CNC TWIN TABLE TENONER



PICO CN – THE SMALLEST CNC TENONER EVER PRODUCED

Model PICO CN is the latest development of the revolutionary machine invented and manufactured in 1959 by Renzo Balestrini.

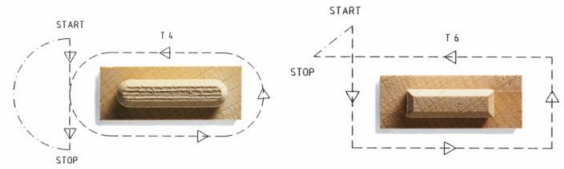
The machine is composed by a basement with two fixed tables and one head (tool) mounted on a high frequency motor driven by an inverter. The tool moves in the space along two interpolated axes (X and Y) controlled by the CNC.

It has been created to obtain high performances and, thanks to the CNC system, its employ is convenient also to work a few pieces like 5-10 tenons per time.

Considering the accuracy and the finishing quality, PICO CN improves the already high performances of the mechanical version in production since 1992.

RECTANGULAR AND SQUARE TENONS

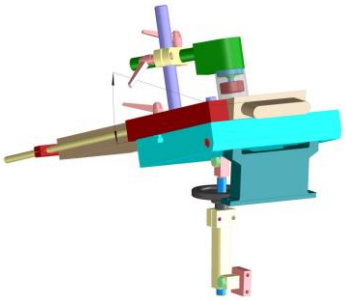
Model PICO CN can produce any sort of tenon: round-ended or square-ended, horizontal, vertical, inclined and of big dimensions. This result is obtained following a very simple programming sequence.



ACCURACY

Following the experience acquired with more than 1.500 conventional PICOs sold in about 10 years, the tool movements have been programmed and optimised in order to work high precision tenons at very high speed, **preventing any possible splintering**.

TABLES



The machining accuracy is furtherly guaranteed by the fact that the tables are placed in a fixed position. It is well-known that the more the wooden piece is stationary the highest is the accuracy obtained.

The only necessary adjustments are the inclination of the tables towards the operator (**front tilting**) done by means of a hand-wheel placed right under each table and the **angular swivelling**of the aluminium lateral reference fences above the tables.

The clamping of the work-pieces is obtained by means of adjustable clamping cylinders.

Both clamping cylinders (one on each table) have anti-rotation rods and are placed in order not to interfere with the operator during the loading/unloading operation.

Easy to use locking handles allow a quick adjustment.

CONTROL SYSTEM



The CNC used, very simple and highly performing, controls two axis driven by BRH motors that reach a max. speed of 15 m/min. The EEPROM memory of the CNC can store roughly up to 1000 programs.

The monitor is LCD, mono chrome, 5,4” (about 140mm.) in size.

The CNC presents a user-friendly man/machine interface that provides a step by step guide for operator when programming both the dimensions and the position of the tenons.

Working programs can be created by means of pre-programmed macros that allow the programmer to decide the shape of the tenons (oval or round or squared), their size and position as well as the cycle speed and the tool RPMs.

The dedicated software adjusts automatically the tool entry point in the wood in function to the tenon shape and inclination, thus eliminating any splintering possibility (Patented).

SAFETY MEASURES



Thanks to the fixed tables and so to the fixed position of the work-piece during the working cycle, it is possible to protect completely the tool movements leaving only two small openings for the piece to be machined.

This does not only protect the operator from accidental contacts with the tool, but it improves considerably the efficiency of the dust extraction hoods and reduces the machine noise. On all CE prepared machines the safety is furtherly improved thanks to a set of extra protections to be adjusted according to the work-pieces dimensions; in addition the clamping cylinders are protected in order to prevent the operator to leave his fingers under them.

ADVANTAGES

The special pre-programmed machine cycles, and the fact that the tables are stationary are not only a guarantee of accuracy but also permit the operator to work in relax and at a higher rate than on machines with mobile tables. Fixed tables give him more time to load the pieces and allow the machining of long pieces without problems.

Components such as bed sides, benches, garden furniture, table legs etc… can be easily loaded without the need of special supports

ACCESSORIES ON REQUEST

The PICO CNC thanks to its unique specifications does not need any special accessory: the machine can be purchased as it is and it allows already the execution of long tenons up to 160 mm length.

Optional on request this size can be increased up to 200 mm.

JA.00.50 400 EU VOLTAGE

Electrical cabinet complete with air conditioning system to keep internal temperature below 35°C. Protection level IP54.

Standard voltage = 400 V +10 / -15% – frequency 50+60 Hz ± 1%

All CMS machines adopt the neutral wire connection to avoid any electrocution risk for the operator.

If the customer's network is a TN-C or TN-S type, with a standard voltage ranging within 400 V + 10%/-15% -50+60 Hz +/-1%, the machine can be connected to the mains electricity with no need for further protection unless against overcurrent.

In case of electrical networks other than TN-C or TN-S type, the customer shall provide a transformer to bring the electrical supply to the requested features.

For the differential protection (not compulsory for CMS machine) CMS suggests to use a delayed-action (selective) device type A, or better type B if available, with adjustable differential current.