

CYBEND HYDRAULIC PRESS BRAKE “HYBRID”



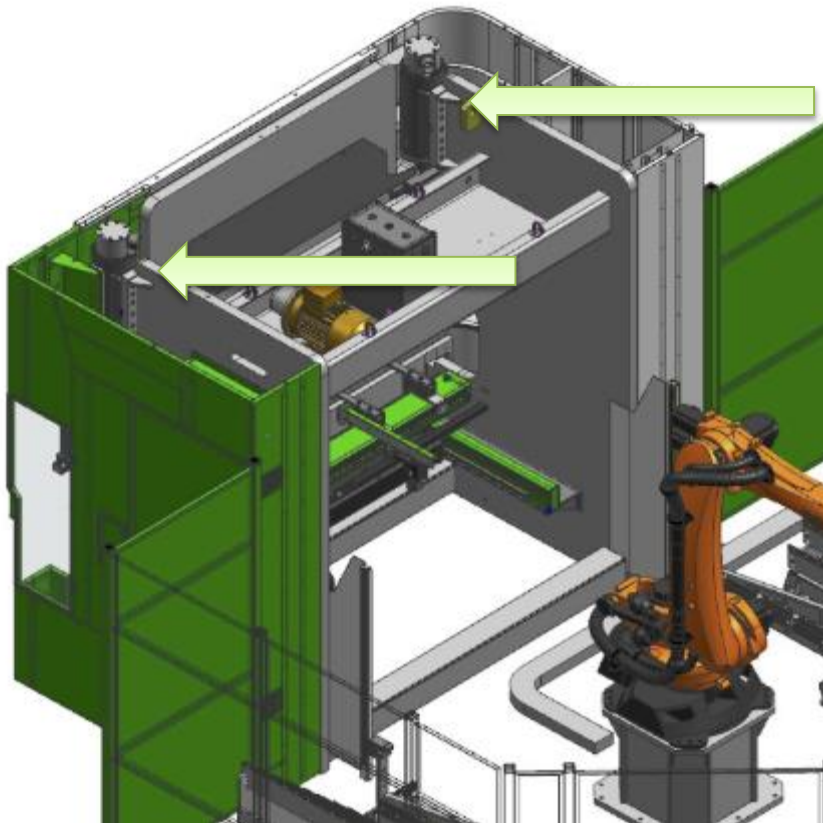
100% MADE IN ITALY



100% LOCAL SERVICE

CYBEND System description

The principle of the "HYBRID" series press brake is based on a cylinder control system carried out by two independent groups composed of BRUSHLESS ENGINE + REVERSIBLE INTERNAL GEAR PUMP (each group controls one cylinder only).



The advantages given by this system are:

- Energy saving obtained by the low consumption of brushless motors which, moreover, remain "on" ONLY during the working cycle.
- The lack of DIRECTIONAL proportional valves which allows to completely eliminate the oil heating and, consequently, there is no need to install the heat exchanger. Also, a minimal amount of circuit fluid is required.
- Position accuracy of Y1, Y2 axes 0.001 mm. (+/- .00004"ram)
- High approaching, return and bending speed.
- Noiseless operation even during the bending process.



Base in monolithic welded structure with milling and reaming in a single position on a mobile column boring machine.

Sliding lower beam with sandwich system (picture on the left) for the hydraulic compensation (picture on the right) of the flexion of the ram and the lower beam itself (ACTIVE HYDRAULIC CROWNING).

This guarantees the maximum precision of the bending angle over the entire length of the piece.



single vee available

Electronic movement measurement system of the upper beam (Y1 - Y2 axes) made with digital linear transducers installed in such a way as to totally eliminate the negative effect of the flexures on the sides that can be seen with the use of the machine.



The sliding guides of the machine (mainly top beam) are made by anti-friction gibs which are totally free from being wear.

The main hydraulic cylinders are of the "double effect" type with lapped barrel and piston being induction hardened, grounded, chromed and polished.



Increased bending speed thanks to LazerSafe's IRIS system, supplied as standard with all the press brakes of this series. The machine, in accordance to the sheet angular speed during the bending process, can reach the linear speed of 23 mm/sec (54 ipm).

Improved dynamics and lower machine downtime thanks to speed change set at ZERO mm from the sheet plate.



The machine is equipped with the market's top grade components for the highest reliability and minimal maintenance.

- Main electrical components are SCHNEIDER.
- Main hydraulic components are VOITH.
- The hydraulic pump is of the internal gear type and make is VOITH.

CYBEND Controller: Esautomation S 660W – MULTI TOUCH

- 19" MULTI TOUCH display.
- Automatic calculation of bending point based on tooling and material data.
- Automatic calculation of bending force and crowning.
- Automatic calculation of sheet development.
- Automatic calculation of R and Z axes.
- Possibility to change working parameters to optimize the work piece.
- 2D graphic display of machine frame-work, work piece and tools.
- 2D graphic programming of work piece and tools.
- Automatic and manual optimization of the 2D bending sequence.
- Graphic visualization of roll formed bends.
- Simplified tool programming through standard formats.
- 3D image management generated by external CAD/CAM.
- Complete offline programming on a standard PC with use of a proper simulation software.
- USB port to store programs on pen drive.
- Ethernet connection.
- 2.5" hard disk to store tooling and programs data.
- Multilanguage visualization.



CYBEND Included Features:

- Adjustable intermediate clamp H= 100 mm,
- PROMECAM style tooling.
- Hardened and ground top tool mod. H = 90; R = 0,8; $\alpha = 35^\circ$
- Hardened and ground bottom die mod. 4V; 60 x 60; V = 16, 22, 35, 50; $\alpha = 85^\circ$
- Removable bench of mm 90 x 105 x 3200.
- X – R axes controlled by rack and pinion.
- Brushless motors.

Y1Y2XR and adaptive crowning standard.

Other axes optional.

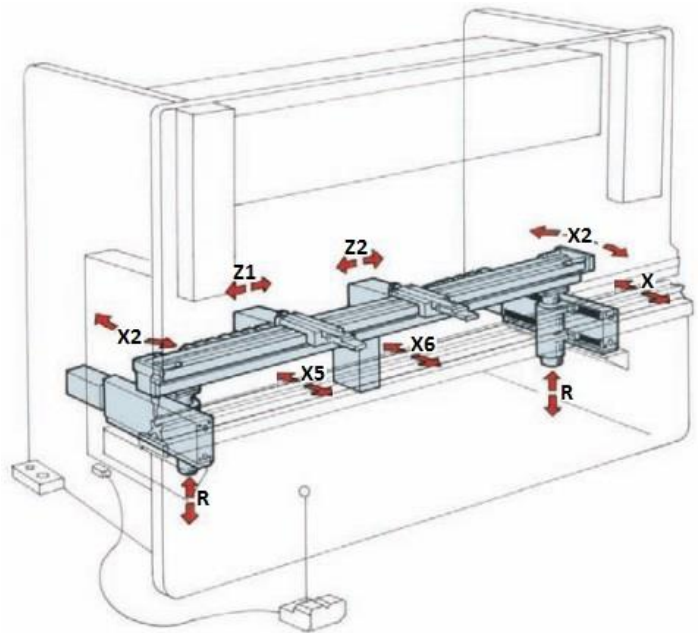
Ram clamp options:

American style

American and European combination

Wila NS manual or hydraulic

Hydraulic die clamp optional.



Accessories supplied with the machine:

- Nr. 1 Control unit including the following:
 - o Double DESCENT/ASCENT pedal (The ascent pedal is required in case one does not require to reach the BDC)
 - o EMERGENCY pushbutton
 - o Key selector for the “Box bending” function
- Protection of working area through laser beam type “LAZER SAFE” Mod. IRIS, with relevant supporting brackets manually adjustable.
- Gap protection with opening doors and safety switches.
- Rear protection through light barriers.
- Automatic lubrication pump.
- Quick release intermediate clamps.
- Software KVARA PC for office offline programming.
- N° 2 Front adjustable back gauge fingers.
- N° 2 Front support arms sliding on ball screw guides.
- Standard colour RAL 6018 – 7047 e RAL 9016
- USE AND MAINTENANCE MANUAL IN ENGLISH AND SPANISH.
- ELECTRICAL EQUIPMENT TEST REPORT CEI EN 60204-1:2006
- MACCHINE SUPPLIED ACCORDING TO CE STANDARDS.