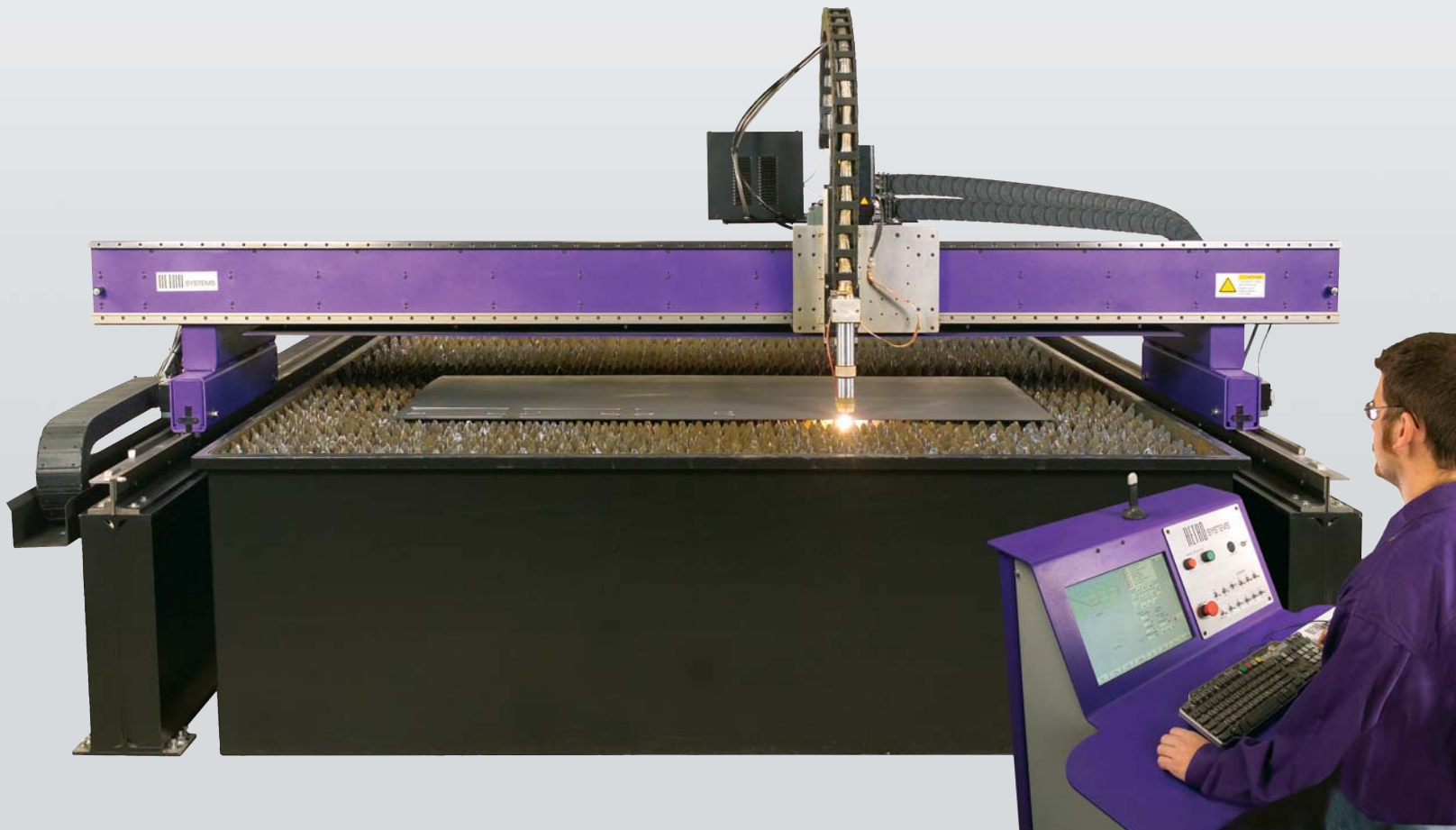


RETRO SYSTEMS

Super HORNET

Precision CNC Plasma & Oxy-fuel Profile Cutting





Precision CNC Plasma and Oxy-fuel Profile Cutting

SUPER HORNET

The **SUPER HORNET** delivers precision high definition and conventional CNC profile production plasma cutting up to 2" (50 mm) and oxy-fuel cutting up to 3" (75 mm). Excellent quality holes as small as a 1:1 ratio of hole diameter to material thickness are possible with Hypertherm® HyPerformance™ HPR™ systems. **SUPER HORNET** incorporates the industry's most reliable AC servo amplifiers and servo motors, precision planetary gearboxes, precision ground cross axis linear ways and a heavy duty machined rail system.

MACHINE SIZES

SUPER HORNET is available in 5, 6, 8, 10 and 12 ft widths (1.5, 1.8, 2.4, 3.0 & 3.6 m) and lengths to over 60 ft (18 m).

PLASMA CUTTING, OXY-FUEL CUTTING & PLATE MARKING

The **SUPER HORNET** master tool carriage is designed to carry up to three tools such as a plasma torch, oxy-fuel torch or a plate marker. One additional tool carriage may be added to carry a plasma torch or an oxy-fuel torch.

HEAVY DUTY FRAME DESIGN

Dual Linear Ways on a reinforced steel box beam ensure ultra smooth motion of the cross axis tool carriages. Large diameter truck wheels inside the gantry end trucks ride on Triple Machined & Flame Hardened Tongue & Grooved rails supported by a large structural steel "I" beam. 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 **SUPER HORNET** design also includes 1.6 HP servo motors, precision helical pinion gears and helical gear rack to ensure consistent and repeatable premium cut part quality.

HYPERTHERM® AUTOMATION CNC CONTROL

The **SUPER HORNET** is controlled by the **MicroEDGE™** CNC control from Hypertherm® - the world leader in plasma cutting automation. Windows® XP Embedded operating system, hardened industrial enclosure and easy-to-learn **Phoenix™** software make Hypertherm® controls 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. **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 **MicroEDGE™** CNC control 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 CNC control across your network or hand carried to the CNC control on a USB memory stick or floppy diskette.

CUTTING TABLES – AIR OR WATER

Retro Systems designs and manufactures both down draft air tables and water tables. Our zoned down draft air tables include multiple zones with pneumatically actuated damper doors. The CNC control monitors machine movement along the rails and maximizes air exhaust system efficiency by activating the damper in the zone where cutting is occurring. A wide range of dust collectors are available for our air tables. Our water tables include the ability to raise and lower water level by adding or removing air from an internal chamber of the table. Removable slag trays to simplify cleaning are available for both air and water tables.



POWERFUL DRIVE SYSTEM

- **SERCOS** Fiber Optic Drive Interface
- 1.6 HP AC Servo Motors
- Planetary Gear Heads
- Dual Linear Way Motor Slides
- **Auto-Load** Pinion Gear Tensioning System
- 3/4" (19 mm) Wide Helical Gear Rack
- 2-1/2" (63.5 mm) Diameter Pinion Gears

HEAVY DUTY RIGID DESIGN

- Heavy Duty All Steel Construction
- Structural "I" Beam Rail Support System
- Flame Hardened Triple Machined Tongue and Grooved Rails
- Dual Linear Ways on Cross Axis



TOOL CARRIAGES

- Rack & Pinion Drive
- 6061 Aluminum Tool Plate - 1/2" Thick (12 mm)
- Dual Linear Way Bearing Blocks
- AC Servo Driven Ball Screw Plasma Torch Lifter
- Pneumatic Plasma Torch Collision Mount
- Oxy-fuel Lifter (not shown)

SUPER HORNET STANDARD FEATURES:

- Heavy Duty All Steel Construction
- Structural "I" Beam Rail Support System
- Hypertherm® Automation **MicroEDGE™** CNC Control
- **SERCOS** Fiber Optic Drive Interface
- Integrated **SENSOR** Torch Height Control Interface
- 1.6 HP AC Servo Motors and Drive Amplifiers
- 5 Arc Minute Planetary Gear Heads
- 1,000 IPM Contouring (25.4 m/min)
- 1,200 IPM Rapid Traverse Speed (30.4 m/min)
- Triple Machined and Flame Hardened Main Rails
- Dual Linear Ways on Cross Axis
- 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:

- Microsoft® Windows® XP® - Embedded Version
- Hypertherm® Automation Phoenix® Motion Control Software
- Intel 2.4 Ghz or greater, 512 Megabytes RAM
- 60.0 Gigabyte Hard Drive or greater
- PS2 Keyboard & Mouse Ports
- (1) On-board RJ-45 10/100 Base-T Ethernet port
- (5) 2.0 USB & (1) Parallel Printer Port
- Machine side Opto-Isolation
- 68 Shapes Including Text
- 15" (380 mm) LCD Touch-Screen Monitor
- Industrial keyboard and Pointing Device
- E-STOP button
- Oxy-fuel Operator Control Panel - **OPTIONAL**
- Dust Collector Start/Stop Buttons - **OPTIONAL**

SUPER HORNET OPTIONS:

- Widths from 5 ft to 12 ft (1.5 m to 3.6 m)
- Rail Systems to 60 ft or More (18 m)
- Machine Mounted or Remote Pedestal CNC Control
- Plasma Systems up to 400 Amps (2 max)
- Oxy-fuel Torches & Stations (2 max)
- 250 Watt AC Servo Driven Ball Screw Plasma Torch Lifter
- Collision Mount for Plasma Torch
- Plate Markers (Air Scribe or Plasma)
- Multi Zoned Down Draft Air Tables
- Water Tables with Adjustable Water Level
- Dust Collection Systems
- CAM Software
- Light Stick



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



Cut Wizard

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

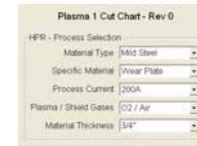
PRECISION CUT PARTS

- Precision Gauge Sheet Metal
- Weld-able Stainless Cut Edges
- High Speed Heavy Plate Cutting
- Plasma Plate Marking



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).



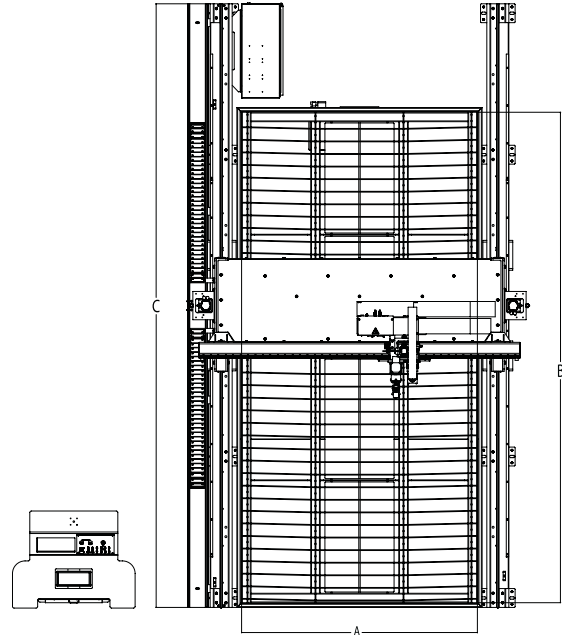
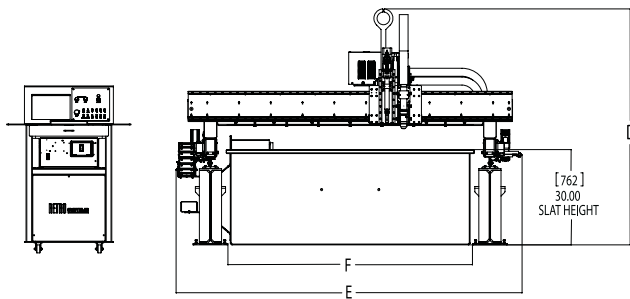
CONSUMABLE SCREEN

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.

Precision Productivity Performance

Super HORNET

Precision CNC Plasma & Oxy-fuel Profile Cutting



MACHINE SPECIFICATIONS

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

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

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

	5ft	6ft	8ft	10ft	12ft
Effective Cutting Width – (A) **	60" (1.5 m)	72" (1.8 m)	96" (2.4 m)	120" (3.0 m)	144" (3.6 m)
Effective Cutting Length – minimum (B) ***	156" (3.9 m)	–	–	–	–
Overall Machine Length – minimum (C)	192" (4.8 m)	–	–	–	–
Overall Machine Height – (D)	75" (1.9 m)	–	–	–	–
Overall Machine Width – (E) ****	97" (2.4 m)	109" (2.7 m)	142" (3.6 m)	166" (4.2 m)	191" (4.8 m)
Width Between Rails – (F)	65" (1.6 m)	77" (1.9 m)	107" (2.7 m)	131" (3.3 m)	155" (3.9 m)
Remote CNC Console Dimensions	52.56" H x 39.00" W x 30.88" D, 40.56" Desk Height, (1.3 m x 990 mm x 784 mm, 1.0 m)				
Rail Height	27.5" (698 mm)				

** 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.

**** Add 34" for machines with a Machine Mounted CNC Controller

Maximum Contouring Speed	1,000 IPM (25.4 m/min)
Maximum Traverse Speed	1,200 IPM (30.4 m/min)
Maximum Number of Tool Carriages	(2) Total - (1) Master & (1) Slave Carriage
Maximum Number Oxy-fuel Stations	(2)
Maximum Number Plasma Stations	(2)
Recommended Conventional Plasma Systems	Hypertherm® HSD130™, HT2000™
Recommended High Definition Plasma Systems	Hypertherm® HPR130™, HPR260™, HPR400XD™
Maximum Plasma Production Capacity	2" (50mm)
Maximum Oxy-fuel Production Capacity	3" (75mm)
Input power – Machine Servo Drive Amplifiers	480 VAC 3 Phase, 20A dedicated circuit
Input power – CNC Control	115 VAC 1 Phase, 20A dedicated circuit
Input power – Plasma	Refer to Plasma Manufacturer's Manual

RETRO SYSTEMS

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