

# **HDS**

## **Dual Bed**

# HDS Dual Bed Series CNC Router

Techno's HDS dual bed sheet processing machine is made up of all steel construction, providing the rigid foundation required for ultra-smooth routing results. The HDS Series CNC Router includes a 12 HP HSD automatic tool changer spindle with an 8-position tool rack mounted to the gantry for high-speed tool changes. The HDS Series comes standard with a pneumatically operated dust collection hood that concentrates air flow at the cutter, which provides optimal dust collection performance. The multi-zone dual high flow vacuum plenum tables connected to rotary vane vacuum pump. For easy sheet alignment, pop-up pins are included on the HDS Series, and are precisely placed to handle and align various size materials. The HDS Dual Bed CNC Machine is powered by brushless AC Servo digital motors and drives, and is powered by an easy-to-use and learn Osai PC based industrial controller. This machine is designed to run continuously shifting back and forth between cutting areas, and off-loading. As the CNC Router cuts in the one area the operator can off-load in the other. Once the cutting process is complete the operator can cycle the machine to start cutting, and repeat the process continuously.



Photo by UHURU Design



# Specifications:

- 12 HP HSD high frequency automatic tool changer spindle
- Osai PC Based Industrial grade CNC controller
- Maintenance free brushless AC servo motors and drives
- Dual vacuum table
- Pneumatic operated dust collection hood
- Pop-up pins for easy sheet alignment
- PC with flat screen monitor, keyboard and mouse
- Easy to use Techno CNC Interface
- Open architecture works with all industry standard CAD/CAM software

Tool Holder Clamp



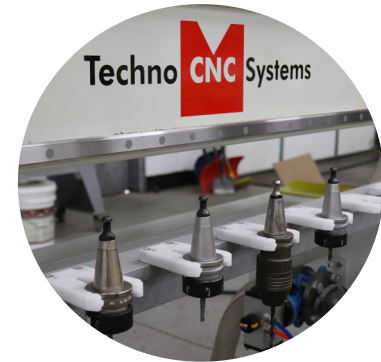
The Techno HDS Dual Bed CNC Machine comes equipped with a tool holder clamp fixture, providing a much easier way of inserting and tightening the CNC router bits into your tool holder. This method is safer and easier than using the common procedure of tightening the collet nut with two wrenches while the tool holder is still in the spindle.

12 HP HSD Automatic Tool Changer Spindle



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

8 Position Tool Rack



The HDS Dual Bed Series machine includes an 8-position tool rack in the rear of the machine. The position of this rack allows for easy loading and unloading of material from either side of the

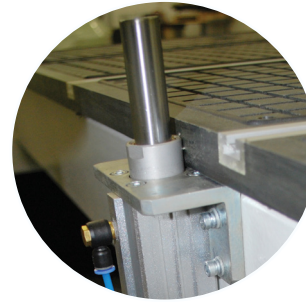
# Features:

## 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.

## Pneumatic Alignment



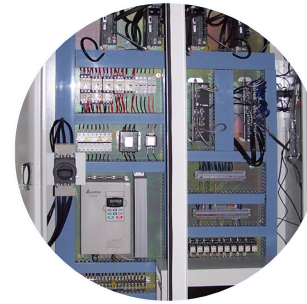
The HDS Dual Bed Series machine comes standard with three material pneumatic alignment stops. These pins allow the operator to bank the edge of the material against them precisely aligning the material to the machine origin.

## Drive Motors



The HDS Dual Bed Series CNC Router utilizes AC Servo motors powered by Yaskawa drives. These motors require no regular maintenance – therefore, reducing any maintenance downtime.

## Electronics



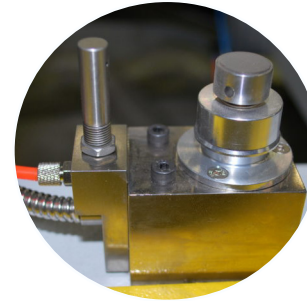
All the electrical components are housed and wired in a doubledoor Nema 4 electrical enclosure. This allows for easy access and service when needed. All wiring is tagged so that when service is required, the customer can easily navigate the cabinet. In addition, the cabinet serves as a work bench for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

## Drive Train Assembly



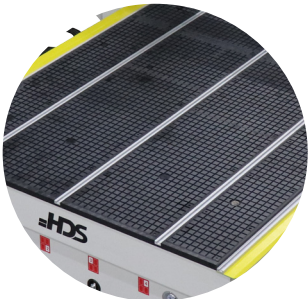
The Techno HDS Dual Bed Series CNC Router uses precision helical gear racks on the X and Y axes. The mounting of the rack is inverted to help keep dust and debris from building up on the drive system, this assures smooth motion and long term reliability. The precision gearbox is directly coupled to the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

## Tool Calibration



Automatic tool calibration pad allows for easy and accurate "Z" zero position for single and multiple tool changes through.

## 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.

## Hand-held Pulse Generator



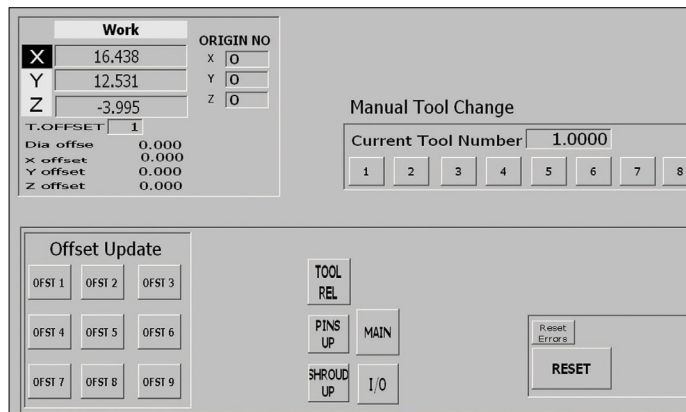
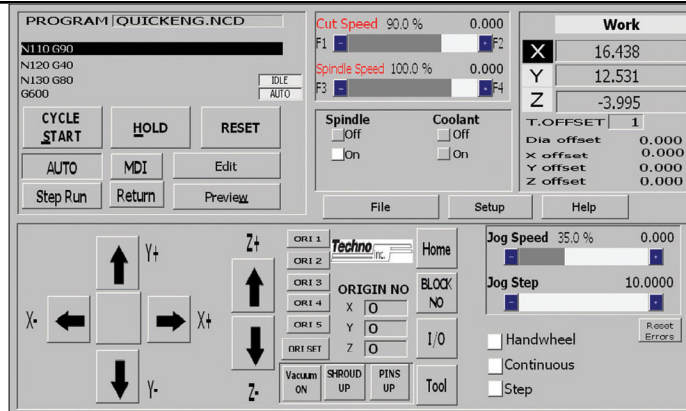
The Rotary hand wheel, attached to the machine, will control the axis that is selected on the wheels dial. The Setup Introduction manual provides information that will have users cutting parts in minutes.

## Techno CNC HDS G-Code Osai Interface

Techno's CNC HDS Series Windows-Based G-Code Osai Interface is included with each machine and is an indispensable tool in any CNC Router application. Its open architectural design accepts G-Code files from any industry standard CAD/CAM software package, and can operate using inch or metric units and is highly customizable to better suite your needs.

Customers that are new to automation find the Techno CNC Interface easy to learn and operate. Most are up and running in less than one day of training. They find the intuitive design and functions easy to use and remember. The most fundamental controls and displays are all visible on the main page.

Customers soon discover that just because the Techno CNC Interface is easy to use, it does not mean that it is not a comprehensive CNC program.



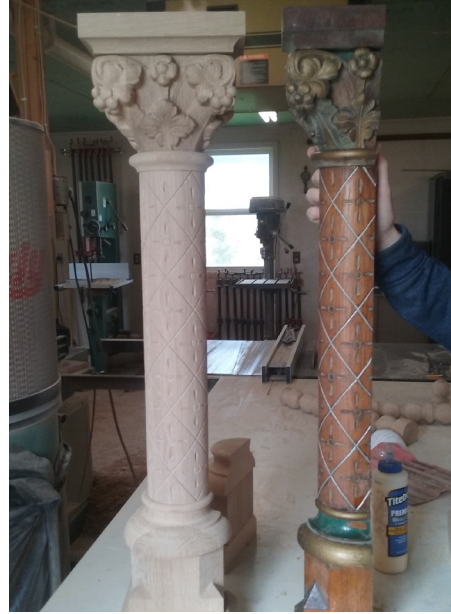
### Several impressive features include:

- Full automated tool length offset cycle
- Remote access
- Intuitive design and operation
- Skip functionality
- Highly Customizable
- Built-in editor for shop floor modifications
- Machine feed rate and spindle override control
- Continuous step jogging, or convenient hand-held pulse generator can be used to fine tune positional locations
- CNC NC code previewer
- I/O machine status display
- Convenient vacuum pump switches on interface
- Real time file execution
- Techno also offers FREE updates, via support.technocnc.com for the life of the machine.

Photo by Becks Design  
Routed with our HDS Series CNC Router



See What the HDS Dual Bed Can Do





# Techno Systems

CNC ROUTERS • CNC PLASMA CUTTERS