



## Torchmate 1

The Torchmate 1 allows those on a tight budget to benefit from all the advantages of CNC plasma cutting. Your Torchmate CNC Cutting System will do much of the work in your shop 50 to 100 times faster than that you're currently spending through manual cutting or the use of dated metal cutting tools. The time necessary to complete the Torchmate 1 gantry kit and fabricate your rail system is approximately 40 hours. Essentially, you are exchanging your labor for big savings.

### Standard Features

- Do-it-yourself

### Table Type

- Do-it-yourself kit

### Cutting Capacity

- Up to 13 in. thick (Tool dependent)

### Standard Equipment

- Plans, unpainted steel brackets, timing pulleys and belts, gearing, x-axis hardened needle bearing cam followers, and hardware

### Construction

- User provided locally purchased square wall tube for legs and Y axis

### Electronics/Motion System

- 2 amp half-stepping stepper motors
- Micro-stepping stepper motors available
- One x-axis drive and motor and one y-axis drive and motor
- 269 oz. in. motors

## **User Controls**

- PC based control software with USB interface

## **Weight**

- Approximately 350 lbs. for 4'x8' table

## **Input Power**

- 15 amp/ 110 volt for controls
- 220 volt models available for international customers

## **Cutting Area**

- 4'x4' to 6'x40'

## **Drive System**

- Dual rack and pinion
- Belt reduction rack and pinion drive

## **Traverse Speed**

- Up to 300 ipm with stepper motors
- Up to 1500 ipm with servo motors

## **Cut Speed**

- Up to 150 ipm with stepper motors
- Up to 500 ipm with servo motors

## **Machine Resolution**

- Approximately .0015" with stepper motors
- Approximately .0004" with servo motors

## **Available Plasma Units - Compatible with most plasma cutters**

### **Lincoln Electric**

- Tomahawk® 375
- Tomahawk® 625

## **Thermal Dynamics**

- Auto Cut Series
- Ultra Cut Series

- Manual Systems
- Cutmaster A Series

### **Hypertherm**

- Powermax Series

### **Standard Software**

- Torchmate Driver Software
- Accepts any .dxf or G-code

### **Available Software**

#### **Torchmate CAD/CAM**

- The Torchmate CAD/CAM program was developed specifically to create shapes for cutting. It contains every feature needed, including dxf importation, conversion of scanned shapes, full automatic nesting, automatic kerf compensation, automatic lead-ins and lead-outs, & much more.

#### **BobCAD-CAM**

- In addition to being a full-blown computer assisted design program, BobCAD renders 2D images into three dimensional shapes. It then generates G-code to create the 3D pieces with torchmate's automated z-axis in conjunction with a router, roto-ZIP tool, engraver, etc.

#### **Rhino 3D**

- Create digital 3D models of your projects before you start the actual fabrication process. All parts fit together just as they would in a physical model. It is possible to rotate the model, zoom in to see the finest detail, and view its components model from the real thing.

#### **RhinoCAM**

- RhinoCAM is a general purpose machining program for the general machinist. RhinoCAM includes 2 ½ axis, 3 axis, 4 axis and 5 axis operations. This powerful package is ideal for mold, die and tooling, wood working rapid prototyping and general machining markets and generate G-code to be directly sent to the Torchmate machines. This product boasts of powerful toolpath generation strategies coupled with tools for efficiently controlling the cutting tool for detailed machining capabilities, while not sacrificing ease of use. It has all the basic functionality as well as additional features suitable for demanding users with sophisticated manufacturing requirements.

## **Computer Requirements**

- Windows XP/Vista/'07
- 1 GB processor
- 1 GB ram
- 30 GB hard drive

## **Warranty**

- 1 year warranty on electronics, parts, and software
- Lifetime unlimited free technical support