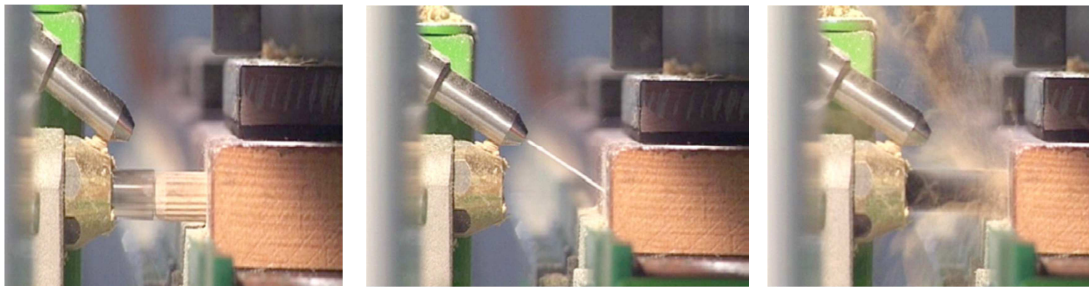
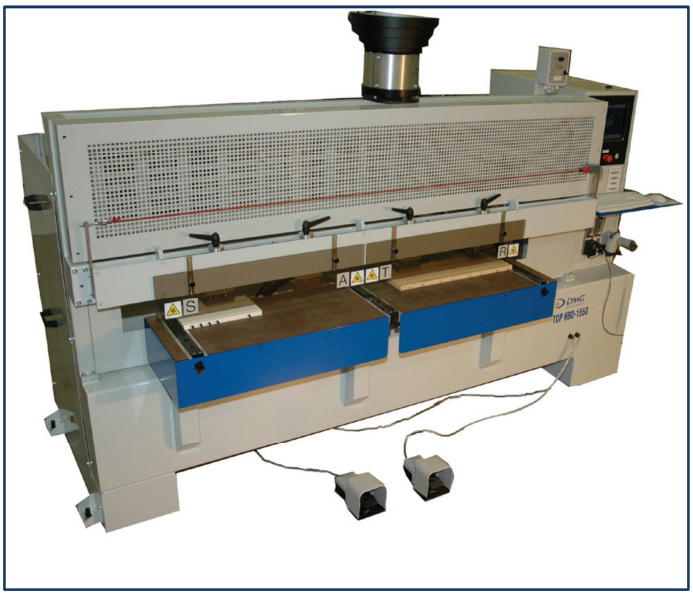
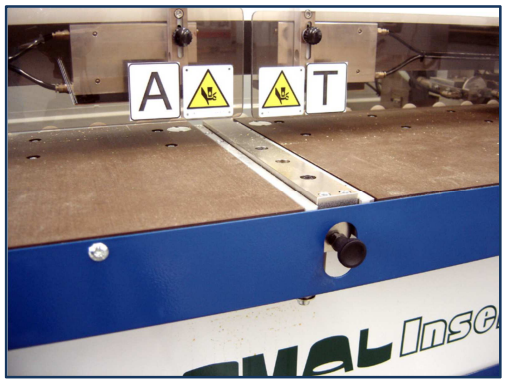
OMAL HBD

BORE, GLUE & DOWEL

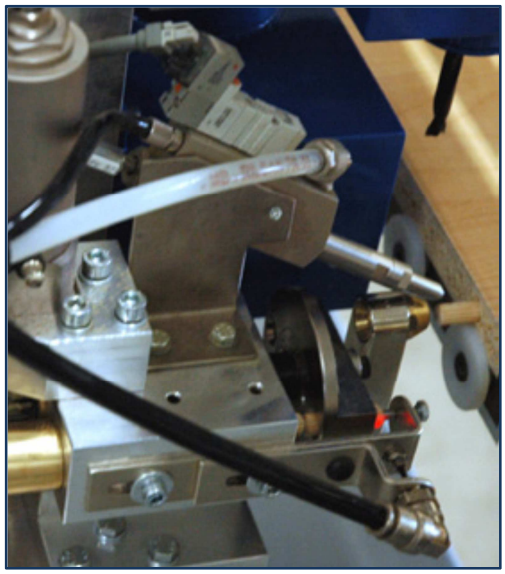




The HBD Series of Horizontal Bore, Glue, Dowel and Hardware insertion machines are numerically controlled machines to drill, glue and insert dowels on horizontal and vertical pieces. The OMAL system of bore and dowel yields a cycle time of approximately ONE second for each bore, glue and dowel insertion when holes are on 32mm intervals. The machines can be equipped with single or multiple horizontal and vertical drills, grooving saw and/or hardware inserters.

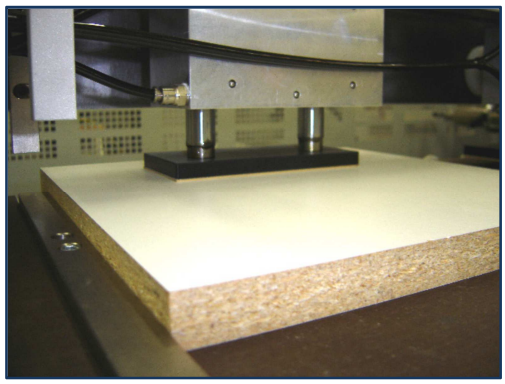


Omal "Sure Shot Dowel Revolver System" - The dowel insertion revolver holds a dowel while a second dowel is inserted, plus via fiber optic sensor , verifies the next dowel is present to prevent misfeeds. The OMAL "SURE SHOT " revolver system guarantees a dowel is inserted everytime!



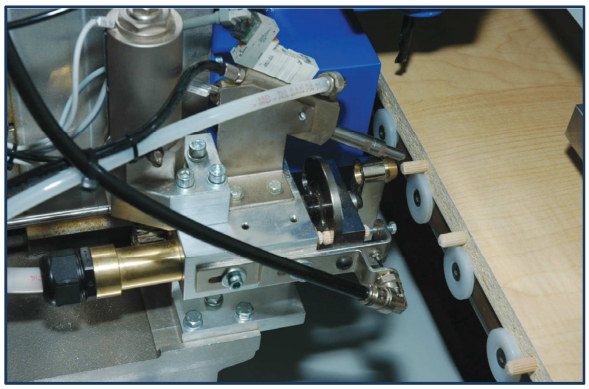
Speed - The Omal HBD series has the FASTEST cycle time in the market: Less than ONE second for each bore, glue, and dowel insertion when dowels are on 32mm intervals! Standard is 32mm between the drill and dowel inserter. If integrated top drill is added, this defaults to 64mm. The HBD can be ordered with custom centers. Other options include double drill and dowel at 32mm for one drill diameter (ie. 6mm for drawers) and 64mm for a second dowel diameter (ie. 8mm for casework.

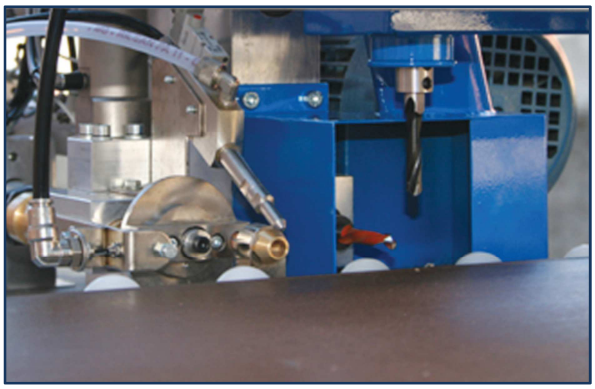
Indexable Center and Side Fences - The selection of the loading zone (left, left center, right center, or right) is executed by CNC and automatic, based on the size if using bar coding. The center reference is excludable on the 1300 (50" work table) and the center and side references are excludable on the 1550 (61" work table). This means that you can process up to a 10' panel using alternate referencing on the 1550!

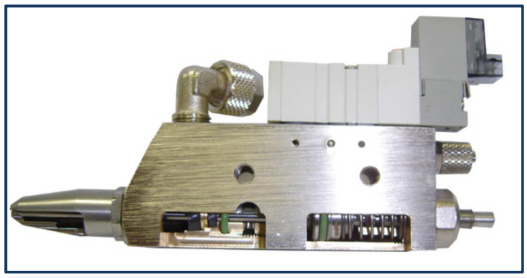


Large Robust Clamps - Four clamps are standard on the machine. The double clamps will hold panels either vertically or horizontally for edge or face processing on the HBD 1300 and 1550. If the machine is equipped with top drills, vertical part clamping is not possible.

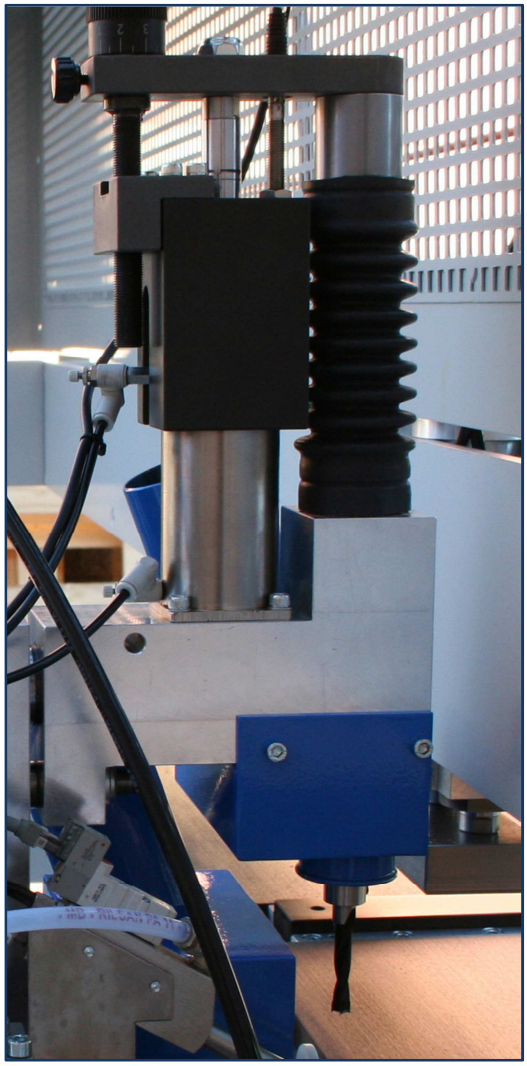
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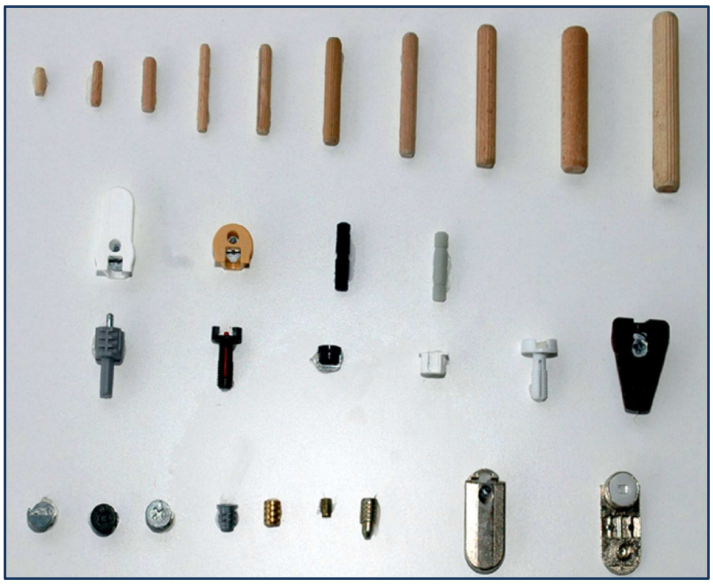




No Drip Glue Nozzle - Omal utilizes a stainless steel needle and nozzle assembly, precisely machined with a reinforced tip to insure water/glue does not leak. Omal uses a 3 seal system to keep glue from seeping back through the needle seal and into the electrovalve. Omal supports programmable electronic control of the glue amount. The injector unit is equipped with a sensor to verify glue is shot.



Top Drilling - Omal can surface drill within 40mm from the edge for dowels, Rafix, Minifix, edge and face hardware such as One-fix, Hinges, plus a variety of dowel sizes. Keeps simple panels from going to CNC and balances operations in the factory.



Omal can automatically insert most all types of fastening hardware and dowels

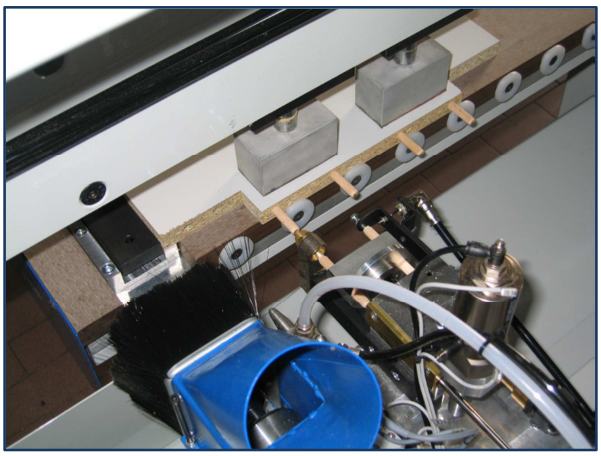
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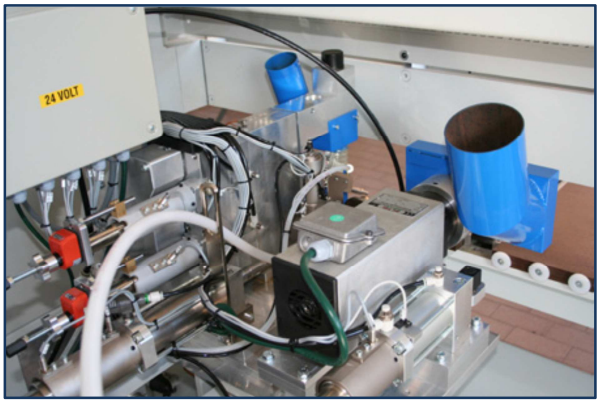
LEFT: Second horizontal drilling unit mounts on 64 mm centers next to existing drill. One additional drill does not require increase in machine length. Each drill with separate adjustable depth.

RIGHT: MEMBRANE PUMP SYSTEM Telescoping stand, glue filter, and glue regulator. Stainless steel components with membrane pump. Use for glue viscosities up to 1,000 cps or to pump glue from a 5 gallon container. Not required if using water.





Double depth horizontal drill control. This feature allows the customer to program two different depths, T1 for one depth and T2 for second depth. The Same tool! This is convenient if you need two horizontal depths or when you place the part vertically in the machine, you can drill a shallower depth with the same diameter. It's like getting an extra spindle for a 2nd depth control. It's on demand by the control and FAST.

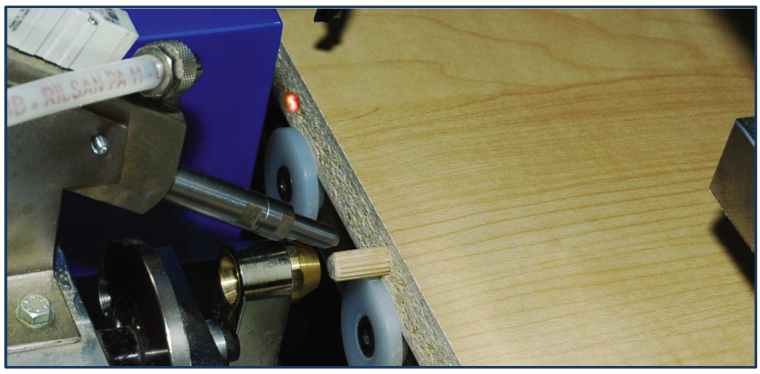


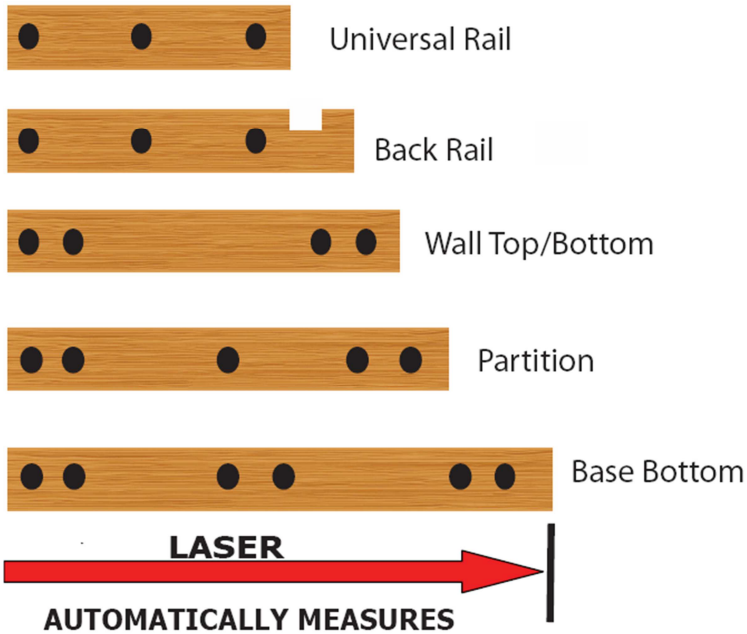
4HP grooving saw for face grooving a maximum of 25mm in from the edge of the panel. This unit is for grooving the top/bottom of a panel and making the machine a cell for cabinet and/or drawer parts. Coupled with list management in the control, grooving can be integrated in the list for pendulum processing of parts.



Hardware Insertion CNC Machines to drill and pneumatically insert hinges, RAFIX and MINIFIX or other types of hardware. These machines come in semi-automatic and automatic versions. The work cycle is pneumatically and electronically adjustable to achieve times of less than 3-4 seconds per hardware insert!! The machines can be offered with interchangeable hoppers or vibratory feeders for different colored inserts.

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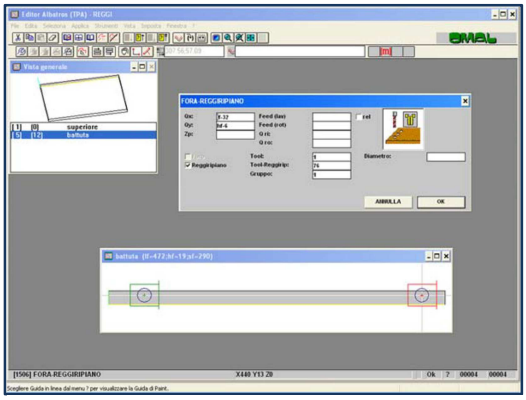
AUTO LASER WITH PARAMETRIC CONTROL

OMAL's width Laser Sensor will automatically measure the part and populate the program list for the part width. Our parametric program will calculate all the dowel locations for the part. The same math used in your cabinet design software can be used in our parametric program coupled with auto-start. The operator just has to load the machine - Run parts in any sequence and never have to call up a program name again!! Couple with auto-start and the operator does not even have to push a button or foot pedal.

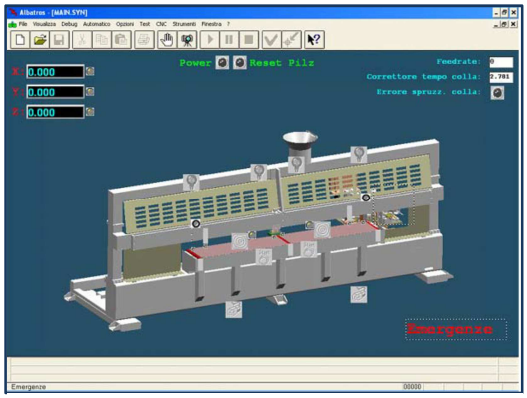
POWERFUL P.C. BASED SOFTWARE & CONTROL

The user friendly software (similar to Genesis Evolution used by Busellato Jet CNC machines) makes the machine extremely versatile. The machine is equipped with a true PC interface used for writing and storing programs. Programs can be written parametrically, can include IF/THEN statements, and are generated using graphical icons (drill, glue, dowel check boxes). The selection of the offset of tools for inserting and for operations on different left and right hand references is automatic.

Full list management allows customer to stack and link programs. Also supports full bar code interface control and is bar code ready - just add the scanner.



User friendly programming with icons for horizontal bore, glue, dowelling.

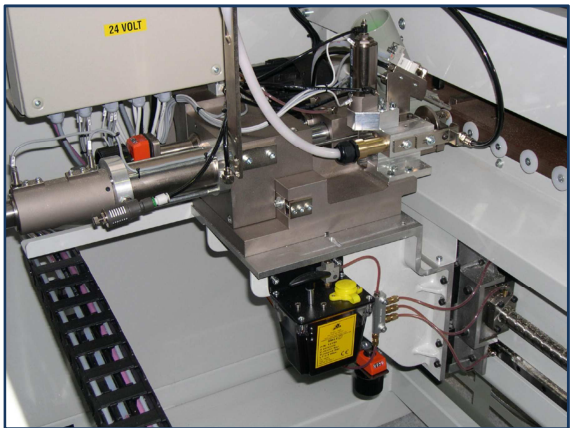


Synoptic of machine showing 4 loading zones.

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Omal HBD 1300





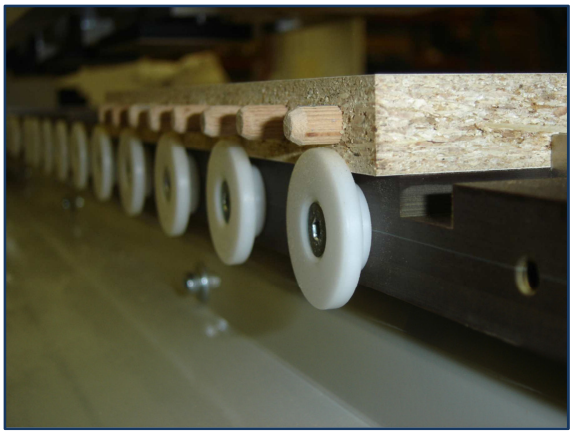
Movement of the carriage is on linear rails with square guides and transmission by precision ball screw system. This allows acceleration to speeds up to 50 meters/min.

FEATURES

The HBD 1300 Horizontal Bore, Glue and Dowel machine with a 4' work table is a numerically controlled machine to drill, glue and insert dowels on horizontal pieces with FOUR loading zones.

The machine is equipped standard

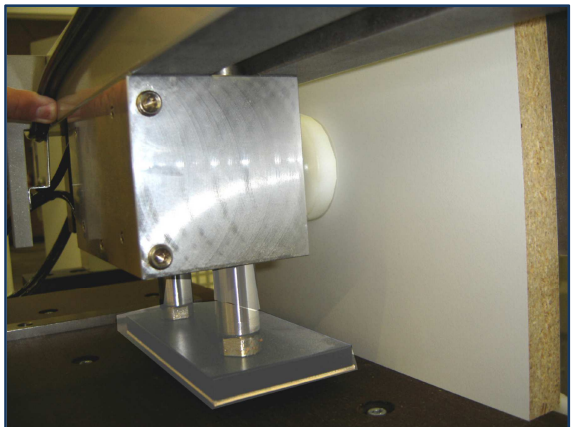
- Four working areas
- Auto selection of the working reference (left, center left, center right, right)
- Center reference fence excludable
- Four double clamps to hold panels vertically or horizontally for edge or face processing
- Glue injection system with precision metering of the glue plus checks to make sure glue is shot
- Standard set up for 8 x 35mm dowel
- The OMAL "SURE SHOT" revolver system guarantees a dowel is inserted every time!
- Fiber optic sensor to check if next dowel is ready
- Programmable in the X axis and equipped with ball screw and quick positioning
- Movement of the carriage is on linear rails with square guides.



Reference fence is standard with offset PVC discs. The advantage of this type of reference system is that it is not affected by dust plus the machine can bore to the edge.

SPECIFICATIONS

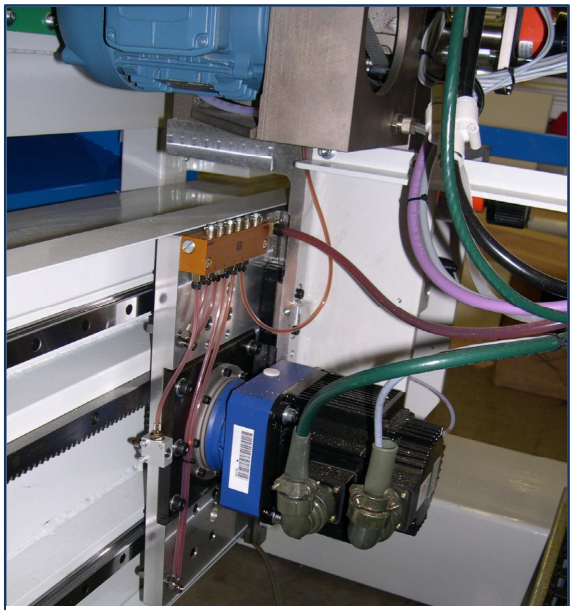
- Width "X" 1300 mm (51")
- Depth "Y" 40 mm (1.57")
- Vertical "Z" 40 mm (1.57")
- Voltage 220/60/3
- Net weight 1200 kg (2645 lbs)



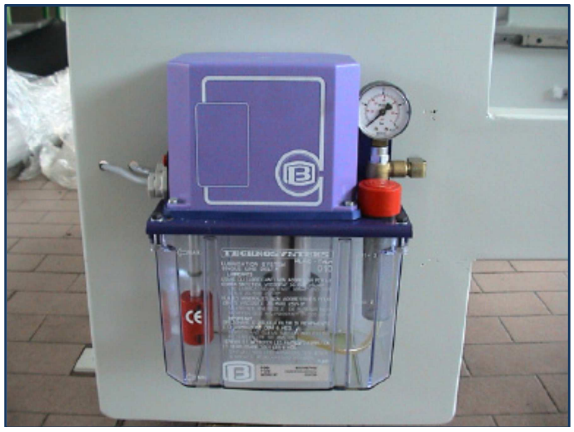
Standard clamp for the HBD 1300 and 1550 is the double output clamp for boring panels horizontal and/or vertical.

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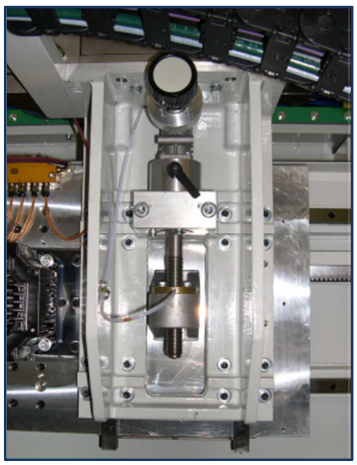
Omal HBD 1550



Movement of carriage is on linear rails with square guides and transmission by precision rack and pinion system. This allows high acceleration and speeds up to 90 meters/min.



Automatic central lubrication system that automatically pumps oil to all guideways based on PC time interval settings.



Vertical movement of the carriage is on linear rails with square guides and transmission by precision ball screw, which allows precise control. Manual Z axis, easily converted to CNC.



FEATURES

The HBD 1550 Horizontal Bore, Glue and Dowel machine with a 5' work table is a numerically controlled machine to drill, glue and insert dowels on horizontal pieces. For flexibility in processing larger panels, the HBD 1550's center and side references are excludable for processing up to 10' panels! Additionally, the double clamps will hold panels either vertically or horizontally for edge or face processing plus the machine can be equipped with TOP boring.

The machine is equipped standard

- Four working areas
- Auto selection of the working reference (left, center left, center right, right)
- Center and side reference fence excludable
- Four double clamps to hold panels vertically or horizontally for edge or face processing
- Glue injection system with precision metering of the glue plus checks to make sure glue is shot
- Standard set up for 8 x 35mm dowel
- The OMAL "SURE SHOT" revolver system guarantees a dowel is inserted every time!
- Fiber optic sensor to check if next dowel is ready
- Programmable in the X axis and equipped with ball screw and quick positioning
- Movement of the carriage is on linear rails with square guides.

SPECIFICATIONS

- Width "X" 1550 mm (61")
- Depth "Y" 40 mm (1.57")
- Vertical "Z" 40 mm (1.57")
- Voltage 220/60/3
- Net weight 1300 kg (2866 lbs)

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