

**OMEC F9
COMBINED MILLING MACHINE
FOR DOOR FRAMES**

The OMEC F9 combined milling machine was designed to manufacture door frames with one, two or three parallel joints and a 45° cutting angle in a single working cycle with no need to change the type of tool. With this type of machining, users obtain an exact reference stroke-piece and a very firm joint even with materials that are less compact than solid wood, where traditional fastening systems with pins, nails or screws are not easily applicable. This system is also very handy for the later stages of frame assembly and installation. What is visible from the outside is only a 45° chamfer that is nice to see.



The first step of the working cycle is the fitting of the workpiece in the mobile saddle until it reaches the stroke-piece. Then, the workpiece is blocked by two pushers and the machining occurs. Finally the workpiece is released and the machine is ready for the next machining cycle.

The milling machine is equipped with a milling cutter that rises upwards for the machining of joints, and with two blades that perform cutting operations with a 45° angle. The machine is suitable for milling cutters with a thickness of 10/20mm, as well as the traditional thickness of 30mm. This feature allows users to manufacture

small size joints and to machine profiles for door frames with a width ranging from 60mm to 295mm.



It is not necessary to change the type of tool to machine male or female pieces, because the software allows for the machining of two different items with the same tool. These tools have motors performing a high number of revolutions and they are fitted with specially designed deburring tools that guarantee the precise and virtually fault-free machining of all types of veneered and painted wood, MDF and plywood featuring square or round edges. It is also possible to machine large size frames with pass-through elements.



The machine is fitted with a number of sensors and a software that prevents the wrong machining of work-pieces. Therefore, it is not possible to program the machine with a wrong number of joints as compared to the work-piece's and tool's

size. Also, it is not possible to produce a right work-piece instead of a left work-piece. In both cases, operators are warned by an alarm message.

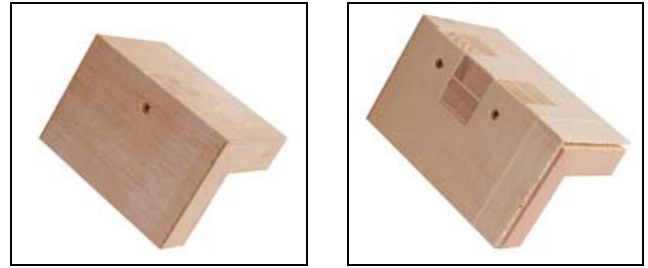
The machine is equipped with all safety devices and operators never touch the tool area. Moreover, pushers are protected with guards to prevent accidental contact with hands. Machine set-up is quick: the only needed manual adjustment is the thickness of the workpiece, by means of a specially designed handwheel and a digital dial. Machining data must be entered on the CNC keyboard that is on the machine. The working cycle allows for the machining of 25 finished door frames per hour (the average time may change depending on the number of joints). The features of this machine are such that it offers a valid technical, economical and nice-looking solution for the machining and assembly of door frames.

Starting from 2007, the Omec F9 milling machine is also available in the F9TS version. This machine features a drilling unit for the machining of door frames' holes on the areas where joints are assembled, in order to block jambs and cross-pieces.



The machine has been programmed in such a way as to perform one drilling action during the machining of door frames with a single joint, and two drilling actions when machining frames with two or three joints. This way, the overall assembly time of the frame is further reduced.

Furthermore, considering the easy and safe way in which the coupling is obtained, the frame can be assembled even by staff who is not specifically trained for the job.



In this version, the machine is fitted with a terminal with touch-screen monitor and graphics to make machining data input easier.

