

RETRO SYSTEMS

Mini **HORNET LS** TM *Single Side Drive*



Precision CNC Profile Cutting Innovation

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MINI HORNET LS™

The **MINI HORNET LS** is built with tough industrial components to deliver decades of unmatched performance. It is designed to meet the needs of fabrication and sheet metal shops requiring plasma systems with output from 40 to 120 amps. Select either a full featured plasma torch height control for plate cutting or a roller ball plate rider for HVAC applications.

MACHINE SIZE

MINI HORNET LS is available with a 5 ft (1.5m) effective cutting width and an effective cutting length of either 10 ft (3.0m) or 20 ft (6.0m).

PRODUCTION PLASMA CUTTING

The **MINI HORNET LS** tool carriage may be configured with a plasma system with amperage output from 40 to 120 amps.

HEAVY DUTY FRAME DESIGN

Fully welded and stress relieved heavy duty steel tubing guarantees an accurate and stable machine frame and gantry beam. Mounting surfaces for linear ways and gear rack are precision machined to ensure maximum cut part accuracy. The wide gantry end truck and cross axis tool carriage ride on precision ground linear ways to deliver premium cutting performance.

POWERFUL AC SERVO DRIVE SYSTEM

Machine motion is powered by (2) 600 watt (.8 hp) AC servo motors directly coupled to precision planetary gearboxes to attain 1,000 IPM (25m/min) Rapid Traverse speeds. The optional plasma lifter with 6" (250mm) stroke is driven by a 600 watt (.8 hp) AC servo motor to deliver vertical positioning speed of 600 IPM (15m/min).

HYPERTHERM® AUTOMATION CNC CONTROL

Motion control is provided by the **MicroEDGE™** industrial 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. The control cabinet swivels to maximize ease of use in your shop environment.

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. If your control is connected to the internet, simply touch the **REMOTE HELP** button on the touch screen, and no matter where you are located, our factory service technicians can provide real-time operator training, software updates and troubleshooting within minutes.

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. CNC files may be downloaded from your office computer directly to the MicroEDGE across your network or entered manually to the control via a USB memory stick or floppy diskette. Retro Systems also offers a wide range of full featured advanced CAM software from MTC and others.

INTEGRATED DOWN DRAFT CUTTING TABLE

The **MINI HORNET LS** standard air table is a single zone design. A multiple zone table is optional. Multiple zone tables improve exhaust system efficiency by dividing the cutting table into sections and directing the air flow only where the torch is cutting. The MicroEDGE CNC control signals pneumatically actuated damper doors to open and close based on the gantry position along the rails. Removable heavy duty cover plates protect moving parts from slag and heat. The table even includes side access doors for easy slag removal and part retrieval. Retro Systems offers a wide range of dust collection equipment from Micro Air.

UNITIZED DESIGN MEANS FAST INSTALLATION

Unitized design means installation is complete in just a few hours. Set the machine, adjust the leveling pads, connect a few cables and you're ready to start cutting parts. Unitized design also means the machine will be easy to move if required in the future.

EXCELLENT MACHINE - GREAT PRICE

If you're a job shop, maintenance shop, ornamental iron shop or a technical school looking for an excellent plasma cutting machine at a great price, the **MINI HORNET LS** is the right choice.



MINI HORNET LS STANDARD FEATURES:

- Heavy Wall Steel Tubing Machine Frame and Gantry Beam
- Integrated Single Zone Down Draft Air Table
- Hypertherm® Automation **MicroEDGE™** (3) Axis CNC Control
- 600 Watt (.8 HPI) AC Servo Motors and Drive Amplifiers
- 1,000 IPM Rapid Traverse Speed (25m/min)
- Precision 20mm Linear Ways on X & Y Drive Axis
- 2.5" Pinion Gears (63.5mm)
- 3/4" Gear rack (19.5mm)
- Planetary Gear Heads
- Flexible Cable Carriers on Both X & Y Axis
- Tool Carriage for (1) Plasma Torch 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 RJ45 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
- Desktop with Keyboard and Mouse
- Process Control & Torch UP/DOWN Membrane Keypad
- Control Console Cabinet Base Swivels
- Multiple E-STOP Buttons

HORNET LS OPTIONS:

- Cutting Width: 5 ft (1.5m)
- Cutting Length: 10 ft (3.0m) or 20 ft (6.0m)
- Special Small Foot Print model with 4 ft x 4 ft cutting area (1.2m x 1.2m)
- Plasma Systems up to 120 Amps (1 max)
- Integrated 3rd Axis **SENSOR** Torch Height Control Interface
- RSVS-150 Plasma Torch Lifter with 600 Watt AC Servo
- Plasma Torch Collision Mount
- Plasma Torch Roller Ball Plate Rider
- Multi Zone Down Draft Air Table
- Dust Collection Systems
- CAM & HVAC Software



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



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



HEAVY DUTY FRAME DESIGN

- Wide Heavy Duty Fabricated End Truck
- Heavy Wall Steel Tubing Machine Frame
- Machined Assembly Surfaces
- Precision 20mm Ground Linear Ways
- Flexible Cable Carriers

POWERFUL DRIVE SYSTEM

- 600 Watt AC Servo Amps & Motors
- Planetary Gear Heads
- Dual In-Line Motor Slides
- 3/4" (19mm) Wide Gear Rack
- 2.5" (63.5mm) Diameter Pinion Gears



TOOL CARRIAGE OPTIONS

- RSVS-150 Plasma Torch Lifter Station
- RAD Plasma Collision Mount
- Roller Ball Floating Head Plasma Station (not shown)



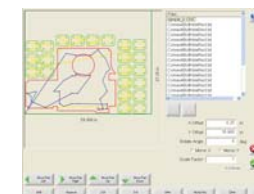
CUT CHART SCREEN

Operator selects material type, thickness, gases and amperage. The CNC controls the plasma torch height control and motion control variables throughout the cutting job.



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.



NESTER

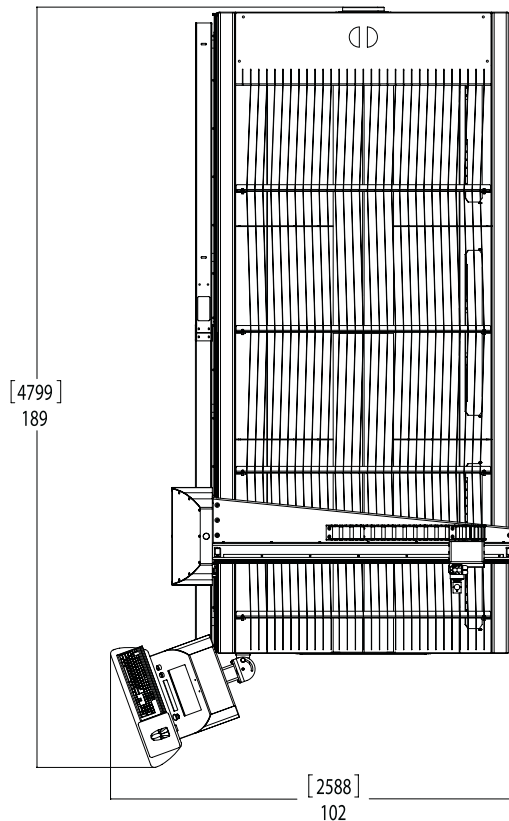
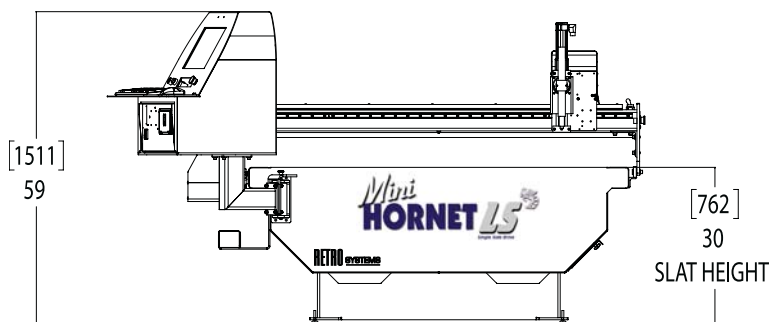
Automatically nest parts on a specified sheet size from the Shape Library or custom CNC files saved on the hard drive. NESTER can even nest parts on a remnant.

Precision Productivity Performance

Mini HORNET LS™

Single Side Drive

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MACHINE SPECIFICATIONS

Positioning accuracy	+/- .010" (.25mm)
Repeatability	+/- .001" (.025mm)
Effective cutting width	5 ft (1.5m)
Effective cutting length	10 ft (3.0m) or 20 ft (6.0m)
Overall machine height	59" (1.5m)
Overall machine length	189" (4.79m) or 309" (7.9m) including CNC control
Overall machine width	102" (2.58m) including CNC control
Maximum traverse speed	1,000 IPM (25m/min)
Maximum tools	(1)
Plasma torches – max	(1)
Plasma arc starting method	Non-High Frequency Start
Recommended conventional plasma systems	Hypertherm® Powermax™ series, Thermal Dynamics® CUTMASTER™ series
Maximum table capacity (full sheet)	1,500 lb (680 kg) 3/4" x 60" x 120" (19mm x 1.5m x 3.0m)
Input power for cutting machine	220VAC single phase, 20A dedicated circuit

RETRO SYSTEMS

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