CPS20
CPS35
CPS50
BA20
BA35
BA40
BA50

Curvatrici

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TECHNICAL DATA		CPS20	CPS35	CPS50	BA20	BA35	BA40	BA50
Geometry		Asymmetric					Pyramidal	Asymmetric
Shafts diameter	mm	20	35	50	20	35	40	50
Driven rolls		3						
Rolls diameter	mm	76-86	132-142	195	-		156	-
Dimensions	cm	63x38x114	68x93x106	85x113x126	54x75x102 57x66x112	74x102x111 57x66x112	80x103x146 57x66x112	85x113x126 57x66x112
Distance between rolls	mm	140	304	401	140	304	300	401
Shafts length	mm	39	80	110	25.5	60	79	90
Max profile width (std rolls)	mm	22.9	48.0	62.0	-		52	-
Section modulus Wt	cm^3	0.9	6.0	12.0	0.9	6.0	8.3	12
Shafts speed	rpm	14	13.5	11	30		15	24
Variable rolling speed		Optional			Default			
Cylinder thrust	kg	1150	5370	14400	1150	5370	8240	14400
Working Pressure	bar	160	180		160	180	210	180
Installed power	kW	0.37-0.18	1.1-0.55	2.2-1.5	0.37-1.1 0.18	1.1-3 0.18	1.5-3 0.18	2.2-4 0.18
Approximate weight	kg	126-19	350-19	660-19	228-104	425-104	630-104	670-104
Roller position control		-			CNC PROBENDING			
Torque limiter				YES	-			YES
Forming block Z-block		-		YES	-			YES

All data refer to the 50 Hz version

STANDARD EQUIPMENT

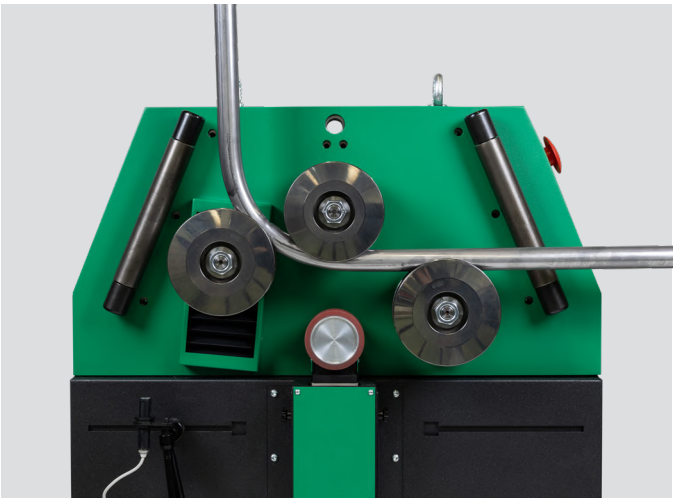
CPS20, CPS35 and CPS50 comes with a electronic control panel DP7 with functions capable of showing and storing up to 20 bending programs (also by autoteaching) each containing 20 steps (bending roll stop points)

The BA20, BA35, BA40, and BA50 models are equipped with a CNC interface, operated via a personal computer using the PROBENDING® software system.

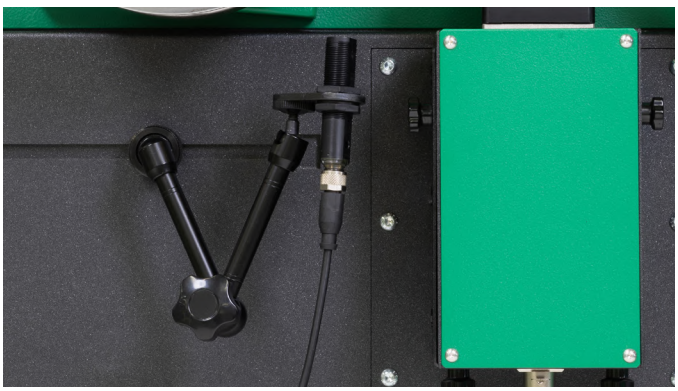
Control console

Lateral material guides

Universal bending roll components*



The material presence sensor ensures that each cycle starts from the same position, guaranteeing high repeatability even in high-volume production environments.



* Available only on certain models (refer to the table on the previous pages for details).

FUNCTIONAL FEATURES

ONLY FOR BA SERIES

The computerized CNC roll bending machine operates in both manual and automatic cycles and includes the Direct Radius feature (BPR PROBENDING multilingual software), allowing the creation of multiple shapes and variable bend radii on the same part. Features include ramp control for acceleration and deceleration, stop and cycle inversion, self-learning / auto-teach mode, semi-automatic mode, mirror mode, and fully automatic mode.

Electronic variable speed control of both the bending roll (up/down) and material feed through the rollers, via manual potentiometers on the console or automatically via program commands.

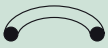
Bending programs are facilitated by a material and tooling library, which stores information related to both pre-configured shapes (ovals, bows, arches, polygonal forms, etc.) and user-defined programs.

The machine features a dual-cylinder system with linear motion (rather than orbital), ensuring greater precision, stability, and reliability during bending operations. The dual-cylinder configuration allows bending in both directions, increasing operational flexibility and reducing the need for repositioning the workpiece.

The machine is equipped with an Ethernet port for integration into factory systems in line with Industry 4.0 standards. The software supports the import of DXF files designed in CAD/CAM systems via the integrated USB port. It automatically generates the bending program, reducing setup time and simplifying operations. The USB port also allows for diagnostics, automatic setup, data exchange, and backups using a standard flash drive.

BENDING CAPACITY

CPS35
BA35

	PROFILE	SIZE mm	SIZE inch	MIN. INTERNAL Ø mm	MIN. INTERNAL Ø inch	NOTES
1		20x5 50x10	3/4x3/16 2x3/8	150 350	6 14	○
2		20x5 90x15	3/4x3/16 $3^{9/16}$x5/8	180 400	7 16	○
3		15x15 30x30	5/8x5/8 $1^{1/4}$x$1^{1/4}$	120 400	5 16	○
4		15x15 30x30	5/8x5/8 $1^{1/4}$x$1^{1/4}$	120 400	5 16	
5		25x15x1.5 50x30x3	1x3/8x1/16 2x$1^{1/4}$x1/8	250 1000	10 40	○
6		30x15x2 70x30x3	$1^{1/2}$x3/4x1/4 $2^{3/4}$x$1^{1/4}$x1/8	250 1200	8 48	
7		15x15x1.5 45x45x3	5/8x5/8x1/16 $2^{3/4}$x$2^{3/4}$x1/8	200 800	8 30	○
8		20x20x3 50x50x6	3/4x3/4x1/8 2x2x1/4	200 350	8 14	
9		20x20x3 50x50x6	3/4x3/4x1/8 2x2x1/4	200 400	8 16	
10		30x15x4 65x42x5.5	$1^{1/2}$x5/8x5/32 $2^{9/16}$x$1^{5/8}$x7/32	250 400	10 16	
11		40x20x5 65x42x5.5	$1^{9/16}$x3/4x5/32 $2^{9/16}$x$1^{5/8}$x7/32	250 400	10 16	
12		50x38x5	2x$1^{1/2}$x3/16	800	30	
13		Ø10 Ø30	3/8 $1^{3/16}$	200 600	8 24	□
14		60x2	2x1/16	600	24	
15		20x20x3 45x45x6	3/4x3/4x1/8 $1^{3/4}$x$1^{3/4}$x1/4	200 300	8 12	□
16		45x45x6	$1^{3/4}$x$1^{3/4x}$1/4	350	14	□
17		50x25x3	2x1x1/8	400	16	

○ For production runs it is necessary to equip the machine with special rolls

□ Special Rolls

Capacity based on material strength
of Rm = 400 MPa (≈ 60.000 psi)