OMAL HBD 3100 MF
HORIZONTAL BORE, GLUE and DOWEL MACHINE
Multifunction Drilling and Routing Machine
for Plantation Shutters

Photo may include optional equipment

QUOTE: Stock
DATE: November 28, 2016
PRESENTED TO:
CONTACT PHONE EMAIL

scmgrouppna.com
OMAL HBD 3100 MF
Multifunction Machining Center for Shutter Manufacturing
HBD 3100 HORIZONTAL BORE, GLUE and DOWEL MACHINE

The HBD 3100 Horizontal Bore, Glue, and Dowel machine is a numerically controlled machine to drill, glue and insert dowels on horizontal pieces with FOUR loading zones.

BORE GLUE DOWEL

Cycle time of approximately ONE second for each bore, glue, and dowel insertion when holes are on 64 mm intervals!!

Excludable CENTER Fence

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!

Glue and Dowel Injection Unit

The machine is equipped standard with a single drill and piggyback glue and dowel insertion unit with standard set up for 8mm dowels. The selection of the loading zone (left, left center, right center, or right) is executed by CNC. The center reference is excludable for large panels. This means that you can process up to a 10’ panel using alternate referencing!

The standard machine is fitted with double clamps to hold panels horizontally for edge drilling.
The high pressure glue injection system insures a no-drip glue or water delivery system with electronic precision metering of the glue amount.

OMAL utilizes Wood System by TPA as the software interface for the machine. The user friendly software makes the machine extremely versatile. The machine is equipped with a full PC interface used for writing and storing programs. Programs can be written parametrically, can include IF/THEN conditional 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.

The machine is programmable in the X axis (optional Y and/or Z) and equipped with precision brushless motor, ball nut and ball screw for quick positioning. The movement of the carriage is on linear rails with square guides.

The software has a list manager that allows different parts to be run in each field and to control the production sequence. Lists can be saved for future reference plus the machine can be controlled by bar code list and/or program names.

This machine is programmable in the X axis and equipped with a brushless motor and alpha gear reducer for precise and quick positioning. The movement of the carriage is on linear rails with square guides and transmission by precision rack and pinion system.

The HBD 3100 is manufactured by OMAL under contract for SCM Group.
**MACHINE SPECIFICATIONS:**

**WIDTH “X” axis (CNC):**
- Stroke: 2500 mm (98”)
- Carriage travel speed: 90 m/min (295 ft/min)

**DEPTH “Y” axis (CNC):**
- Stroke: 50 mm (2”)
- Ball screw and square guides
- Installed torque: 1.5Nm
- Head travel speed: 15 m/min

**VERTICAL “Z” axis (CNC):**
- Stroke: 40 mm (1.57”)
- Ball screw and square guides
- Installed torque: 1Nm
- Head travel speed: 7.5 m/min

Vertical Adjustment, Ball screw Dowel “Sure Shot” revolver, note infra-red dowel verification

**Drilling unit:**
- Nº of drilling unit: 1
- Drill motor kw/Hp: 0.75 / 1
- Drills rotation speed: 6000 rpm
- Max depth of the holes: 30 mm (1.18”)
- Max diameter of the drills: 10 mm (3/8”)

**Dowel insertion unit:**
- Nº of dowel insertion unit: 1
- Standard dowel dimension (other dimensions on request): 3/8” x 2”
- Maximum dowel length (other dimensions on request): 50 mm
- Maximum dowel projection: 18 mm (0.71”)
- 2 position revolver for loading dowels
- Fibre optic sensor to check for dowel presence
- The drill and dowel inserter are on 64mm centers unless specified otherwise
Dowel Vibrator Bowl
- Capacity: 2000 dowels

Gluing & cleaning unit:
- Capacity of glue tank: 18 Liters (4.75 gallons)
- Capacity of water tank: 18 Liters (4.75 gallons)
- Maximum glue viscosity: 900 cps
- Electronic control of glue amount, programmable
- Injector unit with inductive sensor to verify glue is shot
- Injector with double, reinforced seals to insure no leakage by needle

Standard dimensions of pieces (other dimensions on request):
- Max width of pieces: 3100 mm (122”)
- Height of pieces: 10-40 mm (0.39” – 1.57”)

PC Numerical Control:
Machine equipped with PC for machine control of all axis
- 4 GB ram
- Operating System, Windows 7
- Color video flat screen monitor
- 40 Gig hard drive
- Complete keyboard + mouse
- Ethernet network card 10/100
- Multitasking CNC
- Connection to CNC with USB port

CNC Characteristics
- 3 axis NC
- 3Mbit Fieldbus for input/output remote
- Very simple and intuitive software
- Automatic left, center, and right program
- List manager to sequence programs
- Graphic menu for selection of macros:
  - Boring
  - Boring + Gluing
  - Boring + gluing + dowel insertion
  - Gluing + dowel insertion
- Parametric programming
- Graphical aids
- Conditional programming with built in simulation checking
- Pre-programmed executive lists which can be edited run-time and structured into articles
- Internal self-diagnosis, historical report of alarms
**General information:**
- **Vertical Double Action Clamps**: 8
- **Voltage**: 220/60/3
- **Control voltage**: 24 V
- **Air pressure**: 7 bar (90 psi)
- **Net weight**: 2500 kg (5500 lbs)

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

**XXXX** Auto lubrication system for all linear bearings

**MACHINE TABLE:**

**STILE ZONE:**
The machine is equipped with a STILE Zone
- **Maximum Stile Length excluding Rail Zone**: 2400 mm (8’)
- **Maximum Stile Length including Rail Zone**: 3100 mm (10”)
- **N° 6 Hold Down Clamp with manual adjustment with clamp extension**
- **Max part height**: 40mm (1.5”)
- **N° 2 section of pneumatic Up/Down polycarbonate Safety System**

**Omal 1.30E** EIGHT (8) Quick mount clamp extensions for narrow rails
- Extensions are 40mm wide
RAIL ZONE:
The machine is equipped with a Rail Zone 600mm (24”)
-Max pendulum Rail 200mm (8”)
-N° 2 Hold Down Clamp with manual adjustment
-Max part height 40mm (1.5”)
-N° 2 section of Pneumatic Up/Down Sectional Polycarbonate Safety System

MACHINE HEAD:
1.51R Vertical Router

- Nº of units: 1
- Tool rotation speed: 12000 rpm
- Motor Power: 5.5 HP each

Note: Route mouse hole in center of rail

SPECIAL AGGREGATE DRILL HEAD
Individually selectable drills by NC.

- Nº of units: 1
- Nº of spindles: 3
- Connection: 10mm shank
- Bit rotation: 4500 rpm
- Bit diameter: 1/4”
- Max depth of bore: 35mm

Note: Drill louver holes, 3”, 4”, and 7” centers

1.51R Horizontal Router

- Nº of units: 1
- Tool rotation speed: 12000 rpm
- Motor Power: 5.5 HP each
- Collet: ER 32

Note: Hinge pocket route, fixed louver route

1.11T5 THREE (3) spindle HORIZONTAL drilling unit, Integrated unit with separate drill motor.
Each spindle is independent with pneumatic pre-selection on 64mm centers.
- Bit rotation: 6000 rpm
- Maximum horizontal hole depth: 50 mm
- Max bit diameter: 20 mm

Note: 3/8” drill for dowel
1/4” drill for hinge holes
3/8” w/ CS drill for Tensioner hole
**1.32 Width LASER sensor** to automatically measure width of panel and calculate number of dowels based on a template file. Template file can be modified from the list.

*Note: Laser to read X and/or Z, activated by a flag in the work list screen.*

**XXXX Automatic fixed louver program**
Parametric program to automatically position multiple louver based on these Inputs:
- Length of Louver Coverage
- Thickness of Material
- Distance from top/bottom edge
- Louver width
- Angle
- Mid Rail Present, Y/N
- Overlap %

*Note: The pictures and/or illustrations included in this quotation are for descriptive purposes and intended to aid in understanding certain features of the machine. Some depictions may not reflect the exact construction and may include options that are not part of this offer. In all cases, the written text supersedes any graphic representation.*

**PRICE of Machine:** $184,800.00

**IN STOCK Price of Machine**
- Includes Installation, Delivery & Runoff
- Machine available for immediate delivery

**Options:**

**Newland Wireless Bar Code Scanner** with power supply, holster. Barcode reading software is supplied on the machine PC and will allow the customer to read standard 3 of 9 bar code labels with the OMAL syntax. Bluetooth connection from scanner to holster, holster with serial connection to PC. 60’ range with 200 scan buffer when out of range.

Price $1,060.00
**TERMS OF PAYMENT:**

Terms of payment offered, or any terms agreed upon, are subject to credit approval.

This offer is subject to SCM GROUP NORTH AMERICA General Terms and Conditions of Sale.

Standard terms are 30% down, 60% prior to delivery, 10% upon acceptance.

Offer is subject to prior sale of the equipment.

Price quoted is for the machine as described above and is subject to change if the Specifications for the machine are changed at the request of the buyer.

**SHIPMENT:**

Shipment from US Warehouse in 1-2 weeks. Shipment is subject to delay should changes be made to meet the requirements of purchaser from manufacturer's design specifications stated herein.

**TOOLING:**

Standard drills are included.

**INSTALLATION, TRAINING, SERVICE RATES AND CONDITIONS:**

Installation, when purchased, will be performed by an SCM factory trained service technician or Certified Dealer Technician. Installation is to be understood as the assembly of the machine to the 'ready-to-run' state; it does not include floor, masonry work, the running of electrical, pneumatic or dust extraction services to the site. Training will be conducted on site by the service technician after installation has been completed.

**WARRANTY:**

SCM warrants that the Machinery will be free of defects in workmanship and materials for a period of one (1) year beginning on the date the Machinery is accepted by the customer. This warranty includes belts, bearings, and common electrical parts, which carry a six-month warranty. This warranty does not include parts consumed during normal operation (wearable items) or maintenance required in the ordinary course of operation.
If your application for business credit is denied, you have the right to a written statement of the specific reasons for the denial. If such statement is requested in writing within 60 days from the date you are notified of the decision, To obtain the statement, please contact 1-800-292-1837. We will send you a written statement of reasons for the denial within 30 days of receiving the request. NOTICE: The Federal Equal Credit Opportunity Act prohibits creditors from discriminating against credit applicants on the basis of race, color, religion, national origin, sex, marital status, age (provided the applicant has the capacity to enter into a binding contract); because all or part of the applicant's income drives from any public assistance program, or because the applicant has in good faith exercised any right under the Consumer Credit Protection Act. The federal agency that administers compliance with the law concerning this creditor is the Federal Trade Commission, Equal Credit Opportunity, Washington, DC.

I hereby certify that the information contained in this application is true and accurate to the best of my knowledge, and I hereby authorize our banks, trade references and financial institutions the right to release credit information to SCM GROUP or its assigns.

LESSE AUTHORIZATION TO RELEASE INFORMATION

The undersigned individual, who is either a principal of the credit applicant or a sole proprietor of the credit applicant recognizing that his or her individual credit history may be a factor in the evaluation of the credit history of the applicant hereby consents to and authorizes the use of a consumer credit report on the undersigned by the above named business credit grantor and assigns, from time to time as may be needed, in the credit evaluation process.

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