

RETRO SYSTEMS

Mega HORNET™



Precision CNC Plasma & Oxy-fuel Profile Cutting



Heavy Duty Precision CNC Plasma and Oxy-fuel Profile Cutting

MEGA HORNET

The **MEGA HORNET**, the largest gantry in the Retro Systems product line, is designed to deliver premium precision performance for the most demanding profile cutting applications. A massive welded, stress relieved gantry beam and fabricated steel end trucks enable the **MEGA HORNET** to span up to 30 feet (9.1m) and carry up to 12 cutting and marking processes. The **MEGA HORNET** comes with the **Mariner™** CNC motion control capable of controlling up to (12) axes of machine motion. **MEGA HORNET** incorporates industry's most reliable AC servo amplifiers, servo motors, precision planetary gearboxes, precision ground cross axis linear ways and a heavy duty machined floor mounted rail system. **MEGA HORNET** is designed for shipyards, service centers, contract shops and manufacturers.

MACHINE SIZES

MEGA HORNET is available in widths from 10 ft (3m) to 30 ft (9.1m). Rails systems to 200 ft (60.9m) or more are available.

PLASMA CUTTING, OXY-FUEL CUTTING & PLATE MARKING

MEGA HORNET master tool carriages are designed to carry up to three tools such as a plasma torch, oxy-fuel torch or plate marker. **MEGA HORNET** may be configured with up to (8) plasma systems, (12) oxyfuel straight torches and (2) rotating oxyfuel triple bevel heads. Mechanical and plasma marking are also available.

HEAVY DUTY FRAME DESIGN

Massive fabricated steel end trucks ride on a heavy duty triple machined floor mounted rail system. Cross axis tool carriages travel along Dual Linear Ways attached to the welded and stress relieved Twin-Box Beam. **MEGA HORNET** will deliver decades of precision profile cutting.

POWERFUL AC SERVO DRIVES

MEGA HORNET includes 10 HP AC servo motors directly coupled to precision low arc minute planetary gearboxes delivering premium motion control and acceleration for contouring at up to 600 IPM (15.24m/min) and rapid traverse speeds to 1,000 IPM (25.4m/min).

HYPERTHERM® AUTOMATION CNC CONTROL

The **MEGA HORNET** is controlled by the **Mariner™** CNC control from Hypertherm® - the world leader in plasma cutting automation. Windows® XP Embedded operating system, hardened industrial enclosure, 15" TFT Touch Screen and easy-to-learn **Phoenix™** motion control software make Hypertherm® control the best in the business. Plasma process **CUT CHART** screens prompt the operator to select material type, material thickness, cutting amperage and gas selection. Parameter tables within the **Phoenix™** software set and control plasma system, torch height control and motion control variables. **CUSTOM CUT CHARTS** enable the machine operator to create hundreds of custom charts with personalized parameters. **CutPro Wizard™** guides untrained operators through the basic and essential functions of loading and cutting parts. **REMOTE HELP** via the internet enables factory technicians to deliver operator training, software updates and troubleshooting at the touch of a button.

CNC FILE CREATION AND LOADING FILES

The **Mariner™** includes an onboard DXF to CNC converter and **NESTER** for basic auto nesting of parts. Retro Systems also offers a full range of products from MTC Software, Inc. MTC's powerful software will quickly nest your CAD drawings and prepare CNC machine code files optimized for the selected cutting process. CNC files prepared in your office may be down-loaded directly to the **Mariner™** across your network or hand carried to the control on a USB memory stick.

HEAVY DUTY FRAME DESIGN

- Heavy Wall Welded Twin-Box Front Beam
- Fabricated & Reinforced Steel End Trucks
- Triple Machined Floor Mounted Rail System
- Dual Precision Ground Cross Axis Linear Ways
- Stainless Steel Slave Carriage Band Drive

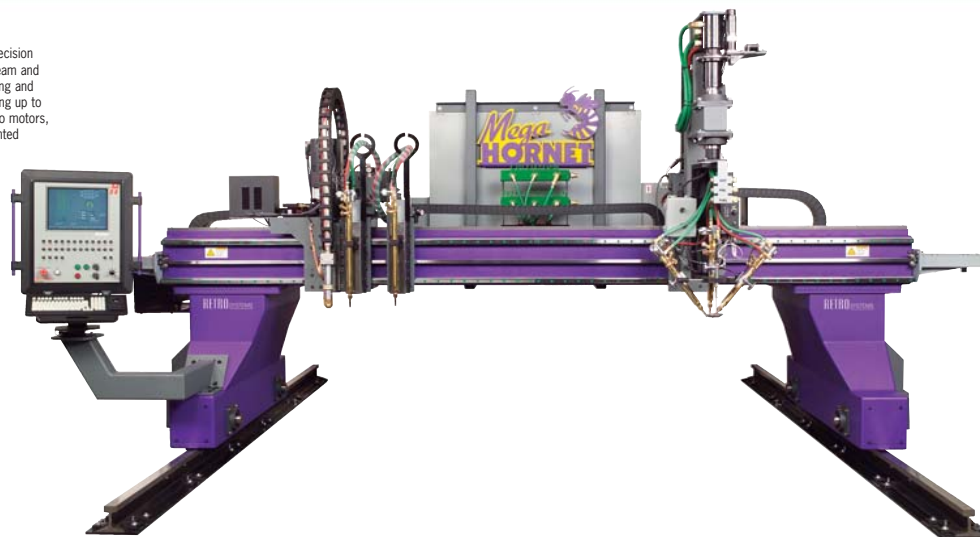


POWERFUL DRIVE SYSTEM

- 10 HP AC Servo Motors
- Planetary Gear Heads
- Dual Linear Way Motor Slides
- Air-Over-Oil Pinion Engagement
- 1-1/2" (38mm) Wide Gear Rack
- 3-1/2" (89mm) Diameter Pinion Gears
- 10" (254mm) Diameter Truck Wheels
- 2-7/16" (65mm) Diameter Truck Wheel Axles



Motor cover removed for clarity.



MASTER & SLAVE CARRIAGES

- Master carriage for up to (3) Tools
- Up to (11) Slave Carriages



CUT CHART SCREEN
Operator selects material type, thickness, gases and amperage. The CNC controls the plasma torch height control and motion control variables throughout the cutting job. Gas selection and flows are automatically set and maintained if interfaced to an Auto Process plasma cutting system.



CUSTOM CUT CHART
Custom Cut Chart allows creating and saving specific processes (100 per material type).



REMOTE HELP

Connect to factory technical support via the internet in less than a minute. Our technicians can:

- Observe CNC Screens while Running the Machine
- Review Settings/Setups, Part Programs
- Perform Software Updates
- Perform HPR Diagnostics
- Provide Technical Training



CUTPRO WIZARD™

CutPro Wizard™ guides the operator through:

- Loading Part programs
- Selecting a Cutting Process (including custom cut processes)
- Aligning a Plate and Adjusting for Skew
- Selecting Scrap Clearance
- Picking a Cutting Process (or trial mode) and Starting the Cut



CONSUMABLES SCREEN

Displays images and part numbers for the correct plasma consumables based on the selections made in the CUT CHART SCREEN. It even tracks consumable parts life.

MEGA HORNET STANDARD FEATURES:

- Heavy Wall Welded Twin-Box Front Beam
- Fabricated & Reinforced Steel End Trucks
- Hypertherm Automation Mariner™ CNC Control with SERCOS Interface
- 10 HP AC Servo Motors & Drive Amplifiers
- 5 Arc Minute Planetary Gear Heads
- 600 IPM Contouring (15.24m/min) / 1,000 IPM Rapid Traverse (25.4m/min)
- Triple Machined Floor Mounted Rail System
- Dual Precision Ground Linear Ways on Cross Axis
- Flexible Cable Carriers on Cross Axis
- Master Carriage to accept up to (1) Plasma Station, (1) Oxy-fuel Station & (1) Marker Station

MARINER™ CNC CONTROL & OPERATOR CONTROL CONSOLE:

- Hypertherm Phoenix™ CNC Motion Control Software
- Microsoft Windows XP® - Embedded Version
- Intel® Pentium 4 3.0Ghz or greater
- 512 Megabytes RAM or greater
- 15" TFT Touch Screen Display
- 60.0 Gigabyte Hard Drive
- Communication Networking
- 1.44 Megabyte Floppy Drive & DVD - ROM
- Integrated 12 Station Operator Console Standard
- Joystick and 2 Speed Pots
- 101 Key Keyboard Standard - USB interface
- Supports up to 12 Axes
- Single Ended & Analog I/O supported via external SERCOS™ I/O Module
- Operating Environment 0 to 50C; 95% relative humidity (non-condensing)
- On-board Voltage and Temperature Sensing
- Vortex Air Cooler

MEGA HORNET OPTIONS:

- Widths from 10 ft to 30 ft (3.04m to 9.14m)
- Rail Systems to 200 ft or more (60m)
- Floor Mounted or Over-Head Flexible Cable Carriers
- Slave Carriage Stainless Steel Band Drive
- Plasma Systems to 400 Amps or more (8 max)
- Plasma Torch Height Controls
- Plasma Marking Stations (4 max)
- Oxy-fuel Torches & Stations (12 max)
- Infinite Rotation Oxyfuel Triple Bevel Head (2)
- Collision Mounts for Plasma Torches
- Mechanical Markers (Air Scribe, Center Punch)
- Water Tables with Adjustable Water Level
- Multi Zoned Down Draft Air Tables
- Dust Collection Systems
- Nesting Software
- Light Stick



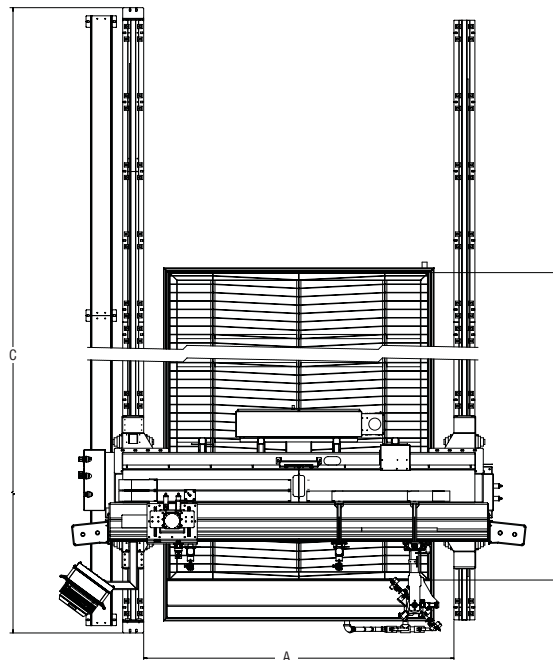
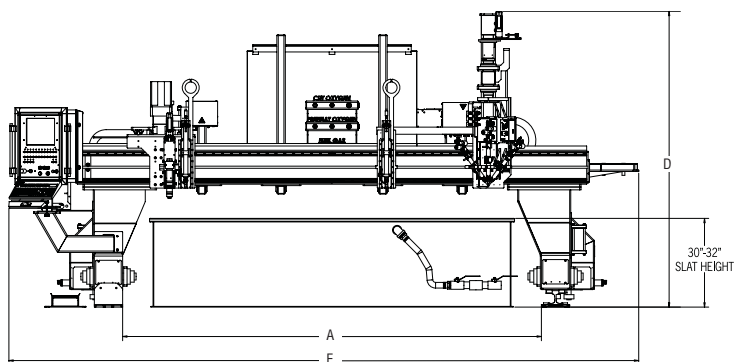
MARINER™ CNC CONTROL

- Hypertherm Phoenix™ CNC Motion Control Software
- Microsoft Windows XP® - Embedded Version
- 15" TFT Touch Screen Display
- Integrated 12 Station Operator Console
- Supports up to 12 Axes of Motion
- SERCOS™ Fiber Optic Interface

Precision Productivity Performance

Mega HORNET™

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MACHINE SPECIFICATIONS

Positioning accuracy +/- .005" (.127mm) *

Repeatability +/- .001" (.025mm) *

* Measured in a 60" x 60" area

Width Between Rails – (A)*	148" (3.75m)
Effective Cutting Length – (B)	120" (3.04m) standard, 96" (2.43m) with triple bevel head
Standard Rail Length – (C)**	192" (4.87m)
Overall Machine Height – (D)	105" (2.66m)
Overall Machine Width – (E)	223" (5.66m)
Recommended Slat Height	30"- 32"(762mm - 812mm)

* Additional widths available in 2 ft (.609m) increments up to 30 ft (9.14m).

** Additional lengths available in 96" (2.43m) increments.

NOTE: Effective cutting width of a machine will vary with the number of tool carriages.

Maximum Contouring Speed	600 IPM (15.24m/min)
Maximum Traverse Speed	1,000 IPM (25.4m/min)
Maximum Number of Tool Carriages	(12) Total - (1) Master & (11) Slave Carriages
Maximum Number Oxy-fuel Stations	(12)
Maximum Number Plasma Stations	(8)
Maximum Number Marker Stations	(4)
Recommended Conventional Plasma Systems	Hypertherm® HT2000™ or HT4400™
Recommended High Definition Plasma Systems	Hypertherm® HPR130™, HPR260™, HPR400XD™
Maximum Plasma Production Capacity	Plasma System Dependent
Maximum Oxy-fuel Production Capacity	12" (300mm)
Input Power – CNC and Servo Drive Amplifiers	380 - 480VAC 80A 50/60Hz
Input Power – Plasma	Refer to Plasma Manufacturer's Manual

RETRO SYSTEMS

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