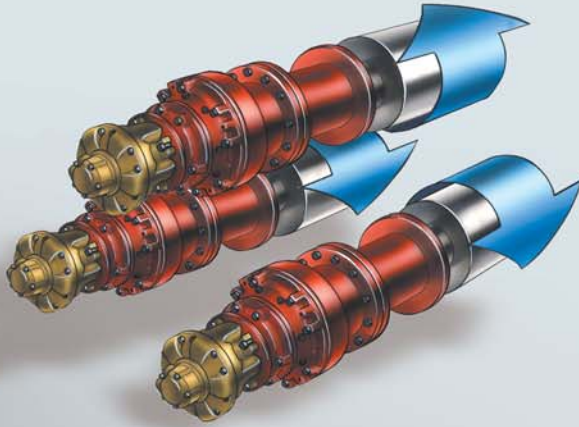


**MCP**  
three roll (double pinch)  
section roll **DIGITAL**

**DAVI**<sup>®</sup>  
EXCELLENCE IN FORMING

[www.davi.com](http://www.davi.com)

## FULL HYDRAULIC MACHINE



On all Davi MCP have all the machine movements are hydraulically activated. Each of the three rolls is powered by its own independent hydraulic motor.

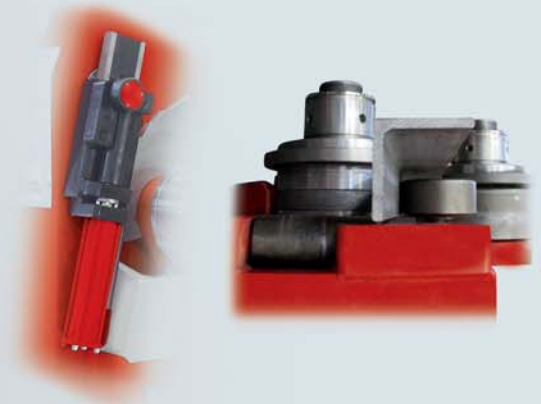
This feature ensures:

- The most powerful torque transmission
- High rolling speed for quick rolling cycles
- Powerful plate feeding
- Minimum surface damage

The three motors are also equipped with:

- Hydraulic brake valves to stop rotation instantaneously
- Hydraulic circuit overload protection
- Automatic peripheral speed compensation

The guide rolls are the strongest in the industry, and hydraulically activated on all DAVI MCP. All six movements (In-out / up-down / tow-away) are therefore controlled from operator panel, resulting in high performance and a quicker production time.

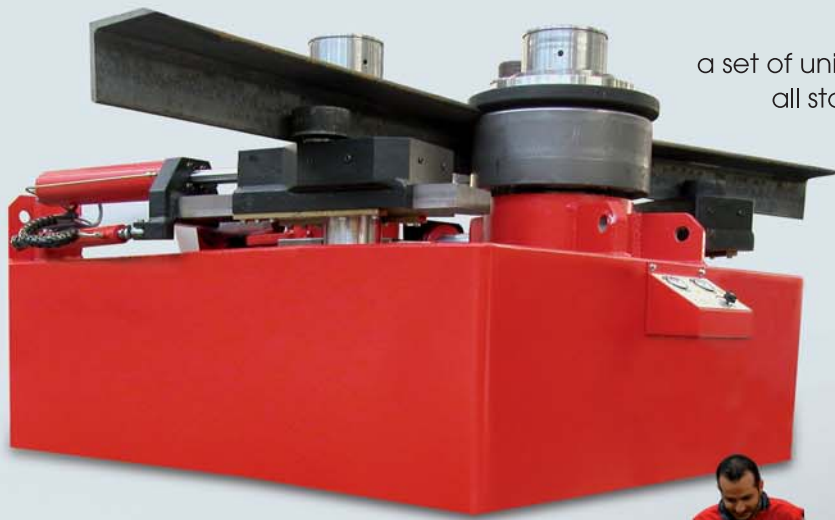


## ROLL BY WIRE

The machine electrical wiring has been drastically reduced. All input signals are transmitted digitally via bus system instead of obsolete relays and contacts.

This results in fewer components, a much more user friendly design, high quality - quick response system.





Davi MCP machines include a set of universal rolls suitable to process all standard profiles, except pipes.

The rolls can be combined in different ways to ensure a perfect profile guide, assuring an high quality bending process is ensured for every type of sections.



H, U and I beams bent the-hard-way require a special traction unit to pull the profile downward during the rolling process. It is hydraulically activated and is controlled through the operator panel. Davi can provide rolls for this traction unit customized to any beam to be bent.



SPECIAL APPLICATIONS



Thanks to its versatility the MCP series is particularly suitable to produce a variety of non standard applications.



Parts like:  
Alu profiles, coils, wheels rim  
and all non standard shape sections  
are bent on Davi MCP machines  
equipped with special set of rolls,  
designed specifically for this purpose  
by our state of the art software.



# HI-TECH PROFILE BENDING MACHINES FOR ALL TYPES OF STANDARD AND NON STANDARD APPLICATIONS



Heavy electro welded frames designed for the most powerful and heavy profile bending machine range in the world.

DAVI MCP: A RANGE UP TO THE  
HEAVIEST APPLICATIONS.  
DAVI BUILT THE HEAVIEST SECTION  
ROLL IN THE WORLD.



High efficiency components  
combined with state  
of the art engineering.

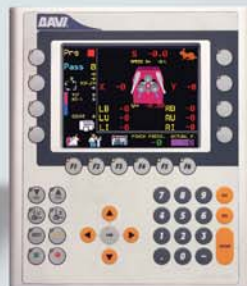
**FROM THE SIMPLEST ONE TO THE MOST ADVANCED CNC FOR AUTOMATIC PRODUCTION**

**Easy DRO:**

An entry level CNC suitable to memorize process programs to reproduce the bending process. It reads the position of the side rolls and it can control up to 9 axis. The 5,7" screen allows the operator to easily monitor the production data.



AUTOMATION





















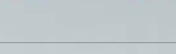
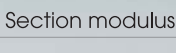
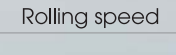
**Smart Basic and Pro:**

A PLC base CNC control which allows to control up to 10 axis. The 5,7" screen shows all position of the controlled axis. Moreover this CNC allows to upload and download memorized programs with USB port.



**Leonardo:**

The most advanced PC based CNC able to support unlimited number of axis. Its 15" touch screen is user friendly and is equipped with a very sophisticated software capable to suggest hints to the operator to produce parts in shortest possible amount of time.

Model	MCP								
	3211	3214	3218	3220	3226	3232	3236	3242	
	1	100x25 ø 700	125x32 ø 1000	150x40 ø 1400	175x45 ø 1600	200x50 ø 1800	250x70 ø 1800	300x100 ø 2000	500x130 ø 3000
	2	200x35 ø 600	220x50 ø 1000	250x60 ø 1400	320x65 ø 1600	400x70 ø 1800	500x80 ø 1800	650x100 ø 2000	1000x150 ø 2200
	3	60 ø 600	80 ø 1200	100 ø 1500	115 ø 1500	130 ø 1800	170 ø 2200	240 ø 2500	310 ø 2500
	4	75 ø 900	90 ø 1100	110 ø 1200	130 ø 1400	150 ø 1500	200 ø 2200	260 ø 2000	380 ø 2500
	5	100x12 ø 1000	120x15 ø 1300	150x16 ø 1400	180x18 ø 1800	200x25 ø 2500	200x28 ø 1600	200x28 ø 1600	200x28 ø 1700
	6	100x10 ø 1000	120x13 ø 1100	150x15 ø 1500	180x15 ø 2000	200x20 ø 2000	200x28 ø 1800	200x28 ø 1800	200x28 ø 2000
	7	100x12 ø 800	120x15 ø 1000	150x16 ø 1000	180x18 ø 1400	200x25 ø 2500	200x28 ø 1600	200x28 ø 1600	200x28 ø 1600
	8	100x10 ø 800	120x13 ø 1000	150x15 ø 1200	180x15 ø 1600	200x20 ø 2000	200x28 ø 2500	200x28 ø 2500	200x28 ø 2300
	9	100x12 ø 1000	120x15 ø 1000	150x16 ø 1000	180x18 ø 1400	200x25 ø 2000	200x28 ø 1600	200x28 ø 1600	200x30 ø 1600
	10*	120x50x4	150x50x5	180x70x8	200x75x8	230x100x10	250x125x12	420x200x12	
	11*	80x6	100x8	120x10	150x10	180x12	225x12	400x16	508x20
	12**	UPN 180 ø 800	UPN 220 ø 900	UPN 300 ø 1100	UPN 360 ø 1300	UPN 475 ø 1500	UPN 550 ø 2200	UPN 1000 ø 4000	UPN 1000 ø 4000
	13**	UPN 180 ø 1000	UPN 220 ø 1100	UPN 300 ø 1200	UPN 360 ø 1600	UPN 475 ø 2500	UPN 550 ø 3000	UPN 1000 ø 4000	IPE 1000 ø 4000
	14**	IPE 180 ø 1000	IPE 220 ø 1000	IPE 300 ø 1100	IPE 360 ø 1200	IPE 450 ø 1500	IPE 600 ø 2200	IPE 1000 ø 5000	HEA 1000 ø 5000
	15**	HEA 120 ø 1000	HEA 150 ø 1100	HEA 180 ø 1100	HEA 220 ø 2500	HEA 280 ø 3000	HEA 450 ø 3500	HEA 1000 ø 5000	HEM1000 ø 7500
	16	141x3,4 ø 3000	168x3,4 ø 2500	216x2,7 ø 3000	273x4,2 ø 5000	324x4,5 ø 10000	406x6,3 ø 15000	558x12,7 ø 10000	660x9 ø 20000
	17	114x6 ø 1800	141x6 ø 1800	168x7 ø 2200	216x8 ø 2500	273x9,3 ø 10000	356x9,5 ø 10000	508x15 ø 10000	610x18 ø 15000
	18**	UPN 120 ø 4500	UPN 150 ø 6000	UPN 180 ø 8000	UPN 220 ø 9000	UPN 260 ø 15000	UPN 300 ø 20000	UPN 400 ø 38000	UPN 700 ø 90000
	19**	IPE 120 ø 3000	IPE 150 ø 4000	IPE 180 ø 5000	IPE 240 ø 9000	IPE 270 ø 11000	IPE 360 ø 20000	IPE 600 ø 32000	IPE 800 ø 50000
	20**	HEA 100 ø 4500	HEA 120 ø 3000	HEA 160 ø 8000	HEA 200 ø 9000	HEA 240 ø 20000	HEA 300 ø 20000	HEA 550 ø 36000	HEA 800 ø 50000
	20**HEB hard			HEB 140 ø 10000	HEB 180 ø 12000	HEB 200 ø 10000	HEB 240 ø 7000	HEB 500 ø 24000	HEB 800 ø 70000
Section modulus	cm <sup>3</sup>	40-70	80-150	120-220	240-450	350-600	600-1300	1000-4000	2000-8000
Rolling speed	m/min	6	6	6	6	6	6	6	6
Diameter rolls	mm	315	390	470	560	680	820	820	820
shaft diameter	mm	110	140/120	180-160	200-180	260-240	320-320	360-360	420-400
power	HP	15	20	30	40	60	100	120	190
net weight	Kg	4000	6000	9500	11500	24000	31000	47000	70000

To bend the following profiles: 16-17-18-19-20, it is necessary to utilize special tools and/or special equipment. Tolerances depends on the final internal diameter; additional set of special rolls might be necessary in case of requests an high tolerances. The above mentioned capacities are based on sections in mild steel with a maximum of 400 N/mm<sup>2</sup> tensile strength, rolled down to the stated diameters in multipass. Capacities can be increased when rolling larger diameters. Tighter diameters can be achieved on lighter capacities. Harder material reduced the announced capacities.

\* On this hollow section, due to its structure rigidity weakness, the diameter depends on the section distortion an deformation, much more than from the machine power. To reduce distortion it is suggested to fill up the hollow section with sand or use special tools.

\*\* For much smaller beams than the capacity reported sometimes a set of further parts is requested (spacers and parts for the special equipment); therefore in this case a technical evaluation is needed.



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