



# BEND-TECH DRAGON

## A400 Technical Brochure



**CNC PLASMA TUBE CUTTING,  
MARKING, ENGRAVING MACHINE**

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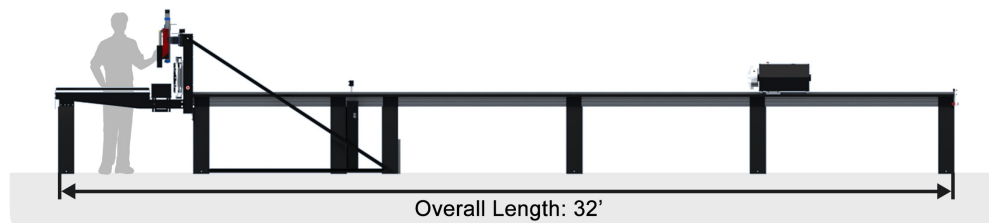
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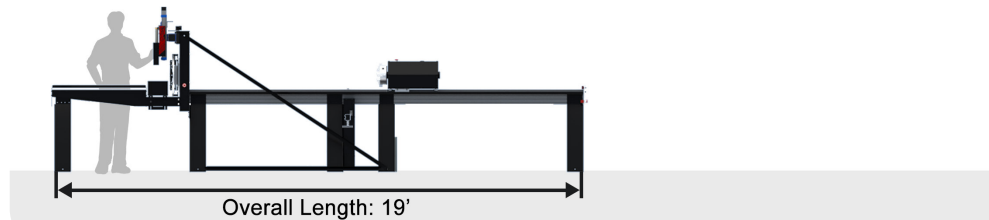


## Dragon A400

### 24 foot (BTD - A400-24)

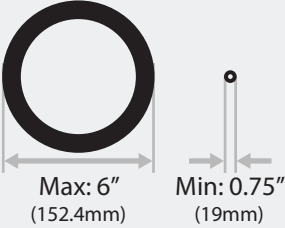
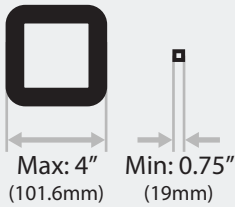
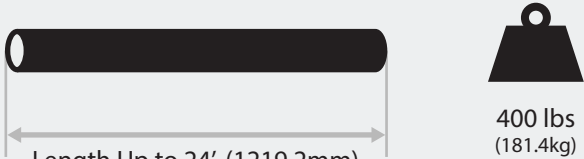


### 12 foot (BTD - A400-12)



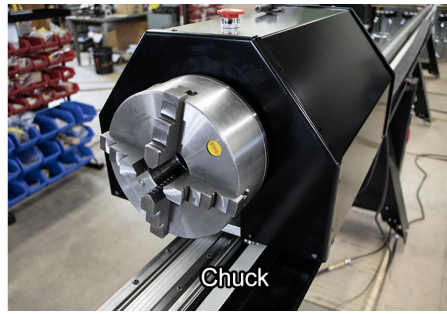
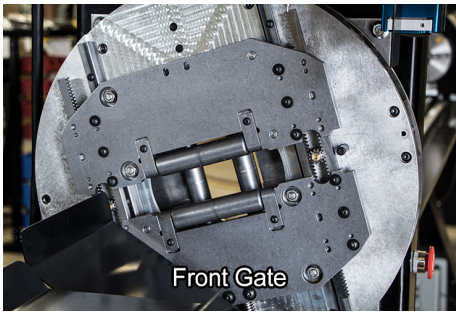
## Dragon A400 Components

### 1. Material Capabilities

Round Tube	Square/Rect. Tube	Material Capacity
 <p>Max: 6" (152.4mm)</p> <p>Min: 0.75" (19mm)</p>	 <p>Max: 4" (101.6mm)</p> <p>Min: 0.75" (19mm)</p>	 <p>Length Up to 24' (1219.2mm)</p> <p>400 lbs (181.4kg)</p>

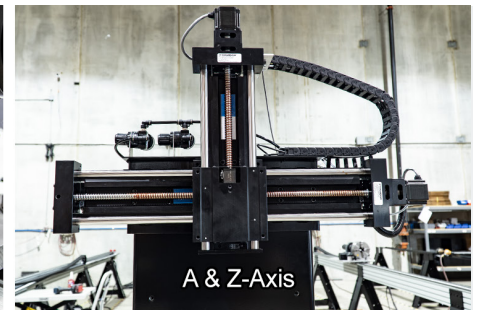
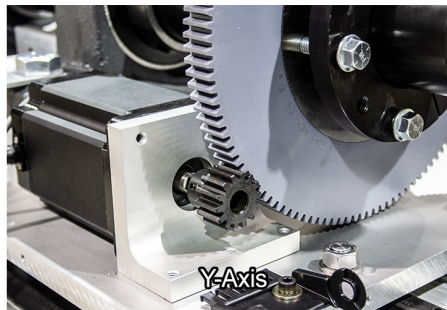
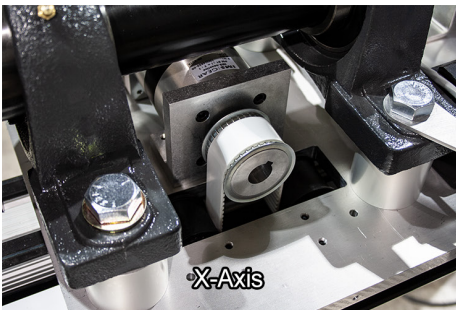
- 1.1. Maximum material length: 24'
- 1.2. Round material size: 0.75" - 6" OD
- 1.3. Square/Rectangle material size: 0.75" - 4" side length
- 1.4. Maximum capacity: 400 lbs
- 1.5. Material thickness: 1/32" - 5/8"
- 1.6. Material types: steel, aluminum, stainless steel, chrome alloy, galvanized steel are the common materials cut, but any electrically conductive metal can be cut by plasma.

## 2. Loading Components



- 2.1. Material can be loaded from either side, front, back, or top.
- 2.2. The front gate has two self-centering vice-like roller jaws that hold their position and are adjusted by turning a hex key wrench.
- 2.3. The chuck has four self-centering jaws to hold round, square, and rectangle profile tubing.
- 2.4. The fully automatic CNC center support can help hold material during the loading process.

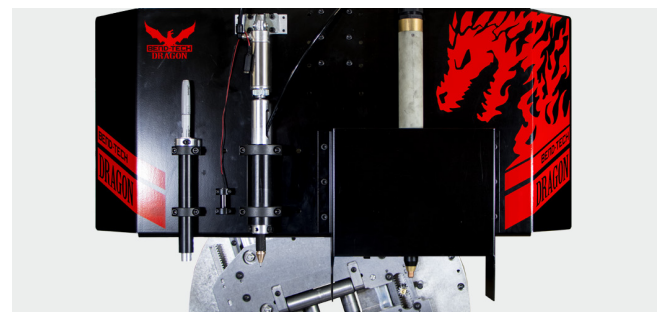
## 3. Five Axes Driven



- 3.1. X-Axis is a steel cord precision belt drive system that moves the material along its length.
- 3.2. Y-Axis is a gear driven system that rotates the material.
- 3.3. Z-Axis is a horizontal ball screw that moves the tool changer from side to side.
- 3.4. A-Axis is a vertical ball screw that moves the tool changer up and down.
- 3.5. B-Axis is a vertical ball screw that moves the center support roller up and down to keep long pieces of material level during operation.

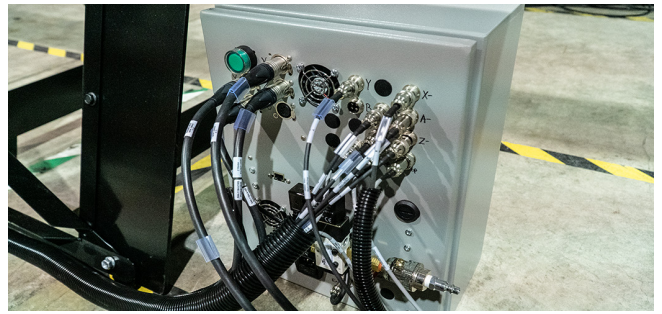
## 4. Tool Changer

- 4.1. The Bend-Tech Dragon Tool Changer comes with a plasma torch mount, marker and mount, mounted engraver, and mounted laser light.
- 4.2. The automatic Tool Changer allows for marking, engraving, and cutting at the push of a button.



## 5. Control Box

- 5.1. The control box receives G-Code commands from the Dragon Software Suite and then operates the Dragon A400.
- 5.2. The cabling on the Dragon A400 is high-flex cable to eliminate usage wear.
- 5.3. The Dragon A400 has four emergency stop buttons on the machine.
- 5.4. Limit switches are located on all five axes of movement.



## 6. Part Catcher and Coolant Tray

- 6.1. Small parts and slugs will fall into the coolant tray. Other parts will fall onto the part catcher.



## 7. Technical Documents

- 7.1. Bend-Tech provides all of the information you need to know on installing, setting up, and operating the Dragon A400 through technical documentation. This is shipped with the machine and is available online.
- 7.2. Included in the technical documentation is: the inventory of purchase, assembly guide, computer optimization guide, troubleshooting guide, and maintenance guide.

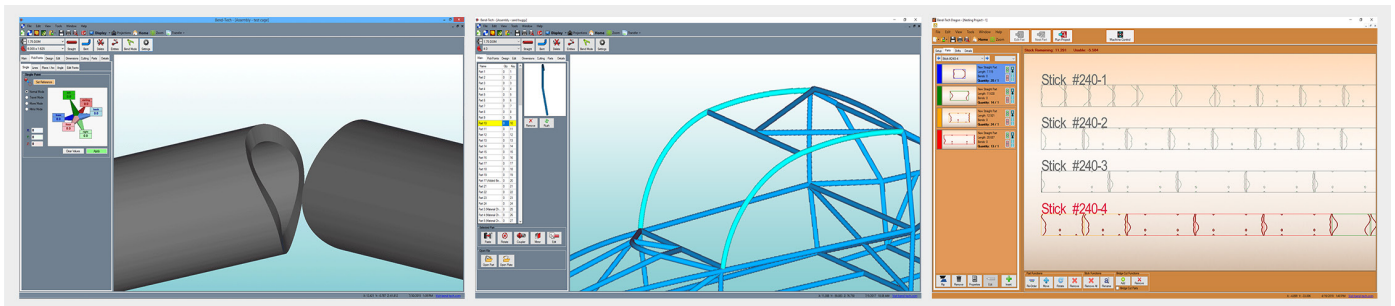




## Dragon CAD/CAM Software



Import your 3D CAD designs or create them from scratch with Bend-Tech Dragon CAD. Dragon CAD is able to import STEP & IGES files which are supported by most CAD softwares, including but not limited to Bend-Tech®, SOLIDWORKS®, AutoCAD®, Inventor®, PRO Engineer®, and etc. Once imported to Dragon CAD, it will trace all your CAD geometry and convert it into a CAM ready file that can be read by the Dragon machine for CNC manufacturing.



Dragon software suit is an automated CAM/CNC product that understands tubing. This software is exclusive to Dragon machines and will automatically create your cutting, marking, and etching paths directly from Bend-Tech Dragon CAD by converting geometry into machine readable G-Codes. The Dragon CNC Software also comes with a nesting ability to allow several parts on the same stock tube.

The Bend-Tech Dragon Software Suite comes with a 2 Year Software Maintenance Package. The 2 Year Software Maintenance Package includes: latest updates and enhancements in the software and support over the phone, email, or computer. (These items come at no charge over the 2 Year Maintenance Package.) After the 2 Year Software Maintenance Package has expired, the software remains with the machine, but the software no longer updates at no charge. Updating the software is not required, however, it is recommended. When software is not updated, it becomes increasingly difficult to service and will be without updated features.

## Available Add-On Options

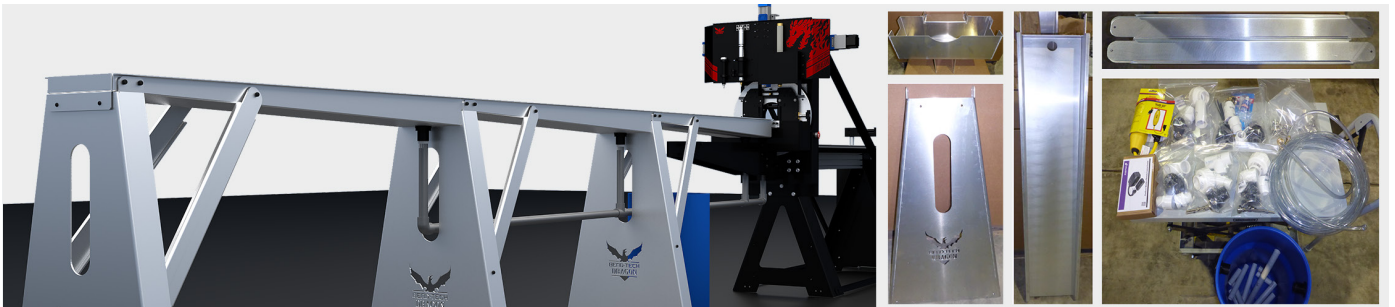
### 1. Hypertherm Powermax Plasma System



There are three amp levels of Powermax plasma systems recommended for use on the Bend-Tech Dragon. The Dragon requires a mechanized plasma torch. The Hypertherm Powermax systems come with a 25' lead. The level of Powermax system required varies based on multiple factors. To best decide what level of Powermax system is required, talk to Trick-Tools sales personnel.

- Hypertherm Powermax45
- Hypertherm Powermax65
- Hypertherm Powermax85

### 2. Coolant System



The Coolant System comes with a hose, hose reel, tube plug set, modular coolant trays, and a coolant reservoir. (Pump not included.)

The Coolant System increases cut quality, reduces slag amount, and decreases fumes from the plasma cutting. For companies that cut aluminum, stainless steel, or tubing with an OD smaller than 1", it is highly recommended that you include a Coolant System with your purchase.

### 3. Technology Package

The Technology Package includes: an enclosed metal workstation cabinet on wheels that houses a PC computer with a SITE License. The SITE License permits up to 50 software seats in a single physical location, such as your shop, so that multiple computers have access to the software. The enclosed workstation cabinet is 5.5' height by 2' width by 2' length and a power cord lead of 12'.



## 4. On-site Training



On-site Training includes two total days of training with a Bend-Tech Dragon Technician working on-location with the machine operator(s). The machine must be assembled before the Dragon Technician arrives. The Dragon Technician looks over install and setup of the machine and troubleshoots any problems with the initial setup. Next, their training covers downloading software and machine drivers, designing parts in the software, importing step files, software/machine/material settings, homing the machine, running projects on the machine, loading the machine, general maintenance, and answering any questions. This package includes all expenses.

### Shop Requirements

- Floor Space:
  - The 24' length machine has a footprint of 32' length by 2.5' width by 6' height.
  - The 12' length machine has a footprint of 19' length by 2.5' width by 6' height.
  - The enclosed workstation cabinet in Technology Package is 5.5' height by 2' width by 2' length and a power cord lead of 12'. (This is an add-on feature that does not come standard with the machine.)
- Dedicated Windows desktop or laptop with an Ethernet port (The computer running the Dragon machine cannot be running other machines).
- Active internet connection (for the activation of the Dragon Software and receive important updates).
- Plasma torch with mechanized head. Bend-Tech recommends the Hypertherm Powermax45 or higher. Bend-Tech is an OEM of Hypertherm and the plasma torch can be purchased with Dragon sale.
- 220-240v outlet (for plasma system)
- Two (quantity) 110-120v outlets (for machine)
- Miscellaneous outlets (for computer, monitor, etc.)
- Air compressor or inert gas with two lines (engraver and center lifter run on air and the plasma system runs on air or inert gas)





### 1. Delivery

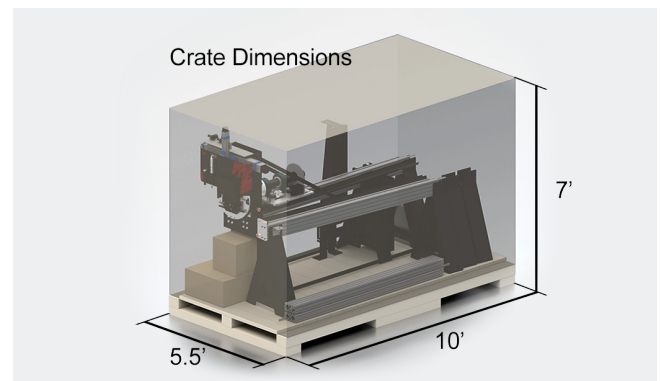
Price varies based on location. Contact a Trick-Tools sales personnel for an exact quote.

The lead time for the Dragon A400 is typically zero to four weeks. Shipping usually takes about a week, but varies on location. Once the Dragon has started shipping, the customer receives a tracking number. Contact Trick-Tools sales personnel for a current lead time.

Bend-Tech is responsible for the package through the delivery process. Bend-Tech coordinates with the shipping company and if there are any problems, Bend-Tech resolves the error with the shipping company. If there is an error or damage in the shipping, please contact the Bend-Tech sales personnel right away.

### 2. Shipping Crate

The Bend-Tech Dragon A400 is shipped in a fully enclosed wood crate. The crate is professionally engineered and fabricated to secure the Dragon A400 during the shipping process. The crate has lift pockets made of steel so a forklift without fork extensions can securely move the crate. The crate is 10' length by 5.5' width by 7' height and weighs up to 2400 lbs.



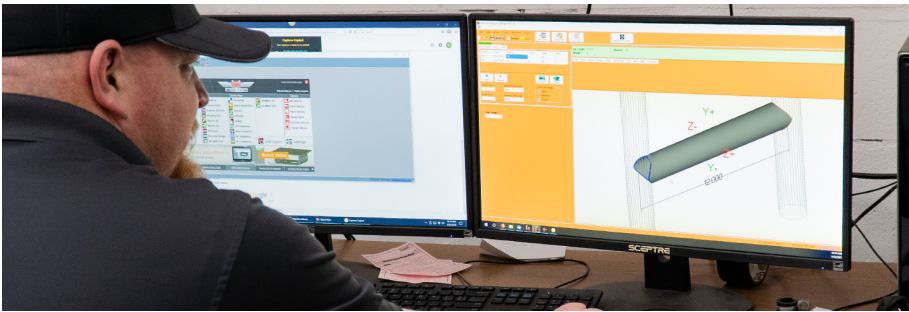


### 1. Warranty

The Dragon A400 has a 12 month electronics and hardware limited warranty. Defective or faulty parts identified on the machine within this time period after purchase will be replaced at no charge and shipped to the location. After the 12 month warranty period, replacement parts can be purchased through Bend-Tech LLC. and shipped to the location at the customer's discretion.

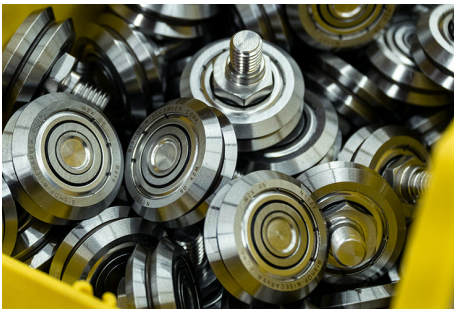
The Dragon Software is always improving to ensure the best capabilities for your company and others. The maintenance plan for software updates and service is good for 2 years from the Dragon purchase date. After this 2 years, an annual software maintenance plan is available to purchase. Your Bend-Tech LLC. sales personnel will contact you 1 month to 2 weeks before your maintenance plan expires to ask if you'd like to re-apply for an annual subscription. THE WARRANTY MAY BECOME VOID OR LIMITED IN THE EVENT THAT YOU MAKE HARDWARE CHANGES TO THE MACHINE.

### 2. Dragon A400 Software Maintenance Plan



After the 2 Year Software Maintenance Package has expired, there is a year long Software Maintenance Package that is repurchased on a yearly basis to continue to receive support and software updates.

### 3. Replacement Parts



Replacement parts can be purchased through Trick-Tools and shipped to the location at the customer's discretion. Price varies by component.

## Purchasing the Dragon

### Payment Terms

Payment is due in full before a Bend-Tech Dragon A400 is shipped.

Trick-Tools has finance partners available for customers to finance the machine. Contact Trick-Tools sales personnel to receive more information on financing.

Notice: This pricing sheet is subject to changes at any time. All final details and pricing are provided in a formal quote from the Trick-Tools sales team. Each formal quote is specific to an individual customer and is non-transferable.

## Contact Us



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