

# RETRO SYSTEMS

## Ultra HORNET™

Precision CNC Plasma & Oxy-fuel Profile Cutting



*Precision CNC Profile Cutting Innovation*

# Precision CNC Profile Cutting Innovation

## ULTRA HORNET™

The **ULTRA HORNET™** CNC cutting machine delivers precision production plasma cutting up to 2" (50mm) and oxy-fuel cutting up to 8" (200mm) to meet the needs of today's most demanding industrial profile cutting requirements. Powerful AC Servo drives, the easy-to-use Hypertherm **EDGE Pro™** CNC control, premium components and rigid steel construction ensure consistent highly accurate profile cut parts. **ULTRA HORNET** is the right choice for job shops, machinery manufacturers, heavy equipment manufacturers and metal service centers.

## MACHINE SIZES

The **ULTRA HORNET** is available in 6, 8, 10, 12, 14 & 16 ft widths (1.8, 2.4, 3.0, 3.6, 4.3 & 4.9m). Cutting lengths of over 150 (46m) feet can be supplied.

## PLASMA CUTTING, OXY-FUEL CUTTING & PLATE MARKING

The **ULTRA HORNET** may be configured with (1) master carriage and up to (7) slave carriages. The master carriage can carry up to (3) tools – plasma torch, oxyfuel torch and a marker. Each slave carriage may carry either a plasma or oxy-fuel torch. Machines may be configured with up to (4) plasma systems and up to (8) oxyfuel torches. For premium plasma cutting performance, select a high definition plasma system with output up to 400 Amps and production cutting capacity to 2" (50mm). High Capacity Hi/Low Preheat Gas Manifolds are available for heavy duty oxy-fuel cutting with multiple torches up to 8" (200mm).

## HEAVY DUTY FRAME DESIGN & STRUCTURAL BEAM RAIL SUPPORT

Dual linear cross axis ways on the reinforced steel 8" x 8" (200mm x 200mm) box beam gantry ensure ultra smooth motion of the tool carriages. Large diameter truck wheels inside 20" high (500mm) by 60" long (1.5m) and trucks ride on rails supported by large structural "I" beams. Retro Systems' tongue & groove rails are Triple Machined and Flame Hardened to HRC 48. A full width heat shield under the gantry bridge is standard.

## POWERFUL SERCOS TECHNOLOGY® SERVO DRIVES

Our SERCOS Technology® motion control interface sends positional commands to the AC Servo motors across an optical network at 16 Megabits per second. **SERCOS** technology was chosen to handle the high acceleration forces, speed and precision required to optimize the performance of today's high definition plasma cutting systems. The **ULTRA HORNET** design also includes 1.6 HP servo motors, precision pinion gears and gear rack to ensure consistent and repeatable premium cut part quality.

## HYPERTHERM® FULL SUITE

**ULTRA HORNET** CNC cutting machines are configured with the Hypertherm **FULL SUITE** of products including Hypertherm plasma systems, a Hypertherm **EDGE Pro** 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 lengths and location, 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.

## RELIABILITY AND SUPERIOR SERVICE

Machine startup and operator training is conducted by Retro Systems factory technicians who also build and test the equipment. The **ULTRA HORNET** is so reliable that service calls are infrequent, however, Retro Systems offers innovative, responsive service if issues arise. The Hypertherm **EDGE Pro** CNC control with **REMOTE HELP** via the internet allows our technical support staff to "see" the diagnostics screens on your machine and do real-time trouble shooting. Plus, we ship virtually all our repair parts the same day. When an on-site solution is required, a factory technician is immediately dispatched.

## POWERFUL DRIVE SYSTEM

- 1,200 Watt (1.6 HP) AC Servo Motors
- Planetary Gear Heads
- Dual Linear Way Motor Slides
- **Auto-Load** Pinion Gear Tensioning System
- 3/4" (19mm) Wide Gear Rack
- 2-1/2" (63.5mm) Diameter Pinion Gears

## HEAVY DUTY RIGID DESIGN

- Dual Linear Cross Axis Ways
- Steel Gantry Beam - 8" x 8" (200mm x 200mm)
- Steel 20" High End Trucks (500mm)
- Structural "I" Beam Rail Support System (W21 x 6.5)
- Flame Hardened Triple Machined Tongue and Grooved Rails

## TOOL CARRIAGES

- Rack & Pinion Drive
- Heavy Duty Master Carriage Tool Plate
- Dual Linear Cross Axis Ways
- AC Servo Driven Ball Screw Plasma Torch Lifter
- Pneumatic Plasma Torch Collision Mount
- Motorized Oxy-fuel Lifter



## PRECISION CUT PARTS

- Sheet metal to 2" (.5mm to 50mm)
- Steel, Stainless and Aluminum
- Weldable Cut Edges
- Plasma Plate Marking

## True Hole™ enabled



## Remote Help

## 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



## 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
  - Cutting a Part

## 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.



## ULTRA HORNET STANDARD FEATURES:

- Heavy Duty All Steel Construction
- Hypertherm® Automation **EDGE Pro™ SERCOS** CNC Control
- Integrated **SENSOR** Plasma Torch Height Control Interface
- Structural "I" Beam Rail Support System
- Tongue & Grooved, Triple Machined and Flame Hardened Main Rails
- Dual Linear Cross Axis Ways
- 1,200 Watt (1.6 HP) AC Servo Motors and Drive Amplifiers
- 5 Arc Minute Planetary Gear Heads
- 600 IPM Contouring (15m/min)
- 1,000 IPM Rapid Traverse Speed (25m/min)
- Enclosed Flexible Cable Carriers on Both X & Y Axis
- Master Carriage to accept up to (1) Plasma station, (1) Oxy-fuel station & (1) Marker station

## CNC CONTROL & OPERATOR CONTROL CONSOLE FEATURES:

- Hypertherm Automation **EDGE Pro SERCOS** CNC Control
  - Microsoft® Windows® XP® - Embedded Version
  - Software Supports HPRXD and True Hole™ Technology
  - Panel Mounted 15" Glass Touch Screen (Surface Acoustic Wave Technology)
  - Intel 2.0 GHz, 1 Gigabyte RAM
  - 120.0 Gigabyte Hard Drive
  - (2) 2.0 USB Ports, and (2) RS-232/RS-422 Serial Ports
  - (1) RJ45 Network Port
  - 1024 Lines of User-Definable Interface Signals (512 In / 512 Out)
- Retro Systems Operator Console
  - Plasma and Oxy-fuel Control Switches
  - Twelve (12) Station Control
  - Industrial Keyboard in Roll Out Drawer
  - Speed Potentiometers (Jog speed and Program speed)
  - Eight Position Directional Controls
  - E-STOP Button

## ULTRA HORNET OPTIONS:

- Widths from 6 ft to 16 ft (1.8m to 4.9m)
- Rail Systems to 150 ft or More (46m)
- Plasma Systems up to 400 Amps (4 max)
- 250 Watt AC Servo Driven Ball Screw Plasma Torch Lifter
- Collision Mount for Plasma Torch
- Oxy-fuel Torches & Lifter Stations (8 max)
- Cross-Hair Laser Pointer
- Plate Markers (Air Scribe or Plasma)
- Multi Zoned Down Draft Air Tables
- Water Tables with Adjustable Water Level
- Dust Collection Systems
- Programming Software



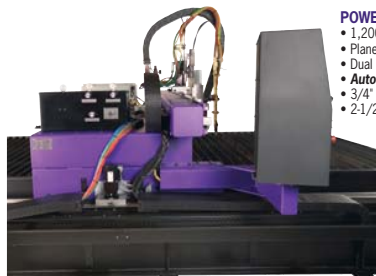
## CUSTOM CUT CHART

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



## CONSUMABLE SCREEN

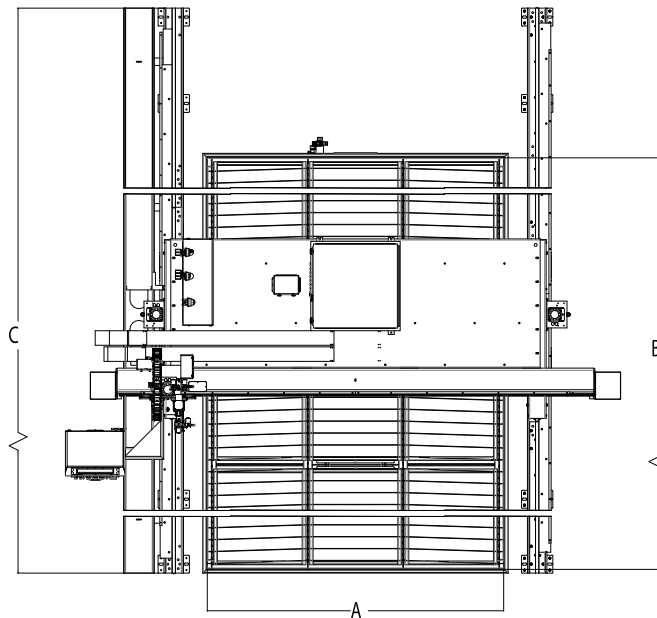
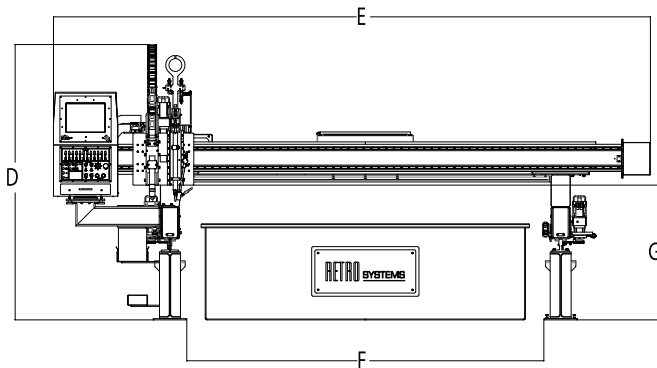
Displays images and part numbers for the correct plasma consumables based on the selections made in the CUT CHART SCREEN. It even tracks consumable parts life.



# Precision Productivity Performance



Precision CNC Plasma & Oxy-fuel Profile Cutting



## MACHINE SPECIFICATIONS\*

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

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

\* Measured in a 60" x 60" area (1.5m x 1.5m)

	6ft	8ft	10ft	12ft	14ft	16ft
Effective Cutting Width – (A)**	72" (1.8m)	96" (2.4m)	120" (3.0m)	144" (3.6m)	168" (4.3m)	192" (4.9m)
Effective Cutting Length – minimum (B) ***	120" (3m)					
Overall Machine Length – minimum (C)	250" (6.4m)					
Overall Machine Height – (D)	86" (2.2m)					
Overall Machine Width – (E)	162" (4.19m)	186" (4.7m)	210" (5.3m)	234" (6.0m)	258" (6.6m)	282" (7.2m)
Width Between Rails – (F)	87" (2.2m)	111" (2.8m)	135" (3.4m)	159" (4.0m)	183" (4.6m)	207" (5.3m)
Distance from Floor to Gantry – (G)	42" (1.07m)					
Gantry Parking Space	72" (1.84m)					
Rail Height	25.5" (648mm)					
Suggested Cutting Table Slant Height	26" to 32" (.66m to .81m)					

\*\* The number of tools on the master carriage affects actual effective cutting width. Verify your application with factory before ordering.

\*\*\* Machines are available in 10, 12, 20, 24, 32, 36, 40 and 44 ft. effective cutting lengths. Consult factory for lengths over 44 ft.

Maximum Contouring Speed	600 IPM (15m/min)
Maximum Traverse Speed	1,000 IPM (25m/min)
Maximum Number of Tool Carriages	(8) Total - (1) Master & (7) Slave Carriages
Maximum Number Plasma Stations	(4)
Maximum Plasma Production Capacity	2" (50mm)
Recommended Oxygen Plasma Systems	Hypertherm® HSD130™, HT2000™
Recommended High Definition Plasma Systems	Hypertherm® HPR130XD™, HPR260XD™, HPR400XD™
Maximum Number Oxy-fuel Stations	(8)
Maximum Oxy-fuel Production Capacity	8" (200mm)
Input power – Machine Servo Drive Amplifiers	480VAC 3 Phase 50/60Hz Balanced Y 40A dedicated circuit
Input power – CNC Control	115 VAC 1 Phase, 20A dedicated circuit
Input power – Plasma	Refer to Plasma Manufacturer's Manual

\*Specifications are subject to change

# RETRO SYSTEMS

430 W. Clay  
Valley Center, KS 67147  
Phone (316) 755-3683  
Fax (316) 755-1675  
E-mail: [info@retroplasma.com](mailto:info@retroplasma.com)  
[www.retroplasma.com](http://www.retroplasma.com)