

CESURBEND PBH-51E Tube and Profile Bender





CESURBEND PBH-51E — a hydraulic PLC mandrel bender for precision bending of steel tubes and profiles up to 51 mm in diameter.

Hydraulic PLC Mandrel Tube Bender

CESURBEND PBH-51E Tube and Profile Bender

Professional PLC mandrel bender for 51 × 3 mm steel tubes

CESURBEND PBH-51E is a professional hydraulic mandrel bender designed for precision bending of steel tubes and profiles. The machine is prepared for work in production plants, metalworking shops, fabrication workshops and companies manufacturing installations, railings, handrails and steel components.

Model **PBH-51E** enables bending of steel tubes up to **51 mm** in diameter and wall thicknesses up to **3 mm**. Mandrel technology, hydraulic clamping and OMRON PLC control help reduce tube flattening, improving bend quality and repeatability of finished parts.

Tubes up to 51 × 3 mm, bending angle up to 190° and 5.5 kW bending power.

PBH-51E is an efficient mandrel bender for precision bends, serial production and repeatable tubular components.

Tube diameter **51 mm**

Wall thickness **3 mm**

Bending angle **190°**

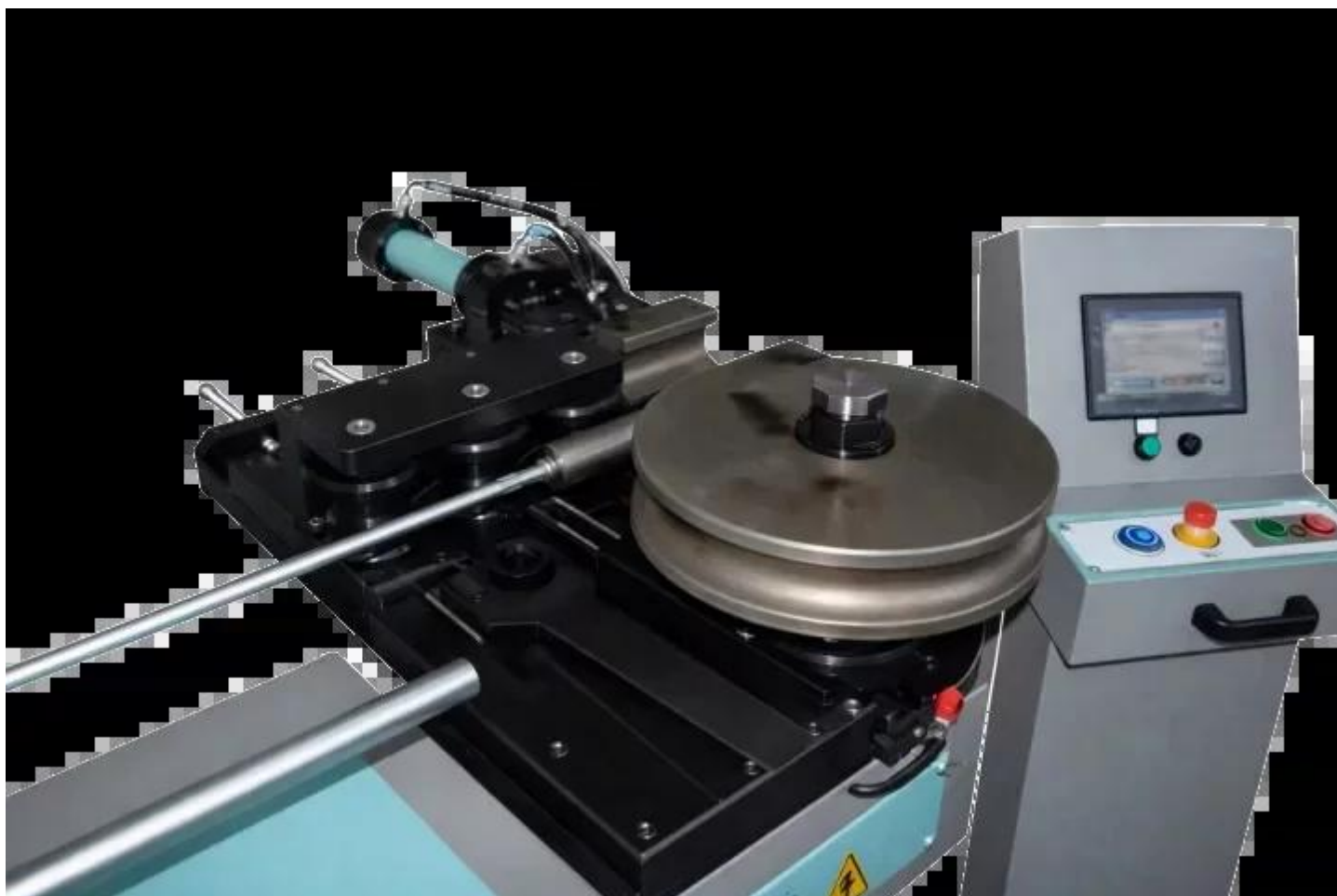
Bending power **5,5 kW**

Product gallery

CESURBEND PBH-51E mandrel bender photos



CESURBEND PBH-51E machine view



Bending area, hydraulic clamping system or PLC control panel
Key features

Hydraulic mandrel bender for tubes up to 51 mm in diameter

Working range up to 51 mm — the machine is designed for bending steel tubes up to 51 mm in diameter.

Wall thickness up to 3 mm — suitable for working with steel tubes in workshop and serial production.

Mandrel technology — reduces tube flattening and helps maintain high bend quality.

Hydraulic clamping — stabilizes the material during bending and increases process repeatability.

OMRON PLC control — enables precise process control and convenient setting of operating parameters.



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7-inch touchscreen – provides clear and convenient machine operation during production work.

100 programs in memory – the ability to save settings makes it easier to produce repeatable parts.

Up to 10 bends in one cycle – the machine enables sequential bending according to programmed settings.

Adjustable length-setting system – facilitates material preparation and dimensional repeatability.

Stable 900 kg construction – the machine's robust weight increases rigidity and stability when bending larger tubes.

Working process

How does the PBH-51E mandrel bender work?

1

Program setup

The operator selects or saves a work program, sets the bending parameters and prepares the tube or profile for processing.

2

Hydraulic clamping

The hydraulic system stabilizes the material, facilitating precise tube guidance during bending.

3

Precision PLC bending

OMRON PLC control manages the process, ensuring repeatable bends and high quality of finished parts.

Applications

Where is CESURBEND PBH-51E suitable?

Serial production

- Repeatable tubular components.



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- Steel parts produced according to the program.
- Small and medium production batches.

Metalworking and fabrication

- Frames, brackets and steel structures.
- Components made from steel tubes and profiles.
- Railings, handrails and utility components.

Installations and metal components

- Tubular installation components.
- Technical and workshop components.
- Precision bends without excessive material deformation.

Technical specification

Technical parameters of the CESURBEND PBH-51E bender

Model **CESURBEND PBH-51E**

Machine type **Hydraulic PLC mandrel bender for tubes and profiles**

Control system **PLC OMRON**

Screen **7-inch colour touchscreen**

Program memory **Up to 100 programs**

Number of bends in one cycle **Up to 10 sequential bends**

Maximum tube diameter **51 mm – mild steel**

Maximum wall thickness **3 mm**

Maximum bending angle **190°**

Maximum bending radius **250 mm**

Maximum tube / profile length **3000 mm**

Bending speed **8.5 rpm**

Bending motor power **5,5 kW**

Hydraulic system power **3 kW**

Machine width **950 mm**

Machine length **3700 mm**

Machine height **1200 mm**

Machine weight **900 kg**

Equipment / features **Mandrel bender, hydraulic clamping, adjustable length-setting system, OMRON PLC control, 7-inch touchscreen, program memory, sequential bends and high repeatability**

Applications **Bending steel tubes and profiles, serial production, metalworking, steel structures, installations, railings and metal components**