



## Torchmate 3

Ideal for small shops as well as heavy industrial applications, the Torchmate 3 provides a dropped front rail to allow forklift loading of large plates, dual x axis motors, and low backlash gearboxes for added machine accuracy.

The heavy duty aluminum extruded frame provides the durability of much heavier machines. The bolt-together design makes this workhorse portable if needed.

### Standard Features

- Drop-rail forklift feature
- 5:1 low backlash gearboxes
- Multiple torch capability
- Easy assembly with DIY kit or bolt together
- Leveling legs or anchor mount
- Dual x axis motors
- Gearbox drive system

### Machine Size

- 4'x8' to 10'x40'
- 4'x8' machine leaves 80"x132" footprint

### Table Type

- Gantry Kit or Bolt Together

### Cutting Capacity

- Cutting Width 4' up to 10'
- Cutting Length 8' up to 40'
- Plasma Cutting Up to 3" Mild Steel  
Up to 3" Aluminum  
Up to 1-1/4" Stainless
- Oxy-Fuel Cutting Up to 10"

### Standard Equipment

#### Gantry Kit

- Plans, 3 axis Windows –based electronics, components for the ¾" diameter drive shaft, and steel brackets
- Slotted brackets are optional

### **Bolt Together**

- Precision hardened and ground x-axis rails
- Heavy anodized extruded aluminum ready for easy bolt together assembly
- Slat support brackets with slots into which 3/16" thick steel strips can be placed

### **Hardware**

### **Construction**

- Heavy reinforced extruded aluminum gantry
- Y-axis industrial linear motion roller cassette and rail system
- X-axis has eight 1" diameter hardened needle bearing cam followers riding on 4 hardened and ground steel rails
- Rail height 36"

### **Electronics/Motion System**

- 2 amp half-stepping motors
- Micro-stepping motors available
- 8 amp optically encoded servo motors available
- Two 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 450 lbs. for 4'x8' table

### **Input Power**

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

### **Cutting Area**

- 4'x8' to 10'x40'

### **Drive System**

- Dual rack and pinion with 5:1 low backlash gearbox reduction
- 10:1 low backlash gearbox reduction with servo motors

## **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