



CNC MANDREL BENDER



ERCOBENDER EB50

4 Axis CNC

TECHNICAL DATA

CAPACITY Max:

Flexion Module (R 42Kg/mm²): 5cm³
Ø50 x 1,5 mm / 2" x 0.06" (inox AISI 304)
Ø50 x 3 mm / 2" x 0.12" (Fe 42)
Ø63.5 mm / 2" 1/2 (Tube OD)

Min Radius: 20 mm / 0.79"
Max Radius (fixed): 220 mm / 8.7"
Max Tube Length: 3100 mm / 122"

AXES:

Y Linear

Speed: 76 m/mn; 250 ft/mn
Repeatability: +/- 0.05 mm; +/- 0.00197"
Stroke: 3000 mm / 118"

B Rotation

Speed: 60 rpm
Repeatability: +/- 0.05°
Stroke: -

C Bend Arm

Speed: 25 rpm
Repeatability: +/- 0.05°
Stroke: 185°

X Head Position CLR

Speed: 25 m/mn; 82 ft/mn
Repeatability: +/- 0.05 mm; +/- 0.00197"
Stroke: 200 mm / 7.87"

WEIGHT: 3000 Kg / 6615 lbs

HYDRAULIC MOTION :

- Clamp In/Out
- Pressure Die In/Out
- Pressure Die Booster In/Out
- Vertical Bend Head Up/Down
- Colet In/Out
- Mandrel In/Out

OPTIONAL EQUIPMENT:

- Wiper Die Support;
- Mandrel Lubrication;
- Vertical Bend Die Opening (for square and special profiles rotation);
- Punching Equipment.

SECTOR APPLICATION:

Mandrel tube and pipe bending, Non mandrel pipe bending, Custom automotive and motorcycle exhaust, Race and Sport custom chassis, Roll cages, Hand rail, Sign frames, Furniture, Food processing dairy, Copper plumbing, Marine, Refinery petro chemical, HVAC Heat exchangers, Refrigeration, Automotive aftermarket accessories, Ornamental.

Control Panel SIEMENS 802C



Art. EB50 CNC4 P

TUNNEL

Covering the entire carriage length, the tunnel replaces the use of safety fences.

CARRIAGE

Fast and accurate

- B and Y axes interpolation, powered by brushless motors, to guarantee fast and accurate accelerations;
- High motor torque on Y-axis allows booster and calendaring operations.

COLLET

Programmable automatic collet motion.

BOOSTER

Bending Control Pressure die booster during bending allows to control tube deformation and to bend tight radii and small thickness tubes.

PRESSURE DIE

Bending Technology

- Pressure die in bending position works under constant pressure;
- Highly accurate positioning and stability ensured by an oleodynamic cylinder and prismatic ball guides.

ADVANTAGES:

- Mandrel and non mandrel bending;
- Two stack bending head -one stack is preset for variable radii bending (calendering);
- Cross movement of bend head;
- Automatic carriage with tube booster function for variable radii bends;
- Booster on pressure die;
- Axes Interpolation for 3D bends;
- Carriage axes powered by brushless motor;
- Hydraulic motion of other axes;
- Advanced mandrel extraction programmable in automatic cycle;
- Control panel with interactive and graphic interface for the complete control of machine's parameters;
- SIEMENS closed-loop control system;
- Laser scan safety equipment.

MANUFACTURING EVOLUTION:

- Machine main frame in high resistance steel;
- Bend head load up to 42000 Kg / 93000 lbs;
- First class and high strength components allows the machine to reach tolerances well below declared rates;
- Innovative patented design of bend head;
- Special vice movement inside the arm creates more space for the working area and join the former directly with the bend arm;
- Excellent stability of the former during bending avoids the use of any tie bar;
- Prismatic ball guides for all linear movements;
- High performance mechanically blocked vice (approx 10 tons).

MANDREL

- Positioning of mandrel with accurate anti-rotating hydraulic system;
- End stop positioning by threaded rod.

RACK

Placed between side guides, the special rack position ensures maximum efficiency and stability to carriage run.

SAFETY

Bending area protected by laser scan safety equipment. Conform with CE 2006 Safety Regulations.

HEAD SHIFTER

- Programmable automatic motion of bend arm (X-axis) for head positioning on machine axis according to centerline bending radius (clr);
- Useful for tooling stack change.