

## **=ATLAS**

EXTRAORDINARY VALUE & PERFORMANCE ... Since 1986, Techno has provided economical CNC cutting solutions. Our engineering creativity has always yielded affordable, quality equipment. The new Atlas promises to follow suit. Our engineers continue to develop and manufacture superior equipment and lower build costs. The Atlas machine features all steel construction, precision linear rails and bearings, precision helical racks on the X and Y axes, with a ballscrew Z axis drive. In addition, the system includes brushless micro-stepper motors and controls with a very easy-to-use hand-held controller. The hand-held controller is so user-friendly that setup, installation and training is completed through our self-taught, step-by-step manuals. We guarantee you will be cutting parts the same day you connect power to the machine!



\*High-Quality Cut



- 4' x 4', 4' x 8' and 5' x 10' stock sizes (Special sizes available upon request.)
- 4 HP HSD high-frequency collet spindle
- Maintenance free, high precision, brushless stepper drive motors (servo optional)
- Automatic tool calibration pad for easy and accurate z-zero
- Vacuum table with main control gate valve
- Easy to use hand-held micro stepper controller
- Open architecture works with all industry standard CAD/CAM software

## CONSTRUCTION FEATURES



### Base Frame

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



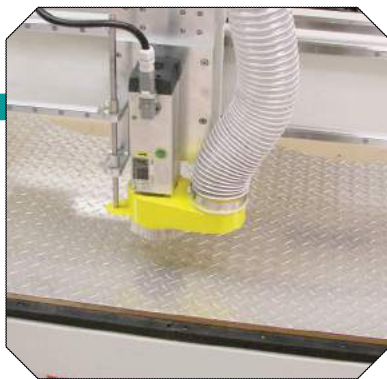
### Gantry

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.



### 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.



Routing Aluminum



Routing Foam



Routing Wood Cabinet Making

## Drive Train Assembly

The Techno Atlas 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 and this assures smooth motion and long term reliability. The precision gearbox is directly coupled to the stepper motor and pinion. This eliminates belt stretch inaccuracies, assuring high-speed machining while the system positions the spindle accurately.

## Drive Motors

The Atlas CNC Router utilizes brushless micro-stepper motors. These motors require no regular maintenance, therefore reducing any maintenance downtime.

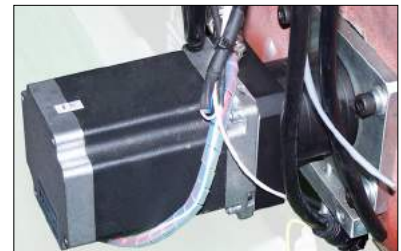
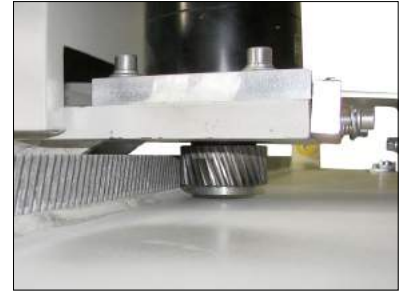
## Spindle

The Atlas machine comes standard with a 4 HP HSD high frequency collet spindle. These precision spindles require no maintenance, use industry standard ER collets, fully programmable speeds from 6000 to 18000 RPM, and comes complete with vacuum hood and wrenches.

## Tool Calibration

Automatic tool calibration pad allows for easy and accurate "Z" zero position.

## CONSTRUCTION FEATURES



## CONSTRUCTION FEATURES



- Main Power Switch
- Emergency Stop
- Power Enable
- Power Disable
- Spindle Inverter Readout
- Vacuum Controls
- USB Port

### Control Panel Functions

The main functionality for the Atlas is accessible on the front panel of the enclosure. The console makes for a convenient work station for production work sheets and machine tooling.



### 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 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 single-zoned which is controlled via main gate valve. The table can be zoned by easily moving gasket around to customize specific sections. Gasketing can also be routed to accommodate various material sizes and styles.



T-Slot Profile

The Atlas 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.



- (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 router
- Rated for 173 CFM, 25" Hg, 81dB for very quiet operation

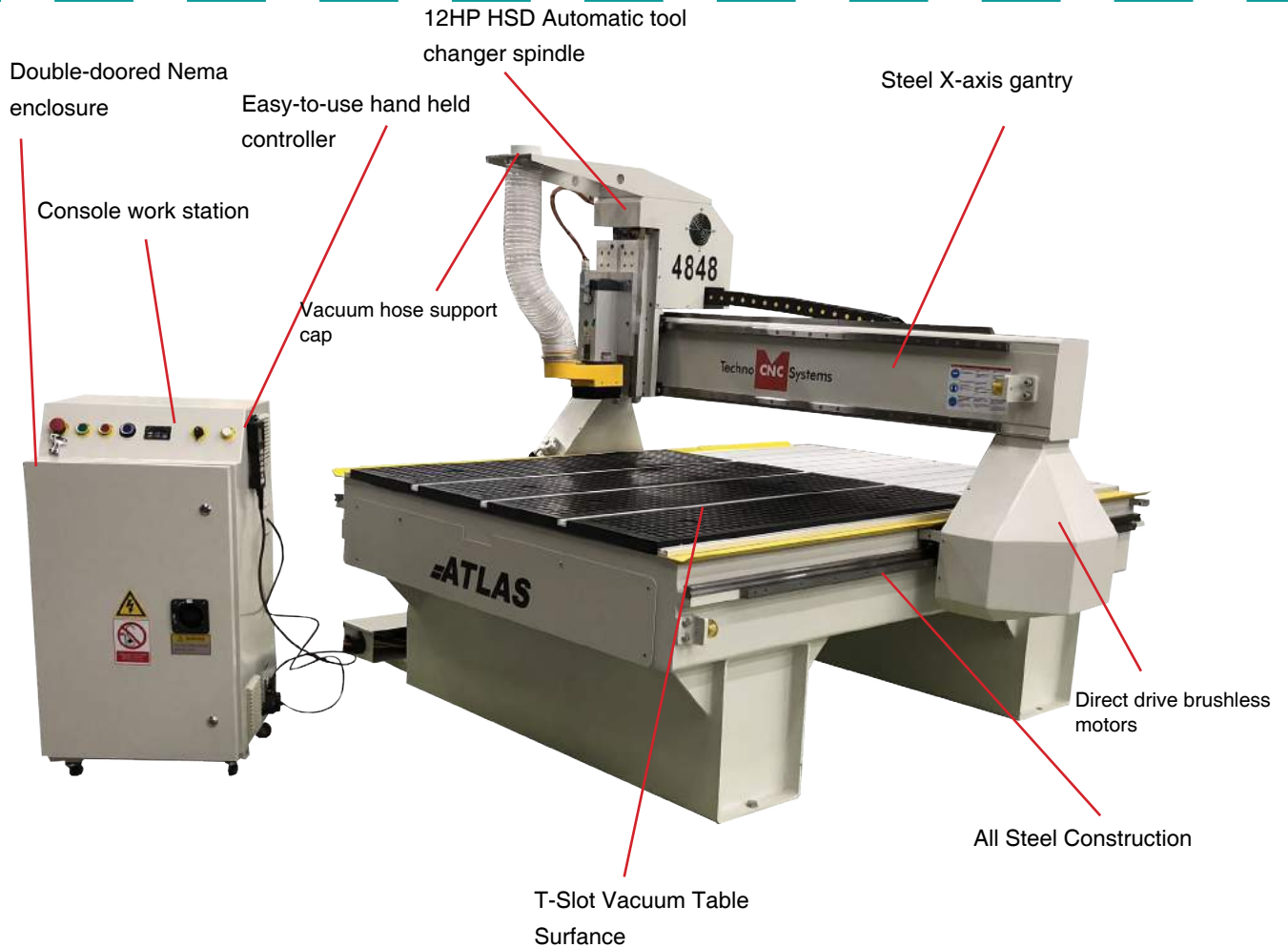
# Techno CNC System.

Smooth Play-Free Motion

Superior Cut Quality

Minimal Maintenance

Machine Longevity



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
- Musical Instruments
- Wood Working
- Plastics
- Foam
- Prototyping
- Model Making
- Education
- 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	82	84	70
4896	50	97	7.5	7.5	800	1500	82	126	70
60120	61	121	7.5	7.5	800	1500	93	150	70

\*Other sizes available upon request.

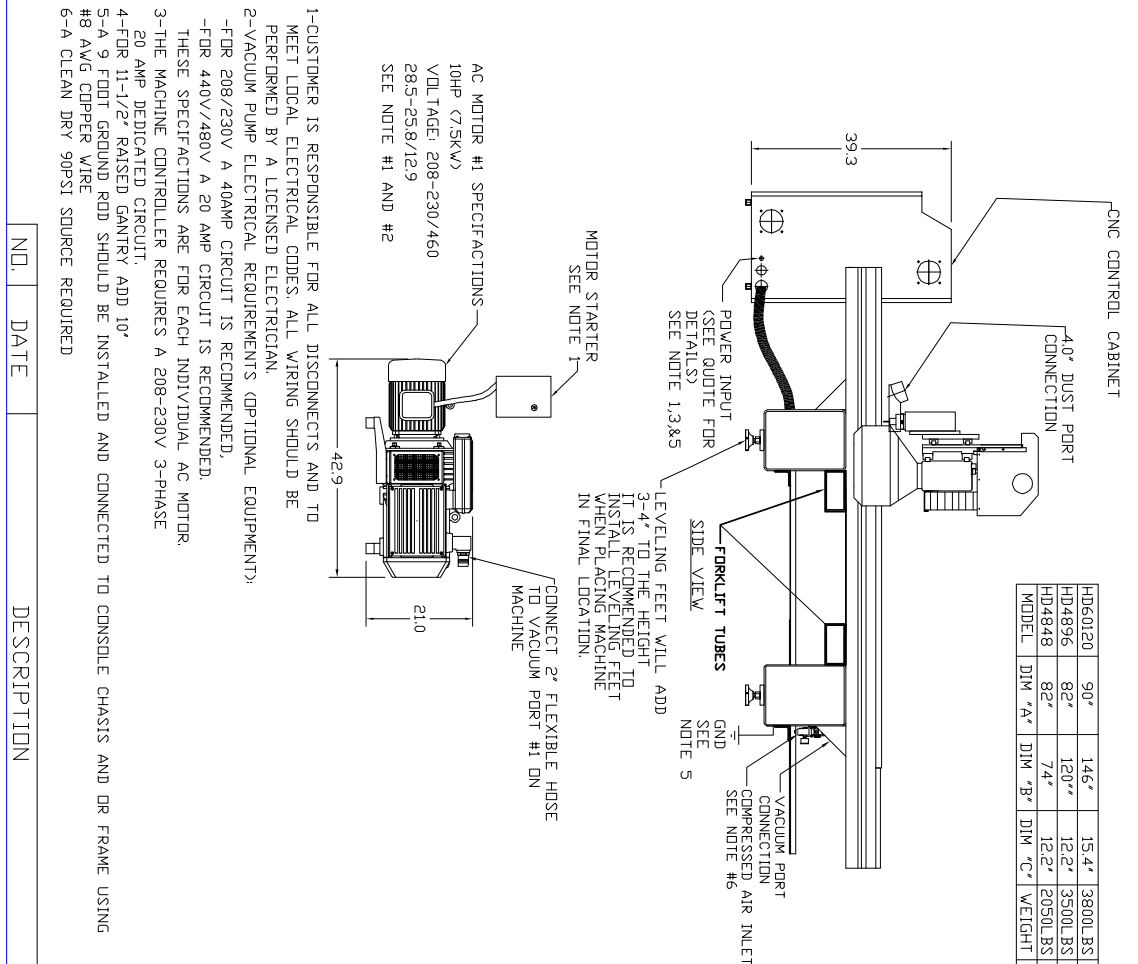
\*\*Other gantry heights available upon request.



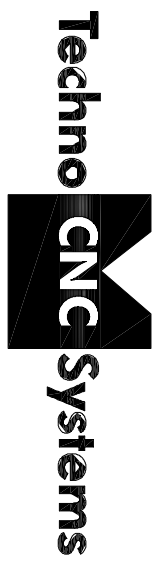
## Hand-Held Controller Features:

- 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
- Pre-programmed go-to-origin macro
- 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.





WEIGHTS & Z-AXIS ASSEMBLY-6C  
 -ELECTRICAL CABINET-665LBS



29 TRADE ZONE DR. RONKONKOMA NY 11779 PH: 631-648-  
 ATLAS SERIES FLOOR PLAN DETAIL

MAT.	QTY	RECD:	DRG. DATE	DRAWN BY:
BREAK CORNERS & EDGES .015				
UNSPECIFIED TOLERANCES				
FRACTION +/- 1/32 .XX +/- .010	UNITS:	SCALE:	CHECKED BY:	
ANGLE +/- 1/2° XXX +/- .005				
PART NO.		DWG NO.		