

TMC4500 ST

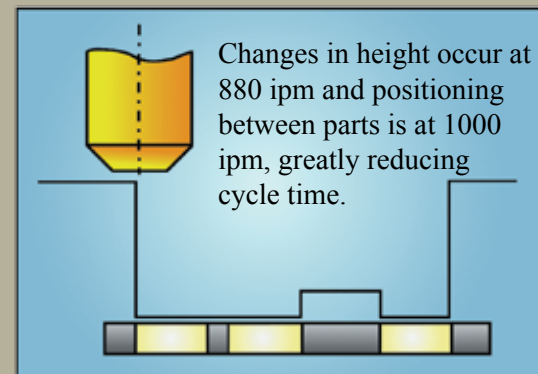
Optional Features

- Plasma systems (both conventional and precision) from 15-760 amps.
- Various marking techniques including: plasma, air scribe, pneumatic punch and zinc powder
- Hi-speed, automated oxyfuel
- Rotary rail cleaners with rack air purge
- Zoned exhaust tables, including self-cleaning Slagger®
- MG Systems dust collector system
- Programming and nesting software
- Virtual Service™ remote consultation and diagnostics
- Sentry Service preventive maintenance program
- Various contour beveling systems including unique compound skew system for plasma and triple torch system for oxyfuel
- Drilling
- Automatic and programmable torch spacing

Productivity

- Torch lifters are fully controllable through the PC-based CNC control. Retract after each cut can be set to various heights - including no raise at all.

Torch Raise Pattern



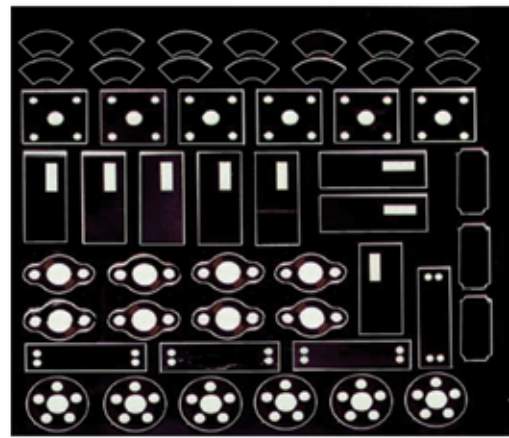
Programmable torch height with fast lifter speeds reduces cycle time.

ARC ON TIME
 POSITIONING TIME

Plus

- Single source responsibility
- Application support
- Designed, manufactured and assembled by knowledgeable people who care

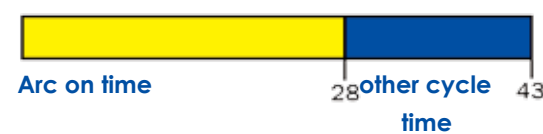
TMC4500 ST Means PRODUCTIVITY



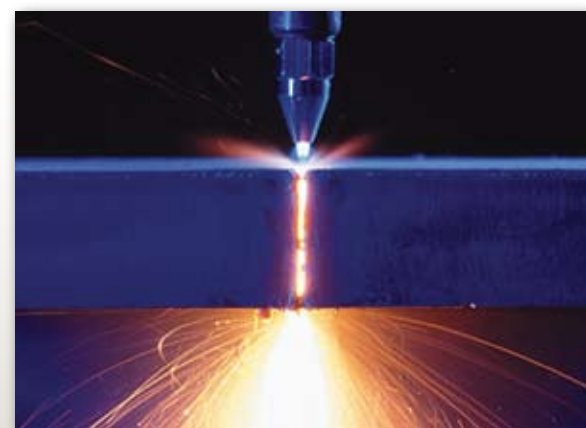
TMC4500 ST (time in minutes)



Other plasma machine



This nest of parts was cut from a four foot square with a 21% productivity gain.



Cutting MACHINES CONTROLS TABLES OPTIONS

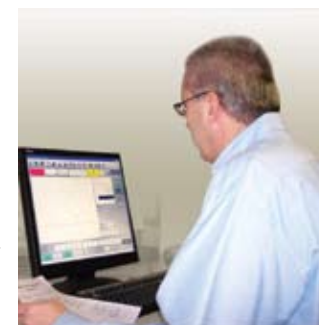
TMC Features

Tool Coverage	Width - from 10' to 28' Length - from 10' to 200'
Tools Available	TurboFlame or ALFA oxyfuel torch Beveling - plasma and oxyfuel Conventional plasma systems from 100 to 760 amps Precision plasma up to 260 amps Punch, Plasma, Powder, Ink Jet or Air Scribe Marker Electric drill and NEW heavy-duty drill Laser pointer, video camera
Material Thickness Capacity	26 ga. to 12" depending on cutting process used
Materials Processed	Steel, stainless steel, or aluminum
Control Type	PC-based Global Control Plus

MG Systems Commitment

Quality Certification

Your assurance of MG Systems commitment to superior craftsmanship



Worldwide Support

Technical support helps our customers get the most productivity from their cutting machines.

Virtual Service™ Remote Diagnostics

It's like having our service department at your side, allowing interactive data communication over an Internet line.



Sentry Service PM Support

Our preventive maintenance (PM) program keeps all your MG Systems machines running like new, which ensures maximum uptime, greater efficiency, and lower operating costs.

Experience

MG Systems is committed to providing high-productive cutting machines. This commitment is shown by our machines' durability and precision. As a long-time AMT member, MG Systems builds machines to the exacting standards of the Machine Tool Industry. Over 100 years of world-wide experience in the thermal-cutting machine industry, combined with our customer-first philosophy, is our foundation for offering superior products.

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Your Productivity Process People®

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TMC4500 ST

Heavy-Duty Cutting System

- Superior Technology
- Multiple Processes
- Contour Beveling



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Cutting MACHINES CONTROLS TABLES OPTIONS

TMC4500 ST is the Dependable Workhorse with Superior Performance



The TMC4500ST, a heavy-duty, box-beam constructed gantry cutting machine, is built to perform in your rigorous production environment. Finite Element Analysis (FEA) design methods assure that your TMC is up to the task of multiple torch plasma and oxyfuel cutting. With many options available, your TMC is customized to fit your cutting needs to improve your shop's productivity.

Torch options include vertical torches, triple torch oxyfuel beveling, and plasma beveling with the unique compound skew rotator. Conventional plasma, precision plasma, oxyfuel, and a variety of marking techniques can be employed to meet your needs. This durable performer has proven its dependability in the demanding surroundings of shipyards, service centers, contract shops, and OEM manufacturers.

Standard Feature

Positioning speeds up to 1000ipm

- Contouring speeds from 0.1ipm to 1000ipm
- Machine motion accuracy: $\pm 0.015''$ accuracy (in 72" travel) with 0.010" repeatability
- Reinforced steel weldment construction with beam having less than 0.062" bend and 0.1 degrees of twist.
- Machined mating surfaces and bores with critical tolerances of 0.002" maintained
- Large rectangular Y-axis ways with wide spacing
- Heavy-duty, machined 115#/yd. crane rail in X-axis
- Power track in both axes is standard
- Cutting widths from 10' to 28', cutting lengths up to 200'
- Up to 12 torch stations (maximum 4 plasma stations)
- Programmable torch selection and spacing
- Patented space-saving torch bar design available as an option
- Advanced oxyfuel technology with Omniflow automated gas regulation
- High-speed MG Systems programmable lifters (880 ipm plasma, 100 ipm oxyfuel)
- Beveling of weld-prep surfaces: straight line and contour, oxyfuel and plasma, single torch and multi torch
- Multiple machines on common rails
- Designed and manufactured in the USA to machine tool standards



HPR Auto Gas Console with the MG CNC Global Control Plus automates plasma output. No manual adjustments are necessary.

Multiple Processes for Maximum Versatility

- Conventional and precision plasma, oxyfuel and marking can be implemented in a variety of combinations
- Plasma bevel and multi-torch oxyfuel beveling, with smooth axes drive systems, creates fine part edge quality
- Programmable torch selection and spacing (optional)



Powerful, Smooth, Accurate Motion Yields High Quality Cut Parts

X and Y Axes:

- Dual 6 HP AC digital drives move the massive gantry effortlessly with consistent performance
- Patented air-over-oil engagement of the large diameter pinions provide smooth, reliable motion
- Near zero backlash engagement of the robotic gearboxes combined with excellent acceleration ensures repeatable, accurate axis positioning

X-Axis - 115 pound/yd. crane rail and 1.25" wide rack assure a stable base and sturdy power transmission to move the robust structure.

Y-Axis - 1.0" wide rack powers the sturdy carriages along 1.25" x 3.0" hardened and ground rectangular ways providing easy, smooth motion.



Rugged, Proven Construction for Long-Term Durability

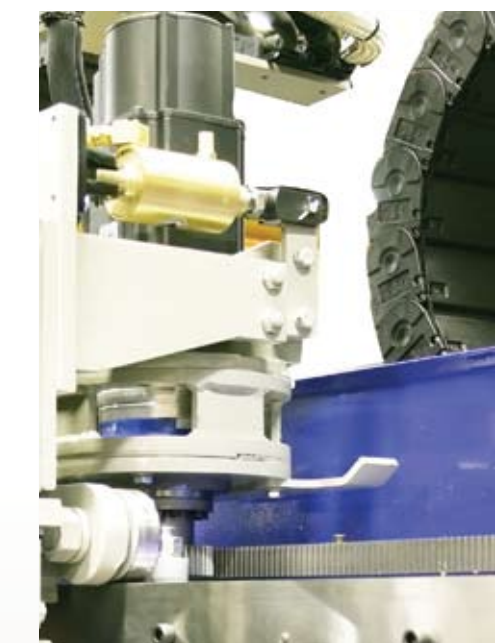
- Longitudinal crane rail to support heavy loads
- Large diameter wheels reduce inertia and provide easy movement.
- Large reinforced steel weldment endtrucks provide stability
- Heavy walled, stress relieved beam ensures solid support of carriages.

Operator Convenience

- Plasma and oxyfuel gas controls located near operator station
- Operator station may be on left or right side
- Control console swivels and tilts
- Oxyfuel auto pierce control
- Twenty home positions for multiple start points
- Lost cut recovery - reposition to any pierce point
- All auxiliary functions are at operator station
- Riding platform (optional) for the operator

Axis Calibration for Even Greater Accuracy (optional)

- Enhances the standard positioning accuracy through electronic compensation
- Calibration and compensation are performed after the machine is installed



Y-axis motor, planetary gearbox and pinion assembly.



CNC CONTROL Global Control Plus



This professional-grade CNC control makes every operator an expert. It incorporates many years of MG Systems worldwide knowledge in a very easy-to-use operator interface using Windows and PC-based CNC.

- Embedded process database for plasma and oxyfuel
- 15" TFT color touchscreen
- Fiber-optic I/O Bus Communication System
- Eight position joystick
- Hand wheel/feed rate override
- Standard shapes, nesting, and networking
- Many more features also included

Global Rotator Infinity

- Unique compound skew control of A-axis and C-axis automatically positions the torch
- Cut edges of +45° through -45° are achieved
- Automatic torch height control via arc voltage
- Square corners are achieved utilizing custom looping routines
- Bevel angle change-on-the-fly (BACF) is available to generate transition angular edges