VELOX 1300

OMAL Horizontal Bore and Dowel Machine

The VELOX 1300 Horizontal **Bore, Glue, and Dowel** machine is a numerically controlled machine to drill, glue and insert dowels on horizontal pieces with FOUR loading zones.

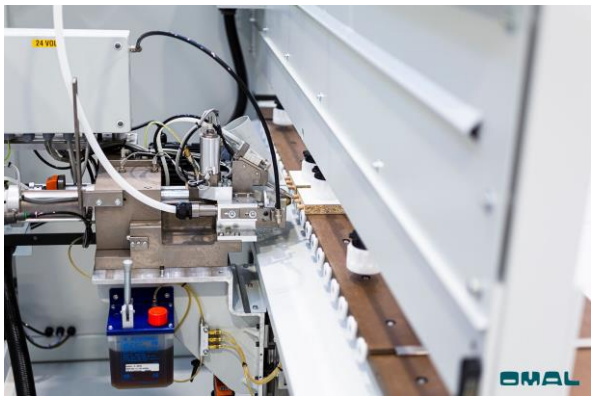
The machine is designed to manufacture furniture or cabinets components.

It can be used as part of a work cell to increase production of point to point and Cnc routers by moving the horizontal drill and dowel operation or as a standalone machine.



Machine Cycle

The program is selected from the machine control and applied to the working list. Parts are manually loaded against one of the four reference stops. Holding clamps are activated for each working station through foot pedals. For longer parts the center reference can be removed and machine can work as single field. Once the parts are clamped the operator can start the drill and dowel operation. Parts are automatically released at the end of the working cycle and the operating head moves to next program provided that another panel has been loaded. The machine works in tandem if parts do not exceed 650 mm . On each field is also possible to process different programs



Glue an d Dowel Injection Unit

Premium features of Omal drill and dowel inserting machines

The dowel insertion revolver holds a dowel while a dowel is inserted plus checks via **fiber optic** sensor to see if next dowel is present to prevent misfeeds.

The OMAL "**SURE SHOT**" revolver system guarantees a dowel is inserted every time!

Cycle time of approximately **ONE second** for each bore, glue, and dowel insertion when holes are on 32 mm intervals.

No drip glue nozzle: Omal utilizes stainless steel pin and nozzle assembly precisely machined to ensure water/glue does not leak. Omal manufactures is own glue guns using a 3 seal system to avoid glue from seeping back through the needle. Programmable electronic control of glue amount. The injector unit is equipped (option) with an inductive sensor to verify glue is shot.

The machine is equipped standard with **one horizontal drilling unit and a single glue and dowel insertion unit** with standard set up for 8mm dowels (6 or 10 are also available with no extra charge).

The machine is fitted with robust clamps suitable to protect **delicate materials** to hold panels horizontally for edge drilling.

Large Vibrator dowel hopper to avoid frequent refilling

Four working references standard

Suitable to work with **traditional or pre-glued dowels**

Heavy duty steel frame to ensure maximum rigidity and avoid any possible vibration, movement of the carriage by ball screw on linear guides with brushless motor

The machine is programmable in the X axis with precision brushless motor, ball nut and ball screw**.** The movement of the carriage is on linear rails with square guides.

Equipped with left and back **safety protection fence**

Centralized lubrication system for all linear bearing

CE regulations included

Standard dimensions of pieces:

-max width of pieces	1300 mm or 650x2
-height of pieces	10-40 mm

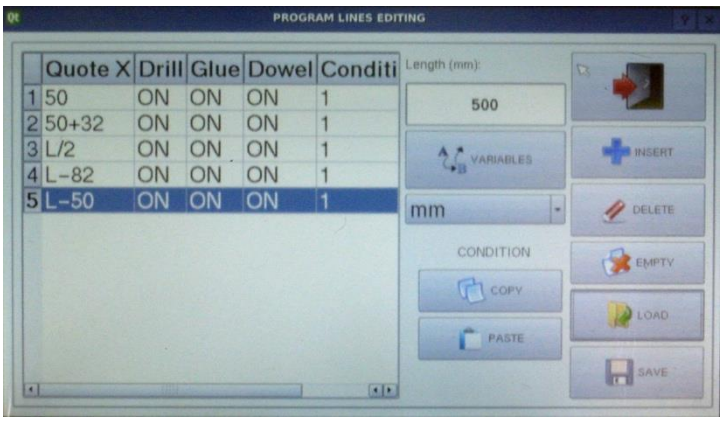
Numerical control:
-CNC X axis
-7" TFT colour Touch Screen monitor
-Parametric programming with variable
-List manager
-Serial line for barcode
-USB port for big programs storage
-Ethernet connection
-Laser reading on X axis (option)



Working List:
-List manager with multiprograms
-Program name, Pieces lenght, Program repetitions, working area, variable.

-Pieces drawing
-Load & save the working list

- **Program Editor:**
  -Absolute programming table with Drill- Glue – Dowel flag
  -Parametric programming
  -Up to 20 Variable
  -Logical conditions.



General Information:

-Voltage	220V 3PH 60 HZ OR 400 V 3PH +N 50 Hz
-Control voltage	24 V
-Air pressure	7 bar
-Net weight	900 kg

Code	Description	Image
AS-VELOX	Horizontal Bore and Dowel Machine	
VR-SPINA8	Dowel Insertion Unit: -N° of dowel insertion units 1 -dowel dimension (other dimensions upon request) ø 8x30/40 std -max dowel projection 14mm -fiber optic sensor to check for dowel presence	
VR-BIDONI	Gluing Plant: - glue tank capacity 8 Lt - max glue density 900 cps - programmable electronic control of glue quantity - injector with double, reinforced seals to insure no leakage by needle	
VR-CE	CE REGULATIONS	

VR-VOLT 230	General Information: -Voltage 230V 3Ph+N 50Hz -Control voltage 24 V -Air pressure	
VR-Pallet 1300/1550	Packing on pallet for Insert 1300/1550	

Code	Description	Image
VR_KIT-SP	Setting of machine and kit for the use of two different dowel diameters	
VR-BARCODE	Bar code and Qrcode reader gun wireless	
VR-LASERX	Laser device to detect panel length	
VR-MEMBRANA	Gluing plant with membrane pump. Pump equipped with stainless steel membrane, pressure regulator able to maintain a constant glue pressure also when the pump inverts the pumping cycle to check its correct operation + scale to control the presence of glue in the system to check its correct operation	
VR-SENSOR	Glue gun complete with a glue sensor to check its correct operation	
VR-SW-BARCODE	Software to allow the use of barcode and network	