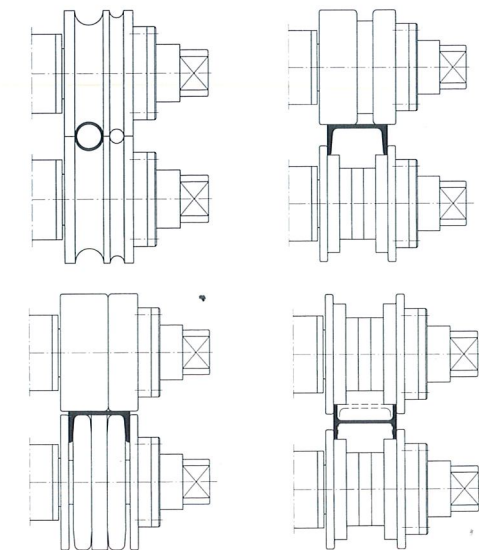
2) Machine with extended shafts allows wider sections than specified. = With Special Rolls

3) Depending on bending diameter.

Example of Standard Rolls



Example of Special Rolls



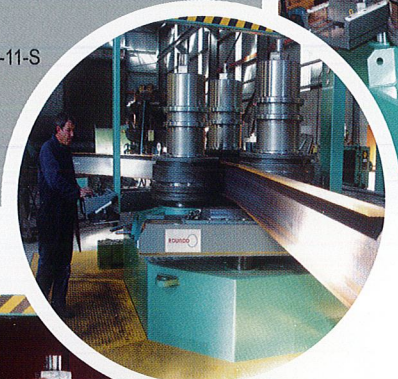
Type R-2-S to R-21-S

R-72-S



R-7-S

R-11-S



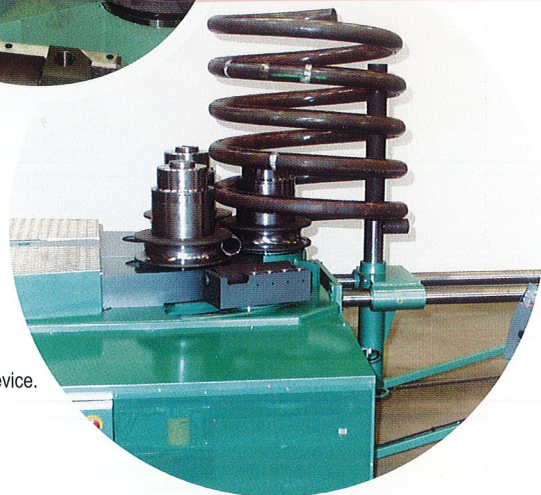
Hydraulic Beam on edge device ("pulling unit") R-15-S



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 journaled in heavy duty SKF ball bearings. The guide rolls are hydraulically adjustable in three directions on most of the models (two directions are optional 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.
 - R-2-S to R-3-S: Worm gear motor.
 - R-4-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 bars leg-out and leg-in, flat bar on flat and on edge, "T", small round bars and square bars.
- 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

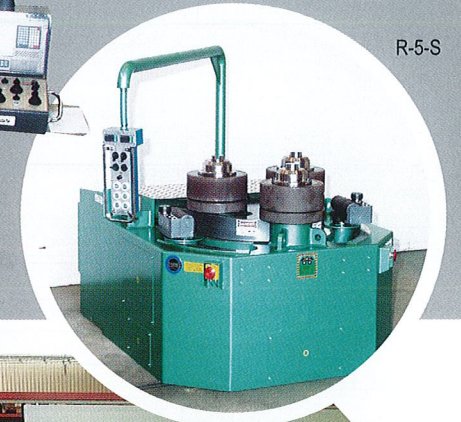
- Rolls for pipe. Each set of rolls can be designed for one or two different sizes of pipe.
- Rolls for round bar.
- Rolls for square and rectangular tubing.
- Combined rolls for I and U beams the easy way, adjustable for all different sizes covering the capacity of the machine.
- Rolls for high production 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.
- Universal rolls.
- Beam bending rolls.



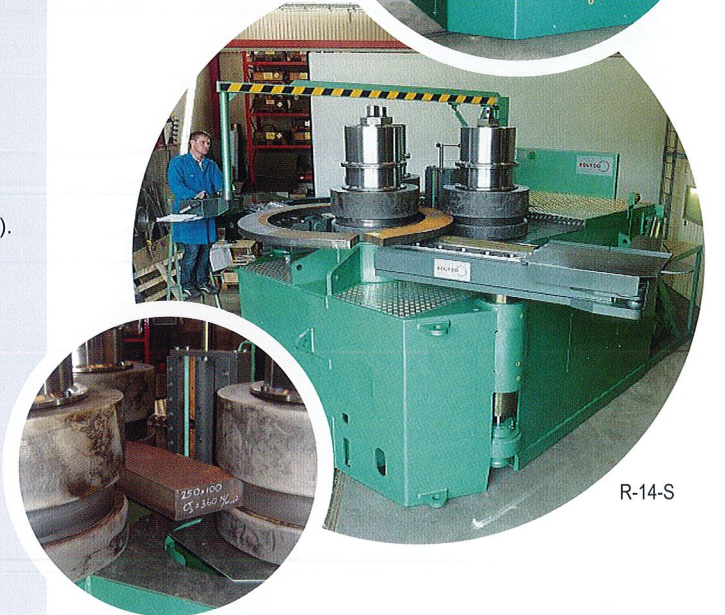
R-3-S



R-62-S



R-5-S

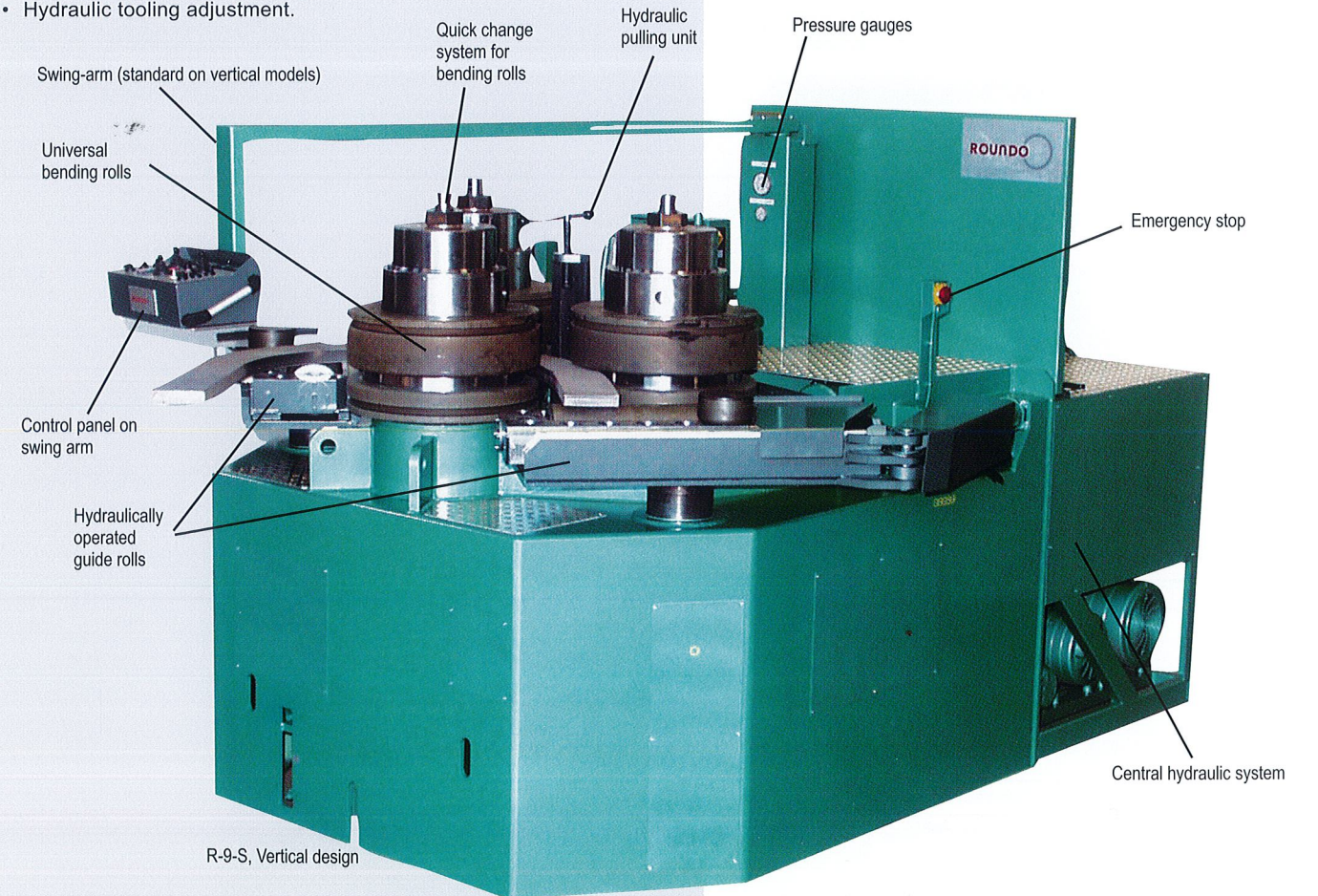


R-14-S

R-14-S Bending flat bar 250x100 mm

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

- Combined horizontal/vertical design (R-2-S to R-72-S).
- Infinitely variable rotation speed via hydraulic motor (R-2-S to R-3-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 and axial movement 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 I- U- and H-beams the hard way.
- Special guide unit for bending I- 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 result on hollow sections.
- Pushing unit for small diameters and heavy bending.
- ROUND0 wCNC² control.
- ROUND0 RLC/3 Logic control.
- ROUND0 RLC/1 Position control.
- Hydraulic tooling adjustment.



R-9-S, Vertical design