≡ATLAS
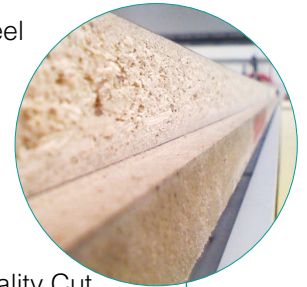
EXTRAORDINARY VALUE & PERFORMANCE ... Since 1986, Techno has provided economical CNC cutting solutions. Our engineering creativity has always yielded affordable, quality equipment. The new Atlas promises to follow suit. Our engineers continue to develop and manufacture superior equipment and lower build 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

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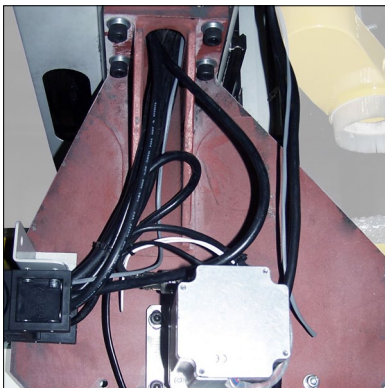
CONSTRUCTION FEATURES

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.
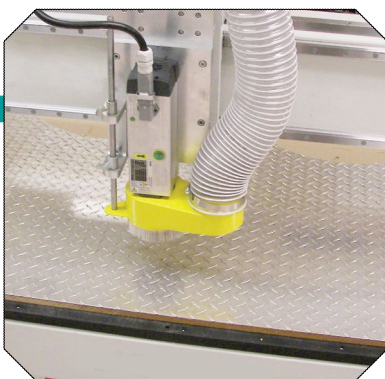

Gantry
The gantry is constructed of tubular steel with reinforcing ribs, welded throughout the length of the column, which results in a steady firm beam assembly. This quality engineering and workmanship result in smooth precision cutting.

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

Techno CNC Systems

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

CONSTRUCTION FEATURES

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.
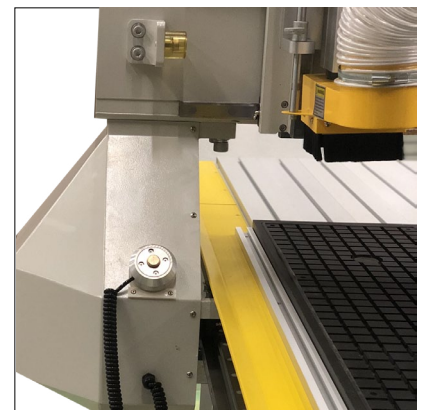
Spindle

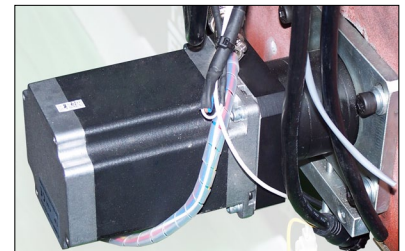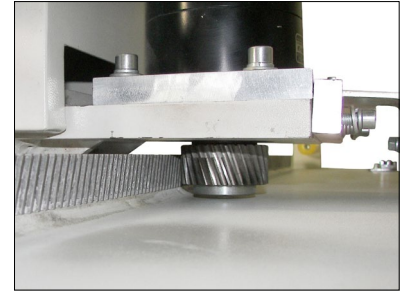The Atlas machine comes standard with a 4 HP HSD high frequency collet spindle. These precision spindles require no maintenance, use industry standard ER collets, fully programmable speeds from 6000 to 18000 RPM, and comes complete with vacuum hood and wrenches.

Tool Calibration

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

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CONSTRUCTION FEATURES

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

■ Main Power Switch

■ Emergency Stop

■ Power Enable

■ Power Disable

■ Spindle Inverter Readout

■ Vacuum Controls

■ USB Port

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.

✳
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.

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.

■ (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

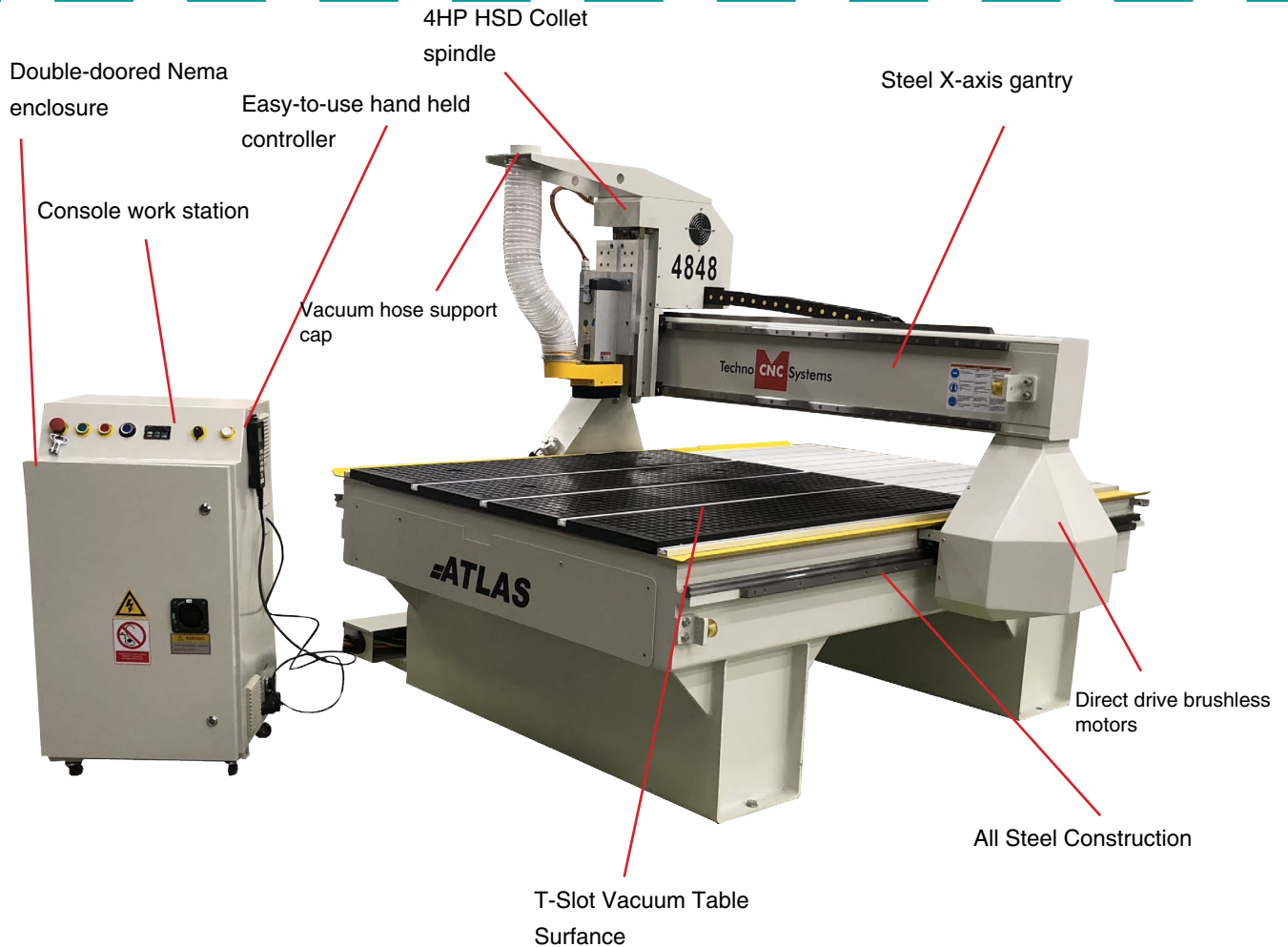■ Rated for 173 CFM, 25" Hg, 81dB for very quiet operation

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

4HP HSD Collet spindle

Double-doored Nema enclosure

Easy-to-use hand held controller

Steel X-axis gantry

Console work station

Vacuum hose support cap

4848

Direct drive brushless motors

All Steel Construction

T-Slot Vacuum Table Surfance

We offer affordable systems to automate any size production shop.

"Small Investment, Big Return"

- See more at 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.
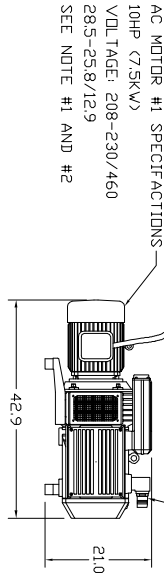
Hand-Held Controller Features:

- 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 clearence position
- Absolute and relative coordinates control
- Send to home button
- Techno also offers FREE updates,
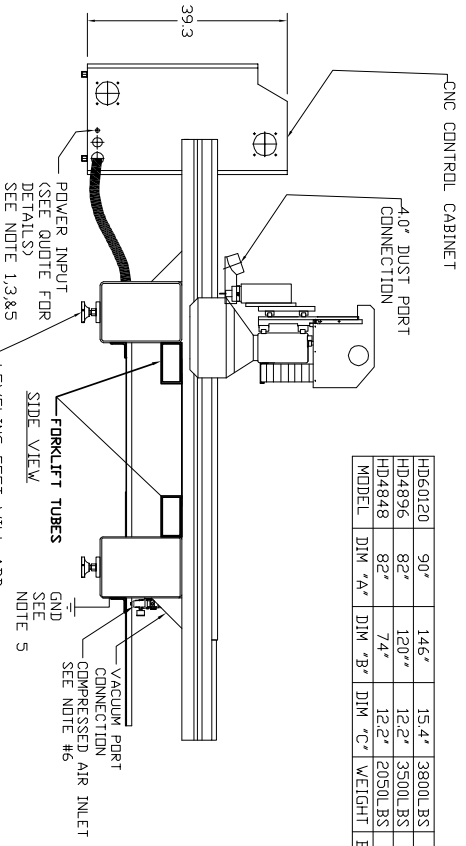 via support.technocnc.com for the life of the machine.

AC MOTOR #1 SPECIFACTIONS
10HP (7.5KW)
VOLTAGE: 208-230/460
28.5-25.8/12.9
SEE NOTE #1 AND #2

MOTOR STARTER
SEE NOTE 1

CONNECT 2" FLEXIBLE HOSE
TO VACUUM PORT #1 ON
MACHINE

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 A 40AMP CIRCUIT IS RECOMMENDED.
-FOR 440V/480V A 20 AMP CIRCUIT IS RECOMMENDED.
THESE SPECIFACTIONS ARE FOR EACH INDIVIDUAL AC MOTOR.
3-THE MACHINE CONTROLLER REQUIRES A 208-230V 3-PHASE
20 AMP DEDICATED CIRCUIT.
4-FOR 11-1/2" RAISED GANTRY ADD 10"
5-A 9 FOOT GROUND ROD SHOULD BE INSTALLED AND CONNECTED TO CONSOLE CHASIS AND OR FRAME USING
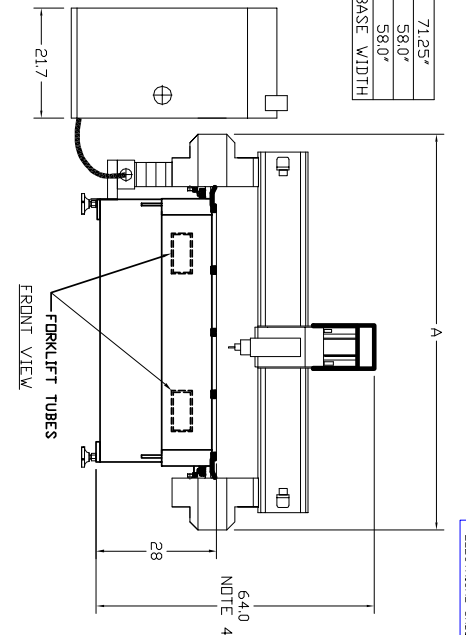#8 AWG COPPER WIRE
6-A CLEAN DRY 90PSI SOURCE REQUIRED

NO.	DATE	DESCRIPTION

CNC CONTROL CABINET

4.0" DUST PORT
CONNECTION

POWER INPUT
(SEE QUOTE FOR
DETAILS)
SEE NOTE 1,3,&5

LEVELING FEET WILL ADD
3-4" TO THE HEIGHT
IT IS RECOMMENDED TO
INSTALL LEVELING FEET
WHEN PLACING MACHINE
IN FINAL LOCATION.

SIDE VIEW

FORKLIFT TUBES

39.3
42.9
21.0

GND
SEE
NOTE 5

VACUUM PORT
CONNECTION
COMPRESSION
COMPRESSED AIR INLET
SEE NOTE #6

MODEL	DIM "A"	DIM "B"	DIM "C"	WEIGHT	BASE WIDTH
HD4848	82"	74"	12.2"	2050LBS	58.0"
HD4896	82"	120"	12.2"	3500LBS	58.0"
HD60120	90"	146"	15.4"	3800LBS	71.25"

21.7

A
28
64.0
NOTE 4

FRONT VIEW

FORKLIFT TUBES

WEIGHTS
-GANTRY & Z-AXIS ASSEMBLY=60
-ELECTRICAL CABINET=265LBS

Techno CNC Systems

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

ATLAS SERIES FLOOR PLAN DETAIL

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

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