OMEC Technical details

OMEC 750CN VARIABLE-PITCH **MILLING MACHINE INVESTING ON** VERSATILITY

The standard features of fixed-pitch milling machines only partly meet the versatility that is required in the modern production of drawers for the furniture industry.

Due to the fixed-pitch feature, the user is obliged to adjust the height of side panels and frontpieces depending on pitch, in order not to manufacture parts ending with incomplete joints. It is also necessary to adjust the tool's feeding speed in order to adapt it to all types of wood or wood by-products (plywood, MDF, strips, etc.), and this is a problem when the manufacturing needs are connected with a wide range of products and production lots.

The Omec company is aware of the demands of the market, and has exploited the previous experience acquired with the F11cN and FCN3 milling machines to design a totally electronic version of this machine:



This model is equipped with a spindle unit and a milling cutter that can be used to manufacture

joints of different heights. The "750CN" machine can process male pieces and female pieces both separately and in a combined mode.

Pieces are locked and unlocked manually by means of specially designed pneumatic valves. Eight pneumatic cylinders guarantee the locking operation safely.

The CNC system is designed to offer the maximum machining versatility and allows users to vary the pitch, number and depth of joints, as well as cutting speed, tool feed and tool diameter variation (this feature is used to adjust with a simple operation the coupling of male-to-female joints and to sharpen tools several times before replacing it).

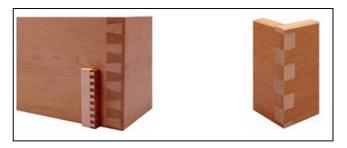
All machining data can be entered with a simple procedure by following the software instructions viewed on the machine's monitor. The monitor is equipped with an integrated Windows® CE operating system.



This machine uses tools of different diameter (from 6 to 14 millimetres) in order to manufacture small size and large size joints.

Parallel joints can be manufactured using cylindrical milling cutters. It is also possible to fit integral Widia tools or tools with diamond coating

(with or without deburring tool) and to set the desired speed for the tool feed speed. Thanks to these features, it is possible to machine all types of wood and composite materials (hardboard, plywood and mdf) with no chips or machining burrs.



Moreover, it is possible to complete the machine software with two optional programmes to machine joints with rectangular pass-through male pieces, parallel joints and mortise (French) joints.



The only necessary manual adjustments concern the pushers height and the spindle height, which can be obtained by operating on the adjusting screw. The stroke-pieces of vertical parts are fixed, whereas horizontal stroke-pieces can be adjusted through a screw and have a specially designed position indicator. The stroke-piece position is provided directly by the CNC system depending on the pitch used for the machining process.



The machine's output is 60 finished drawers per hour.

The 750CN milling machine can be equipped with new tools for the production of small pieces. This machine finally lets you work even the smallest pieces quickly and easily.



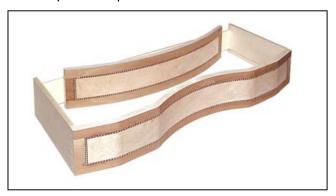
The machine has been designed to work eight pieces at a time (four male and four female joints in one work cycle). The particular characteristics of this machine, and the variable pitch program, let you work very small pieces (30 x 60 mm) for cigar boxes, jewellery boxes, or drawers with dovetail joints.



The "750cn" is also available in the version with the tilting workbench (Omec 750cn-I).



The machine, equipped with a 90° tilting workbench lets you produce drawers with curved and shaped front pieces.



Furthermore, you can produce angled front pieces for single or double corner kitchens.



The 750CN milling machine is specifically designed for companies that need to manufacture small and medium series of drawers with small investments, but still preserving particular structural details, such as different joint sizes and the machining quality, which are essential elements in the furniture industry. The high this machine allows versatility of also manufacturers to successfully face the subsupplying market and the market of custom-made furniture, because the machine's capabilities can be adapted to the needs of the end user.