

# TORCHMATE 2X2 AND 2X4

## PLASMA EDUCATIONAL PACKAGES

Torchmate is offering their state-of-the-art, affordable, robotic metal-cutting machinery to shop classes in schools across the country, giving teachers a real world tool to teach design and manufacturing skills to the next generation of airplane builders, automobile manufacturers and engineers. Versatile, technologically advanced and backed by the most comprehensive technical support in the industry, Torchmate CNC machines are the perfect fit for high school and community college vocational training classes.

The machine students will see in the classroom is no different than the machine they will see in the real world. Training on a Torchmate machine builds both students' design skills and their application of those skills into actual

fabrication. While metal cutting is a Torchmate machine's most recognized feature, the machine can also be used for intricate wood-working, routing, Plasma cutting, vinyl sign making and drilling.

For schools on a budget, this means that the machine can be used in multiple classes and for a variety of tasks. Each machine has the most advanced technological features, like repeatability, integration with CAD and CAM software, and USB port compatibility. Using the Torchmate machine, students are able to grasp CAD and CAM design, as well as see the completion of their design into a final product. Machined parts on a Torchmate machine can be welded and finished — allowing students the full educational experience in hands-

on manufacturing. Students are able to put multiple skills together using a Torchmate machine, allowing them to leave school not as an entry-level worker, but as a skilled CNC machine operator.

Teachers are able to unlock the full potential of a Torchmate machine by taking advantage of Torchmate's superior technical support system. The company's Reno, Nev.-based technical support has deep knowledge of the full function of each machine. Free of charge, one of Torchmate's dedicated support staff will work with metal shop teachers to help them understand each facet of the multi-functional machine.

Torchmate machines are currently in use in schools across the nation.

## WHAT IS THE GROWTH SERIES?

Designed to be versatile, mobile and easy to use the Growth Series™ brings CNC Plasma Cutting, CNC Routing, and CNC Plate Marking to you in one tight little package. The Growth Series encompasses three sizes of tables, the 2x2, 2x4, and 4x4 along with three optional water tables. A Growth Series™ table is designed from the ground up to scale with your needs in the classroom. Start with a 2x2 and as your needs grow you can upgrade through the product line to a 2x4 or 4x4 machine as the demand for your cutting increases. The price of the upgrade is the price difference of the two machines. The Growth Series™ has been designed with career and technical schools in mind. The Growth Series™ can be used to design and cut everything from intricate and professional-quality metal parts, to chassis or suspension components, to signs and lettering.

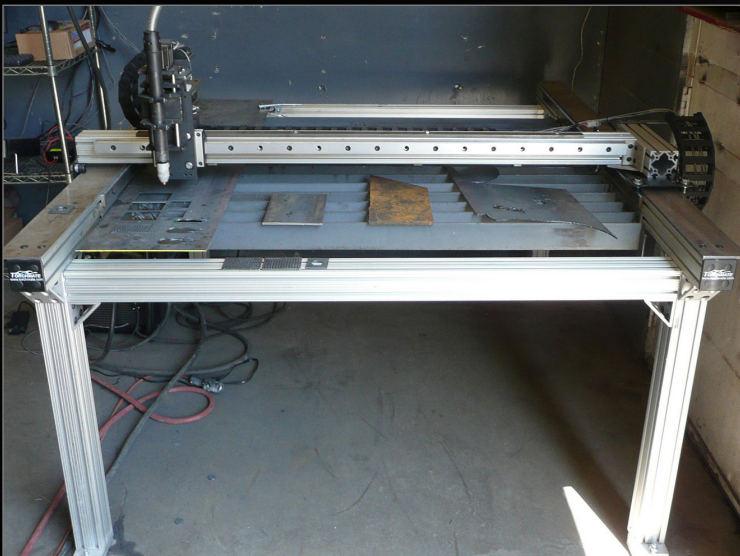
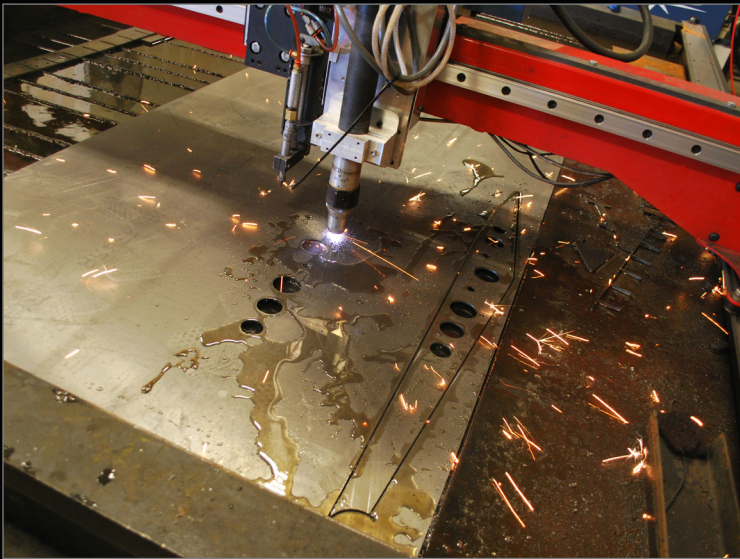


WWW.TORCHMATE.COM  
SALES@TORCHMATE.COM

INTERNATIONAL: (775) 673-2200 TOLL FREE: (866) 571-1066 SOUTH AMERICAN BRANCH: 57 (1) 5669006

280 SOUTH ROCK BLVD. SUITE 150 RENO, NV 89502

# CUSTOMER PHOTOS



# PLASMA EDUCATIONAL PACKAGES



## GROWTH SERIES STANDARD FEATURES: STANDARD EQUIPMENT :

- Three motor driven
- USB control box

### USER CONTROLS:

- PC based driver software with USB interface

### INPUT POWER:

- 15 amp / 110 volt for controls • 220 volt available

### DRIVE SYSTEM:

- Anti-backlash screw drive

### MACHINE RESOLUTION:

- .0013" approx.

### AVAILABLE PLASMA UNITS:

- Compatible with most air plasma cutters utilizing non-high frequency start

### STANDARD SOFTWARE:

- Torchmate Driver Software (accepts any .dxf or G-code)

### OPTIONAL SOFTWARE:

- Torchmate CAD/CAM Lite
- Torchmate CAD/CAM Full

### COMPUTER REQUIREMENTS:

- Windows XP/Vista/7 • 1 GHz processor
- 1 GB RAM • 30 GB hard drive

### WARRANTY (2X2 AND 2X4 MODELS):

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

### 2X2 MODEL FEATURES:

- Small foot print • Portability
- Expandable to Growth Series 2x4 or 4x4

### MACHINE SIZE:

- 36 3/4" X 36 1/4"

### CUTTING AREA<sup>1</sup>:

- 2' x 2'

(Can be re-indexed to cut materials larger)

### TABLE TYPE:

- Portable table top
- Optional water table

### CONSTRUCTION:

- Five piece fabricated steel construction
- 26 sealed ball bearings for linear motion

### ELECTRONICS/MOTION SYSTEM :

- 2.5 amp micro-stepping motor drives
- 269 oz. in. motors

### TRAVERSE SPEED:

- Up to 200 ipm

### CUT SPEED:

- Up to 200 ipm



## TORCHMATE 2'X2' GROWTH SERIES CNC SYSTEM- PLASMA EDUCATIONAL PACKAGE

### INCLUDES:

- 2X2 TABLE TOP CNC SYSTEM WITH CABLE CARRIER
- WATERBED TABLE FOR FUME CONTROL AND MATERIAL SUPPORT
- TRUE ARC VOLTAGE HEIGHT CONTROL WITH ACCURATE ADJUSTMENT WHILE CUTTING (MACHINE TORCH REQUIRED)
- PLUG N PLAY USB ELECTRONICS BOX- ALL CABLING INCLUDED
- FULL TORCHMATE CAD/CAM SHAPE CREATION SOFTWARE INCLUDES NESTING, SCANNING, TOOL PATHING, KERF COMPENSATION AND IMPORTING OF 32 DIFFERENT FILE FORMATS. UNLIMITED STUDENT CAD/CAM EDUCATIONAL LICENSES WITH 1 MASTER TEACHER LICENSE.
- DRIVER SOFTWARE ACCEPTS ALL DXF FILES AND STRAIGHT G-CODE
- CLIP ART DXF PACKAGE WITH PRINTED DIRECTORY AND DISC OF OVER 6000 FILES INCLUDING THEME DESIGNS, BORDERS, FONTS, NUMBERS, FLORAL, ANIMALS AND MORE.
- SHUTOFF SWITCH
- COMPUTER SHELF FOR LAPTOP
- MACHINE IS COMPLETELY ASSEMBLED WITH BASE AND SLATS
- MACHINE IS TESTED BEFORE SHIPPING.
- FREE UNLIMITED PHONE AND EMAIL TECH SUPPORT VIA A TRAINED, DEDICATED AND PROFESSIONAL SUPPORT STAFF

## TORCHMATE 4'X4' GROWTH SERIES CNC SYSTEM- PLASMA EDUCATIONAL PACKAGE

### INCLUDES:

- 4X4 TABLE TOP CNC SYSTEM WITH CABLE CARRIER
- WATERBED TABLE FOR FUME CONTROL AND MATERIAL SUPPORT
- TRUE ARC VOLTAGE HEIGHT CONTROL WITH ACCURATE ADJUSTMENT WHILE CUTTING (MACHINE TORCH REQUIRED)
- PLUG N PLAY USB ELECTRONICS BOX- ALL CABLING INCLUDED
- FULL TORCHMATE CAD/CAM SHAPE CREATION SOFTWARE INCLUDES NESTING, SCANNING, TOOL PATHING, KERF COMPENSATION AND IMPORTING OF 32 DIFFERENT FILE FORMATS. UNLIMITED STUDENT CAD/CAM EDUCATIONAL LICENSES WITH 1 MASTER TEACHER LICENSE.
- DRIVER SOFTWARE ACCEPTS ALL DXF FILES AND STRAIGHT G-CODE
- CLIP ART DXF PACKAGE WITH PRINTED DIRECTORY AND DISC OF OVER 6000 FILES INCLUDING THEME DESIGNS, BORDERS, FONTS, NUMBERS, FLORAL, ANIMALS AND MORE.
- SHUTOFF SWITCH
- COMPUTER SHELF FOR LAPTOP
- MACHINE IS COMPLETELY ASSEMBLED WITH BASE AND SLATS
- MACHINE IS TESTED BEFORE SHIPPING.
- FREE UNLIMITED PHONE AND EMAIL TECH SUPPORT VIA A TRAINED, DEDICATED AND PROFESSIONAL SUPPORT STAFF

### 4X4 MODEL FEATURES:

- Small foot print • Integrated cable carrier
- Multiple tool mounting configurations

### MACHINE SIZE:

- 60 3/4" X 60 1/4"

### CUTTING AREA<sup>1</sup>:

- 4' x 4'

(Can be re-indexed to cut materials larger)

### TABLE TYPE:

- Table top
- Optional water table

### CONSTRUCTION:

- Five piece fabricated steel construction
- 34 sealed ball bearings for linear motion

### ELECTRONICS/MOTION SYSTEM :

- 2.5 amp micro-stepping motor drives
- 380 oz. in. motors

### TRAVERSE SPEED:

- Up to 500 ipm

### CUT SPEED:

- Up to 400 ipm

### WARRANTY:

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

"I love my 2x2! Thank you for putting a tool like this within reach of a small shop." Curt Kemper | Happy 2x2 Owner



# APPLYING FOR A GRANT



The Lincoln Electric Company the world's leading manufacturer of arc welding equipment, consumables, and cutting Solutions, has been asked by schools for help in obtaining grants from government programs and private foundations to purchase the Torchmate CNC system. In response, the company has prepared a document to be used as a supplement for grant writers. The document describes the Torchmate CNC system and answers common grant application questions. Funders and schools are different and each solicitation for a grant or request for proposal requires a different approach. The purpose of the document is not to supplant the grant writer, but to make the grant writer's task easier.

The document includes a list of grant sources and types of grants and strategies for obtaining them. It also contains templates and aids for answering grant application questions and making a convincing case for your application.

Matching your needs with a grant funder is key to success. There are more projects and people who want money than there are funders and people with money to give away. To obtain a grant you need to understand what the funder wants to fund and make your needs fit those of the funder. **For a list of available grants that may apply, ask your Torchmate sales representative for more information.** INTERNATIONAL: (775) 673-2200 TOLL FREE: (866) 571-1066

Although our grant template emphasizes grants for direct equipment purchase, many grants can help a school obtain the Torchmate CNC system to improve its training and the success of its students. For example, grants that do not support the direct purchase of the Torchmate may reduce other costs that can in turn free up money for purchase of the equipment. Some grants pay a fee for every hour of training or a fee for every placement in a CNC job. These fees can be aggregated and used to purchase equipment. Other grants allow charges equivalent to the lease cost of equipment over a prescribed useful life, with the balance of the equipment cost paid from non-grant sources. A grant may pay nothing for equipment but pay costs of instructor time, freeing up other funds to pay for the equipment. School accounting can be as complex as grant accounting and the rules of each must be respected and followed. But with a flexible approach, schools can meet their objectives while complying fully with legal and ethical responsibilities.

The best source of a grant is one that is local and specifically aimed at your particular school or schools like yours in your community. For example, grants are made by central school systems to individual schools, from international unions to local apprenticeship committees, and from local businesses or business foundations. You and your colleagues are in a better position to know about these grants than any outsider. States and local school districts often have equipment, curriculum development and teacher training grants that could be applicable to CNC training. Special funds are often targeted to career and technical education (CTE) schools.

**To find out more information on applying for a grant or to obtain a copy of our grant template, ask your Torchmate sales representative.** INTERNATIONAL: (775) 673-2200 TOLL FREE: (866) 571-1066

