

# RETRO SYSTEMS

# Mini HD HORNET



CNC Plasma & Oxy-fuel Profile Cutting



Precision CNC Profile Cutting Innovation

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## MINI HORNET HD

The **MINI HORNET HD** delivers precision CNC profile production plasma cutting up to 1" (25mm) and oxy-fuel cutting up to 2" (50mm) on 5 ft (1.5m) wide plate in lengths of 10 ft (3.0m) or 20 ft (6.0m). Powerful (4) axis AC Servo drives, the easy-to-use Hypertherm **MicroEDGE™** CNC control, Premium components and Rigid steel construction ensure consistent highly accurate profile cut parts with conventional or high definition plasma systems. Excellent quality small diameter holes are possible with the Hypertherm® HyPerformance™ HPR130XD high definition system.

## PLASMA & OXY-FUEL CUTTING, PLATE MARKING & AUTO PROCESS CONTROL

The **MINI HORNET HD** may be configured with (2) cutting processes – (1) conventional or high definition plasma cutting system and (1) oxyfuel cutting station. Hypertherm Powermax™ systems are an excellent choice when conventional plasma is required. Air plasma systems are an excellent choice for medium duty conventional plasma cutting. For extended consumable life, improved cut edge weldability and heavier plate capacity, we recommend higher amperage oxygen plasma systems with liquid cooled torches. If premium plasma cutting is required, a high definition plasma system is the best choice.

## INTEGRATED CUTTING TABLE

The **MINI HORNET HD** standard cutting table is an integrated single zone down draft air table. Customers may upgrade to the optional multi-zoned air table design to reduce the fan size required and improve exhaust efficiency. Multi zone tables direct exhaust air flow only through the zone where the torch is cutting. The CNC control signals the opening and closing of appropriate damper doors based on machine position along the rails. Removable heavy steel cover plates protect moving parts from slag and heat. A exhaust flange is provided at the rear of the air table for connection to a cartridge style dust collector or fan. Retro Systems offers a wide range of dust collection equipment from Micro Air. The **MINI HORNET HD** cutting table is also offered in a water table design with adjustable water level.

## HEAVY DUTY BEAM AND FRAME DESIGN

Reinforced steel box beam and Dual Linear Ways ensure ultra smooth motion of the cross axis tool carriage. The machine frame end trucks ride on Triple Machined steel rails attached to support brackets on the sides of the integrated steel cutting table frame.

## POWERFUL (4) AXIS AC SERVO DRIVE SYSTEM

Machine motion is powered by (3) 600 watt (.8 hp) AC servo motors directly coupled to precision planetary gearboxes to deliver 1,000 IPM (25m/min) Rapid Traverse speeds. The optional plasma lifter with 6" (250mm) stroke is driven by an AC servo motor to deliver vertical positioning speed of 600 IPM (15m/min).

## HYPERTHERM® FULL SUITE

The **MINI HORNET HD** is configured with the Hypertherm **FULL SUITE** of products including Hypertherm plasma systems, a Hypertherm **MicroEDGE™** CNC control and Hypertherm plasma height control technology. Use of the **FULL SUITE** ensures delivery of the latest Hypertherm technology, the most reliable integration of system components, the best and most consistent plasma performance and the best system diagnostics. Retro Systems machines configured with a Hypertherm HPRXD Auto Gas plasma system and MTC ProNest programming software deliver **True Hole™** cutting technology for mild steel.

## BUILT-IN CUTTING EXPERTISE

Eliminate operator variability by embedding Hypertherm's cutting techniques into the part program with MTC ProNest offline programming software. The operator does not need to set: amperage, gas combinations or flows, torch pierce height, pierce time, pierce delay, cut height, arc voltage, interior or exterior profile feed rates or kerf compensation. ProNest automatically sets all the previously listed parameters as well as lead type, location and speeds, torch height control settings and collision avoidance. Everything necessary to produce premium results every time is in the code. The Hypertherm **FULL SUITE** is the only way to go.

## FAST & EASY INSTALLATION

Unitized design means set up is complete in just a few hours. A few components are bolted on, a few cables connected and you're ready to start cutting parts.



## MINI HORNET HD STANDARD FEATURES:

- Cutting Width: 60" (1.5m)
- All Steel Construction
- Fabricated 1/4" Steel Table Frame
- Steel Gantry Beam
- Integrated Cutting Table
  - Single Zone Air Table with Slotted Center Exhaust Tube
  - Slat combs with slots cut on 2" centers – Slats included
  - Exhaust Connection on Rear of Table
- Hypertherm® Automation MicroEDGE™ (4) Axis CNC Control
- 1,000 IPM Rapid Traverse Speed (25m/min)
- 600 Watt (.8 HP) AC Servo Motors and Drive Amplifiers
- Precision Planetary Gear Boxes
- Triple Machined "Tee" Rail on **both** sides of Main Rail Axis
- Dual Linear Ways on the Cross Axis Beam
- Flexible Cable Carriers on **both** X & Y Axis
- Master Carriage to accept up to (2) Tools

## CNC CONTROL & OPERATOR CONTROL CONSOLE FEATURES:

- Microsoft® Windows® XP® - Embedded Version
- Hypertherm® Automation Phoenix® Motion Control Software
- Intel 2.5 Ghz or greater, 512 Megabytes RAM
- 80.0 Gigabyte Hard Drive or greater
- PS2 Keyboard & Mouse ports
- (1) On-board RJ-45 10/100 Base-T Ethernet port
- (5) 2.0 USB & (2) Serial-9 Pin Ports
- Machine Side Opto-Isolation
- 68 Shapes Including Text
- 15" (380mm) LCD Touch-Screen Monitor
- Keyboard and Integrated Pointing Device
- E-STOP button

## MINI HORNET HD OPTIONS:

- Cutting Lengths: 10 ft (3.0m) or 20 ft (6.0m)
- **SPECIAL** Small Footprint 4x4 Machine
- Plasma Systems up to 130 Amps (1 max)
- Integrated 4th Axis **SENSOR** Torch Height Control Interface
- Plasma Torch Lifter with AC Servo
- Collision Mount for Plasma Torch
- Roller Ball Plate Rider for Plasma Torch
- Cross-Hair Laser Pointer
- Oxy-fuel Torch & Lifter Stations (1 max)
- Air Scribe Plate Marker (1 max)
- Dust Collection Systems
- Programming Software

## Cutting Table Upgrades (in lieu of standard single zone air table)

- Integrated Water Table with Adjustable Water Level
- Integrated Multi Zone Down Draft Air Table



### 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
- Review Part Programs
- Perform Software Updates
- Perform HPR Diagnostics
- Provide Technical Training

## PRECISION CUT PARTS

- Precision Gauge Sheet Metal
- High Speed Heavy Plate Cutting
- Weldable Cut Edges
- Plasma Plate Marking



### CUTPRO WIZARD™

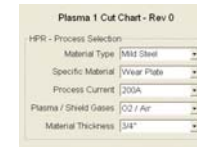
CutPro Wizard™ guides the operator through:

- Loading Part programs
- Selecting a Cutting Process
- Aligning a Plate and Adjusting for Skew
- Selecting Scrap Clearance
- Starting the Cut



### 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).



### CONSUMABLE 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.

## MicroEDGE™ CNC CONTROL CONSOLE

- Industrial Control Enclosure
- Phoenix Control Software
- 15" (380mm) LCD Touch Screen
- Industrial Keyboard with Integrated Pointing Device
- E-Stop, Plasma ON/OFF, Plasma UP/DOWN
- Oxy-fuel operator controls (optional)
- Dust Collector ON/OFF (optional)



## TOOL CARRIAGE

- (2) Tools Maximum
- Plasma Torch Lifter
- Pneumatic Plasma Torch Collision Mount
- Oxy-fuel Torch Lifter



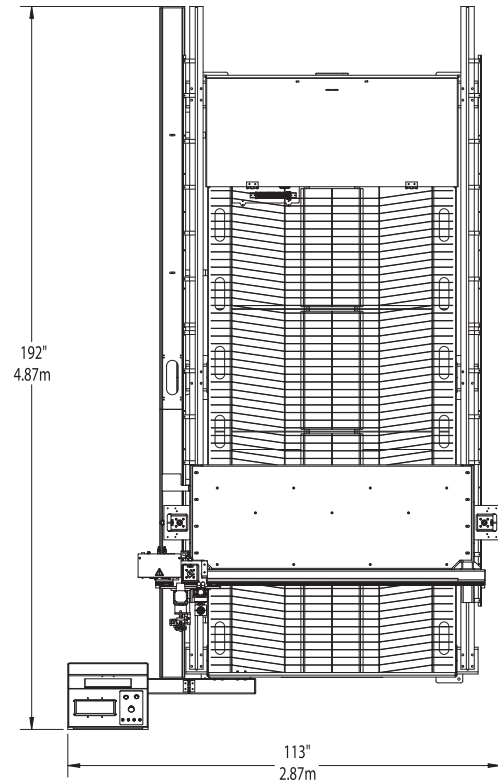
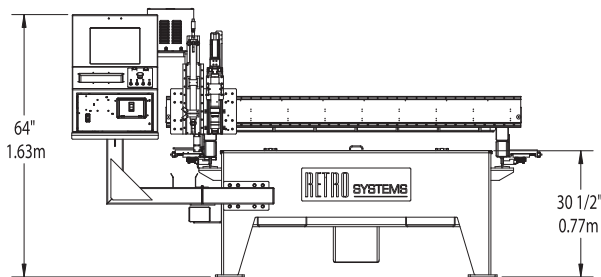
## HEAVY DUTY DESIGN

- AC Servo Motors
- Planetary Gear Heads
- Flexible Power Track for Cables
- Large Sheet Metal Back Deck

**Precision  
Productivity  
Performance**

# Mini HD HORNET™

CNC Plasma & Oxy-fuel Profile Cutting



## MACHINE SPECIFICATIONS\*

Positioning accuracy	+/- .005" (.127mm)
Repeatability	+/- .001" (.025mm)
Effective cutting width	64.6" (1,641mm) plasma cutting, 61" (1,549mm) oxy-fuel cutting
Effective cutting length	127" (3,225mm)
Overall machine height	64" (1,625mm)
Overall machine length	192" (4,876mm) including CNC control
Overall machine width	113" (2,870mm) including CNC control
Maximum contouring speed	600 IPM (15m/min)
Maximum traverse speed	1,000 IPM (25m/min)
Maximum cutting tools	(1) plasma and (1) oxy-fuel station on tool carriage
Maximum amperage (plasma system)	130 A
Recommended air plasma systems	Hypertherm Powermax series
Recommended oxygen plasma systems	Hypertherm HSD130
Recommended high definition plasma system	Hypertherm HPR130XD
Maximum plasma cutting capacity	1" (25mm)
Maximum oxy-fuel cutting capacity	2" (50mm)
Maximum table capacity (full sheet)	1-1/4" x 60" x 120" (32mm x 1.5m x 3.1m)
Input power for cutting machine	115 VAC single phase, 20A dedicated circuit

\*Specifications are subject to change

# RETRO SYSTEMS

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