

# Techno **CNC** Systems

Smooth Play-Free Motion    Superior Cut Quality    Minimal Maintenance    Machine Longevity

The **Titan Series CNC Router** is manufactured using global state-of-the-art techniques with advanced engineering and workmanship, and built-to-last all steel construction with a 7-1/2" gantry clearance and 11-1/2" z-axis stroke so the clearance can be properly utilized. Key features include THK linear guide rails and bearings, and precision helical rack and pinion with direct drives. The Titan series includes a 12 HP HSD high frequency automatic tool changer spindle with 8-position tool rack, pneumatically operated vacuum hood that has concentrated air flow at the spindle, vacuum t-slot table controlled by a central gate valve, 10HP rotary vane vacuum pump, and pop-up pins for easy sheet alignment.

\* High-Quality Cut



\*  
High Polished  
Routing Quality

## Extraordinary Value & Performance

Since 1986, Techno, has provided economical CNC cutting solutions. The new Titan Series promises to follow suit.

- 12 HP HSD high frequency automatic tool changer spindle
- Maintenance free brushless motors and drives
- Vacuum t-slot table with main control gate valve
- Pneumatic material pop-up pins
- Automatic tool length calibration via closed loop touch pad
- Automatic z-zero via secondary touch pad
- Easy-to-use hand held controller (optional PC based system available)
- Open architecture works with all industry standard CAD/CAM software

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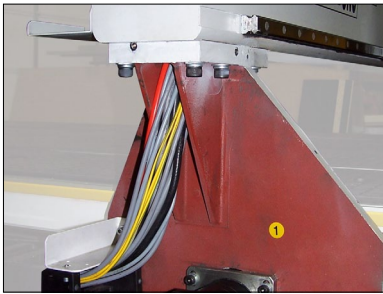


## Spindle

The Titan 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.

## Gantry

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



## Gantry Support (Uprights)

The Gantry uprights are cast iron with heavy duty gussets formed into the casting. Each support is machined for housing the various drive assemblies including motors, bearings, belts, and wiring harnesses.

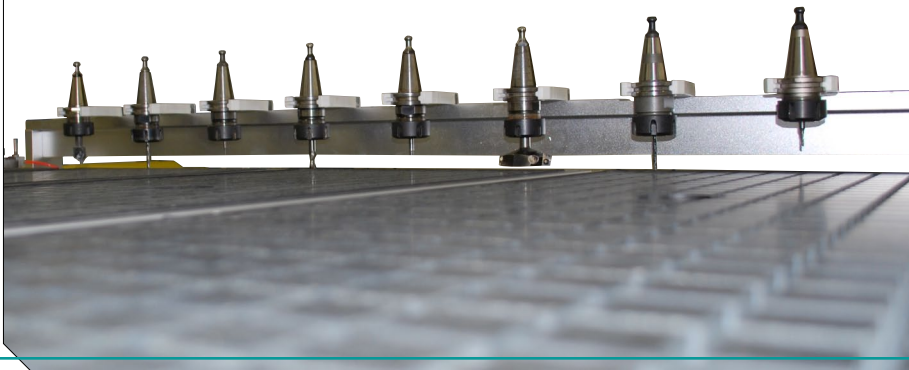


## Base Frame

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.

## Tooling

The Titan 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 machine.



Smooth Play-Free Motion

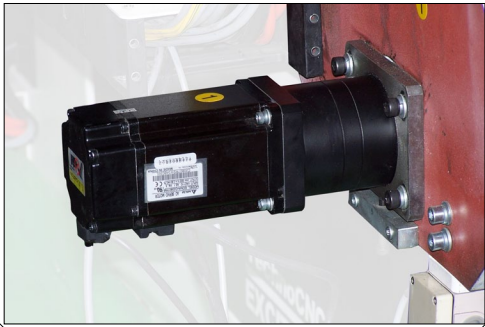
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### Drive Motors

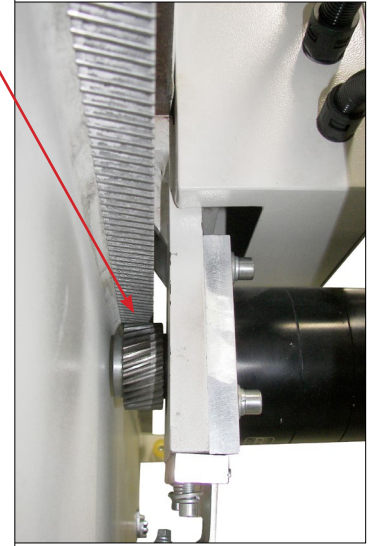
The Titan Series CNC Router utilizes brushless drive motors and drives. These motors require no regular maintenance; therefore, reducing any maintenance downtime.



### Drive Train Assembly

The Techno Titan 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.

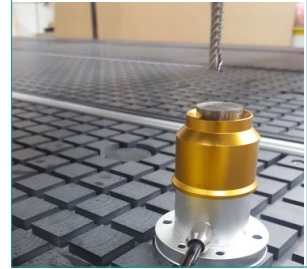
The precision gearbox is directly coupled to the drive motor and pinion. This eliminates belt stretch inaccuracies assuring high-speed machining while the system operates.



### Tool Calibration

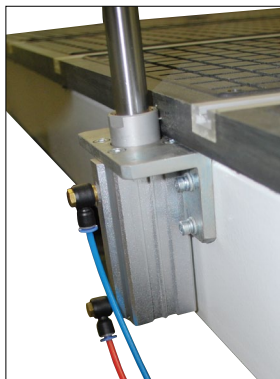
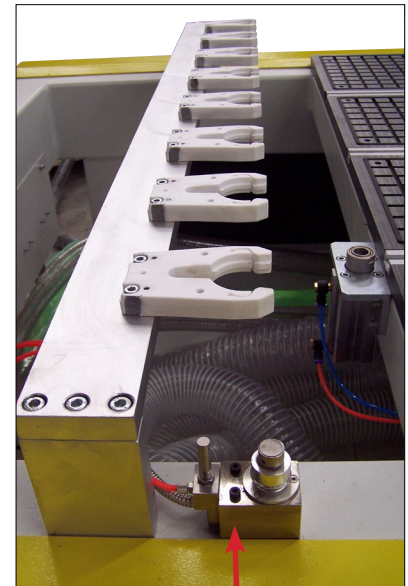
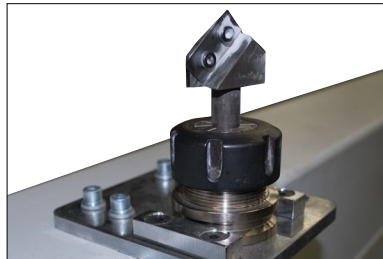
Automatic tool calibration pad allows for easy and accurate "Z" zero position for single and multiple tool changes through the program.

#### NEW — Z-Zero Touch Pad



### NEW — CNC Machine Tool Holder Clamp

The Techno Titan 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



### Pneumatic Material Alignment Stops

The Titan 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.

Automatic tool length calibration pad for easily recording tool length offsets

## Control Panel Functions



### Hand-held Controller

The hand-held controller is the heart of the operational system. This hand-held controller redefines the phrase "easy-to-use". Customers can be up and running the same day power is connected to the machine. The setup introduction manual provides information that will have users cutting parts in minutes.



### Electronics

All the electrical components are housed and wired in a double-doored Nema 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.



\* T-Slot Profile

Titan Series includes a heavy-duty aluminum T-Slot profile in multiple locations across the table surface. This T-Slot accepts Techno's square M6 T-nuts.

### Vacuum Table

The Titan machine includes a vacuum t-slot table that can be easily customized to fit your particular part geometry. The grid allows the gasketing to be routed around the table sections. In addition it includes rubber plugs for zoning off specific areas. Vacuum flow is controlled via a main gate valve which lowers operating costs and save vane life.



### Vacuum Pump



- (1) 10 HP 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 Techno CNC Routers
- Rated for 173 CFM, 22" Hg, 812dB for very quiet operation

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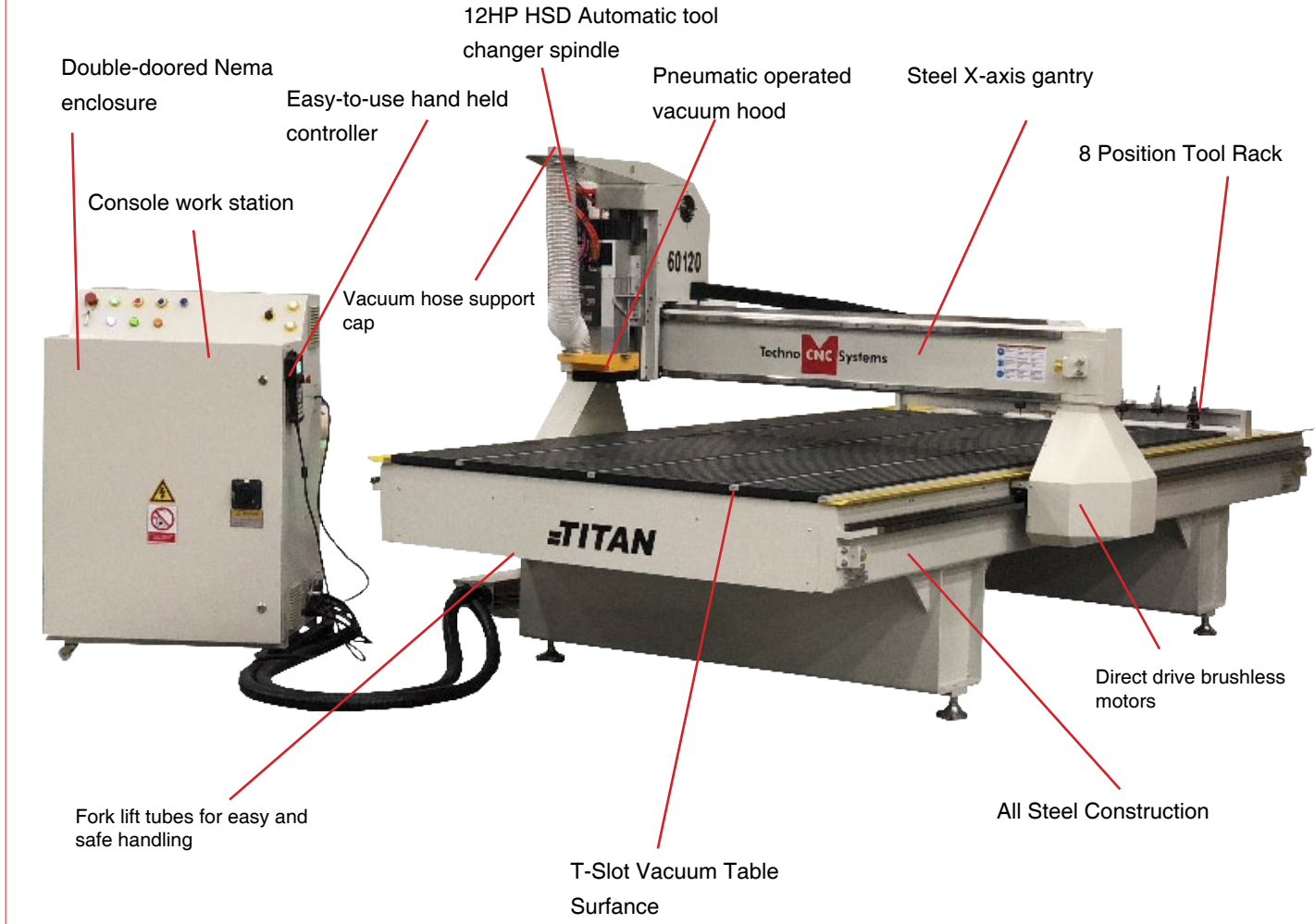
## Hand-Held Controller Features:

- Easy to read programmed buttons
- Start, Stop and Pause buttons
- E-stop on hand-held pendant
- Real time feed, speed and spindle override
- Single button for XY Zero
- Single button control for Z-Zero calibration
- Easy one stroke automatic tool length calibration
- Pre-programmed go-to-origin macro
- CNC dust hood control with manual override
- Single button control for manual load / unload tool
- X & Y straight and diagonal jog control
- Toggle between low and high speed jogging
- Step jog for fine control
- Resume breakpoint function
- Built-in-help tips menu
- Single button for safety clearance position
- Absolute and relative coordinates control
- Send to home button
- Techno also offers FREE updates, via [support.technocnc.com](http://support.technocnc.com) for the life of the machine.



# Techno CNC System.

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We offer affordable systems to automate any size production shop.  
**“Small Investment, Big Return”**  
 - See more at [www.technocnc.com](http://www.technocnc.com).

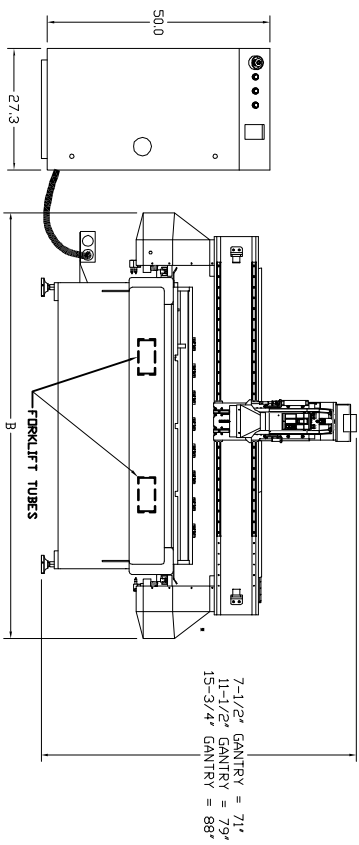
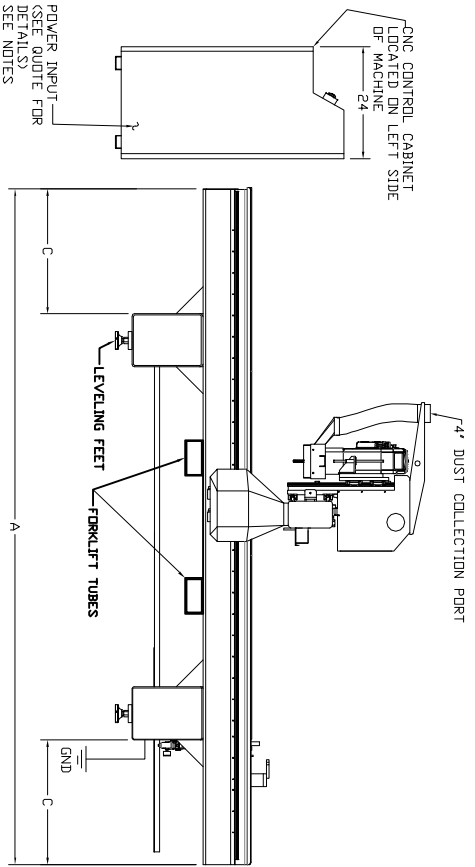
- Sign Making
- Plastics
- Model Making
- Musical Instruments
- Foam
- Education
- Wood Working
- Prototyping
- General Fabrication

Dimensions in inch

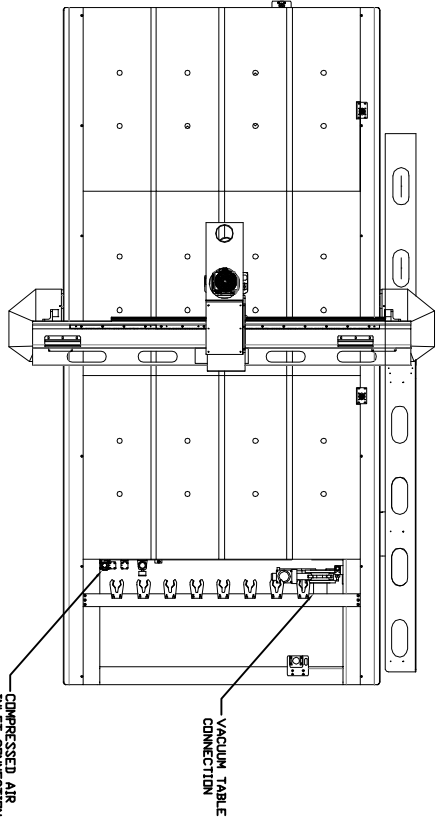
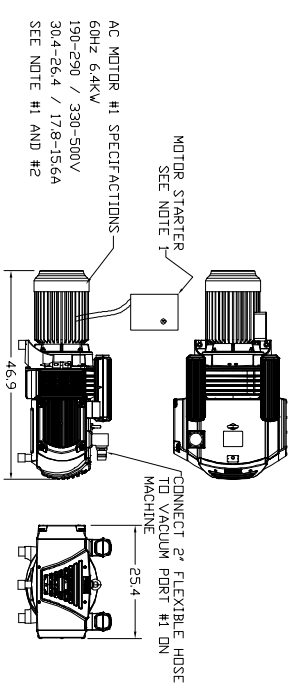
Machine Model	Process Area*			Gantry Height**	Stepper	Servo Speed	Foot Print		
	X	Y	Z				W	L	H
4848	50	50	7.5	7.5	800	1500	81	84	70
4896	50	97	7.5	7.5	800	1500	81	126	70
60120	61	121	7.5	7.5	800	1500	93	150	70

\*Other sizes available upon request.    \*\*Other gantry heights available upon request.

MACHINE SIZE	A	B	C
5FT X 10FT	150	93	27.5
4FT X 8FT	128	81	27.5
4FT X 4FT	84	81	7.5



10HP ROTARY VANE VACUUM PUMP DETAILS



# Techno CNC Systems

29 TRADE ZONE DR. RONKONKOMA NY 11779 PH: 631-648-7481

TITAN SERIES - 2018

- NOTES:
- 1-CUSTOMER IS RESPONSIBLE FOR ALL DISCONNECTS AND TO MEET LOCAL ELECTRICAL CODES. ALL WIRING SHOULD BE PERFORMED BY A LICENSED ELECTRICIAN.
  - 2-VACUUM PUMP ELECTRICAL REQUIREMENTS (OPTIONAL EQUIPMENT):  
-FOR 208-230V, 3PH 40AMP CIRCUIT IS RECOMMENDED.  
-FOR 440V/480V, 3PH 20 AMP CIRCUIT IS RECOMMENDED.
  - 3-THE MACHINE CONTROLLER REQUIRES A 208-230V 3-PHASE 40 AMP DEDICATED CIRCUIT.
  - 4-A 9 FOOT GROUND ROD SHOULD BE INSTALLED AND CONNECTED TO CONSOLE CHASSIS
  - 5-A CLEAN DRY NDM-FLUCTUATING 99PSI AIR SOURCE REQUIRED

NO.	DATE	DESCRIPTION
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MAT.	BREAK CORNERS & EDGES .015	QTY REQ'D.	DRIG. DATE	DRAWN BY:
UNSPECIFIED TOLERANCES				
FRAC. +/- 1/32, .XX +/- .010	UNITS'		SCALE'	CHECKED BY:
ANGLE +/- 1/2°, .XXX +/- .005				
PART NO.			DWG NO.	