

Techno **CNC** Systems CONSTRUCTION FEATURES

Smooth Play-Free Motion

Superior Cut Quality

Minimal Maintenance

Machine Longevity

The NEW Venture Plus CNC Router is an affordably priced high powered, versatile and rugged CNC router designed for demanding applications that require high throughput. No matter what your production need, the Venture Plus is an ideal choice in today's competitive manufacturing environment for the fabrication of a broad range of materials such as wood, plastic or metals.

NEW



The use of a carousel speeds up tool changes assuring faster cycle times increasing production throughput.



- 12 HP HSD automatic tool changer spindle with an 8-position rotary carousel
- Maintenance free brushless AC servo motors and drives
- 4-Zone vacuum t-slot table
- Pneumatic material placement stops
- Hand-held pulse generator with rotary hand wheel controls the axis selected
- PC with flat screen monitor, keyboard and mouse
- Open architecture works with all industry standard CAD/CAM software



Ultra Smooth Edge Finish

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Gantry

The gantry is constructed of tubular steel with reinforcing ribs welded throughout the length of the column which results in a steady firm beam assembly. This quality engineering and workmanship result in smooth precision cutting.



Tooling

The Venture Series machine includes an 8-position rotary carousel that moves with the machine while the gantry travels. The use of a carousel speeds up tool changes assuring faster cycle times increasing production capability.



CNC Tool Calibration

The Venture Plus comes standard with an Automatic Tool Calibration Touch Off Pad. This feature makes measuring tool lengths easy and quick.



Pneumatic Material Alignment Stops

The Venture Plus Series machine comes standard with three material pneumatic alignment stops. These pins allow the operator to bank the edge of the material against them precisely aligning the material to the machine origin.

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Automatic Tool Changer Spindle

The Venture Plus Series machine comes standard with a 12 HP HSD high frequency automatic tool changer. This precision spindle requires no maintenance, uses industry standard ER collets and ISO 30 tool holders, has fully programmable speeds from 6000 to 24000 RPM, and comes complete with a pneumatically retractable vacuum hood.

Drive Train Assembly

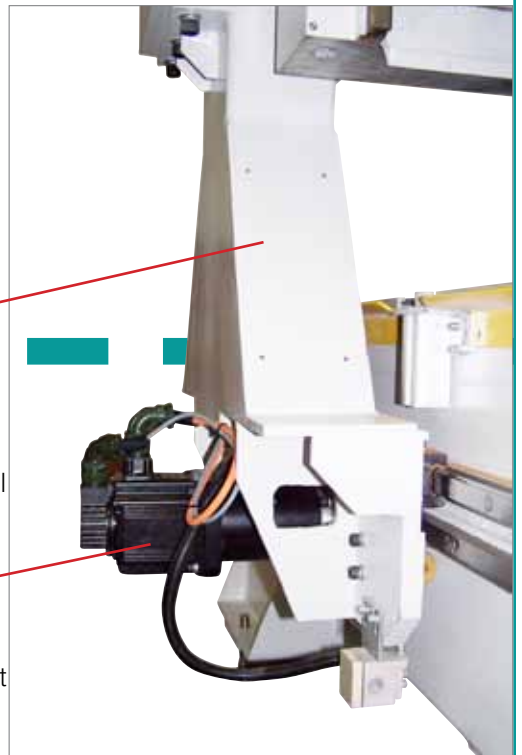
The Venture Plus Series uses precision helical gear racks on the X and Y axes. The mounting of the rack is inverted to help keep dust and debris from building up on the drive system, this assures smooth motion and long term reliability. The precision gearbox is directly coupled to the Servo motor pinion. This eliminates belt stretch inaccuracies assuring high-speed machining while the system positions the spindle accurately.



Pneumatic retractable vacuum hood with 6" connection provides concentrated vacuum clean up.

AC Motors and Drives Z Axis Assembly

The Z axis is a 1.0 kW AC servo gear motor directly coupled to the 25 mm diameter ball screw drive. The Z axis assembly also includes a pneumatic counter balance which allows for high speed Z axis motion providing longer life by reinforcing the Z axis through the cut.



Gantry Support (Uprights)

The Gantry Uprights are fabricated out of steel plate that make up a welded assembly. The Gantry Uprights include reinforcing gussets adding additional stability to the assembly. The complete assembly is then stress relieved and precision machined so that they stay true over the life of the machine.

AC Motors and Drives X and Y Axes

The Venture Plus features 1.5 kW Delta AC servo gear motors and drives that are directly coupled to the drive pinion for the X and Y axes. This ensures high powered, smooth precision motion.

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Control Panel Functions

All machine controls are conveniently located on the front of the electrical control panel work station.

Hand-held Pulse Generator

The Rotary hand-held pulse generator allows the operator to navigate away from the main console to fine tune the job setup.

Electronics

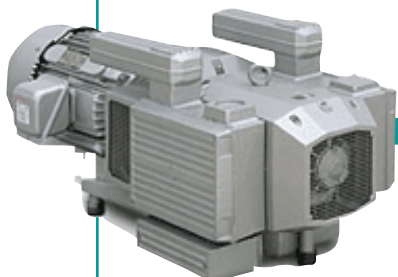
All the electrical components are housed and wired in a doubled-doored Nema 4 electrical enclosure. This allows for easy access and service when needed. All wiring is tagged so that when service is required, the customer can easily navigate the cabinet. In addition, the cabinet serves as a work bench for the tools required.

Vacuum Table

The vacuum plenum table surface is multi-zoned which allows the operator to easily switch from full sheet processing to smaller part processing, (which requires a smaller segmented area). Zones can be turned off easily via control valves on the front of the machine. Gasketing can also be routed to accommodate various material sizes and styles.

T-Slot Profile

Venture Plus Series includes a heavy-duty aluminum T-slot profile in multiple locations across the table surface. This T-slot accepts Industry Standard M6 T-nuts.



In areas along the open zone where the vacuum is not required, simply utilize rubber plugs to close off the unused vacuum ports in the outer zones.

Vacuum Pump

- (1) 10HP TEFC (totally enclosed fan-cooled). Rotary Vane Vacuum Pump
- Available in 230/460V, 50-60Hz, 3 ph or single phase
- Comes standard with motor starter, vacuum gauge, primary and secondary filter, check valve and all necessary plumbing to connect to router
- Rated for 173 CFM, 25" Hg, 81dB for very quiet operation

Base Frame

The base frame is fabricated from heavy-duty tubular steel that is welded, precision machined and stress relieved so that the foundation remains true and steady over the operational life of the machine.