

RETRO SYSTEMS

HORNET *XD*™

Dual Side Drive



Precision CNC Plasma & Oxy-fuel Profile Cutting



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HORNET XD™

The **HORNET XD™** CNC cutting machine delivers precision high definition and conventional production plasma cutting up to 2' (50mm) and oxy-fuel cutting up to 3' (75mm). Like all Retro Systems machines, the **HORNET XD** includes standard features normally offered only as options on more expensive machines. Powerful AC Servo drives, the easy-to-use Hypertherm **MicroEDGE™** CNC control, Premium components and Rigid steel construction ensure consistent highly accurate profile cut parts. The **HORNET XD** is the right choice for machinery manufacturers, structural steel shops and job shops. If you're looking for your first CNC profile cutting machine or need to increase your cutting capacity - the **HORNET XD** - is the right choice.

MACHINE SIZES

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

PLASMA & OXY-FUEL CUTTING

The **HORNET XD** may be configured with (1) master carriage and up to (3) 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 oxyfuel torch. The **HORNET XD** carriages may be configured with up to (2) plasma systems and up to (4) oxyfuel torches. 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. A Hi/Low Preheat Gas Manifold is available for heavy duty oxy-fuel cutting.

HEAVY DUTY FRAME DESIGN & STRUCTURAL BEAM RAIL SUPPORT

Dual cross axis linear ways on the reinforced steel box beam gantry ensure ultra smooth motion of the tool carriages. Large diameter truck wheels inside the gantry end trucks ride on rails supported by large structural steel "I" beams. Retro Systems' rails are Tongue & Grooved and Triple Machined. The rail surfaces are also Flame Hardened to HRC 48. A full width heat shield under the gantry bridge is standard.

POWERFUL AC SERVO DRIVE SYSTEM

Machine motion is powered by (3) AC servo motors directly coupled to precision planetary gearboxes to attain 1,000 IPM (25.4m/min) Contouring speeds and 1,200 IPM (30.4m/min) Rapid Traverse speeds. The plasma lifter is driven by a 250 watt (.33 hp) AC servo motor to attain vertical positioning speed of 600 IPM.

HYPERTHERM® AUTOMATION CNC CONTROL

The **HORNET XD** 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 downloaded 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

- Powerful 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

- Heavy Duty All Steel Construction
- Structural "I" Beam Rail Support System (W24x7)
- Flame Hardened Triple Machined Tongue and Grooved Rails

TOOL CARRIAGES

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



HORNET XD STANDARD FEATURES:

- Heavy Duty All Steel Construction
- Structural "I" Beam Rail Support System
- Hypertherm® Automation **MicroEDGE™** CNC Control
- Integrated **SENSOR** Torch Height Control Interface
- 600 Watt (.8 HP) AC Servo Motors and Drive Amplifiers - 5 ft, 6 ft and 8 ft models
- 1,100 Watt (1.5 HP) AC Servo Motors and Drive Amplifiers - 10 ft and 12 ft models
- 5 Arc Minute Planetary Gear Heads
- 1,000 IPM Contouring (25.4m/min)
- 1,200 IPM Rapid Traverse Speed (30.4m/min)
- Triple Machined and Flame Hardened Main Rails
- Dual Cross Axis Linear Ways
- 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 & (2) Serial-9 Pin Ports
- Machine side Opto-Isolation
- 68 Shapes Including Text
- 15" (380mm) LCD Touch-Screen Monitor
- Industrial keyboard and Pointing Device
- E-STOP button
- Oxy-fuel Operator Control Panel - **OPTIONAL**
- Dust Collector Start/Stop Buttons - **OPTIONAL**

HORNET XD OPTIONS:

- Widths from 5 ft to 12 ft (1.5m to 3.6m)
- Rail Systems to 60 ft or More (18m)
- Machine Mounted or Remote Pedestal CNC Control
- Plasma Systems up to 400 Amps (2 max)
- 250 Watt AC Servo Driven Ball Screw Plasma Torch Lifter
- Collision Mount for Plasma Torch
- Oxy-fuel Torches & Lifter Stations (4 max)
- Plate Markers (Air Scribe or Plasma)
- Multi Zoned Down Draft Air Tables
- Water Tables with Adjustable Water Level
- Dust Collection Systems
- CAM Software



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

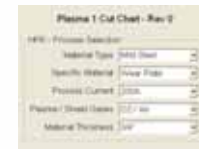
PRECISION CUT PARTS

- Precision Gauge Sheet Metal
- High Speed Heavy Plate Cutting
- Weld-able Cut Edges
- 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).

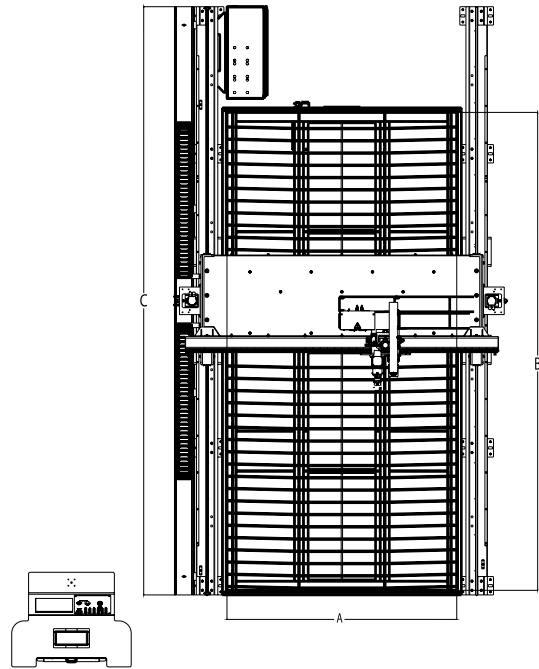


CONSUMABLE SCREEN

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.



TM



MACHINE SPECIFICATIONS

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

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

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

	5ft	6ft	8ft	10ft	12ft
Effective Cutting Width – (A)**	60" (1.5m)	72" (1.8m)	96" (2.4m)	120" (3.0m)	144" (3.6m)
Effective Cutting Length – minimum (B) ***	156" (3.9m)	–	–	–	–
Overall Machine Length – minimum (C)	192" (4.8m)	–	–	–	–
Overall Machine Height – (D)	75" (1.9m)	–	–	–	–
Overall Machine Width – (E) ****	97" (2.4m)	109" (2.7m)	133" (3.4m)	166" (4.2m)	191" (4.8m)
Width Between Rails – (F)	65" (1.6m)	77" (1.9m)	107" (2.7m)	131" (3.3m)	155" (3.9m)
Remote CNC Console Dimensions	52.56" H x 39.00" W x 30.88 D, 40.56" Desk Height, (1.3m x 990mm x 784mm, 1.0m)				
Rail Height	27.5" (698mm)				

** 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 (25.4m/min)
Maximum Traverse Speed	1,200 IPM (30.4m/min)
Maximum Number of Tool Carriages	(2) Total - (1) Master & (3) Slave Carriages
Maximum Number Oxy-fuel Stations	(4)
Maximum Number Plasma Stations	(2)
Recommended Air Plasma Systems	Hypertherm® Powermax1000, 1250 or 1650
Recommended Oxygen 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	115 VAC 1 Phase, 20A dedicated circuit (5, 6 & 8 ft wide) 230 VAC 1 Phase, 20A dedicated circuit (10 & 12 ft wide)
Input power – CNC Control	115 VAC 1 Phase, 20A dedicated circuit
Input power – Plasma	Refer to Plasma Manufacturer's Manual