



VLBGROUP

Technology with eMOTION

VLBGROUP

EBSeries

Full electric benders

## Full electric benders EB-CNC series

VLB full electric tube benders EB-CNC series, feature the highest **Electric Motion** technology available in the market.

With up to **9 full electric axes**, tube diameter capacity range start from **6mm to 150mm**, being able to reach radii **up to 1D** with reduced clamp marks when equipped with Booster system.

The drives of all axes have been optimized to **reduce power consumption and increase speed**, which makes these machines ideal for high volume productions that require high consistency.

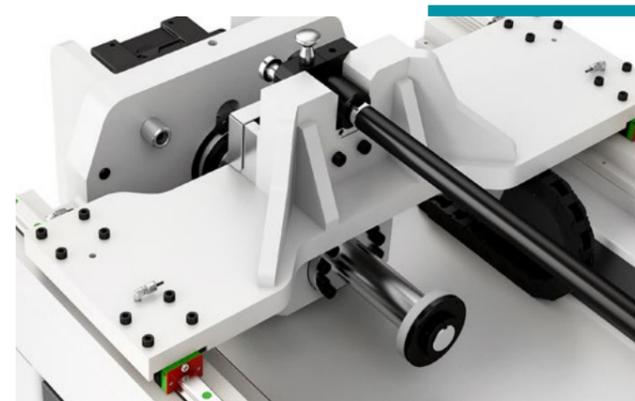
Welding detector, punching and cutting systems, integration into cells with loading and unloading, are other options available in the EB Series.

VLB 3D software places these machines ready for **INDUSTRY 4.0**

All EB-CNC tube bending machines are equipped with the latest version of our 3D VLB software, which among other features allows: automatic elasticity correction, also with correction in production cycle, tool library and its positions, 3D simulation with collision verification in machine and surrounding obstacles.



Low profile compact POB



Quick mandrel change system

### Main features

- All 9 axes are **100% electric driven**, totally servo-controlled.
- Bending of **multiple fixed and variable radii** in the same cycle.
- **Quick tool change**, without the need of vertical adjustment and with position memory.
- High work speed and low energy consumption (real time consumption monitoring).
- Independent axis movements controlled by absolute servomotors allow **synchronization** and **cycle optimization**.
- **Compact and ergonomic design** assures operation and maintenance comfort.
- **Low maintenance costs** with preventive intervention warnings.
- Sensors to monitor the **elastic behavior** of tube material and in cycle compensation, ensuring **accuracy** and **reducing waste**.
- **Left or right bending direction**, with reduced conversion time.
- **Powerful and intuitive 3D VLB software** allows direct programming or to import files easily from the cloud or internal network.

### EB53CNC

9 axis CNC electric tube bender



### Progressive design

Our machines design incorporates ten years of experience in the bending industry. Solutions are based on applications developed for thousands of customers worldwide offering a unique user experience in this type of equipment.

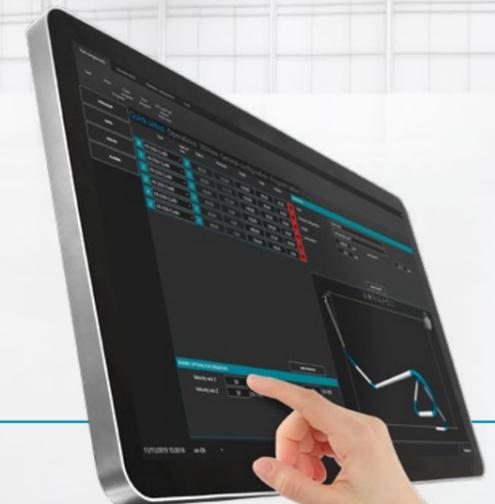


Tools without vertical adjustment.

### Total control, endless possibilities.

The EB series also remains at the forefront of **automation** and **control**, the VLB 3D software, developed by an experienced IT team that works daily to incorporate improvements and innovations both in the **performance** as in the **user experience**.

- High resolution touch screen (1920x1080) de 21.5", multi touch widescreen
- Intel Core i5-6500 quad core 3.2Ghz
- 8 GBytes RAM DDR4
- Integrated Intel HD graphics HD510/530
- 64GB Msata HD
- 2 Ethernet + serial RS-232 + 8 USB ports
- PC Windows® 10 IOT Enterprise 2016 system





3D VLB software is developed internally by a dedicated IT department, which work in direct contact with the technical office and all users. The inputs received helped us to evolve and find answers to the constant challenges. Each evolution achieved can be installed on existing equipments.

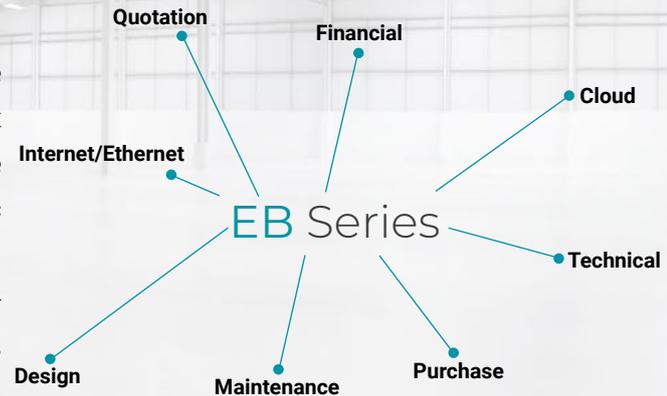
## VLB 3D Software

- **Direct 3D graphic programming** in XYZ, LRA and **import of CAD files**, with problem analysis and suggestions of correction.
- **Collision** simulation.
- **Cycle time** simulation.
- Tube **automatic elastic correction** and **stretching calibration** with calculation of the required real length.
- **Offline installation** with equipment connectivity.
- Connectivity with **measuring systems** and automatic correction.
- **Feasibility analysis**, modification and export of the file for use in design department.
- Remote **online assistance**.

## Industry 4.0

All actions are **real time monitored**, production, tool change time, power consumption, etc. this information (or any other that customer considers relevant) is compiled and made available automatically for **analysis** and **optimization** by the operator, a specific department or by a ERP software.

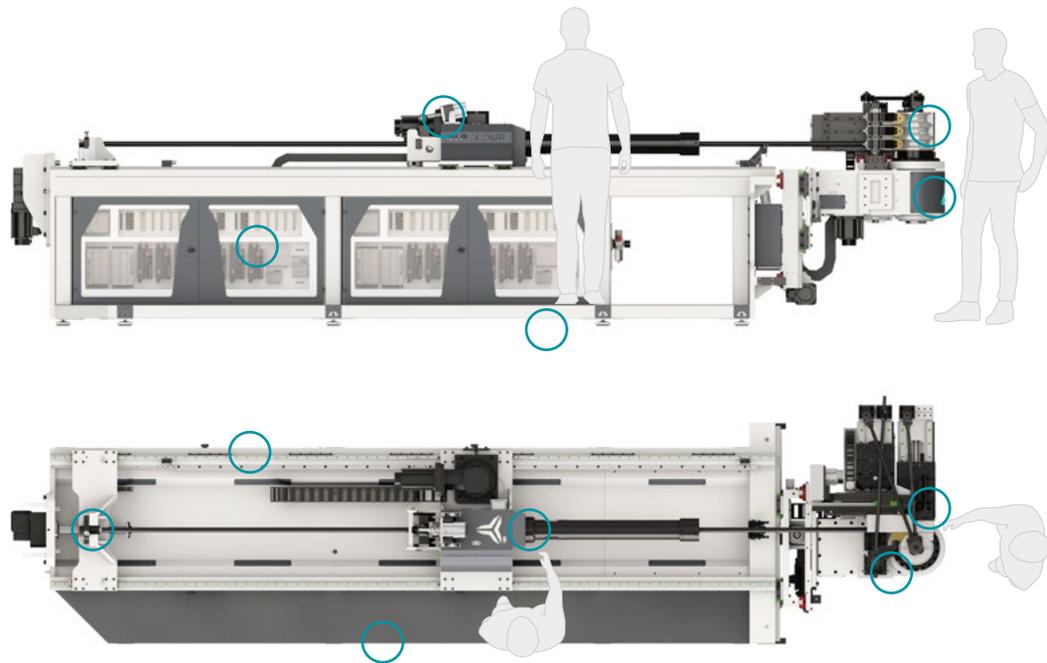
With the resulting information, customer can optimize equipment management, scheduled maintenance operations, budgets, feasibility checks, raw materials purchased ...



## Interactivity

Focused on enhancing efficiency and **human-machine relationship**, our goal is to improve **interactivity** and the **interfaces** that connect us, simplifying communication of task instructions, but mainly on how we receive **feedback**, with **visual status indicators**, **warning messages** and **corrective suggestions**.

We improved operational **comfort**, preventive maintenance, corrective interventions and increased the **safety levels** of the operator and the equipment.



Technical characteristics	EB43CNC	EB53CNC	EB63CNC	EB80CNC	EB100CNC	EB130CNC	EB150CNC
Maximum capacity (mm)	Ø43x2	Ø53x2	Ø63x2	Ø80x2	Ø100x2	Ø130x2	Ø150x2
Controlled axes	9	9	9	9	10	10	10
X axis accuracy	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05
Y axis accuracy	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05
Z axis accuracy	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05	+/- 0.05
Maximum bending radius	230	230	290	290	370	370	400

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