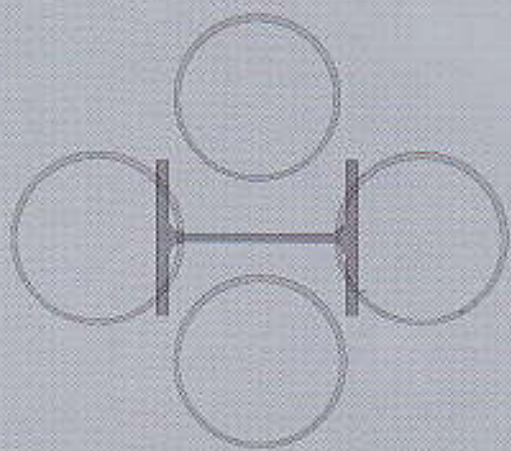


DAVI
EXCELLENCE IN FORMING



MC4P

4 roll **DIGITAL** profile bending machine

www.davi.com

MC4P profile bending machine, "Off-Road".

The MC4P is a highly-innovative 4-roll profile bending machine, specifically designed to provide major cost saving advantages such as (on specific sections, especially bars and symmetric sections, when bent "on flat" / "the easy way"):

- **Minimizing Waste:** The 4-roll design allows close bending, minimizing "flats"; saving time and material waste.
- **Ease of Programming:** The Davi CNC controls allow the operator to easily program and bend a wide variety of shaped material.
- **Excellent Results:** Accurate bends can be obtained without the need of an experienced operator.
- **Less Distortion:** Pinching force can be preset to prevent crushing or lamination of the material.

A simple process to bend shaped materials:

- Profile is constantly pinched between the upper and lower rolls.
- Rear roll is elevated to verify end of bar.
- Bar is retracted to near center-line of the upper and lower roll.
- Rear roll is lowered and the front roll is raised to set the bending radius.
- Material is bent as it feeds through the first bending sequence.
- Rear roll is raised and the front roll is lowered to support the bar.
- Material is fed through the rolls to continue the bending process.
- Bending rolls move away to allow for easy part removal.



THE 4-ROLL DESIGN ALLOWS CLOSE BENDING, MINIMIZING "FLATS" ON SPECIFIC SECTIONS; SAVING TIME AND MATERIAL WASTE



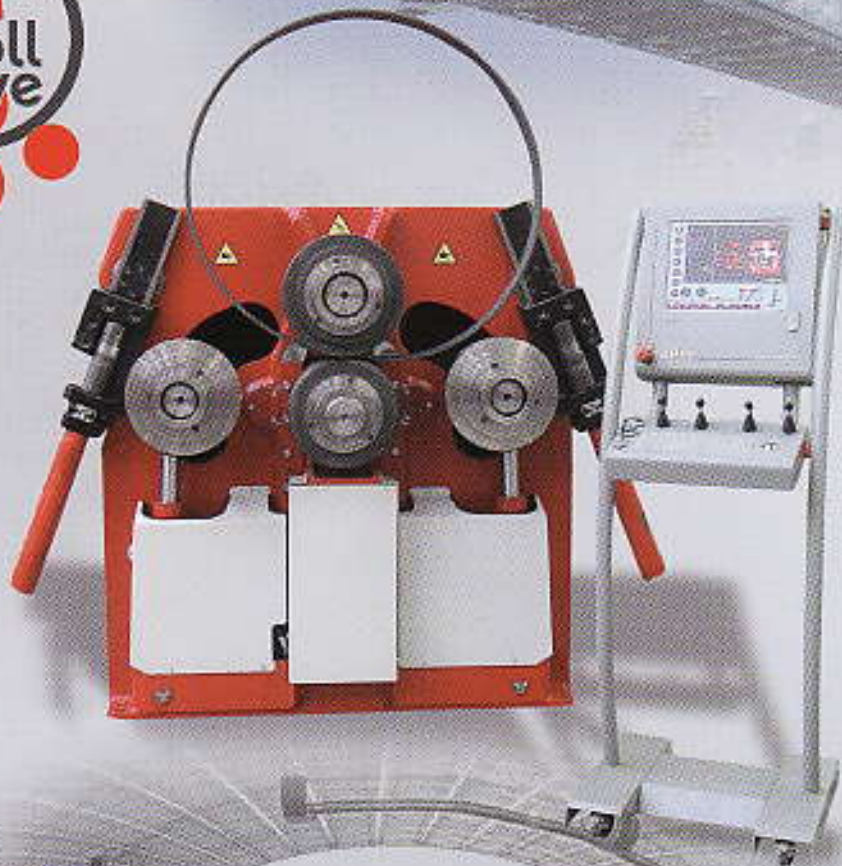
VERY LONG "FLATS" RESULTING IN COSTLY SCRAP AND ADDITIONAL OPERATIONS

THE ONLY 4X4 FOR BENDING PROFILES !!

THE MOST PRECISE, EASY TO USE AND FAST BENDING MACHINE ON THE MARKET.

In addition to all the advantages of a three-roller DAVI profile bender, the MC4P has a number of advantages:

- Flat ends are reduced almost to zero on specific profiles.
- A selection of DAVI CNC controls allow for highly efficient programming of standard jobs.
- The simplest machine for bending profiles.
- The entire sequence can be performed in a single pass.
- The exit edge rounding off is done automatically.
- The profile is introduced horizontally.
- Room required on one side of machine only.
- The MC4P is typically 50-80% faster and more productive than any other profile bender.



THE ONLY 4X4 FOR BENDING PROFILES !!

THE MC4P BENDS PROFILES SIMPLY AND EFFICIENTLY



Bending sequence of a military vehicle steel wheel.



MODERN "DAVI" CNC CONTROLS
PERMIT "TACKLING ANY BEND"

MC4P equipped with automatic
vertical support and finished
parts ejector.



THE ONLY 4X4 FOR BENDING PROFILES !!

THE MC4P IS IDEAL FOR CUSTOMERS:

- Seeking high productivity and low production costs.
- Wishing to increase productivity (It is the fastest and most productive profile bending machine).
- Approaching this application for the first time (It is the easiest profile bending machine to use).
- Without experienced operators (the CNC control can help even the inexperienced operator).

DAVI "MC4P" is the only Angle roll with FOUR independent Hydraulic motors DIRECTLY SPLINED ON EACH POWERED ROLL'S SHAFT in standard feature in the Market.

Direct motor coupling is the best solution to power the rolls, allowing the torque to be transmitted directly to the profile.



4X4 IN THE WORKSHOP

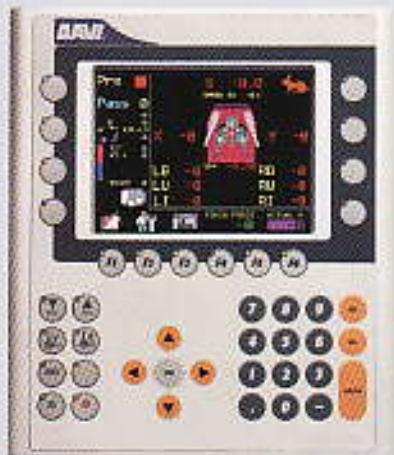
Thanks to its numerous benefits the 4-ROLL MC4P allows the production goals required in today's competitive market:

- limited excess flat edge cutting.
- required CNC programming for bending part families.
- no roundness calibration needed.

4 ROLL DIGITAL PROFILE BENDING
MACHINE: BENEFITS



CNC DAVI "SMART-PRO"



Ideal to simply program mono-radial profile bends.

The "Smart-Pro" Control with it's powerful Intel Pentium® processor is easily programmed with it's Teach or NC Editor mode.

Open Architecture CNC control with:
two USB ports, RS232, Ethernet and Compact Flash connection.

On-board Diagnostics:
Advanced diagnostics assists in troubleshooting, showing where the problem is and providing suggestions on how to solve it.

Remote Diagnostics:
Real-time network backing, when connected with Davi Customers Remote assistance.

ALL DAVI CNC BENEFIT FROM THE NEW ROLL-BY-WIRE



CNC "LEONARDO"

The new Leonardo® is the most powerful CNC available on the market today. Thanks to its powerful Intel Pentium® processor, it can be easily programmed, for both mono-radial and more complex geometric shapes (multi-radial).

Up to 5000 programs can be stored

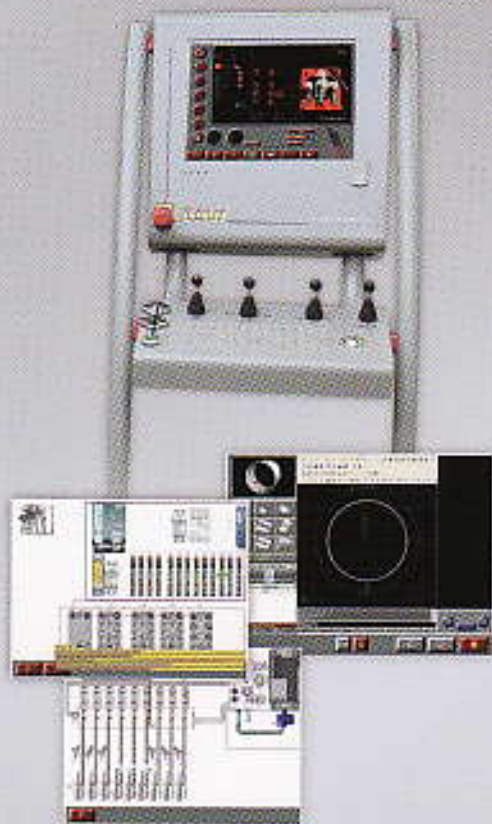
Open Control Architectures:
allows for 9 programmable axes (standard).

Additional axes: (optional)

Open Architecture CNC control with:
two USB ports, RS232, Ethernet and Compact Flash connection.

On-board Diagnostics:
with dedicated software (the system highlights the problem, shows where it is and how to solve it).

Remote Diagnostics:
Advanced Remote assistance with real-time network backing, linked with Davi Customer Service Remote assistance.



4 ROLL DIGITAL PROFILE BENDING MACHINE: AUTOMATION

MC4P

Model	MC4P					
	4311	4314	4318	4320	4326	
 1	100x25 ø700	125x32 ø1000	150x40 ø1400	175x45 ø1600	200x50 ø1800	
 2	200x35 ø600	220x50 ø1000	250x60 ø1400	320x65 ø1600	400x70 ø1800	
 3	60 ø600	80 ø1200	100 ø1500	115 ø1500	130 ø1800	
 4	75 ø900	90 ø1100	110 ø1200	130 ø1400	150 ø1500	
 5	100x12 ø1000	120x15 ø1300	150x16 ø1400	180x18 ø1800	200x25 ø2500	
 6	100x10 ø1000	120x13 ø1100	150x12 ø1500	180x15 ø2000	200x20 ø2000	
 7	100x12 ø800	120x15 ø1000	150x16 ø1000	180x18 ø1400	200x25 ø2500	
 8	100x10 ø800	120x13 ø1000	150x15 ø1200	180x15 ø1600	200x20 ø2000	
 9	100x12 ø1000	120x15 ø1000	150x16 ø1000	180x18 ø1400	200x25 ø2000	
 10	120x50x4	150x50x5	180x70x8	200x75x8	230x100x10	
 11	80x6	100x8	120x10	150x10	180x12	
 12	180x70 ø800	220x80 ø900	300x100 ø1100	360x150 ø1300	475x150 ø1500	
 13	180x70 ø1000	220x80 ø1100	300x100 ø1200	360x150 ø1600	475x150 ø2500	
 14	180x82 ø1000	220x98 ø1000	300x125 ø1100	360x145 ø1200	450x170 ø1500	
 15	A 120 ø1000	A 150 ø1100	A 180 ø1100	A 220 ø2500	A 280 ø3000	
 16	140x3 ø2800	180x4 ø4000	220x4 ø5000	275x5 ø8000	324x5 ø10000	
 17	100x5,7 ø700	140x6 ø1400	170x7 ø2000	220x8 ø5000	273x10 ø8000	
 18	120x55 ø3000	150x60 ø4000	180x70 ø5000	220x80 ø7000	260x90 ø10000	
 19	120x58 ø3000	150x70 ø4000	180x82 ø5000	240x98 ø7000	300x125 ø4000	
 20	A 100 ø3000	A 120 ø4000	A 160 ø5000	A 200 ø7000	A 240 ø9000	
Section Modulus W cm ³	40 - 70	80 - 150	120 - 220	240 - 450	350 - 600	
Shafts ø	mm	110	140/120	180/160	250/240	
Rolls ø	mm	315	390	470	560	680
Electric power	HP	15	20	30	40	60

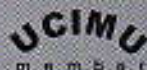
* All sizes are in mm

Because of the weak structural strength of tubular (square or round) profiles, the obtainable diameter depends more on the distortion and deformation of the profile than on the power of the machine; often these must be filled with sand to reduce distortions and crushing.

The aforementioned capacities refer to soft steel profiles with max 400 N/mm² breakage resistance, bent at indicated diameter. This capacity can be increased by bending larger diameters. Smaller diameters can be obtained on lower capacities. More resistant materials reduce the indicated capacities.



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