ELEVATE YOUR EXPECTATIONS!

Discover the ELEV8 CNC Bore & Dowel Machine

PROEDGE TECHNOLOGY

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ONE machine for MULTIPLE applications

Pro Edge Technology is setting the new standard in CNC Bore and Dowel inserting machines. Introducing our CNC 8mm wood and/or plastic dowel machine.

ELEV8

CNC EDGE & DOWEL MACHINE

The **Elev8** Wood Dowel is the only machine in the industry with both horizontal and vertical routing capabilities on a bore and dowel machine. While other manufacturers only offer a 8mm brad point boring bit to do the machining of a bored hole, **Elev8** by Pro Edge Technology uses 3 electro-spindles coupled with a TRUE 3-axis CNC control. Our machine will not only bore a simple hole but also allows for all types of special machining to be performed on the panel. such as:

- Rafix, Minifix, and Maxifix components machined in both the **edge** and the **bottom** of the panel
- Confirmat machining, dog bone routes on both the edge and bottom of the panel
- Domino slots for special applications
- Special drawer features, such as machining rear panel notch for undermount drawer slides
- Soss hinges machined in cabinet panels or large door sides and jams
- True Parametric Programming allows for machined louvered doors and shaker door stiles and rails
- Dados and blind-dados can be programmed to automatically change size and length as the panel sizes change

ELEV8 is ideal for either the high production panel processing shop or the custom production shop. Experience its versatility for horizontal boring and dowel insertion in panel processing

PROEDGE TECHNOLOGY

ELEV8 CNC EDGE & DOWEL MACHINE

Every aspect of the ELEV8 wood dowel machine has been logically considered to ensure it's operation is easy-to-use, consistent, and versatile.

Bore, Glue, Dowel Insertion

- Routers and Injectors are CNC controlled and mounted on heavy duty linear bearings and rails
- Variable speed electro spindle is mounted on an independent linear guide, positioned forward by a pneumatic cylinder, then CNC controlled for accuracy of both bore and/or dado depth
- The dowel injector unit is pneumatically shuttled allowing one dowel being injected into the panel
- A photo eye is used to detect and ensure a dowel is loaded so the unit will not misfire
- Glue or water can be used
- Dosage of glue or water is controlled via PLC for repeated accuracy

3-Variable Speed Electro Spindles

- 4,000 to 12,000 RPM
- Lower RPM used for boring/ higher RPM used for dado
- Capable of machining all types of materials such as wood, plastic, phenolic, etc.
- Fully programmable dado: location, length, width & depth

Glue Nozzle Unit

- Pneumatic cycle
- Manual set fixed amount of glue adjustment
- Programmable time control
- Linear guide mount for moving nozzle forward to adjust, clean, and flush
- Cleaning station catch-tank attached on the machine for quick flushing of nozzle

Stainless Steel Tanks

- Mounted tanks ride along with the machine head, eliminating the long lines running through the machine and its umbilical
- Allows for very precise glue control and simple cleaning and maintenance for the life of the machine
- Ability to use glue or water
- Glue/water dosage controlled by PLC
- Easy clean-up with fresh water flush

Injector Unit

- Pneumatic dowel shuttle
- Fiber optic detection of dowel
- Steel pneumatic driven injector rod
- Over-sized linear guides for long life of injecting of dowels

Vibrator Bowl and Automatic Magazine Wood Dowel Feeder

- Separate PLC control for vibrator feed speed
- Able to change and run different length dowels
- Can run both wood and pre-glued dowels
- Ability to run plastic dowels, if desired
- Magazine-fed dowels—no more tube-fed jamming problems

Tool Touch-off Device

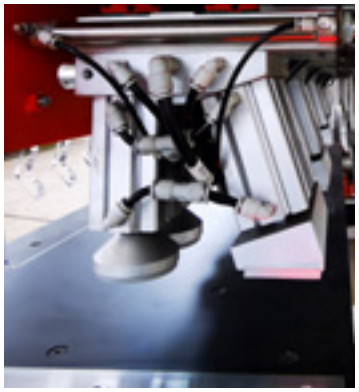
- Tool touch-off device measures the length of the tools on all three spindles
- 3 independently measured tools
- Benefits: faster, more accurate, no special operator training, and safer for both machine and operator

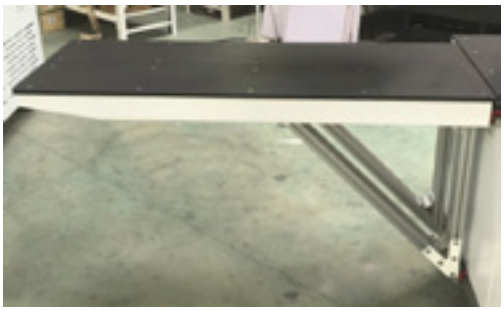
Dust Collection Unit

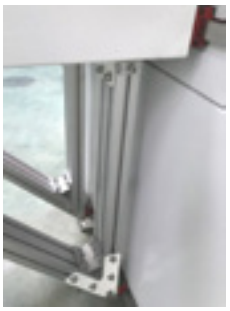
- 100mm main inlet
- 3 independently, automatically selectable dust ports for routers
- Dust ports are only open when the router is in use—no more wasted suction from the dust collector when machine is not in use
- Independent access doors on each router's dust collection manifold allowing for quick tool change without having to remove the dust guard

Elev8 is leading the industry with the ***only*** programmable parts back-stop fence allowing for each station to work independent in an in-or-out position. This feature allows the panel to be placed 120mm passed the edge of the table allowing the vertical router 100mm of programmable Y-axis routing. All positions have position sensor monitoring for machine safety.

The **ELEV8** has 4 working zones and each working zone has 2 sets of hold-down clamps with a maximum part thickness capacity of 50mm. Each set of clamps has two sets of cylinders to hold the part in position—1 clamp comes straight down and 1 clamp comes down at a 30° angle, achieving the most secure clamping system in the industry. The hold-down clamps are manually adjustable along 2 linear guideways in the X-axis and the pneumatically programmed back-stop travels on 2 prismatic guideways in the Y-axis.







4 phenolic tables, 300mm x 1500mm, (12 inch x 60 inch) are mounted on linear guides and can be moved to accommodate large panels or pushed to either side to open up the work space area of the machine. (*Making this machine ideal for the closet industry too!)*

Two Horizontal Routers

Two independently selectable horiztonal routers offer a wide range of edge processing which includes edge routing, edge drilling, and blind dados. These routers used in conjunction with our parametric programming capabiliites allows for many specialty routing features needed in today's constantly changing production environment. With two horizontal routers, one can be dedicated to 8mm construction while the other can have a smaller router bit for special machining applications under 8mm.

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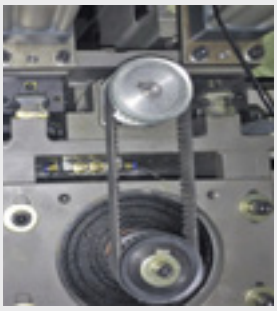
ELEV8
CNC EDGE & DOWEL MACHINE

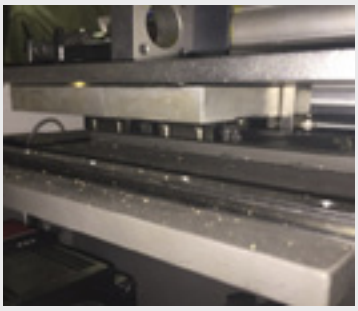
Switching to a wood dowel system has never been easier or at a more affordable price.

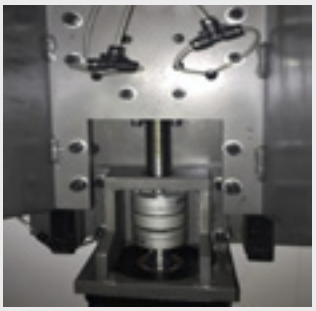
ELEV8 is the only machine in the industry with **vertical routing** capabilities on the bottom surface of the panel. This guarantees the accuracy of 0.05mm repeatability of routed depth. By making the bottom the zero reference point, the variations in the material's thickness, such as plywood, have been eliminated.

Vertical Routing Capabilities

- No floating head aggregates or live z-axis laser measuring device purchase needed for your flat table router
- Eliminates the variations in the material/panel surface
- A true zero reference point on the bottom of the panel
- Accuracy of 0.05mm in routed depth
- Repeatable accuracy
- Easy and reliable tool changes with the built-in tool touch-off device for measuring new tool lengths







Servo Drive Motors on X, Y, and Z Axes

- CNC servo drive motors on all three axes
- Heavy duty frame is mounted on two standard linear guides (ball bearing type)
- Linear guides provide high capacity, low friction guidance of payloads for machine applications. With 4 rows of recirculating balls engaged in a precision ground rail, these bearings provide load capacity in all directions
- Y-axis and Z-axis are positioned by a precision reciprocating ball screw

Lubrication System

- PLC-controlled centralized lubrication system
- Automatically applies oil to various lube points on the linear bearings
- Oil is continuously injected over time ensuring the moving parts are properly maintained and lubricated
- Automated process involves a "run and pause" process, thus increasing the equipment reliability and, overall, the plant productivity
- System eliminates the dependency on the operator to perform the weekly lubrication maintenance requirements

Electrical Control Cabinet

- Simple and organized electrical components
- No proprietary components used—all components are easily available in the U.S.
- Delta VFDs
- Delta servos and servo motors
- Delta encoder and servo cables
- LED display shown on monitor and inside the control cabinet

Bar Code Reader

- Allows operator the option to pick the zones to run the parts in
- Panel length can be changed through the bar code due to the true parametrics feature of our program
- Wireless
- Continuous bar coding of parts without the operator having to interface with the PC

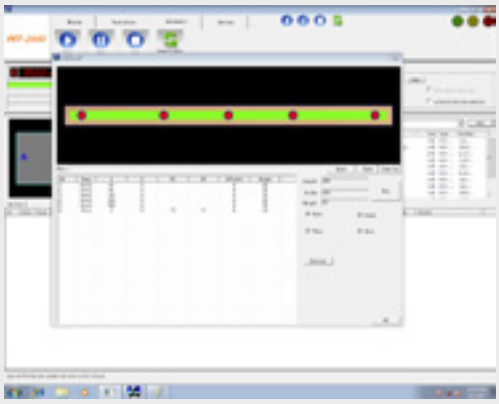
Dell PC, Dell Monitor Display with Wireless Keyboard

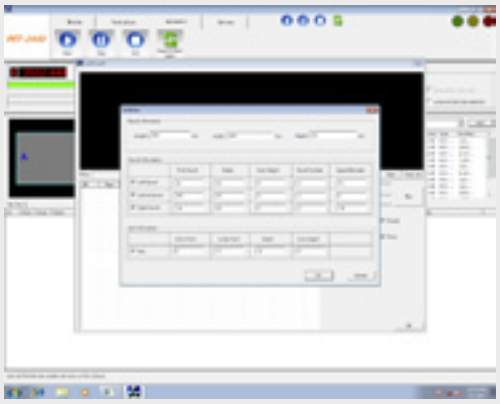
- Monitor can be adjusted to working conditions and moved completely out of the way during heavy production runs
- Wireless keyboard can be moved with the operator to help in production and maintenance of the machine
- Large Dell monitor and PC with a two-year warranty

Intuitive software programming creates an easy interface between the software and the operator.

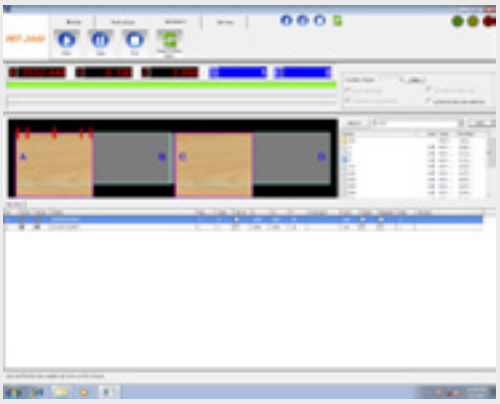
Intuitive Software Programming

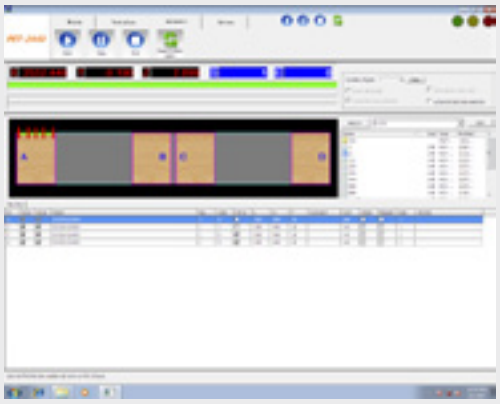
- Designed to eliminate programming errors and reduce waste of costly materials by allowing the programmer to actually see the program run prior to executing the program with a cut simulator and graphics screen
- User-friendly programming screens
- Simulator and graphics
- Cost conscious software learning curve



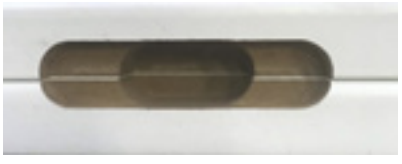


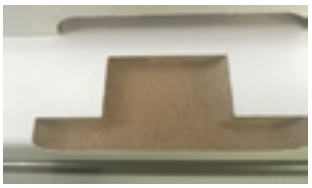
- Operator can easily choose which saved program to run and in which zones
- Automatic mirror image between the zones
- Two programs can be run simultaneously—select one program to run in zones A & B and another program to run in zones C & D





An added value to ELEV8 is the software capability to create a multitude of feature possibilities including construction of shaker style doors, hardware placement for knobs and handles, hinge cup routing and Soss hinge routing, pictured below.

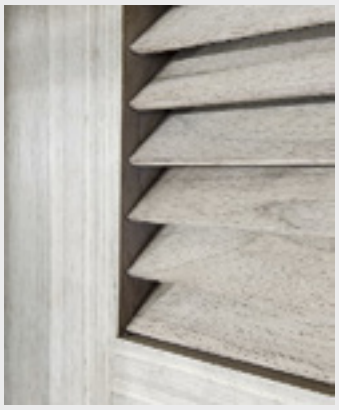




Many special feature capabilities are possible with Pro Edge Technology's ELEV8 machine!

Louvered Wood Doors

- Complete machining of louvered door stiles and rails
- Total control of louver routes: length, angle, depth, spacing, and quantity
- Sample shown with wood dowel and wood domino construction—slot of domino machined with horizontal router, manually inserted

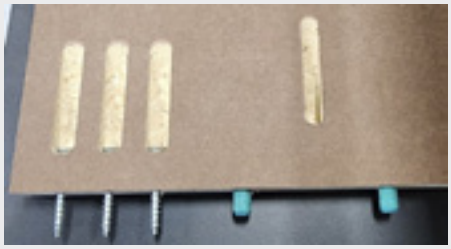


Five-Piece Shaker Doors

With parametric programming, once the program is written, the operator needs only to change the length of the stiles and rail.

Pocket Screws

Total control of start and stop points to accommodate any length screw, depth of slot, width and repeats. Dog bone routes can also be programmed.



SPECIFICATIONS

ELEV8
CNC EDGE & DOWEL MACHINE

MAXIMUM LENGTH OF PART (USING 1 ZONE)	2,440 mm / 96″
MAXIMUM THICKNESS OF PART	50 mm / 2″
4 INDEPENDENT ZONES	600 mm / 23.6″
CENTER STOP FOR ZONES 2 & 3	Raised and lowered by CNC
3 ELECTRO SPINDLES	1.5 kW / 2 HP
VARIABLE SPEED OF ELECTRO SPINDLE	4,000 - 12,000 RPM
SPEEDS FOR X, Y & Z	X = 40 m/min / 131 fpm Y = 10 m/min / 32 fpm Z = 10 m/min / 32 fpm
PROGRAMMABLE LIMITS FOR X, Y & Z	X = 2,440 mm / 96″ Y = 116 mm / 4.56″ Z = 50 mm / 2″
1 INDEPENDENT VIBRATOR FEEDER	8mm Wood or Plastic Dowel
1 HORIZONTAL EDGE INJECTOR	8mm Wood or Plastic Dowel
CYCLE SPEED	45 cycles per minute (drills or dowel inserts)
FIBER OPTIC SENSORS	For verification of wood dowel present to prevent misfires
4 PHOTO SAFETY EYES	1 in each zone for part placement
OFFLINE PROGRAMMING	Software can be installed on another computer for offlice programming
VOLTAGE	10 kW / 220 V / 1 Ph
AMPS	40
DIMENSIONS (APPROX.) L X W X H	3,990 x 2, 880 x 2,100 mm / 157″ x 113″ x 82″
WEIGHT (APPROX.)	3,000 kg / 6,600 lb

Backed by our Industry Leading
★ 2 YEAR ★
Peace-of-Mind Warranty

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