



ERCO BENDER 45/76

3 AXIS CNC

MANDREL MACHINE



**INNOVATIVE TUBE & PIPE
BENDING
MACHINERY**

" 40 Years Excellence in Quality, Support and Service "



Linear and rotary motion control of carriage and mandrel are fully automatic. Powered programmable mandrel carriage greatly reduces thinning effect of tube wall in bending area.

Programmable internal mandrel lubrication.



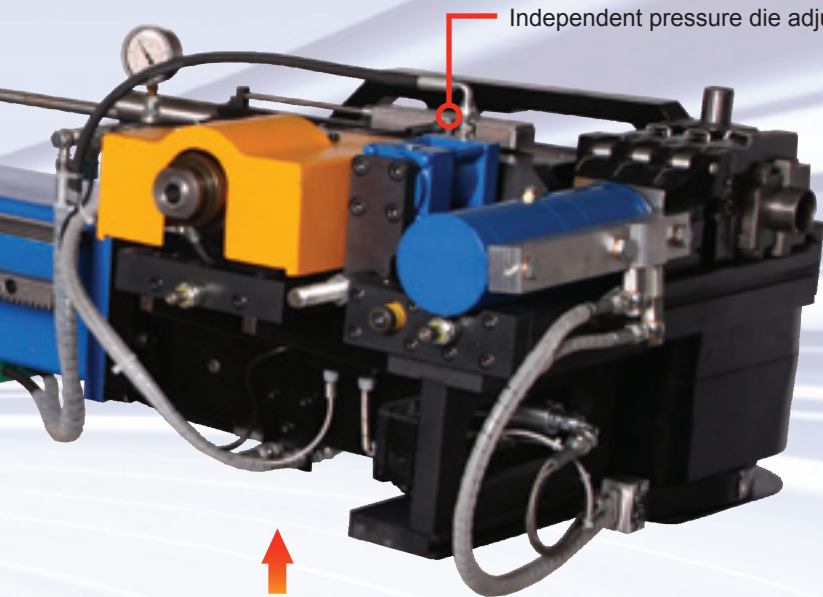
FEATURES

- Models available up to 3" capacity
- Extended bending head capable of bending complex shapes and profiles
- Automatic or manual bend sequencing
- Independent pressure and clamp die adjustment
- Programmable carriage movement for tight radii
- Standard right hand bending direction
- Interactive PLC touch screen offers easy access to auto and manual operating modes, system diagnostics and multiple language capability
- Programmable material springback settings for each bend angle
- Programmable auto mandrel positioning allows operator to optimize extraction for improved bend quality
- USB for unlimited program memory storage and communication
- Interactive touch screen displays absolute (ABS) or incremental (INC) positioning with inch or metric readout
- Programmable tail stock interference zone monitors position and eliminates workhead collision
- Accepts YBC and XYZ input values
- Hand-held remote bending control, certified class 3 safety and all electrical components UL, CSA and CE approved
- LCD touch screen displays multiple axis position in absolute and incremental formats
- Programmable internal mandrel mist lubrication (3 settings)
- Auxiliary hydraulic oil cooling
- Quick change tooling system
- Standard 13' table, extension available
- Tail stock with through spindle accepts longer material
- One (1) year limited warranty

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Independent pressure die adjustment.

Micrometric wiper die adjustment.



Space underneath the work head completely free!

Dimensions & Specifications

| Model | Erco Bender 45 | Erco Bender 76 |
|--|--|--|
| Max. Tube Capacity - Mild Steel | 1¾" (.160 wall) | 3" (.120 wall) |
| Stainless | 1¾" (.079 wall) | 3" (.079 wall) |
| Square Tube | 1½" | 2" |
| Max. Bending Radius | 11.8" | 11.8" |
| Min. Bending Radius | 1.5" x Ø | 1.5" x Ø |
| Max. Shaft Rotation | 210° | 210° |
| Max. Bending Angle | 180° | 180° |
| Tail Stock Capacity | Ø 1.75" | Ø 3.125" |
| Length of Bending Head | 59" | 59" |
| Minimum Distance Between Bends under Work Head | 10" | 11.8" |
| Nominal Hydraulic Pressure | 150 bar | 150 bar |
| Max. Bending Speed | 15/18 rpm | 10/12 rpm |
| Max. Return Speed | 4/8 rpm | 4/8 rpm |
| Max. Material Length – Standard / Optional Table | 13' / 21' | 13' / 21' |
| Maximum Carriage Travel | 125" | 125" |
| 3 Axis Numerical Control bend angle (x), linear feed (y), rotation (z) | x=90°/sec. y=30°/sec. z=80°/sec. | x=60°/sec. y=30°/sec. z=80°/sec. |
| (y - b - c) Compatible | yes | yes |
| Number of Programs | Unlimited with USB | Unlimited with USB |
| Precision of Bend Angle | +/- .5° | +/- .5° |
| Programmable Carriage Movement | yes | yes |
| Motor 440V-480V 3 ph at 50/60 Hz | 20 kW | 20 kW |
| Dimensions (Length - Width - Height) | 205" x 44" x 52" | 205" x 44" x 52" |
| Weight | 4,188 lbs. | 4,850 lbs. |



Interactive touch screen

With USB unlimited program storage



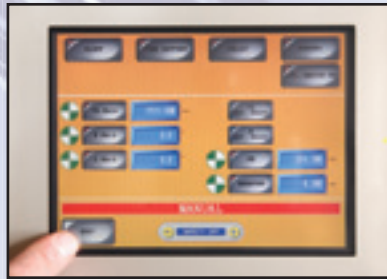
Class 3 safety hand-held remote

Controls bend, return & emergency stop functions

* Contact CML USA for complete technical specifications.

All capacities based on mild grade materials; heavy wall and high tensile materials reduce machine capacity.

Intuitive Touch Screen Control



MANUAL CYCLE



AUTOMATIC CYCLE



SERVICES

Select inch or metric operation. Activate hydraulic system. Displays alarm list with alerts. Choose from multiple language options. Reserved access for diagnostics, machine data I/O fields and parameters.



MAIN SCREEN



PROGRAM

Accepts YBC or XYZ values, automatically converts information to LRA (length, rotation, angle) for easy part layout.



MATERIAL INFORMATION

Stores profile information including material type, wall thickness and tensile. Automatically calculates bend elongation, required material length, theoretical wall thinning and machine load requirements.



TOOLING INFORMATION

Displays pressure die and clamp die position and settings. Program mandrel retraction and carriage positioning.

**ERCOLINA'S (FST)
FINGER CLAMPING SYSTEM
ACCOMMODATES A VARIETY
OF APPLICATIONS**



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"40 Years Excellence in Quality, Support and Service"

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