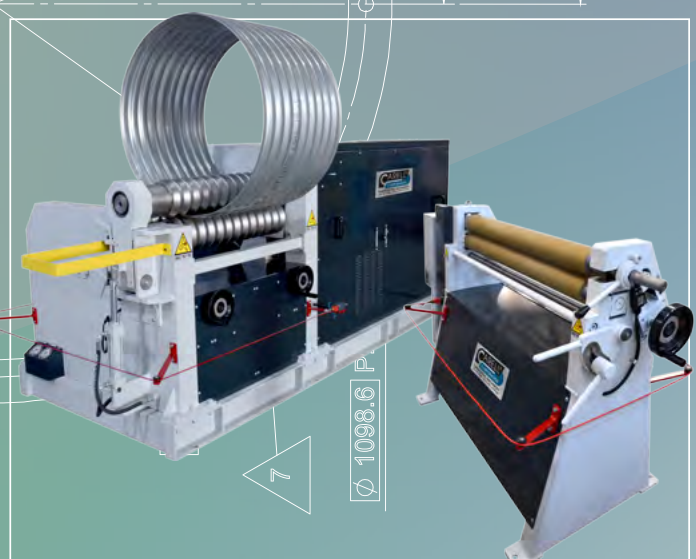
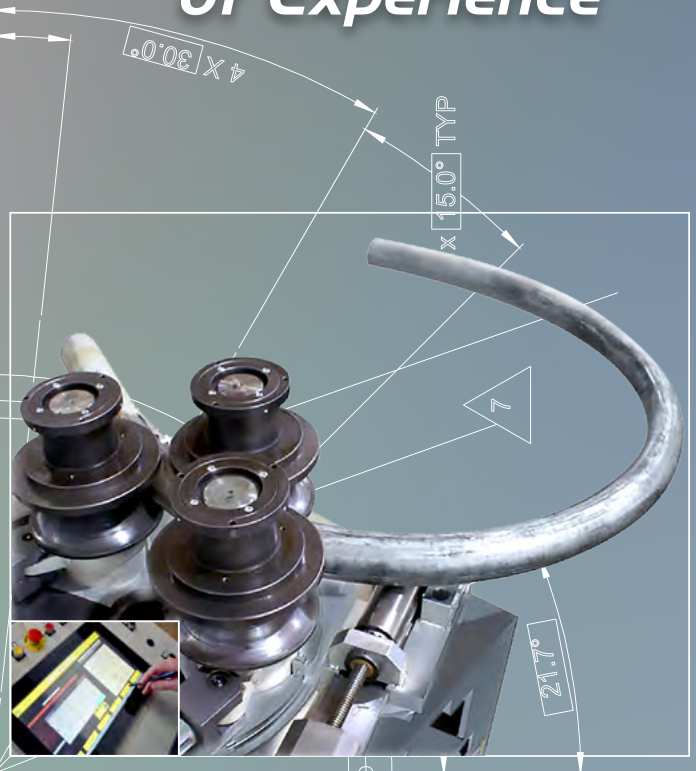


# CARELL<sup>®</sup>

## CORPORATION

### FABRICATING MACHINERY

*Innovation, Quality  
& Performance  
Backed By Decades  
of Experience*



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







Carell proudly represents these leading global partners



CARELL CORPORATION  
P.O. BOX 850, 34225 Hwy. 31  
STAPLETON, AL 36578-0850, U.S.A.  
TEL: 251-937-0947 / FAX: 251-937-4742

Proud supporters of:



## Our Philosophy... To offer the Best Machines...

True Quality & Value are Always Found in the Details...

Our company was founded to fill a need for tough, dependable machines capable of working day after day with minimum down time. This can only be achieved through comprehensive quality engineering toward all aspects of machine construction, even the hidden components. It's what sets Carell apart from everyone else. From the outset, when you have to **Depend on a machine... Depend on... CARELL!**

### INDEX

#### CARELL PRODUCTS

- 01 Tube & Pipe Benders
- 02 Double Pinch Angle Rolls
- 04 Universal Roll Benders
- 04 Coil Forming Machines
- 05 E-matic CE/CN Rotary Bar Bender
- 05 2 Roll Ring Roller
- 06 4 Roll Plate Rolls
- 07 3 Roll Plate Rolls
- 07 3 Roll Translating Geometry
- 08 Automatic Cycle Plate Rolls
- 09 Intial Pinch Powered Plate Rolls
- 10 Vertical Format Plate Rolls
- 10 Dedicated Cone Rolling Machines
- 11 Horizontal Presses & Corner Notchers
- 12 Rebar Benders & Shears
- 13 Standard & Custom Tooling

#### EAGLE PRODUCTS

- 14 CP20 Series Section Benders
- 15 CP30 Series Section Benders
- 16 CP40 Series Section Benders
- 17 CP60 Section Benders
- 18 BA Series CNC Section Benders
- 19 CPS Series Section Benders
- 20 Z402 Series Section Benders
- 21 Eagle Bending Machines Specifications

#### VALUE ADDED SERVICES by Carell Corporation

Demonstration & Showroom / Testing & Prototype Facility  
Tooling Design & Manufacturing / Technical Assistance  
Machine Diagnostics & Repair / Process Flow Design / Spare Parts  
Dedicated Machine Applications / Extrusion Die Consulting

Some of our Satisfied Clients include:

General Motors - General Electric - Boeing - Northrup Grumman - NASA - US NAVY  
Titan Tanks - Offshore Inland - BP - General Mills - Mercury and many more!

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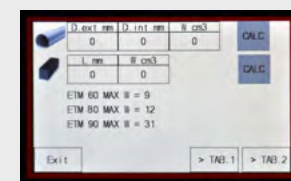
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## TUBE and PIPE BENDERS

HEAVY DUTY MANDRELESS & MANDREL BENDERS

1/2" to 4" Pipe **ETM SERIES**

Includes Calculation Screens & Limit warnings.  
Up to 99 programs and impressive cycle times.



### FEATURES

- All Steel Construction is Heavier for maximum versatility and safety. NO Cast frames!
- Adjustable Bend Angle and spring-back Preset Digital control with memory
- Manual - Automatic function allows Automatic bend & return with one command
- Bends up to 180° in one Step ■ Quick Change Tooling ■ Standard & Custom Formers Available

- Wide Range of Bending Radii:  
ETM-60HD: 2" to 10",  
ETM-80HD: 1/2" to 16" • ETM-90HD: 2.5" to 19"  
ETM-120HD: 2.5" to 19" • ETM-150HD: 2.5" to 19"

### CAPACITIES

	ETM-60HD	ETM-80HD	ETM-90HD	ETM-120HD	ETM-150HD
Pipe	1-1/2" Sch. 40 Pipe	2-1/2" Sch. 40 Pipe	3" Sch. 40	4" Sch. 40	6" Sch. 40
Tube	2.25" OD x 0.135" wall	3" x 0.125" wall	3.5" x 0.16" wall	5 1/2" x 0.216" wall	6" x 0.25" wall
Round Bar	1.25"	1-7/8"	2"	3"	4"
Square Tube	1.25"	2-1/4" x 2-1/4" x .120" wall	2 1/2" x 2 1/2" x 0.25" wall	4 1/4" x 4 1/4"	5 1/2" x 5 1/2"

### MANDRELESS & MANDREL BENDERS

1/2" to 2" Pipe **UNI SERIES**



### FEATURES

- Mandrel & Mandrelless Models
- Heavy Duty Steel Frames and Compact Designs
- Digital Controls, 50 Programs w/ 9 Bends Each
- Efficient 2 Speed Drives
- Zero Pinch Safety Return Stroke
- Tooling / Formers Optional in Standard and Custom Sizes

### CAPACITIES

Mandrelless	UNI-70/C	UNI-76	UNI-89	Mandrel	UNI-70/HC	UNI-80	UNI-90
Max. Pipe Size	2"	2-1/2"	3"	Max. Pipe Size	1-1/2"	2"	2-1/2"
Max. Tube O.D.	2.375" x .140"	2.75" x .200"	3.5" x .200"	Max. Tube O.D.	2.375" x .120"	2.75" x .120"	3.5" x .120"
Max Bend Angle	180°	180°	180°	Max Bend Angle	180°	180°	180°
Max Bend Radius	9.5"	11.5"	14"	Max Bend Radius	9.5"	11.5"	14"
Speed	Dual	Dual	Dual	Speed	Dual	Dual	Dual
Positioning Table	Optional	-	-	Positioning Table	Included	Included	Included
Mandrel Table	Optional	-	-	Mandrel Table	Included	Included	Included
Installed Power	3 HP	5.5 HP	6.5 HP	Installed Power	3.5 HP	5.5 HP	6.5 HP
Weight, approx.	472 lbs.	946 lbs.	1,440 lbs.	Weight, approx.	890 lbs.	1,320 lbs.	2,150 lbs.



DOUBLE PINCH ANGLE ROLLS

15 MODELS 1" TO 10" ANGLE



**NOTES:** Chart indicates minimum suggested inside diameter with maximum profile size, using mild steels rolling generally in multiple passes. • Data is approximate specified inches u.n.o. • Custom tooling for some profiles may be required for volume production and minimum rolling diameters are limited to level of acceptable deformation. • The manufacturer and Carell Corp. reserve the right to revise design, construction and specifications without prior notice. • Ratings based on material yield of 36KSI. • Machines with extended shafts or shortened shafts are available. • We build totally custom geometries and configurations for highly specific manufacturing requirement. • Call us if you have questions on applications or capacities. Series 3000 machines are designed compliant with EEC norms and bear CE plates. Units are designed to comply with ANSI B11.12.1996 standards. The employer of the operator is responsible for providing and insuring the usage of point of operation guards and/or properly applied and adjusted point of operation safety devices are required to meet OSHA, state and local safety requirements.

SERIES 3000 CAPACITIES & SPECIFICATIONS						
Series 3000 Model	302HV	303HV	304HV	305HV	306HV	307HV
Flats, Hard	2 x 5/16 Ø16	2-3/8 x 3/8 Ø20	2-3/4 x 1/2 Ø28	3 x 5/8 Ø30	4 x 5/8 Ø42	4 x 1 Ø44
Flats, Easy	2-3/8 x 5/8 Ø18	3 x 1/4 Ø18	4 x 1 Ø26	5 x 1 Ø26	6 x 1 Ø30	7 x 1-3/8 Ø32
Square Bar	1 Ø12	1-1/4 Ø18	1 1/2 Ø20	1-3/4 Ø22	2 Ø26	2-1/2 Ø32
Angle, L-Out	2 x 3/16 Ø24	2 x 1/4 Ø28	2-1/2 x 5/16 Ø30	3 x 3/8 Ø42	3-1/2 x 3/8 Ø48	4 x 1/2 Ø48
Angle, L-In	1-1/2 x 3/16 Ø18	2 x 3/16 Ø28	2 x 5/16 Ø30	2-1/2 x 5/16 Ø42	3 x 3/8 Ø40	4 x 3/8 Ø50
Tee, L-Out	2 x 1/4 Ø20	2-3/8 x 1/4 Ø24	2-1/2 x 5/16 Ø26	3 x 3/8 Ø34	3-1/2 x 3/8 Ø38	4 x 1/2 Ø54
Tee, L-In	1-1/2 x 3/16 Ø20	2 x 3/16 Ø22	2 x 5/16 Ø26	3 x 5/16 Ø36	3-1/2 x 5/16 Ø38	4 x 3/8 Ø60
C, Legs-out	2 x 1-1/2 Ø16	3 x 1-3/4 Ø24	4 x 1-3/4 Ø28	5 x 2 Ø28	6 x 2-1/2 Ø30	7 x 2-1/2 Ø36
C, Legs-in	2x1 Ø20	2-1/2 x 1-5/8 Ø30	3 x 1-3/4 Ø28	4 x 2 Ø36	5 x 2-1/2 Ø40	7 x 2-1/2 Ø48
Round Bar	1-3/16 Ø14	1-3/8 Ø16	1-3/4 Ø20	2 Ø22	2-1/2 Ø30	Ø30
1 Pipe, Sch. 40	1-1/4 Ø20	1-1/2 Ø20	2 Ø24	2-1/2 Ø32	3 Ø42	4 Ø45
1 Round Tube	2 x 16Ga	2-3/8 x 14Ga	3 x 14Ga	3-1/2 x 14Ga	4-1/2 x 12Ga	5-1/2 x 10Ga
2 Square Tube	1-1/2 x 14Ga	2 x 14Ga	2-1/4 x 11Ga	2-1/2 x 10Ga	3 x 3/16	3-1/2 x 1/4
2 Red. Tube	1-1/2 x 3/4x 13Ga	2 x 1-1/4 x 12Ga	2-1/2 x 1-1/4 x 11Ga	3 x 1-1/2 x 10Ga	4 x 1-1/2 x 3/16	5 x 2 x 3/16
I Beam EZ		S3 x 5.7 Ø24	S4 x 7.7 Ø30	S5 x 10 Ø32	S6 x 17 Ø36	S7 x 20 Ø48
H Beam EZ					M4x 13 Ø72	W5 x 16 Ø60
3 C, On Edge						C3 x 6 Ø96
3 I Beam HW						S5 x 15 Ø100
3 H Beam HW						
Section Modulus in <sup>3</sup>	0.20	0.40	0.61	1.10	1.5 - 2.26	2.8 - 4.9
Rolling Speed fpm	20	20	20	20	0-23	0-23
Power Output HP	3.8	4	4.7	6.5	10	15
Roll Diameters in.	5.70	7.0	8.07	9.65	10.83	12.40
Shaft Diameters in.	1.57	1.97	2.36	2.76	3.54	3.94
Approx. Weight lbs.	1,200	1,720	2,420	3,450	5,725	8,210

LEGEND: (1) Set of 3 rolls required for each tube or pipe size, (2) Special rolls may —

Designed for Long Life, Reliability & Heavy-Duty Horizontal/Vertical Application. 3000 SERIES



- FEATURES**
- Three driven rolls, smooth surfaced for optimal profile traction and surface finish
  - Double Pinch Geometry permits pre-bending without removal from the machine
  - Dual LED Digital Displays / Emergency stop
  - Monolithic single weldment frames heavily reinforced at load points.
  - Detached mobile control stand, low voltage controls
  - Horizontal/vertical operation on models 302 thru 309
  - NiCrMo Bending rolls hardened for optimal performance
  - Top roll drive incorporates overload protection which allows differing roll speeds when bending tall sections
  - Variable speed hydraulic drive train 306 - 315 with direct coupled hydraulic motors and planetary speed reducers. Electro-mechanical drive on 302- 305
  - Shafts journaled in dual self-aligning high dynamic load roller bearings
  - Tri-Directional Lateral Guides Manual Adjust : 302 - 305 Hydraulic Powered Models: 306-314

SERIES 3000 CAPACITIES & SPECIFICATIONS						
308HV	309HV	310HV4	311HV4	312HV4	313HV4	314HV4
5-1/2 x 3/4 Ø60	6 x 1 Ø60	6 x 1-1/2 Ø60	8 x 1-1/4 Ø100	8 x 2 Ø100	10 x 2 Ø120	10 x 2-1/2 Ø120
8 x 2 Ø42	9 x 2 Ø48	10 x 2-1/2 Ø60	12 x 2-1/2 Ø60	16 x 2-1/2 Ø76	18 x 2-1/2 Ø80	20 x 3 Ø90
3 Ø36	3-3/8 Ø48	3-3/4 Ø60	4 Ø54	4-1/2 Ø66	5 Ø78	6 Ø90
5 x 1/2 Ø60	5 x 5/8 Ø54	6 x 3/4 Ø72	6 x 1 Ø96	8 x 1 Ø120	8 x 1 Ø80	8 x 1-1/4 Ø80
4 x 1/2 Ø48	5 x 1/2 Ø60	5 x 5/8 Ø60	6 x 1 Ø120	8 x 3/4 Ø140	8 x 1 Ø100	8 x 1-1/8 Ø80
4-1/2 x 1/2 Ø48	5 x 1/2 Ø60	6 x 1/2 Ø75	6 x 5/8 Ø96	7-1/2 x 5/8 Ø96	8 x 5/8 Ø96	10 x 3/4 Ø144
4 x 1/2 Ø50	4-1/2 x 1/2 Ø60	5 x 1/2 Ø75	6 x 1/2 Ø96	7-1/2 x 5/8 Ø96	8 x 5/8 Ø96	10 x 5/8 Ø144
8 x 3 Ø36	10 x 3 Ø48	12 x 3 Ø48	15 x 3-1/2 Ø48	16 x 4 Ø60	18 x 4 Ø60	20 x 4 Ø72
8 x 3 Ø48	10 x 3 Ø60	12 x 3 Ø60	15 x 3-1/2 Ø60	16 x 4 Ø60	18 x 4 Ø60	20 x 4 Ø72
3-3/8 Ø40	3-1/2 Ø40	4-1/2 Ø60	5 Ø60	5-1/2 Ø60	6 Ø72	7 Ø90
5 Ø70	6 Ø120	6 Sch80 Ø100	8 Ø100	10 Ø160	12 Ø160	12 Scd80 Ø200
6-1/2 x 9Ga	7 x 3/16	8 x 3/16	10 x 3/16	12 x 3/16	14 x 3/16	14 x 5/16
4 x 5/16	5 x 5/16	5-1/2 x 5/16	6 x 3/8	7 x 3/8	8 x 1/2	10 x 7/16
5-1/2 x 2 x 5/16	6 x 3 x 1/4	7 x 3 x 5/16	8 x 3-1/2 x 3/8	8 x 4 x 3/8	10 x 4 x 1/2	10 x 6 x 1/2
S8 x 23 Ø48	S10 x 35 Ø48	S12 x 40 Ø48	S15 x 50 Ø48	S18 x 54 Ø72	S18 x 70 Ø80	S20 x 96 Ø86
W6 x 20 Ø60	W8 x 24 Ø72	W8 x 31 Ø72	W10 x 45 Ø108	W10 x 54 Ø120	W12 x 72 Ø96	W18 x 106 Ø120
C5 x 9 Ø140	C6 x 13 Ø200	MC7 x 17 Ø250	C8 x 18.75 Ø300	C10 x 25 Ø400	MC12 x 50 Ø450	C15 x 34 Ø600
S6 x 17 Ø120	S7 x 20 Ø150	S8 x 23 Ø200	S8 x 23 Ø140	S10 x 35 Ø300	S12 x 50 Ø300	S15 x 50 Ø550
W4 x 13 Ø100	W5 x 19 Ø100	W6 x 20 Ø180	W6 x 25 Ø120	W8 x 28 Ø300	W10 x 33 Ø400	W12 x 35 Ø500
4.3 - 7.4	6.2 - 10	9 - 15	14 - 21	20 - 36	28 - 44	40 - 62
0-23	0-23	0-23	0-23	0-23	0-23	0-23
20	24	30	40	55	90	120
15.375	17	18.75	22	25.25	28.375	33
5.3/4.7	6.3/5.3	7.3/6.7	8.5/7.9	9.8/9.1	11.6/10.7	12.6/11.8
10,000	15,180	20,500	28,800	41,000	54,500	99,000

improve results on these profiles, (3) Special Beam On-Edge Traction Device required

STANDARD EQUIPMENT

- LED Digital Displays on all 3000 Series Angle Rolls
- Telescoping Modular Multi-Component roll set specifically designed to bend standard sections including angle Leg-In/Out and Square/Rectangular Tube as well as other shapes in a variety of material types

OPTIONS

- Rolls for tubes, pipes and special profiles
- Tooling for production of half tubes
- Overhead supports for coil production
- Compression and tension tooling for C channel, & I beam hard way bending
- NC & CNC Controls with various automation levels for repetitive jobs and production of variable radius bends and parts with multiple bends
- Powered lateral material guides on models 302-305
- LED digital displays for lateral guide movements



UNIVERSAL ROLL BENDERS

**GALILEO SERIES** Pyramid Design with Heavy Weldment Frames - No Castings!  
POWERFULL - G50HV & G80HVP



FEATURES

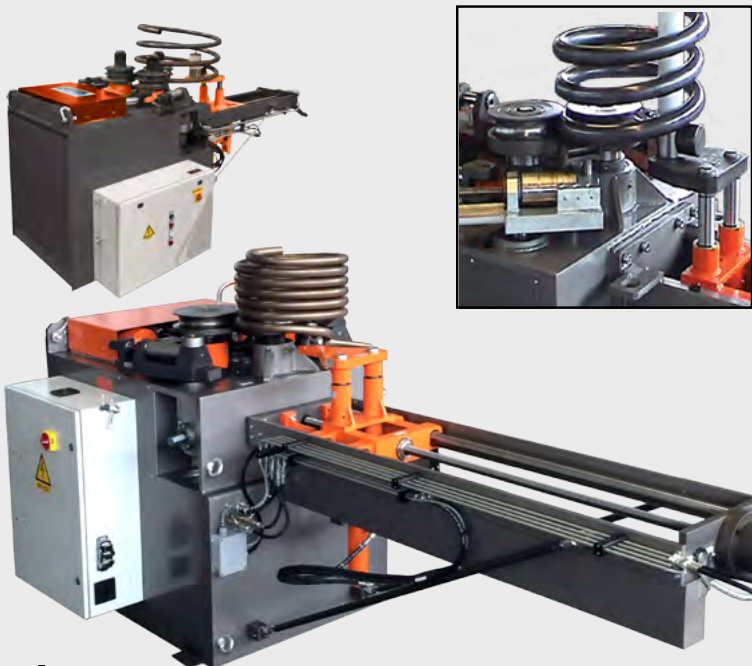
- Three Driven Shafts
- LED Readouts
- Push Button Controls
- Easy Operation
- Quick Set-up Universal Tooling
- Hydraulic Powered Forming Roll

	G50HV	G80HV
SECTION TYPE	MAXIMUM SECTION SIZE	MAXIMUM SECTION SIZE
	3" x 3/8"	4" x 5/8"
	4-1/2" x 3/4"	6" x 1"
	1-1/2"	2-1/4"
	1-3/4"	2-1/2"
	2-1/4" x 1/4"	3" x 3/8"
	2" x 1/4"	2-3/4" x 1/4"
	2-1/4" x 11GA	3" x 3/16"
	3"x1-1/2" x 11GA	3-3/4" x 2" x 10GA
	3" x 14GA	4" x 0.120"
	2" Std. 40	3" x Std. 40
	2-3/8" x 2-3/8"	3" x 3/8"
	4" x 2"	6" x 2"

G Series work in Horizontal or Vertical mode

**COIL FORMING MACHINES**  
CARELL'S NEW GENERATION OF COILING MACHINES

for up to 6" Pipe



- Produce coils for boilers, heaters, solar, geo-thermal, pharmaceutical, petrochemical and other applications.
- Coil 6" pipe down to 1/8" OD tubes or solid rod for springs and flat bars for repetitive ring forming.



UNIVERSAL ROLL BENDERS

World's Most Versatile Economical Bender **EMATIC CE/CN**

1,000's of Uses. Designed for  
Fast High Production  
Custom Manufacturing  
Applications & Lighter  
Ornamental / Decorative Work.

The Carell E-MATIC CE/CN incorporates a rotary bending head, a wide stable base and rogrammable controls into a unique versatile package. Rugged drive train w/4.5 HP motor+oil bath reducer. Bend to 15" radius. Tooling Sold Separately: Scrolling, Bar Folding, Circle/Curve, Tube Bender, Custom Accessories are all easily available from our warehouse and in-house custom fabricating shop!

**E-MATIC**  
5 MACHINES in ONE!



45 Bending Programs!  
Auto-Cycle

**HIGH SPEED 2 ROLL PRECISION RING ROLLER**  
FAST & PRECISE!

Produce Precision Tubes & Rings  
with ZERO Unbent Flats!

- Digitally programmable and uses a fixed interchangeable mandrel running against a high density urethane coated lower roll designed for parts roll-bent from thinner sheet
- Complete roll-bending of a part in a single pass with perfect roundness in less time!
- No deterioration of the finish on part surface
- Obtain perfect parallel seams with no unbent flats!



Mono-2R





## 4 ROLL PLATE ROLLS

### VBH SERIES

HYDRAULIC 4-ROLL PLATE BENDING MACHINES • EASY TO USE, EASY TO PROGRAM!



### Discover The Exclusive Features of The VBH Series!

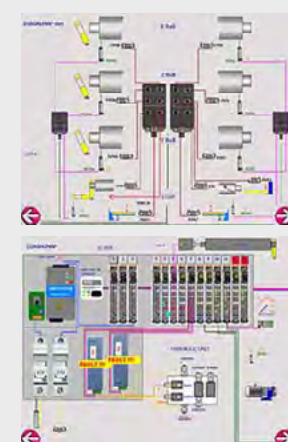
The most advanced bending technology.

Controls are an essential requirement for precision rolling production. Our controls function just like a tablet with touch-screens: navigating through the options is simplified via menus, shortcuts and with context-sensitive help. Select from the simple, compact **DIGIMATIC** control to the **STRADIVARI 3D-CAD CNC**, there's a PARMIGIANI control for every application.

"DIGIMATIC"	7" Color touch screen NC
"SAVE&BEND"	10" Color touch screen NC
"FAST"	15" Color touch screen CNC
"STRADIVARI"	19" Color touch screen CNC with 3D CAD Graphics

Instantaneous status display of the entire electrical / hydraulic systems and other components with on-screen schematics and real-time diagnostics.

Our CNC controls features are the result of continuous and technological improvements, including instant on-screen component monitoring, PM indications, "Plug & Play" Field Bus wiring harnesses, digital pressure controls and more that save time and money with increased productivity.



On-Screen Component Diagnostics & Schematics



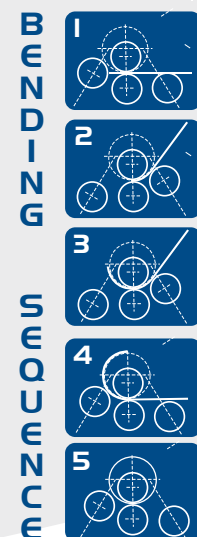
"Plug & Play" connectors Using "Field Bus" technology

**i-Diagnostic®** ACTIVE EXTENDED DIAGNOSTIC  
From the screen you control most all electrical connections around the machine; all PLC modules; all micro-switches and more....

**PPS Hydrotronic®** LIFETIME PRECISION  
20 times faster than PLC-based electronic controls joined with the hydraulic proportional valves, provides a parallelism precision of about 0.004"

**FACILE®** ADVANCED WIRING SYSTEM  
The FACILE System avoids wiring errors, shortens start-up time and allows quick swapping of cables during component replacement with reliable "Plug and Play" connections.

**Hi-Tech Hydraulic** ADVANCED HYDRAULIC SYSTEM  
With the infinitely variable pressure and the infinitely variable speed adjustment the operator has full control of the process in any bending application.



**OPTIONS:** Hardened Rolls • Cone Devices • Lateral Supports • Ejectors • Feed Tables  
Custom Lengths • Inter-changeable Top Rolls • Overhead Supports

PARMIGIANI

## 3 ROLL PLATE ROLLS

### TBH SERIES

HYDRAULIC 3-ROLL PLATE BENDING MACHINES • SUPERIOR STRENGTH, POWER & PRECISION



80 Standard Models  
16Ga - 6" Thick



### The TBH Series Is Focused On Helping You Grow Your Bottom Line

BY CONCENTRATING ON FOUR KEY AREAS OF MACHINE PERFORMANCE:

**STRENGTH:** Linear sliding guides and multiple bearing rolls support system.

**POWER:** High torque reduction unit for reduced number of rolling passes.

**PRECISION:** Digital control of the roll parallelism with

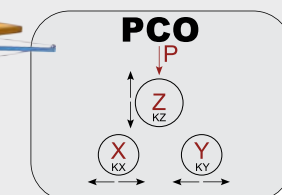
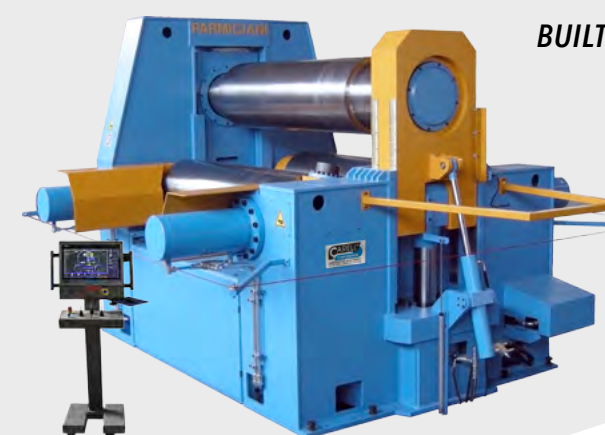
**CONTROLS:** Infinitely variable roll adjustment speeds, Infinitely variable pressures, shell calibration working modes, extended i-diagnostic system... are only some of the features that you can control directly from the operator mobile panel.



PARMIGIANI

## 3 ROLL TRANSLATING GEOMETRY

BUILT TOUGH FOR LONGER MACHINE LIFE **PCO SERIES**



### State of the Art Translating Geometry Technology

HYDRAULIC 3-ROLL PLATE BENDING MACHINES

- PPS Hydrotronic System is virtually maintenance free using HMI & CPU/PLC for positive real time parallelism.
- Optional Lateral Supports, Overhead Supports and Plate Centering Shifters are available in various configurations
- FACILE advanced wiring system uses "plug & play" cables, connectors and distribution modules.
- PCO Rolls use a precision digital system for positioning & balancing within 0.004" (0.1mm).
- Active Extended Diagnostics on Touch Panel for instant fault detection
- Proportional Balancing System (PPS) ■ 25 standard sizes

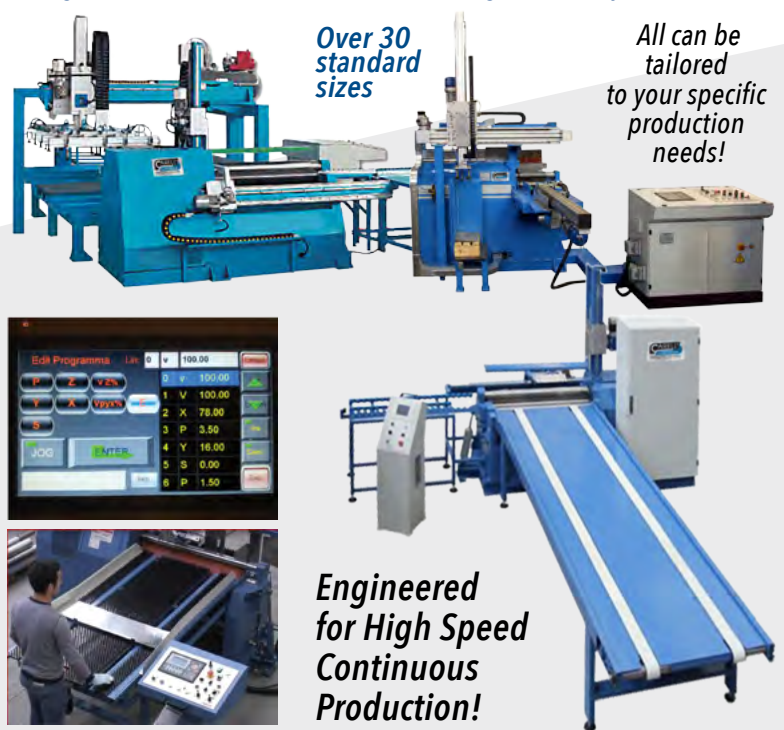


# AUTOMATIC CYCLE PLATE ROLLS

## ISC, HDT5, QAP & QAI SERIES

YOUR CHOICE FROM 4 AUTOMATIC CYCLE GROUPS • PARTS AT THE TOUCH OF THE START BUTTON!

Cylindrical, Radiused, Segmental & Poly-Centric  
Designed for automated manufacturing efficiency !



### FEATURES

- Capacities from 15" to 96" long x 26 Ga to 3/16"
- Automated bending cycles
- Top roll and pinch rolls driven in rotation
- Hardened, heat treated alloy steel rolls
- High polished, non-marring roll surface finish
- High speed rolling velocity
- Automatic drop-end release at end of cycle
- Compact space-saving designs
- Top support/deflectors
- Sheet feed squaring arm and adjustable back stops
- Automated sheet alignment systems

### OPTIONAL EQUIPMENT

- Sheet-Loading systems from pallets or blank stacks
- Cylinder ejector systems
- Multiple pallet blank shuttle systems
- Special machine configurations for dedicated needs
- A variety of CNC, NC or basic controls tailored to your requirements
- Finished part accumulators and take-away conveyors
- Lateral bending rolls powered also in rotation
- Urethane coated rolls
- Interchangeable top rolls

## CORRUGATED ROLLS

ANY LENGTH • ANY PATTERN • ANY SHEET THICKNESS, HORIZONTAL OR VERTICAL

We supply 3 and 4 roll machines for rolling corrugated sheet of all lengths, thickness and corrugation patterns. Machines are available with standard and CNC controls. Feeding and stacking systems are optional Hydraulic or Mechanical!



### FEATURES

- Direct Thrust Roll Movements eliminate swing arms and deliver power direct to the rolls
- Console Operated Hydraulic Drop End Yoke
- Maintenance free Hydraulic Volumetric Parallelism System for instant, continuous parallelism without mechanical moving parts or torsion bars
- Hydraulic Tilting of lateral rolls from console, no manual cams/jacks, maintenance free
- Heavy Solid Plate Steel End Frames distribute loads and reduce torsional deflection
- Push Button on detached mobile rolling console

### OPTIONS

- Additional LED Readouts
- 2 Speed Rotation
- Variable Speed Rotation
- Hydraulic lateral material support arm
- Hydraulic Overhead Support for (maximum ID 8'), sustaining thin sheet when rolling large diameters



MODEL	LENGTH	CAPACITY	ROLLØ	HP.	WT.
A312-104	3'	9GA	4.5"	3.0	1,800
A311-105	3'	3/16"	4.7"	4.5	2,000
A313-106	3'	7/32"	5.1"	5.5	2,300
A314-107	3'	1/4"	5.9"	6.0	3,000
A312-153	5'	11GA	4.5"	3.0	2,100
A311-154	5'	9GA	4.7"	4.5	2,500
A313-155	5'	3/16"	5.1"	5.5	2,700
A314-156	5'	7/32"	5.9"	6.0	3,700
A314-156.5	5'	1/4"	6.7"	8.5	4,200
A315-157	5'	9/32"	7.0"	10.5	4,400
A312-202	6'	14GA	4.5"	3.0	2,700
A313-203	6'	11GA	5.1"	5.5	3,200
A314-204	6'	9GA	5.9"	6.0	4,000
A315-205	6'	3/16"	6.7"	8.5	5,200
A316-206.5	6'	1/4"	7.9"	10.5	8,400
A313-252	8'	14GA	5.5"	5.5	4,000
A314-253	8'	11GA	6.3"	6.0	4,500
A315-254	8'	9GA	7.1"	8.5	6,500
A316-255	8'	3/16"	7.5"	10.5	9,500
A314-302	10'	14GA	6.3"	6.0	5,720

Data is Approximate and subject to change



MODEL	LENGTH	CAPACITY	ROLLØ	HP.	WT.
A 35-10/1.2	3'	18GA	2.4"	0.75	870
A 38-10/2	3'	14GA	3.0"	1.0	950
A 39-10/3	3'	12GA	3.5"	1.5	1,200
A 38-13/1.5	4'	16GA	3.0"	1.0	1,000
A 39-13/2.5	4'	12GA	3.5"	1.5	1,300
A 38-15/1.3	5'	18GA	3.0"	1.0	1,200
A 39-15/2	5'	14GA	3.5"	1.5	1,400
A 38-20/1	6'	20GA	3.0"	1.0	1,300
A 39-20/1.5	6'	16GA	3.94	1.5	1,600
A 310-20/2	6'	14GA	4.5"	2.0	2,550

Data is Approximate and subject to change

# INITIAL PINCH PLATE ROLLS

## A31 SERIES

POWERED INITIAL PINCH PLATE ROLLS



### A31 SERIES Features & Options

- Powered Rotation on Top & Pinch Rolls
- Bending Roll Powered Adjust Up/Down
- Push Button Controls on Detached Console
- Forward Release Top Roll w/ Safety Lock
- Emergency Palm Stop & Safety Trip Wire
- Keyed Safety Lockout on Control Stand
- Precision Pinch Adjustment, Manual
- Linear Scales for Precise Positioning
- Bend-Pinch Rolls Incline for Cones
- Controls in 24VAC Low Voltage
- Induction Hardened Rolls 54-56 HRC
- LED Readout w/ Position Repeat
- Extended Shafts & Section Dies
- Alignment and/or Rod Grooves
- Powered Bend Roll Rotation
- Foot Pedal Rotation Control
- Cone Rolling Device
- Custom Machines



### LS SERIES Features & Options

- Top & Pinch Rolls Power Driven
- Foot Pedal Control on Rotation
- Manual Bend & Pinch Roll Adjust
- Top Roll Forward Opening
- Bending Roll Inclines for Cones
- 3 Rod Rolling Grooves
- 24VAC Controls, E-Stop & Trip Wire
- Linear Scales for Positioning
- Induction Hardened Rolls
- Cone Rolling Devices
- Power Bend Roll UP/DN
- Power Bend Roll Rotation
- LED Readouts
- Custom Configurations



## VERTICAL PLATE ROLLS

### 3 & 4 ROLL VERTICAL SYSTEMS

SIGNIFICANTLY REDUCE TANK PRODUCTION COSTS!

COMPARE for YOURSELF  
and discover the key  
economical advantages of  
Vertical Rolls for Tank  
Production offered by Carell



#### The Evolution of Vertical Rolling Technology

Vertical Plate and Sheet Rolls can be built to suit your production needs. Vertical format rolls with no open end yoke have the drive train located at the top. If an open end yoke for material removal is required, the drive train is located at the base of the machine and a pit is generally required so working height is close to the shop floor.

Vertical geometries are available in 3 or 4 Roll Double Pinch as well as 3 Roll Initial Pinch as needs dictate. For specific needs, machines can be built that operate in both the vertical and horizontal positions.

## CONE ROLLING SYSTEMS

*No finish deterioration of part surface*  
AUTOMATIC CYCLE CONE FORMER



The High Durometer Urethane coated lower roll allows perfect rolling of polished aluminum alloy, stainless steel or mirror finished materials without surface marring or contamination. Reduce / Eliminate unbent flats and produce perfectly aligned seams with maximum pressure between the top and pinch rolls, perfectly parallel seams are achieved with virtually no unbent flats.



## HORIZONTAL PRESSES

### T-SERIES

#### Versatile Hydraulic Bulldozer Presses

Carell Hydraulic Horizontal "Bulldozer" Presses with High Speed Digitally Controlled Options can perform a multitude of bending, forming, straightening, punching and shearing operations. The work bed is heavy duty, oversized & hardened machined for producing complex shapes. The thrust ram is located under the machine bed allowing 360 degrees of unencumbered bending. High strength hardened punches and dies mount to receivers with a massive cross slotted dove tail key. Available from 22 up to 100 Ton Capacities with 100's of Tooling Options Available For Specific Production Needs.



New! "SIMPLYlogik" NC Dual Axis Programmable Controls

#### Perfect shearing of thin & thick materials without operator intervention

Carell Hydraulic Corner Notching Machines have heavy precision machined GS500 cast alloy work beds and precision ground dual vertical stroke guides on massive cast machine head. Units come with blades, sheet squares, stroke limit control, waste chute and a foot pedal actuator. Models from 3/16" to 5/16" with Fixed and Variable Angle and with a Punching Station option

## CORNER NOTCHERS





# REBAR BENDERS AND SHEARS

**BENDERS & COMBINATION MACHINES**  
TRUE MOBILITY - RUGGED FRAMES - LOW MAINTENANCE

## P SERIES



**TP SERIES**  
w/Bar Shear

**Digital Programming!**  
Up-To 6 Bending Programs!  
Larger Turning Plates with Long Saddles  
Reduction Gear & Cutting Arm in a Single Block!



**LEFT/RIGHT STANDARD**  
Produce Double Bends and bend from Left to Right



**STIRRUP ACCESSORIES**  
Optional, stirrup bending tool & adjustable length stop



**HEAVY DUTY SPIRAL DEVICE OPTIONAL**  
Use with up to #6 Bar

## STIRRUP BENDERS Bend more bars together!



Computerized Angle Controls  
**PS16**

Reduced Dimensions Make Unit Easy to Carry  
**ST16**

## REBAR SHEARS Better Aesthetic Cut!



Increased Capacity Simplified Maintenance  
2 yr. Warranty

**C42**

**C54**  
(EVO Series)

*The BEST Solution for your Rebar Fabricating Requirements!*

- Safety Shields
- Automatic Cycle Bend/Return
- Foot Pedals & Push Button Controls
- Adjustable Length Stop
- Stirrup Bending Tool
- Spiral Hoop Attachments

Combo Model	HP	Bend	Shear
TP25/32 EVO 1PH	3	#9	#8
TP25/32 EVO 3PH	3	#9	#8
TP32/36 EVO 3PH	4	#10	#9
TP40/46 EVO 3PH	5.5	#11	#10

Bender Model	HP	Bend
P34 EVO 1PH	3	#9
P34 EVO 3PH	3	#9
P38 EVO 3PH	4	#10
P44 EVO 3PH	4	#11
P54 EVO 3PH	5.5	#11
P56 EVO 3PH	7.5	#14

Spiral Model	HP	Min	Max
CAL34 3PH	1V 5	#3	#9
CAL34 3PH	2V 6	#3	#9

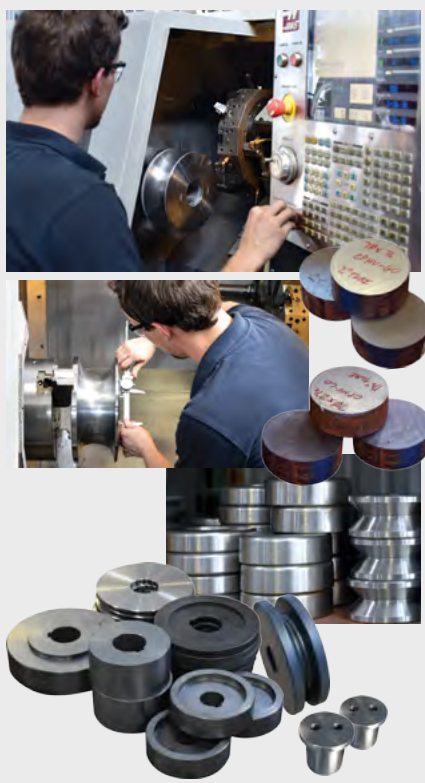
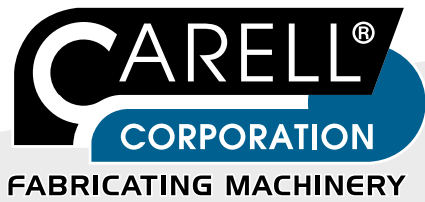
**Programmable Stirrup Benders**  
Easy to Use Selections for Rapid Production

Model	HP	Bend	Shear
ST16 1PH	2	#9	#8
ST16 3PH	2	#9	#8
PS16 A/C 3PH		#10	#9

**Precision & Safety For Every Cut**

Model	HP	Shear
C34 EVO 1PH	3	#8
C34 EVO 3PH	3	#8
C38 EVO 3PH	4	#9
C44 EVO 3PH	4	#11
C54 EVO 3PH	5.5	#14
C56 EVO 3PH	7.5	#14
C74 EVO 3PH	10	#18

Options: Base & pedal, Pump for lubrication (for standard C) Screw locator (only C42-C52-CSS)



**Carell Manufactures Tooling in our CNC Machine Shop for Rapid Turn-Around & Enhanced Quality Control**

**High Quality CNC Manufactured Tooling built to suit your bending machine applications**

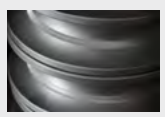
- Aluminum Extrusions
- Steel/brass/aluminum
- Decorative Hand Rails
- Oversized 'U' and 'C' shapes
- Overwide flats
- Half tube production from flats
- Hard way beam & channel rolling
- .....Just to name a few

# STANDARD & CUSTOM TOOLING

**CNC MANUFACTURED TOOLING**  
Tooling Built for Your Bending Machine Applications

*Our Mission is to expand the versatility and capabilities of your roll bending machine.*

Carell Corporation provides standard and special order tooling/accessories for our machines as well as other brands. We maintain over 1,000 Optional Tooling Items In-Stock and manufacture Custom Tools with specific needs In-House for rapid delivery to your location.



**REPLACEMENT COMPONENTS**  
Lost a piece or need a smooth surface component for working with soft or delicate material? We stock Smooth and Knurled standard roll components for all machines.



**TUBE & PIPE ROLLS**  
Most Common Tube OD & Pipe Sizes In Stock. Hardened, Solid Tool Steel. Any Size Can be Made. Specify Smooth or Knurled. Also available in Polymer Material for Delicate Finishes.



**CUSTOM ROLLS**  
We manufacture Tooling In-House To Roll a Wide Range of Custom And Special Profile Shapes in a Variety of Material Types.



**TOOLING & SUPPORTS FOR HALF PIPES & COILS**  
3000 Series Machines can be equipped with tooling for producing half tubes from strip & supports for coiling. Overhead supports (man. or hydraulic) may have coil diameter & pitch adjustment or be interlocked to NC/CNC controls.



**TRACTION TOOLING BEAMS BENT HARD WAY**  
Larger capacity 3000 Series Angle Rolls can be fitted with traction tooling and rolls for effective rolling of beams as well as channels bent in the X-X axis or 'Hard Way'



**SECTION DIES FOR PLATE ROLLS**  
For Plate Bending Machines with extended shafts, roll sets for profiles and tube or pipe can produced. Call to discuss capacities and pricing.



**"V" GROOVE ROLL**  
Roll Bar Stock and Square Tube on a 45° angle to Create a Unique Look. Available for all Models in both Smooth and Knurled. Made of Solid, Hardened, Tool Steel here at Carell Corp.



**CAP RAIL SOLUTION A**  
For Aluminum & Brass Cap Profiles. Three Fully Contoured Polymer Rolls. Six Steel Shoulder Plates May be Required. Call for Capacities.



**CAP RAIL SOLUTION B**  
The Most Economical Cap Solution. 3 Semi-Contoured, Hardened Steel Inserts to Match the Cap. Most Commonly Used With Standard Tooling. Furnished Smooth.



**CAP RAIL SOLUTION C**  
Best Suited For Production Jobs. 3 Fully Contoured, Hardened Steel Rolls Built To Match Your Cap Sample. Furnished Smooth.





The Name Brand that Sets the Standards

## CP20 SERIES

### Powerful, Versatile, & Portable

Our Eagle CP20 is a 3 roll Pyramid Type, Portable Bench Top, Universal Roll Bending Machine that allows you to roll small to tight profiles as well as large bending diameters with

### Renowned Eagle Quality and Durability

The CP20 has more standard features than any machine this size. They are complete with LED Digital Readouts, Powered Roll Rotation, Universal Tooling Set Lateral Material Guides, Overload Protection and More!

Roll standard/special profiles plus tube/pipe of reduced dimensions in mild-structural-stainless steels, aluminum, brass, copper and other material types.

CP20's are furnished with a Universal Tooling set of 18 components. Driven lower rolls are knurled for optimum traction.

Standard Tooling bends flat bar (bent on flat and on the edge), square/round bar, T's, C's and square tube & rectangular tube. Round tube & pipe and other profiles or extrusions require our optional tooling.

### STANDARD FEATURES & EQUIPMENT

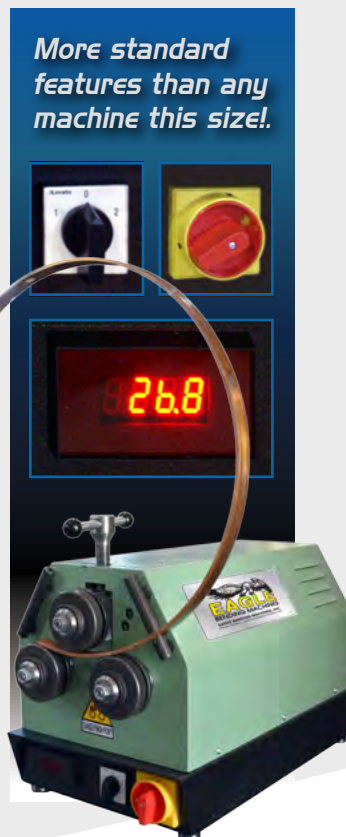
- 3 Roll Universal Bender w/ bench mountable position
- Rugged Steel Frame, normalized, produced on CNC machining centers
- Shafts in High Strength Steel, heat treated, journaled in roller bearings
- Electronic LED Digital Display makes accurate repetitive parts easy
- Universal rolls, hardened alloy steel 55 HRC, bend most standard sections
- Oil Bath Speed Reducer powered by 220V-3-60Hz bi-directional TEFC motor
- Forming roll journal moves on Hardened Slide-Ways with Adjustable Gibbs
- Lateral Material Guides, adjust to create spiral pitch or correct twist on difficult jobs, guides rotate inwards for contact when rolling tight diameters
- Controls in 24-VAC Low Voltage, complete with overload protection
- Illustrated instruction manual, English (Spanish upon request)

### OPTIONS/ACCESSORIES

- Rolls for round tube/pipe, Cap Rail, Angles, Wide Flats
- Tight Diam. Rolls • Base Stand • Custom Tooling

### SPECIFICATIONS

Positioning	Manual
Repeat Ref.	LED Readout
Shaft Dia.	3/4" (20mm)
Roll Dia.	3-1/4"
Speed	9 fpm
Power	0.44 HP
Dimensions	26"x15"x25"
Weight	160 lbs



### CP20 CAPACITIES

Based on Mild Steels

SHAPE	MAX SIZE/MIN ID	NOTES
	1" x 1/4" Ø8"	Standard Rolls *
	1 3/4" x 3/8" Ø12"	Standard Rolls
	1/2" Ø6"	Standard Rolls *
	3/4" x 1/8" Ø8"	Optional Rolls *
	3/4" x 1/8" Ø10"	Optional Rolls
	1" Ø8"	Standard Rolls
	1" Ø10"	Standard Rolls
	1 1/4" x Ø10"	Standard Rolls *
	1 1/4" x Ø12"	Standard Rolls *
	1/2" Ø5"	Optional Rolls
	1/2" Ø14"	Optional Rolls
	1 1/2" Ø16"	Optional Rolls
	3/4" x 1/16" Ø12"	Standard Rolls
	1 1/4" x 3/8" x 1/16"	Standard Rolls

\* On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and/or optional accessories.

More standard features than any machine this size!



Simply the Best Benders

### CP30 CAPACITIES

Based on Mild Steels

SHAPE	MAX SIZE/MIN ID	NOTES
	2" x 3/8" Ø16"	Standard Rolls
	3" x 5/8" Ø16"	Standard Rolls
	1-1/8" Ø24"	Standard Rolls
	1 1/2" x 3/16" Ø16"	Optional Rolls*
	1 1/2" x 3/16" Ø22"	Optional Tooling
	2" Ø16"	Standard Rolls
	2" Ø20"	Standard Rolls
	2" x 1" Ø12"	Standard Rolls
	2" x 1" Ø16"	Standard Rolls
	1 1/4" Ø24"	Optional Rolls
	1 1/2" Std.40 Ø20"	Optional Rolls
	2-3/8" x 16GA Ø40"	Optional Rolls
	1 1/2" x 11GA Ø40"	Standard Rolls*
	2" x 1" x 11 GA Ø48"	Standard Rolls*

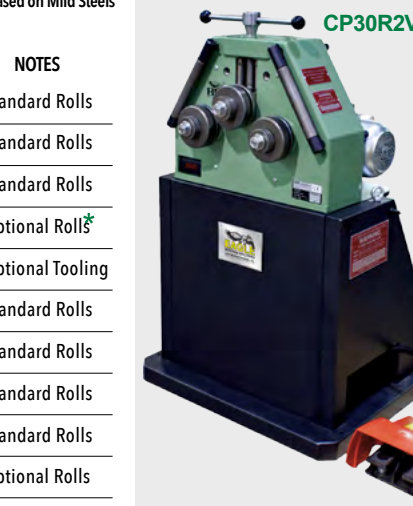
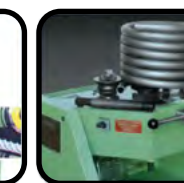
\* On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and/or optional accessories.

### 5 Versions to Fit Your Budget

**CP30-PR2V & CP30-PRM**  
Foot Pedal Controls, Rotating Head, horizontal/vertical operation LED Readout

**CP30-MS**  
Short Base version for use on trailer, tail gate, work bench LED Readout

**\*CP30E-PR & CP30E-RPM**  
Foot Pedal Controls, Rotary Head w/out LED



CP30R2V



CP30R2V  
Shown in horizontal position



CP30-E-PR



Large Bright LED Readouts for Precision Repeat



Easy Ratchet Lateral Guide Adjustment

Disclaimer: Roll bending machines distributed by Eagle Bending Machines, Inc. are all designed with Emergency Stops and Thermal Overloads. The employer of the operator is responsible for providing and insuring the usage of point of operation guards and/or properly applied and adjusted point of operation devices as required to meet OSHA, state and local safety requirements.

## CP30 SERIES

### STANDARD FEATURES ALL UNITS

- LED Digital Readout\*
- Three Roll Universal Benders
- 25% Heavier Main Frames in Solid Steel w/limited lifetime warranty
- High Strength Hardened Steel Shafts
- TEFC Electric Motors, CE Certified
- Lower Shafts Driven, Top Shaft Idle
- Universal Roll Set, Hardened, 24 pieces
- Lower Rolls Knurled, Top Roll Smooth
- Thermal Overload Protection & E-stops
- Lateral Material Guides w/ bearings, variable rake angle, & recessed hex adjustment. These features not on 'look-alike' machines
- Flush Faced Frame and Electrical Cabinet
- Dual, High Dynamic Load Bearings on shafts
- Top Roll Journal on Adjustable Guides & Ways
- Illustrated User Manual & Tool Kit

### OPTIONS / ACCESSORIES

- Tube & Pipe Rolls
- Wide Flat & Tight Diameter Rolls
- Rolls & Guides for Angle In/Out
- Bar Twist & Scroll Tooling
- CAP RAIL ROLLS
- Rolls for Extrusions/Other Shapes

### MODEL LEGEND

M 1 Speed, 220V, Single Phase  
2V 2 Speed, 220V, Three Phase  
P Foot Pedal Rotation Control  
R Rotating Horizontal/Vertical  
E\* 1 Speed, w/out LED

### SPECIFICATIONS

Shaft OD : 1-3/16" (30 mm)  
Roll OD : 5" Nominal (128 mm)  
Power : 1.15 HP 220V-3-60Hz  
Power : 1.50 HP 220V-1-60Hz  
Weight : 550 Lbs, approx.





The Name Brand that Sets the Standards

## CP40H-H2-M SERIES

### CP40 FEATURES AND BENEFITS

- 3 Roll Pyramid Universal Roll Bender
- DP7 Programmable Control, Digital Radius Readout Capability, 400 Auto Repeat Memory (H/H2), LED Readout (M)
- Powerful Easy to use Pyramid Style
- High Strength Hardened Shafts
- 25% Heavier Main Frames in Solid Steel with Limited Lifetime Warranty
- Universal Bending Roll Set 18 pcs.
- All Dual Bearings, No Bushings
- Flush Electrical Panels, NEMA Type
- Detached Mobile Operator Consoles
- Dual Pedal Controlled Rotation
- Dual E-Stop Buttons
- Lateral Guides with Bearings, Variable Angle, Heavy Duty with Easy, Hex Ratchet Adjustments on Thrust
- TEFC Motors, Overload Protected

### OPTIONS / ACCESSORIES

- Tube & Pipe Rolls
- Wide Flat & Tight Diameter Rolls
- Rolls & Guides for Angle In/Out
- Bar Twisting & Scrolling Tools
- Rolls for Extrusions & Other Shapes CAP RAIL ROLLS

**NO CASTINGS**  
in our Machines!

### SPECIFICATIONS

Shaft OD 1.575" (40 mm)  
Roll OD 6.375" (162 mm)  
Power: 3.6 HP (H & H2)  
Weight: H-H2 1,300 Lbs  
Weight: M 1,050 Lbs



CP40H



CP40M



CP40H (shown horizontal)

### CP40 CAPACITIES Based on Mild Steels

SHAPE	MAX SIZE/MIN ID	NOTES
	2 1/4" x 3/8" Ø20"	Standard Rolls
	4" x 5/8" Ø16"	Standard Rolls
	1-3/8" Ø20"	Standard Rolls
	2" x 1/4" Ø24"	Special Rolls
	2" x 1/4" Ø28"	Optional Tooling
	2 1/2" x 1/4" Ø24"	Standard Rolls *
	2" x 1/4" Ø24"	Standard Rolls
	3" x 1 1/4" Ø24"	Standard Rolls
	3"x1 3/4" Ø24"	Standard Rolls
	1-3/8" Ø20"	Optional Rolls *
	2" Std.40 Ø40"	Tube/Pipe Rolls
	2 3/4" x 16GA Ø48"	Tube/Pipe Rolls *
	2" x 1 1GA Ø48"	Standard Rolls *
	2 1/4" x 1 1/2" x 11 GA Ø48"	Standard Rolls

On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and or optional accessories.

### 4 Versions Fit Your Budget!

#### CP40H - Hydraulic Adjustment

3 Driven Rolls, Smooth, Auto Repeat Positioning/LED

#### CP40H-REV - Hydraulic Adjustment

CP40H including Variable Speed Drive Via Digital Motor Inverter

#### CP40H2 - Hydraulic Adjustment

2 Driven Rolls, Lower Rolls Knurled for Traction, Top Roll Smooth with Auto Repeat Positioning/LED

#### CP40M - Manual Adjustment

2 Driven Rolls, Lower Rolls Knurled for Traction, Top Roll Smooth with LED Readout for positioning

Disclaimer: Roll bending machines distributed by Eagle Bending Machines, Inc. are all designed with Emergency Stops and Thermal Overloads. The employer of the operator is responsible for providing and insuring the usage of point of operation guards and/or properly applied and adjusted point of operation devices as required to meet OSHA, state and local safety requirements.

Spiral Rail Tooling ATSC



Simply the Best Benders



## CP60-H Features and Benefits

- 3 Roll Pyramid Universal Roll Bender
- DP7 Programmable Control, Digital Radius Readout Capability, 400 Auto Repeat Memory
- Powerful Easy to use Pyramid Style
- High Strength Hardened Shafts
- 25% Heavier Main Frames in Solid Steel w/ Limited Lifetime Warranty
- Universal Bending Roll Set 18 pcs.
- All Dual Bearings, No Bushings
- Flush Electrical Panels, NEMA Type
- Detached Mobile Operator Consoles
- Dual Pedal Controlled Rotation
- Dual E-Stop Buttons
- Lateral Guides w/ Bearings, Variable Angle, Heavy Duty with Easy, Hex Ratchet Adjustments on Thrust
- TEFC Motors, Overload Protected
- Illustrated Instruction Manual & Tool Kit

### CP60 CAPACITIES Based on Mild Steels

SHAPE	MAX SIZE/MIN ID	NOTES
	3 1/2" x 5/8" Ø36"	Standard Rolls
	5 x 1" Ø26"	Standard Rolls
	2" Ø30"	Standard Rolls
	3" x 1/4" Ø48"	Special Tooling
	2 1/2" x 5/16" Ø32"	Optional Tooling
	3" x 5/16" Ø32"	Special Tooling*
	3" x 5/16" Ø40"	Standard Rolls *
	5" x 2" Ø32"	Standard Rolls
	5" x 2" Ø36"	Standard Rolls
	2" Ø28"	Rod Rolls
	2 1/2" x Sch40 Ø36"	Tube/Pipe Rolls
	3 1/2" x 12GA Ø60"	Optional Rolls *
	2 3/4" x 11GA Ø48"	Standard Rolls
	3" x 1 1/2" x 1/8" Ø40"	Standard Rolls

\* On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and or optional accessories.

### 2 Versatile Versions

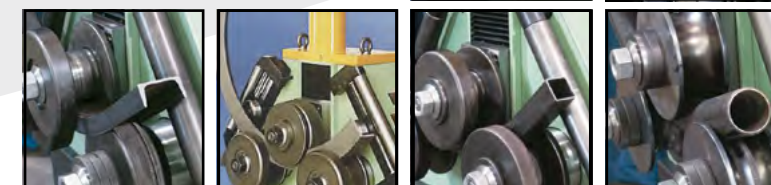
(H & REV) allow you to Roll with Renowned Eagle Quality and choose the best fit to your budget.

**Eagle CP60H Universal Section Benders** offer unmatched features such as 400 Position Auto-Repeat Controls, LED Readouts, Concealed Oil Lines, Flush Electrical Cabinets, Limited LifetimeFrame Warranties and more!

**Make the Best Decision for your Shop!**

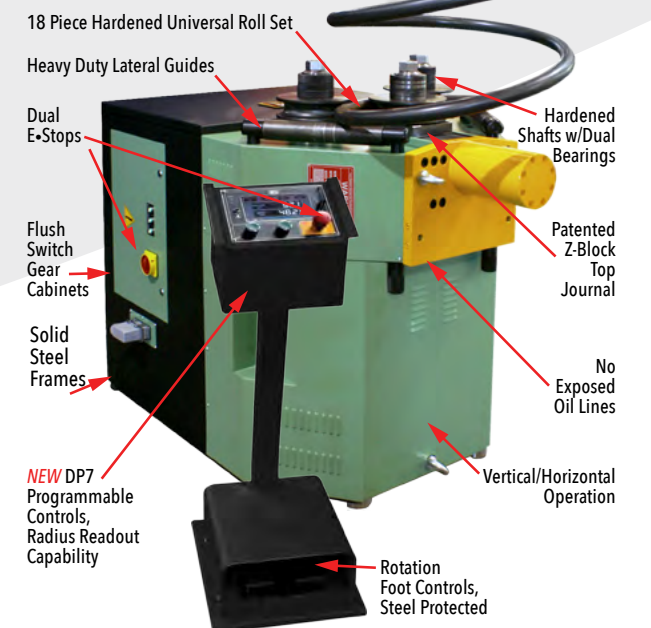
### CP60H / CP60H-Rev SPECIFICATIONS

Shaft OD 2-3/8" (60 mm)  
Roll OD 8.85" Nominal  
Drive 3.4 HP 220V/60Hz  
Pump 2.0 HP 220V/60Hz  
Repeat Automatic + LED.  
Powered Rolls 2 Lower Rolls Driven  
Dimensions 37" x 51" x 63" h  
Ship Weight 2,425 Lbs, approx.



CP60H

**Eagle Quality is in the Details...**





## BA SERIES CNC



### FEATURES

- (Full PC/Windows Based CNC Controls)
- Exclusive BPR Direct Radius "PRO-Bending" Program
- Direct Radius Input & On-Board CAD Graphics allow the operator to visualize and edit shapes on screen
- Automatic Interpolation-Blending between bends speeds up and simplifies programming
- Standard Shape program Archive of most common shapes
- Servo Controlled Bending Roll Movement offers Industries Highest Level of Material Variance Control & Bending Precision
- Large Full Color Graphic Screen Interface
- Unlimited Program Memory, Hard Drive + USB Port
- RS-232 Serial Port enables use of external Lap-Top
- Automatic Interpolation/Blending & Mirror Imaging Functions
- Variable Speed Rotation & Rise/Decent of Bending Roll
- Air Oil Heat Exchanger Maintains Oil at Constant Temp.  
Note: BA Units Require Dedicated Rolls (Optional)

### OPTIONS/ACCESSORIES

- Rolls for Tube-Pipe, Round and Square
- Custom Rolls for Extrusions & Special Sections
- Special Voltages Upon Request

### STANDARD EQUIPMENT

- Adjustable Lateral Material Guides
- Service Tools + Illustrated Manual



BA55

### BA CAPACITIES Based on Mild Steels

Maximum Size & Minimum I.D.					
SHAPE	20	35	40	50	55
	1x 1/4 08"	2x 3/8 014"	2 1/4 x 3/8 020"	2 3/4 x 1/2 020"	2 1/2 x 5/8 032"
	1 1/2 x 3/8 012"	3 1/2 x 5/8 016"	4 x 5/8 016"	4 x 5/8 014"	4 x 5/8 016"
	1/2 05"	1 1/4 016"	1-3/8 020"	1 1/2 024"	1 1/4 024"
	3/4 x 3/16 08"	1 1/2 x 1/4 016"	2 x 1/4 024"	2 1/4 x 1/4 030"	2 1/4 x 1/4 030"
	3/4 x 3/16 010"	1 1/2 x 1/4 022"	2 x 1/4 028"	2 1/4 x 1/4 038"	2 1/4 x 1/4 038"
	1 06"	2 014"	2 1/2 024"	2 1/2 020"	2 1/2 020"
	1 06"	2 016"	2 024"	2 1/2 020"	2 1/2 020"
	1 1/4 08"	2 1/2 018"	3 024"	3 3/4 026"	3 3/4 026"
	1 1/4 010"	2 1/2 020"	3 024"	3 3/4 030"	3 3/4 030"
	1/2 04"	1 1/4 016"	1-3/8 020"	1 1/2 024"	1 1/2 024"
	1/2 012"	1 1/2 020"	2 040"	2 036"	2 036"
	1 1/4 x 1/16 016"	2 1/2 x 1/16 030"	2 3/4 x 16GA 048"	2 1/2 x 10ga 034"	3 x 10ga 048"
	3/4 x 1/16 012"	1 1/2 x 1/8 040"	2 x 11GA 048"	2 1/4 x 1/8 050"	2 1/4 x 11 Ga 048"
	1 1/4 x 3/8 x 1/16	2 x 1 1/4 x 1/8	2 1/4 x 11 GA 048"	2 3/4 x 1 1/2 x 1/8	2 3/4 x 9Ga 060"

\* BA20, BA35, & BA50 Require Dedicated Rolls and standard tooling is not provided.  
BA40 & BA55 Require Dedicated Rolls for high volume work. Standard rolls are included.

Driven Rolls	3	3	3	3	3
Rolling Speed fpm	0-20	0-25	0-30	0-30	0-30
Working Plane	Vertical	Vert./Horiz.	Vert./Horiz.	Vert./Horiz.	Vert./Horiz.
Repeat Control	Auto-Repeat	Auto-Repeat	Auto-Repeat	Auto-Repeat	Auto-Repeat

Chart indicates minimum suggested inside bending diameters at maximum section size using mild steel - Specifications subject to change/modification without prior notice - Data is approximate - Contact your authorized dealer for specific tooling capabilities/requirements on shapes and sizes to be bent. Special rolls and/or tooling may be required for some angle, channel rolling and/or for serial production on some sections - Bending ID's may be limited by predicted material distortion

### BA20



Roll bending machines distributed by Eagle Bending Machines Inc. are designed and manufactured to comply with ANSI B11.12, 1996 standards. The employer of the operator is responsible for providing and insuring the usage of point of operation guards and/or properly applied and adjusted point of operation devices as required to meet OSHA, state and local safety requirements.

## CPS SERIES

### Universal Section Roll

CPS-50



CPS-35



### CPS CAPACITIES Based on Mild Steels

Maximum Size & Minimum I.D.			
SHAPE	20	35	50
	1x 1/4 08"	2x 3/8 014"	2 1/4 x 1/2 020" *
	1 1/2 x 3/8 012"	3 1/2 x 5/8 016"	4 x 5/8 014" *
	1/2 05"	1 1/4 016"	1 1/2 024"
	3/4 x 3/16 08"	1 1/2 x 1/4 016"	2 1/4 x 1/4 030" *
	3/4 x 3/16 010"	1 1/2 x 1/4 022"	2 1/4 x 1/4 038"
	1 06"	2 014"	2 1/2 020"
	1 06"	2 016"	2 1/2 020"
	1 1/4 08"	2 1/2 018"	3 3/4 026" *
	1 1/4 010"	2 1/2 020"	3 3/4 030" *
	1/2 04"	1 1/4 016"	1 1/2 024"
	1/2 012"	1 1/2 020"	2 036"
	1 1/4 x 1/16 016"	2 1/2 x 1/16 030"	2 1/2 x 10GA 034" *
	3/4 x 1/16 012"	1 1/2 x 1/8 040"	2 1/4 x 1/8 050" *
	1 1/4 x 3/8 x 1/16	2 x 1 1/4 x 1/8	2 3/4 x 1 1/2 x 1/8

\* On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and or optional accessories.

Driven Rolls	3	3	3
Rolling Speed fpm	10	13	16
Working Plane	Vertical	Vert./Horiz.	Vert./Horiz.
Repeat Control	Auto-Repeat	Auto-Repeat	Auto-Repeat

Chart indicates minimum suggested inside bending diameters at maximum section size using mild steel - Specifications subject to change/modification without prior notice - Data is approximate - Contact your authorized dealer for specific tooling capabilities/requirements on shapes and sizes to be bent. Special rolls and/or tooling may be required for some angle, channel rolling and/or for serial production on some sections - Bending ID's may be limited by predicted material distortion



CPS-20 H/V

### FEATURES

- Three Driven Rolls Universal Profile Bender Initial Pinch Geometry for Serial Production
- Hydraulic Up / Down Movement on Forming Roll
- High Strength Hardened Shafts w/Roller Bearings
- Universal Bending Rolls, Smooth, Induction Hardened
- Horizontal & Vertical Working Position (BNCPS 35 & )
- Push Button Controls, Detached Console
- Dual Pedal Controlled Rotation
- Dual E-Stop Buttons
- DP7 Programmable Controls, Digital Radius Readout Capability, 400 Memory Automatic Position Repeat "APR" System
- LED Readout, Large High Brightness, 24VAC Controls
- Flush Mount Switch Gear Panel with Safety Lamps
- Bending Roll Moving on Adjustable, Hardened Gibbs
- Adjustable Lateral Material Guide
- Service Tools and Illustrated Manual

### VERSIONS 20 - 35 - 50

#### CPS (Standard)

Models 20, 35 & 50 with Single Rolling Speed and all Features as listed to the left

#### CPS-REV (Variable Rolling Speed)

CPS Version + Step-less variable speed, digital inverter and potentiometer for precision bending aluminum extrusions and extreme tight diameters

#### CPS-AUT ( Automatic Bend Execution)

REV Version + Programmable Control and Proximity Sensors to execute a bend in a production environment





The Name Brand that Sets the Standards

## Z402 SERIES

ZM402 & ZH402 are 3 roll, pyramid type Universal Roll Bending Machines with manually or hydraulically adjusted forming roll. Our units roll standard/special sections & tube/pipe in a variety of material types.

*These machines are Superior in Every Aspect with a Solid Steel MAINFrame! We use no castings in our machines unlike many other look-a likes.*

Our Efficient Pyramid Design uses a wide lower inter-axis and extended forming roll vertical travel to maximize bending power.

**Compare our Superior Warranty to other brands and discover the Eagle difference!**

### CHARACTERISTICS

- 3 Roll Universal Benders w/ Dual Working Positions
- Lower Rolls Powered & Knurled for Optimal Traction
- Top Roll Idle, Adjustable Up/Dn for Bending Radius
- LED Digital Readout monitors top roll position
- Operate Both in Horizontal & Vertical Positions
- Rugged Solid Steel Frames, NO CASTINGS
- All Shafts Rotate on Dual Bearings, NO BUSHINGS
- Top Journal Hardened Guides/Ways - ADJUSTABLE
- Dual Pedal Controlled Rotation
- Dual E-Stop Buttons
- Heavy Duty Adjustable Lateral Guides w/ Bearings
- Compact, Robust, Low Maintenance Pyramid Design

### STANDARD EQUIPMENT

- Universal Rolls, 18 pcs • Palm E-Stop • 24V Controls
- 3 Way Adjustable Lateral Material Guides & LED Readout
- Motor Overload Protection & Magnetic Cut-out

### OPTIONS/ACCESSORIES

- Rolls for round tube/pipe, Cap Rail, Angles, Wide Flats
- Tight Diam. Rolls • Twist & Scroll Tools • Custom Tooling

### SPECIFICATIONS

Positioning Hyd. / Man.  
Repeat Ref. LED Readout  
Shaft Dia. 1.57"  
Roll Dia. 6.38"  
Speed 14.5 fpm  
Power H 2.65/ M 1.75  
Dimensions 32"x54"x57"  
Weight 950/890lbs

### 2 VERSIONS w/ Horiz./Vert. Operation

**ZH402** - Pedal Controls,  
LED Readout, Hydr. Adjust.

**ZM402** - Pedal Controls,  
LED Readout, Man. Adjust.

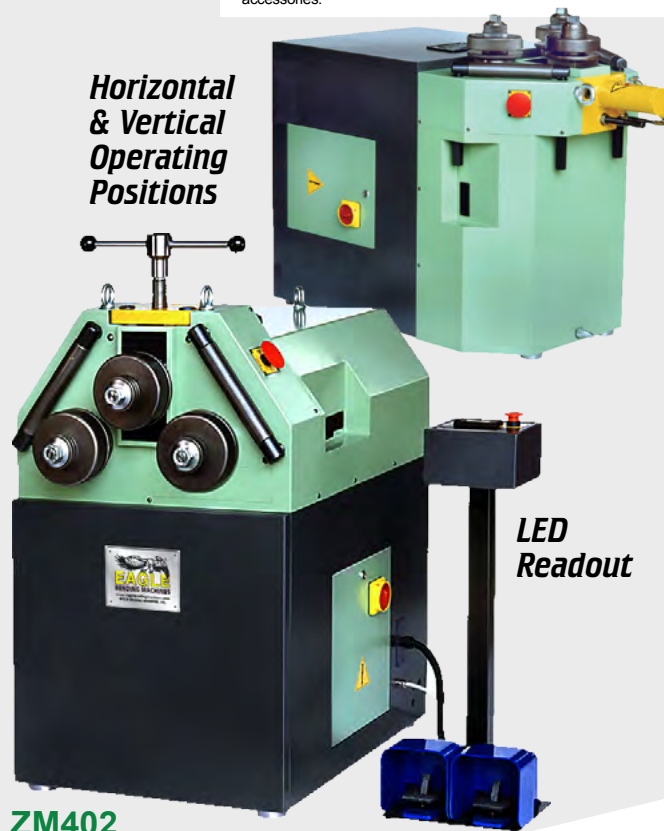


ZH402

### ZH402 CAPACITIES Based on Mild Steels

SHAPE	MAX SIZE/MIN ID	NOTES
	2 1/4" x 3/8" Ø24"	Standard Rolls
	4" x 9/16" Ø16"	Standard Rolls
	1-3/8" Ø26"	Standard Rolls
	2" x 2 x 3/16" Ø28"	Special Rolls
	2" x 2 x 3/16" Ø32"	Optional Tooling
	2" x 1/4" Ø28"	Standard Rolls *
	2" x 1/4" Ø28"	Standard Rolls
	3" x 1 1/4" Ø30"	Standard Rolls
	3" x 1 1/4" Ø30"	Standard Rolls
	1-3/8" Ø24"	Optional Rolls *
	2" Std. 10 Ø60"	Tube/Pipe Rolls
	2 1/2 x 16GA Ø408"	Tube/Pipe Rolls
	2" x 2" x 1 1GA Ø60"	Standard Rolls *
	2 1/2" x 2 1/2" x 11 GA Ø60"	Standard Rolls *

\* On some sections for limited quantities it may be possible to use standard rolls. For optimum results or if production runs are required, it is necessary to use optional rolls and/or optional accessories.

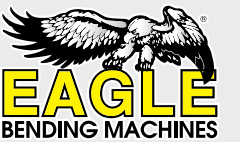


ZM402

Horizontal  
& Vertical  
Operating  
Positions

LED  
Readout

## Simply the Best Benders



## EAGLE BENDING MACHINES MAXIMIZES YOUR ROLLING INVESTMENT

Eagle Bending Machines are tested and ready for Fast Delivery with the largest "off the shelf" tooling supply in the USA!

### Premium Features Available on Eagle/BPR Universal Roll Bending Machines

Large LED's Digital Displays for precision repeatability • Versatile New modular hardened rolls bend more shapes, vertical & horizontal operation  
Durability Strongest Frames, no castings, hardened shafts on self aligning roller bearings • Productivity Push button controls, mobile consoles, multi-position  
Auto Repeat Systems • Safety & Ergonomics Lower working heights, wider frames, multiple E-Stops, 24VAC controls, isolating foot pedals eliminate vibration

**Optional Equipment and Versions: Rolls for round tube/pipe/rod special profiles & serial production, Cam Guides for angle leg-in, variable speed drives, BA CNC Controls, Scroll tools & more!**

### EAGLE ROLL BENDING MACHINE SPECIFICATIONS

MATERIAL	CP20	CPS20 BA20	CP30 CP30E	Z402 M-H	CPS35 BA35	CP40 M-H2-H BA40	CPS50 BA50	BA55	CP60-H
Flats, Hard	1x1/4 Ø8"	1x1/4 Ø8"	2x3/8 Ø16"	2-1/4x3/8 Ø24"	2x3/8 Ø14"	2-1/4x3/8 Ø20"	2-3/4x1/2 Ø20"	2-3/4x1/2 Ø20"	3-1/4x5/8 Ø32"
Flats, Easy	1-3/4x3/8 Ø12"	1-3/4x3/8 Ø10"	3x5/8 Ø16"	4x5/8 Ø16"	3-1/2x5/8 Ø16"	4x5/8 Ø16"	4x5/8 Ø14"	4x5/8 Ø14"	4-3/4x7/8 Ø26"
Square Bar	1/2 Ø6"	1/2 Ø5"	1-1/8 Ø24"	1-3/8 Ø24"	1-1/4 Ø16"	1-3/8 Ø20"	1-1/2 Ø24"	1-1/2 Ø24"	1-3/4 Ø30"
Angle, Leg-Out	3/4x1/8 Ø8"	3/4x3/16 Ø8"	1-1/2x3/16 Ø16"	2x3/16 Ø24"	1-1/2x1/2 Ø16"	2x1/4 Ø24"	2-1/4x1/4 Ø30"	2-1/4x1/4 Ø30"	3x Ø36"
Angle, Leg-In	3/4x1/8 Ø10"	3/4x3/16 Ø10"	1-1/2x3/16 Ø22"	2x3/16 Ø28"	1-1/2x1/4 Ø22"	2x1/4 Ø28"	2-1/4x1/4 Ø38"	2-1/4x1/4 Ø38"	2-1/2x5/16 Ø34"
Tee, Leg-Out	1 Ø8"	1 Ø5"	2 Ø16"	2-1/4 Ø30"	2 Ø14"	2-1/2 Ø24"	2-1/2 Ø20"	2-1/2 Ø20"	3x5/16 Ø32"
Tee, Leg-In	1 Ø10"	1 Ø6"	2 Ø20"	2-1/4 Ø30"	2 Ø16"	2 Ø24"	2-1/2 Ø20"	2-1/2 Ø20"	3x5/16 Ø40"
C, Legs-Out	1-1/4 Ø10"	1-1/4 Ø8"	2 Ø12"	3 Ø24"	2-1/2 Ø18"	3 Ø24"	3-3/4 Ø26"	3-3/4 Ø26"	4-1/2x2 Ø32"
C, Legs-In	1-1/4 Ø12"	1-1/4 Ø10"	2 Ø16"	3 Ø30"	2-1/2 Ø20"	3 Ø30"	3-3/4 Ø30"	3-3/4 Ø30"	4-1/2x2 Ø36"
Round Bar	1/2 Ø5"	1/2 Ø4"	1-1/4 Ø24"	1-3/8 Ø24"	1-1/4 Ø16"	1-3/8 Ø20"	1-1/2 Ø24"	1-1/2 Ø24"	2 Ø28"
Pipe Sch.40	1/2 Ø14"	1/2 Ø12"	1-1/2 Ø20"	1-1/2 Ø24"	1-1/2 Ø20"	2 Ø40"	2 Ø36"	2 Ø36"	2-1/2 Ø36"
Round Tube	1 Ø16"	1 Ø16"	2-3/8x1/16 Ø40"	2-1/2x1/16 Ø24"	2-1/2x1/16 Ø30"	2-3/4x14Ga Ø60"	2-1/2x10Ga Ø34"	2-1/2x10Ga Ø34"	4x15Ga Ø72"
Square Tube	3/4x1/16 Ø12"	3/4x1/16 Ø12"	1-1/2x1/8 Ø40"	2 x12Ga Ø56"	1-1/2x1/8 Ø40"	2x11Ga Ø48"	2-1/4x1/8 Ø50"	2-1/4x1/8 Ø50"	2-1/2x11Ga Ø48"
Rect. Tube	1-1/4x3/8x1/16"	1-1/4x3/8x1/16"	2x1x0.120"	2-1/4x1-1/4x0.120"	2-1/4x1-1/4x0.120"	2-1/4x1-1/2x0.120"	2-3/4x1-1/2x0.120"	2-3/4x1-1/2x0.120"	3x1-1/4x0.120"

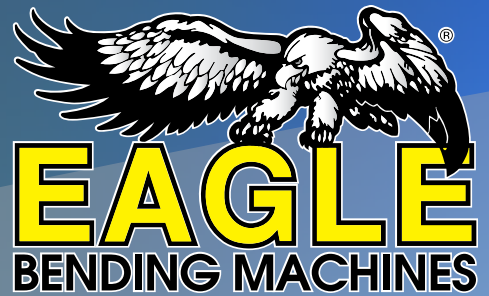
Machine Version Key: H=Hydraulic Roll Adj. • M=Manual Roll Adj. • R=Horizontal/Vertical Operation • P=Foot Controls • 2V=Dual Speed • REV=Variable Speed • H2=Two Driven Rolls • BA=Full CNC

Bending Adjustment	M	H	M	H-M	H	H-M	H	H	H
Driven Rolls	2	3	2	2	3	H=3 H2/M=2	3	3	2
Rolling Speed fpm	10	10	10.5	15	13	15	16	16	15
Working Plane	Vertical	Vertical	Vert-Vert/ Horiz.	Vert/ Horiz.	Vert/ Horiz.	Vert/ Horiz.	Vert/ Horiz.	Vert/ Horiz.	Vert/ Horiz.
Repeat Control	LED Readout	Auto-Repeat-LED	LED Readout	LED Readout	Auto-Repeat-LED	Auto-Repeat-LED	Auto-Repeat-LED	Auto-Repeat-LED	Auto-Repeat-LED
Installed Power HP	0.44	0.75	1.25	2.25	2.25	3.8	4.75	4.75	6.2
Approx. Dimensions	13x24x17h	13x24x45h	27x22x48h	28x40x50h	27x32x40h	28x40x54h	33x44x49h	33x44x49h	38x51x63h
Approx. Ship wt. Lbs.	240	400	550	870	1100	1450	1650	1650	2850

Chart indicates minimum suggested inside bending diameters at maximum section sizes using mild steel • Specifications subject to change/modification without prior notice • Data is Approximate • Contact your authorized dealer for specific capabilities/requirements on shapes and sizes to be bent. Specials rolls and/or tooling may be required for some angle, channel rolling and/or spiral production on some sections • Bending I.D.'s may be limited by predicted material distortion.



*Superior Solutions  
thru Innovative Engineering*



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