

**BAND-SAWING CENTER  
MOD. MZ UNIVERSAL 013 CNC - 5 AXES**

**MZ CNC UNIVERSAL** is designed to handle any type of wood: rough cut solid wood boards with defects, laminated panels or other similar materials.

Versatility is the primary feature of this machine series which may be run in one of three modes manual, semi-automatic or fully automatic.

**MZ PROJECT s.r.l.**

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REA di Como n. CO-209570 P.I. IT 02096970138

C.F. e Reg. Imprese di Como 08716110153

N. Mecc. CO 037507

## SPECIFICATION

Length of cut	0 - 1300 mm
Height of cut	0 - 100 mm
Max. size of stock to be cut	1300 x 800 x 100 H. mm
Angle of cut	+/- 90°
Minimum radius	45 mm
Dwell (depth of curve)	220 mm
Blade size	5900 x 13 mm
Cast aluminium flywheels ø	900 mm
Upper flywheel adjustment	0/80 mm
Flywheel speed	750 RPM
Blade speed	2000 MT/min
Flywheel drive motor (self-braking)	7.5 HP
Forward working table speed	0/20 MT/min
Return table speed	60 MT/min
Pneumatic working pressure	6 BAR

No. 1 suction hoods Ø 120 mm

Automatic blade tensioning

SIZE: mm 3700 X 2300 X 2550 H.

NET WEIGHT : KG. 2500



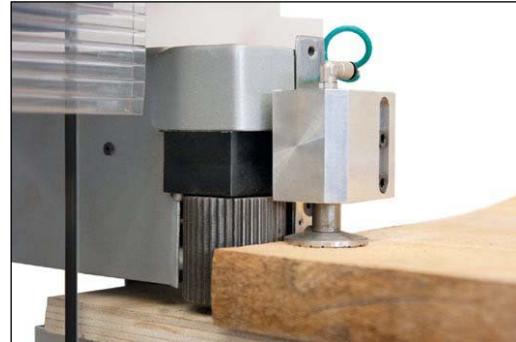
## STANDARD EQUIPMENT

No. 2 twisting blade guides with TCT inserts  
No. 1 blade



No. 2 roller devices to hold the wood in manual mode and to feed it in semi-automatic and automatic modes.  
 (photo no. 1) These devices are completely independent. They are activated by **brushless motors 1,1 Nm – 3000/rpm** and relevant **digital D.C. drives**. They are controlled by **N.C. controller 3 AXES**, to program and store the working values. The system grants high speed and precision of stock positioning.

- No. 4 positive stops
- No. 2 pneumatic clamps to cut “the last piece”



Automatic lubrication by electric pumps (one for the Blade-guides and one for all linear rails)



## OPERATOR COMPUTER

The operator computer is located on the electric cabinet of the machine.

PC complete with:

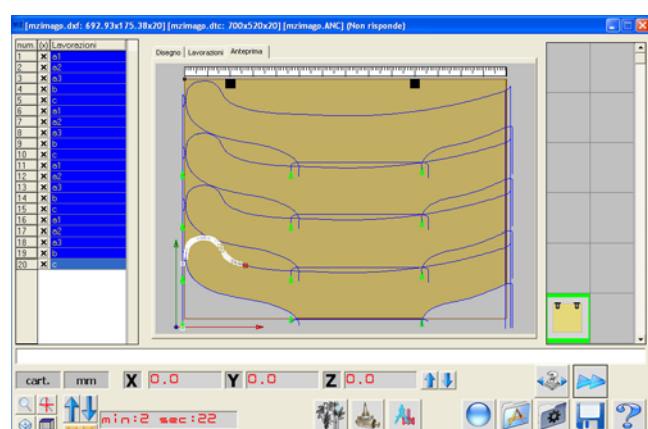
Hard disk 500 GB -Memory DDR3 2Gb - Software Microsoft Windows XP Multilanguage - Keyboard PC Qwerty and mouse - 10 x USB 2.0 - 2 x Lan Gigabit Ethernet net card - Monitor LCD 17" - DVDRW

**Teleservice available through internet connection**



## PROGRAMMING

The easy and fast programming of this machine can be done through MZ IMAGO, dedicated software that imports DXF files generated by normal CAD CAM systems.





## NUMERICAL CONTROL

**MZ PROJECT**, a well-known leader in the manufacturing of CNC band sawing centres, has been involved for over 25 years to meet the demands of his customers, bringing new ideas, new technical solutions with the constant application of new technologies.

MZ PROJECT has the honour of working with **FANUC products**, absolute leader in the CNC controls and robotics. Thanks to this cooperation, all CNC MZ machines can grant a perfect harmony between the axes movement, the high productivity and reliability.

The FANUC after sales service network is present and effective all around the world. This makes the relationship between MZ PROJECT and his customers more solid, safer and rewarding

**BUY THE BEST, BUY THE ORIGINAL, BUY MZ PROJECT.**



**All axes are controlled by FANUC Oi-MD**

### **AXIS "X" longitudinal movement**

- Motion by rail tracks and slide units
- Precision helicoidal rack and pinion module 2
- Fanuc servomotor BETA iS 4/4000, Absolute encoder Beta iA128
- Fanuc digital servo amplifier

### **AXIS "Y" side movement**

- Motion by rail tracks and slide units
- Ball bearing screw ø 32 x 10 mm
- Fanuc servomotor BETA iS 8/3000, Absolute encoder Beta iA128
- Fanuc digital servo amplifier

### **AXIS "C" blade twisting by two independent blade guides controlled by GANTRY system**

- Motion by precise mechanical devices
- Nr. 2 Fanuc servomotor BETA iS 1/6000, Absolute encoder Beta iA64
- Fanuc digital servo amplifier

### **2 indexing axes**

- The roller devices are completely independent
- Nr. 2 Fanuc servomotor BETA iS 1/6000, Absolute encoder Beta iA64
- Nr. 2 Fanuc digital servo amplifier

## WORKING CYCLES

This machine allows **three different working modes**, related to the quality of the material to be sawn:

**- manual mode:** low quality material to be machined. It needs to be frequently inspected by the operator as to avoid or eliminate the defects.

After a manual positioning of the stock on the cutting line, by means of relevant positive stops, the operator calls the cutting cycle.

**- semi-automatic mode:** medium/good quality material to be machined. It does not need to be frequently inspected.

After a first manual positioning of the stock on the cutting line, the operator calls the cutting cycle.

Then the stock is automatically indexed on the cutting line by the roller devices.

The operator calls the cutting cycle again.

The operator may intervene at any time to modify the position of the stock on the cutting line or to switch from semi-automatic mode to the manual mode and vice-versa.

**- automatic mode:** good quality material to be machined, or material which does not need any defects inspection.

After a first manual positioning of the stock on the cutting line, the operator calls the cutting cycle.

Then the stock is automatically indexed on the cutting line by the roller devices, till its total consumption.

