

C-Nest Ezi 2800_3700

Technical Data Brochure



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The EZI is a 3 axis nesting machine designed for use in medium production facilities. The EZI has WoodTech's intuitive MS Windows based numerical control system. It is the ideal solution for artistic pieces, signage, cabinetry, door profiling, as well as technological components of non-ferrous type.

The EZI is versatile and is ideal for a small to medium sized shop owner.



Electrical Requirements

Work Voltage	Kilowatts	Load Amps	Cable size	Circuit Breaker
AC 380V – 400V / 50Hz *	45kW	65 Amp	16 mm ² – 5 core cable	70 Amp

* The standard work voltage is 380V – 400V. If this range differs, please inform us immediately.

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Technical Specifications

Specification Table

	EZI 2800 & 3700
Effective Length (X) (mm)	2800 / 3700
Effective Width (Y) (mm)	1860 / 2150
Effective Height (Z) (mm)	120
Hold Down Vacuum Power	15kW Two Stage
Extractor Power	7.5kW
Maximum Feed Speed	35m/min
Maximum Rapid Speed	50m/min
Drive Motor Type	4 x AC Brushless Servo Motors
Spindle	Italian 9kW HSD 951 24000rpm ATC
Tool Holders	10 X ISO 30
Control	PC Interface
Software	TechnoShop V2

Further Features:

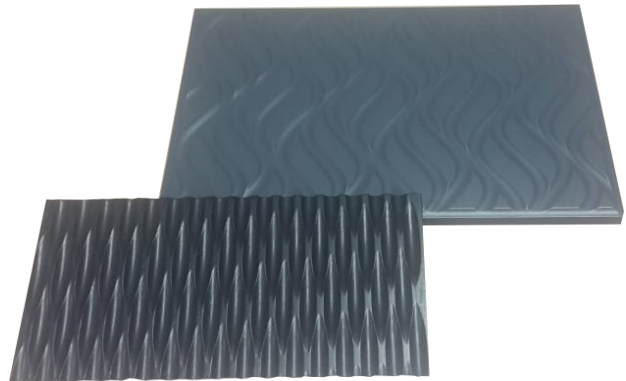
- Windows PC Based
- Remote Connectivity and support over the internet
- G-Code instructions
- Network Connectivity
- High Velocity Extraction and Drum for Swarf Collection
- Industry Leading Dust Extraction Foot
- 12 Table Vacuum Ports for Part Zoning
- Docking Pins for Job Location

Optional Features:

- Table Sweeper
- Board Lifter
- Load on/off automation

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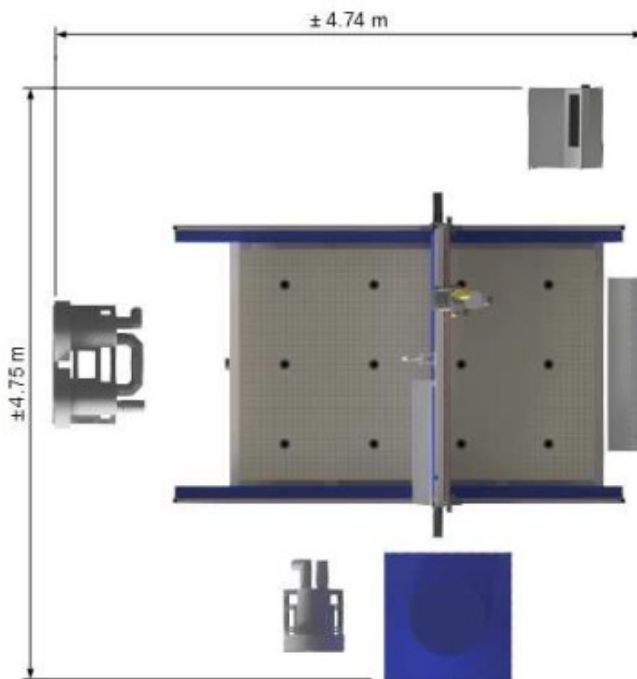
Applications with aesthetically pleasing and accurate results



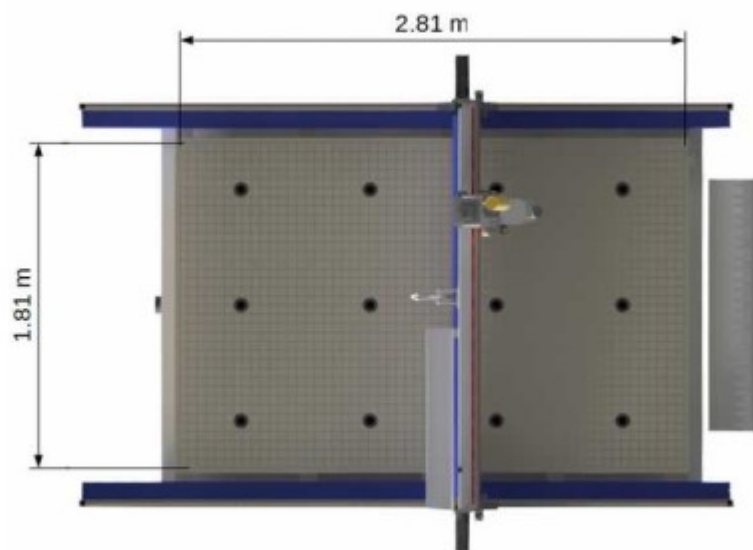
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Technical Specifications

Overall Machine Dimensions



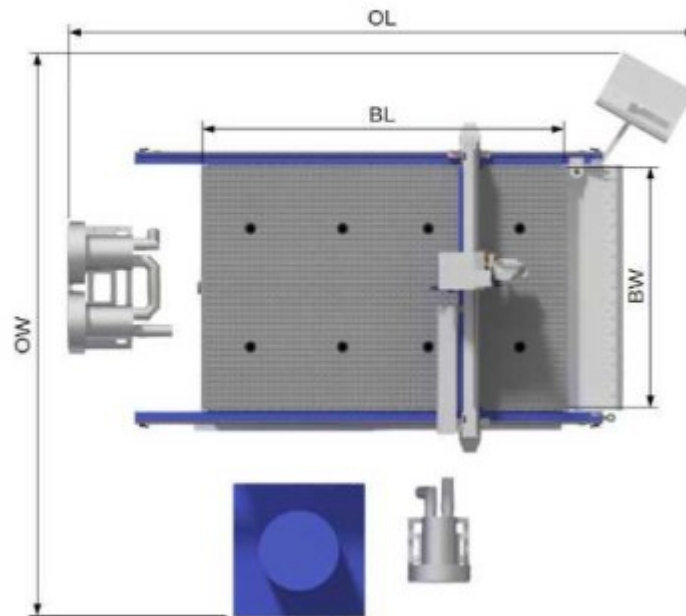
Effective Bed Dimensions



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Technical Specifications

Overall Machine Dimensions



All dimensions in mm

Description	Standard	Wide	Long
Overall Length	4860	4860	5760
Overall Width	4390	4680	4390
Bed Length	2800	2800	3700
Bed Width	1860	2150	1860

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Technical Features

HSD Spindle

With the time-honored HSD brand, performance is certain and reliability is definite. The EZI comes standard with the 9kW HSD 951 ISO30 type automatic tool changing spindle.



16 Position Tool Rack Standard

A linear stationary tool rack has less maintenance when comparing to rotary type tool changers. Tool changes are fast, and a complete tool repertoire consisting of 16 tool positions makes carcassing and profile doors possible without reloading the tool rack.



Polystone Matrix

Non porous polystone is used to construct the bed for the EZI. Grooving ensures that vacuum is evenly distributed across the entire bed for maximum hold down capability. It has 12 zones configurable for custom hold down when not using the full bed.



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Technical Features



Intuitive User Interface

The user interface is a MS Windows based system which makes operating the machine familiar and easy to use. The user interface allows control of all aspects of the machine. It also provides real time feedback of the machine state.

Connectivity

Network connectivity is available for transferring of G-Code files to the EZI directly from the design computer, eliminating manual transfer methods. An internet connection will also allow remote log in from a WoodTech engineer to facilitate technical support calls.



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Technical Features

Gantry Construction

The gantry is welded and machined to provide maximum support and stability while keeping weight to a minimum. The gantry provides a sturdy and straight surface for the Z axis head to travel along with precision and accuracy.



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Technical Features

High Velocity Extraction

High velocity extraction with a 7.5kW side channel blower and WoodTech's drum collection system will extract swarf efficiently while keeping expulsion to a minimum.

The high velocity extraction system can also be tied into an existing central extraction system. This configuration will eliminate the drum while retaining the benefits of the high velocity extraction system.



Hold Down

With nested based manufacture, we have upgraded the hold down force by upgrading the single side channel blowers to double side channel blowers for more effective hold down force. This hold down force is essential, especially with small parts. The EZI comes with a proven 15kW two stage system.

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Technical Features

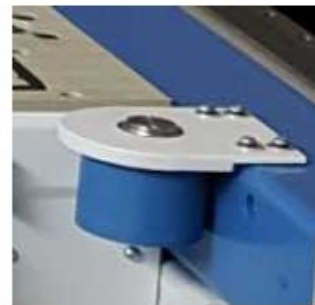
Helical Rack and Pinion

The EZI uses a helical mesh for the rack and pinion. Helical gears have a larger transmission Load capacity, are quieter, smoother and also achieve a higher efficiency transmission versus a spur gear mesh.



Tool Length Compensation

With a tool length measurement probe, tool lengths are automatically compensated for. This feature combined with the HSD automatic tool changing spindle will decrease processing time for each job.



Linear Rails

Quality linear rails are a must for maximum performance. WoodTech chose the proven Rexroth (Bosch) ball bearing system for all axes, with smooth, quiet and accurate running.

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Technical Features

Drive Train

The servo motors on the X and Y axis couple to the rack through a planetary gearbox with compact construction, longer gear life and with virtually zero backlash.

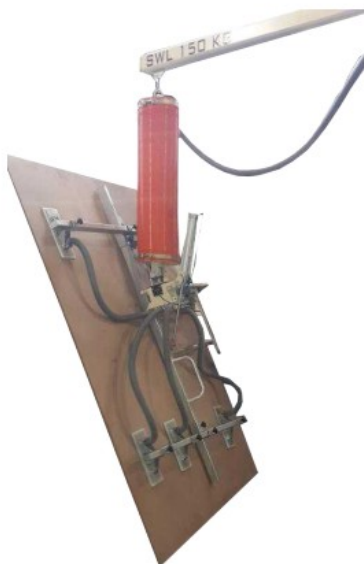


Board Lifter (Horizontal Lift)

Increase productivity further with the addition of WoodTech's board lifter. The Board Lifter facilitates loading of boards onto the nesting table by a single operator, saving time as well as labor costs.



OPTIONAL: Board Lifter (Tilting Lift)



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Technical Features



Board Sweeper

Sweep the job onto the de-nesting table once the job is cut. This allows operators to unload and sort the pieces while the next job is being cut.

OPTIONAL:

With vacuum extraction on board sweeper to vacuum matrix table.

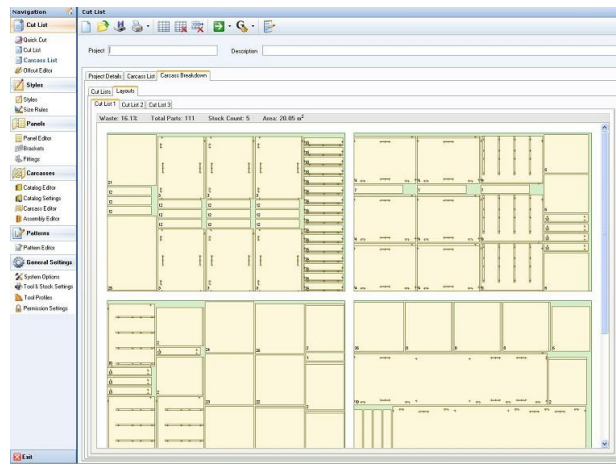
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Throughput with software

TECHNO SHOP

TechnoShop is a parametric unit and profiled door software package designed for high throughput. A full cut list can be generated in minutes, complete with drilling, grooving and profiled doors to fit a selection of units. The cutting lists are separated into materials specified for each section of the units.

Units are defined in terms of variable parameters. With the selection of units and with given dimensions for width, height and depth, an optimized cutting layout will be generated with all parts to size for the unit. The G-Code file is generated and transferred to the CNC for cutting via the network or flashdrive.

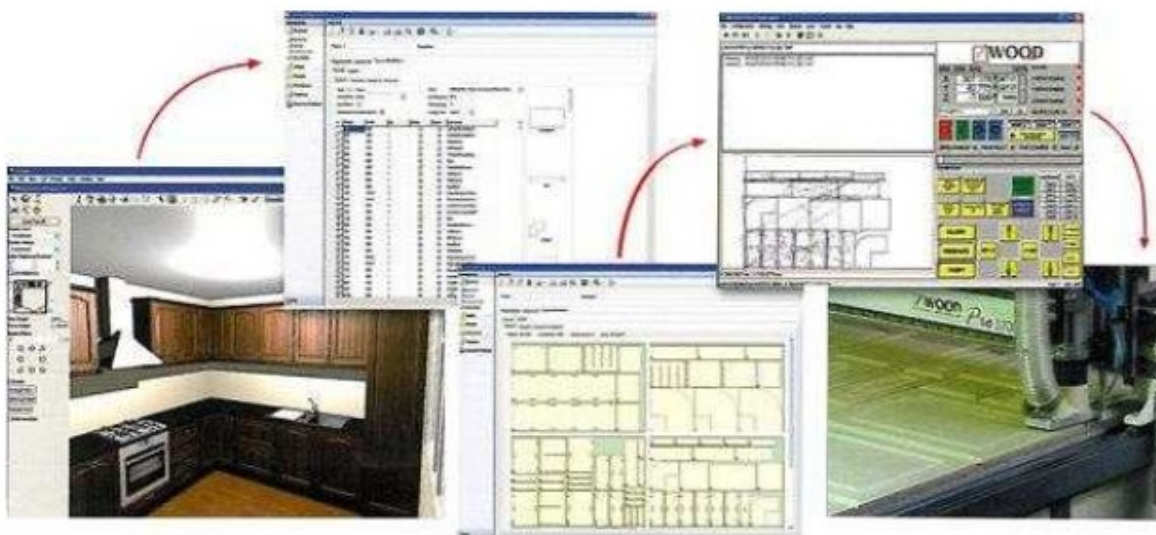


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Throughput with software

Integration

TechnoShop allows integration with 3D design packages such as 2020 Fusion and Winner. Unit lists are imported into TechnoShop from the design package and mapped to parametric units. The parts comprising of the units are then optimized, and sent to the CNC for cutting.



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Throughput with software

Artistic Pieces



WoodTech is a reseller of software from Vectric. When purchasing through WoodTech, the software will come with a post processor which will enable compatibility with WoodTech CNC machines. WoodTech will also provide after-sales support for the software.

Cut2D

Cut2D provides a powerful drawing and 2D machining solution with Profile, Pocket, Drill and Inlay toolpaths. You can either create designs from scratch or import CAD or graphic designs (DXF, PDF, AI, EPS, SKP) into CNC toolpaths for machining parts and components.

VCarve

Building on the comprehensive set of drawing tools and the profiling, pocketing and drilling in Cut2D, VCarve adds; v-carving, prism carving, texturing and many more options for cutting 2D and 3D parts with your CNC

Aspire

Aspire provides all the functionality and ease of use of VCarve Pro for production routing but also adds the ability to create 3D relief models from 2D data. Dimensional shapes can be created, edited and joined to build your final design. In addition you can import and modify existing 3D data and clipart, this can be combined with 2D data and a large selection of toolpath options to enable your CNC to make a huge range of parts.

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Throughput with software



Cut3D is a great solution for cutting 3D on your CNC if you do not require Aspire's modeling and layout tools. Cut3D can also be used with Cut2D or VCarve Pro, to combine the 3D with 2D or 2.5D toolpaths



PhotoVCarve is a specialist program designed to convert photographs and images into toolpaths that can be run on a CNC Router or Engraver.

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Throughput with software

EnRoute (Optional Extra)



WoodTech is a reseller of EnRoute software. EnRoute is highly regarded as a solution that combines commercial grade design and production tools that are second to none. Core competencies include full CAD design, associative toolpathing, and nesting and parametric 3D texture libraries. When purchasing a subscription or the software through WoodTech, after-sales support and post processor setup for the software will be provided.



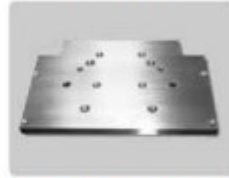
Signmaking and digital finishing



Nested based manufacturing and Cutting Cabinets



Woodworking and architectural millwork



General Manufacturing, Job, Shop and Everyday cutting



Plasma and Waterjet

WoodTech Mechatronics

Strategic Qualifications

WoodTech is a company that manufactures specialized machinery primarily in the woodworking and plastics industry.


Historically we have been in business for 23 years and have machinery from our plant working in 20 countries on 5 continents and have distributors in 4 countries. Our product reliability and quality is professed by our customers and distributors. All machinery manufactured by WoodTech from day one are to the best of our knowledge still in active production.


WoodTech entered the CNC market thirteen years ago after a year's development in this area. Our development since then has been ongoing, seeking out the best components and systems to provide on our machines relative to the market segment that we aim those machines at. We believe we have mastered all aspects of CNC router manufacturing in the high performance 3 axis machines. Our top model, the C-Nest Prestige Router, currently performs at 90m/min rapid and 50m/min cutting speed and accelerations of $2,5 \text{ m/sec}^2$ which is among the highest in the industry. WoodTech does design its machines to be fit for purpose and is economical when correctly compared to opposition products.

WoodTech's facilities are of sufficient standard and capability to complete the entire project in house although some specialised work may be decided on to be contracted out. Our managing director is a mechanical engineer and our design engineers are also qualified mechanical and mechatronic engineers.

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