

C-NEST PRO

CNC for nested based manufacture



WTM | **WOODTECH**
MECHATRONICS

C-NEST PRO

CNC for nested based manufacture

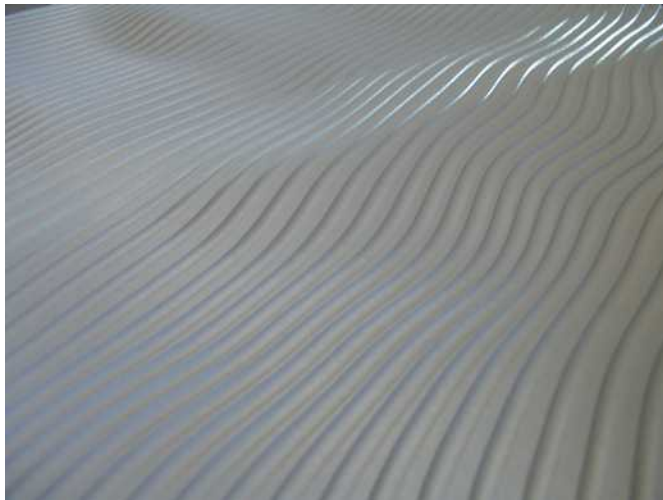
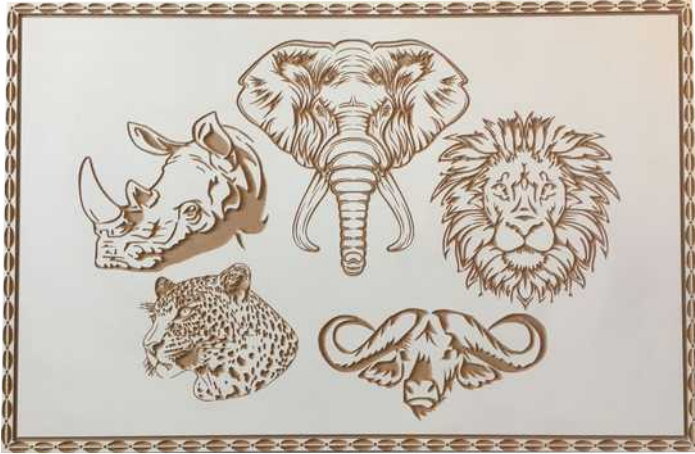
The PRO is a 3 axis nesting machine designed for use in medium to large production facilities. The PRO has WoodTech's intuitive MS Windows based numerical control system. It is the ideal solution for artistic pieces, signage, cabinetry, door profiling, as well as technological components of non ferrous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

The PRO is versatile and is ideal for a medium to large sized shop owner.



C-NEST PRO

CNC for nested based manufacture



C-NEST PRO

Technical Specifications

Specification Table

Effective Length (X) (mm)	2800/3700
Effective Width (Y) (mm)	1860/2150
Effective Height (Z) (mm)	120
Hold Down Vacuum Power	15kW
Extractor Power	7.5kW
Maximum Feed Speed	40m/min
Maximum Rapid Speed	60m/min
Drive Motor Type	4 x AC American Teknic Brushless Servo Motors
Spindle	Italian HSD 9kW 24000rpm ATC Air Cooled
Tool Holder Positions	16

Further Features:

- Windows PC Based
- Remote Connectivity and support over the internet
- G-Code instructions
- Network Connectivity
- Extraction Drum for Swarf Collection
- 8 Table Vacuum Ports for Part Zoning
- Docking Pins for Job Location

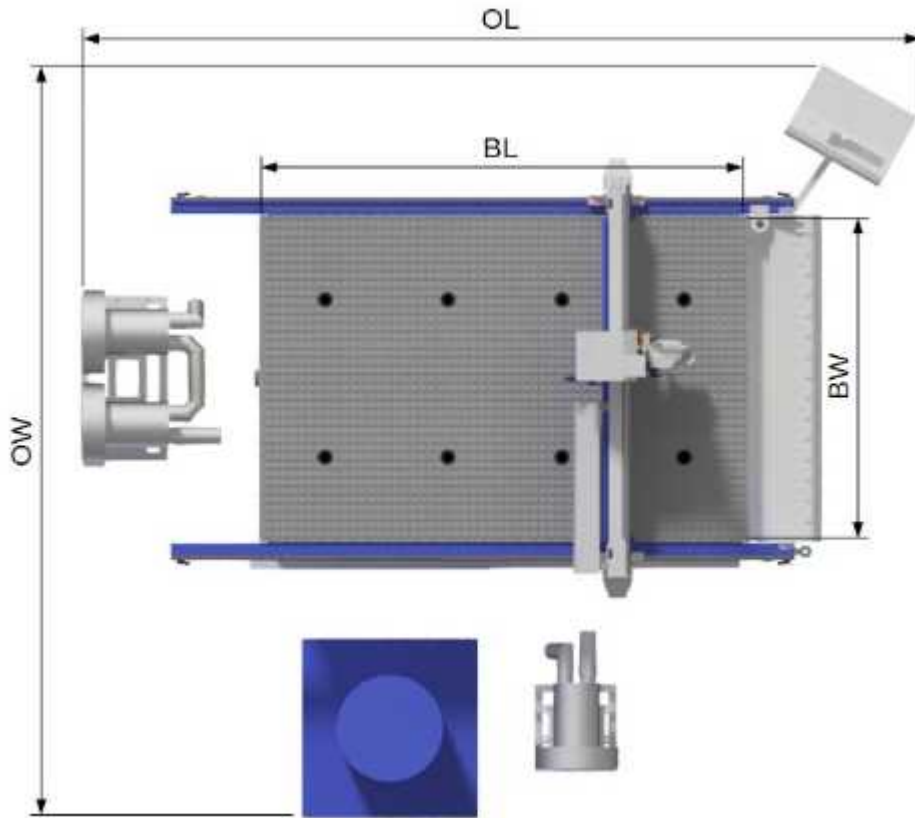
Optional Features

- Table Sweeper
- De-Nesting Table
- Automatic Board On/Off Loading
- Board Lifter

C-NEST PRO

Technical Specifications

Machine Dimensions



All dimensions in mm

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

C-NEST PRO

Technical Features

HSD Spindle

With the time-honored HSD brand, performance is certain and reliability is definite. The PRO comes standard with the 9kW HSD ES929 automatic tool changing spindle and ISO30 tool holders.



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.



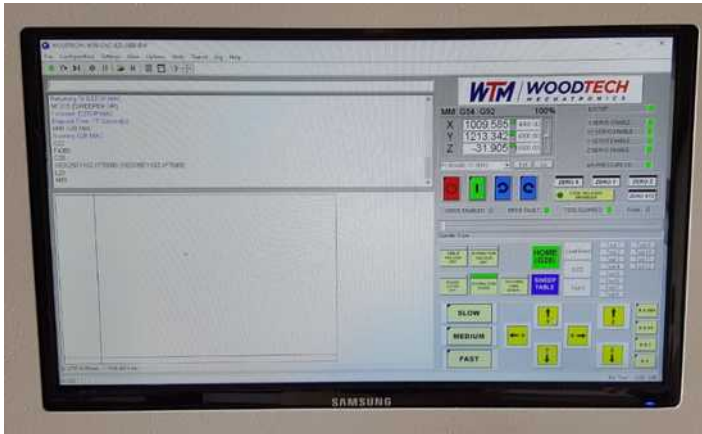
Polystone Matrix

Non porous polystone is used to construct the bed for the PRO. Grooving ensures that vacuum is evenly distributed across the entire bed for maximum hold down capability. It has 8 zones configurable for custom hold down when not using the full bed.



C-NEST PRO

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 PRO 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.



C-NEST PRO

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.



Tool Length Compensation

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



C-NEST PRO

Technical Features

High Velocity Extraction

The 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.

The cleanest extraction system in the industry with a compact space saving design.



Hold Down Force

With nested based manufacture, hold down force is essential, especially with small parts. The PRO comes with the proven 15kW two stage hold down vacuum system.

C-NEST PRO

Technical Features



Linear Rails

Quality linear rails are a must for maximum performance. The PRO boasts the proven Rexroth (bosch) ball bearing system for all axes, which smooth, quiet and accurate running.

Drive Train

The *Teknic* 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.



Teknic Motion

All axes are driven with American *Teknic* servo motors and drives. The X Axis is driven on both sides with synced dual-drive system with a combined power of 2kW for faster acceleration and tighter control.

C-NEST PRO

Optional Features

Board Lifter

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.



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.

C-NEST PRO

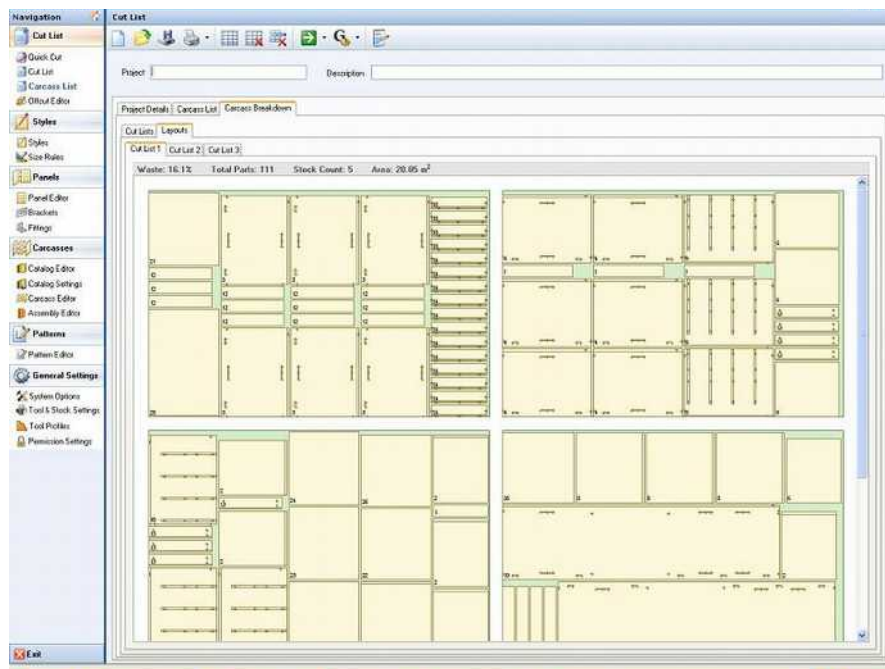
Software for high throughput

TechnoShop Suite (Included with CNC)



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 or custom designed units. The cutting lists are separated into materials specified for each section of the units.

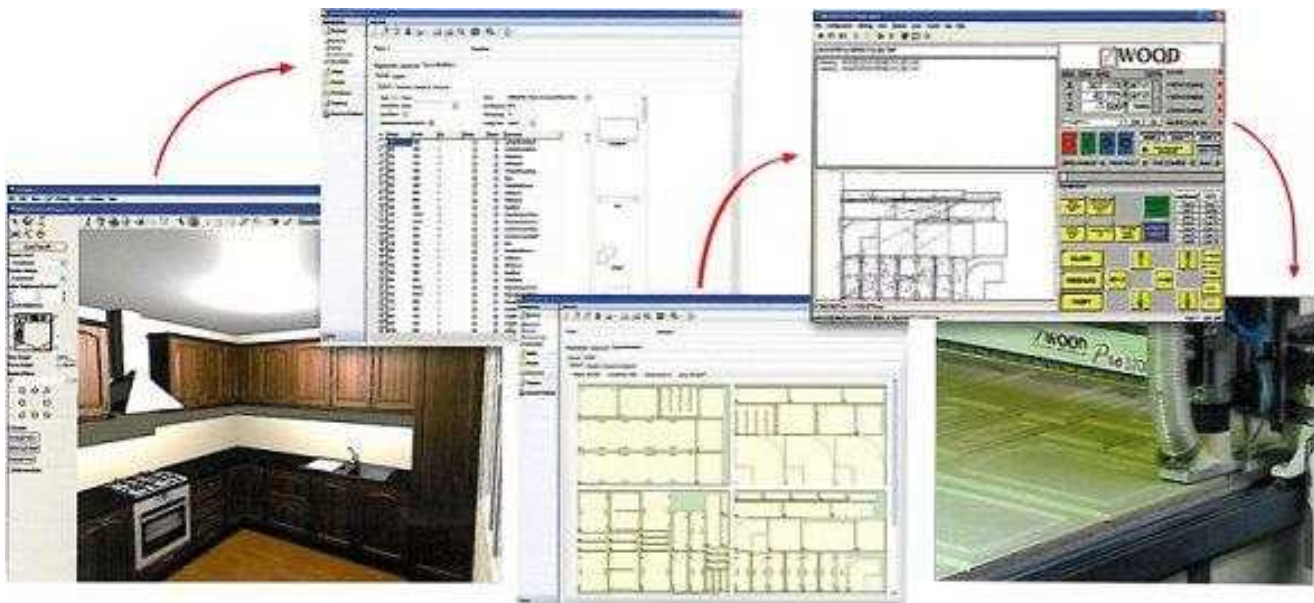
Units are defined in terms of variable parameters. With the selection of units and with given dimensions for width, height and depth, an optimised cutting layout will be generated with all parts to size for the unit. The G-Code file is generated and transferred to the CNC for cutting via the network or flashdrive. It comes preloaded with Door profiles and units which can be used immediately while a custom catalog of units and doors is produced.



C-NEST PRO

Software for high throughput

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.



C-NEST PRO

Software for high throughput

Vectric (Optional Extra)



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.

C-NEST PRO

Software for high throughput



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.

C-NEST PRO

Software for high throughput

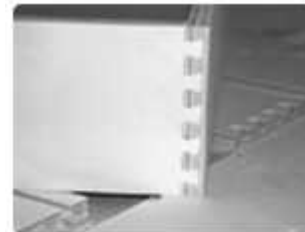
EnRoute (Optional Extra)



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

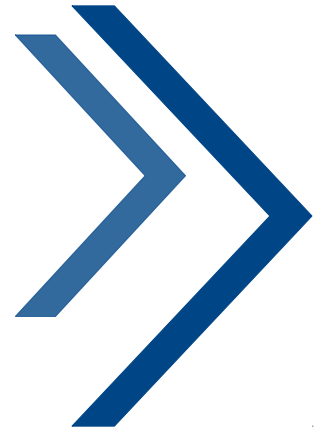
Strategic Qualifications

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

Historically we have been in business for 19 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 m\sec² 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.




 <https://woodtech.biz>


- Port Elizabeth (Head Office)

 134 Kempston Rd, Port Elizabeth, 6020, South Africa

 +27 (0) 41 453 2496

 info@woodtech.biz

- Johannesburg

 +27 (0) 83 634 4607

WTM

WOODTECH
MECHATRONICS

