RETRO SYSTEMS

HORNET *SS*
Single Side Drive

HORNET SS
The HORNET SS is a new generation unitized industrial cutting machine from Retro Systems. HORNET SS is configured with heavy duty components to deliver decades of unmatched performance. The HORNET SS is designed for customers who require a unitized industrial quality machine with no more than one plasma system and one oxy-fuel torch. HORNET SS may be configured with an integrated cutting table in either a water table or down draft air table design.

The HORNET SS unitized cutting machine is configured with a Hypertherm® MicroEDGE Pro PC based CNC control, Hypertherm SENSOR torch height control electronics, Retro Systems RSVS-150 plasma lifter, powerful AC servo motors, low back-lash planetary gear boxes and precision ground linear guides for all drive axes to deliver premium motion control and accuracy.

MACHINE SIZE
HORNET SS is available with a 5 ft (1.5m) cutting width and a 10 ft (3.0) cutting length.

HEAVY DUTY PRECISION FRAME
The HORNET SS machine frame is fabricated from ¼" (6mm) steel and heavy wall steel tubing. All surfaces of the welded frame are machined in a gantry milling machine to accept linear guides and gear rack. Gear rack and linear guides in the X axis are +96p- under the machine frame. The gantry beam is fabricated from heavy wall steel tubing, stress relieved and then machined to ensure precise alignment of the dual precision linear guides and gear rack.

HYPERTHERM® CNC CONTROL
The Hypertherm MicroEDGE™ Pro CNC control and Phoenix™ motion control software with embedded plasma and oxy-fuel process control cut charts ensure the correct process parameters are used every time, making training the machine operator fast and easy.

CNC FILE CREATION AND LOADING FILES
The MicroEDGE Pro CNC control includes a DXF to machine code converter. Files may be loaded into the control via the USB or network ports. The control also includes NESTER for automatic basic row and column nesting.

POWERFUL AC SERVO DRIVE SYSTEM
HORNET SS is configured with 600 watt AC servos for the drive axes. The plasma torch height control lifter uses a 600 watt AC servo. Heavy AC servo motors ensure many years of trouble-free performance.

PLASMA CUTTING, OXY-FUEL CUTTING & MARKING
The HORNET SS tool carriage may be configured with (2) tools - plasma lifter, oxyfuel lifter or an air scribe marker. Air plasma systems such as the Hypertherm Powermax series are an excellent choice for medium duty conventional plasma cutting. For extended consumable life, improved cut edge weld-ability and heavier plate capacity, we recommend oxygen plasma systems with liquid cooled torches such as the Hypertherm HSD130. An oxy-fuel torch may also be added for cutting up to 1" (25mm).

PLASMA TORCH HEIGHT CONTROL
The Retro Systems RSVS-150 plasma torch height control utilizes the Hypertherm SENSOR software and electronics integrated into the MicroEDGE Pro CNC control to maximize performance. A Ball screw drive lifter with 6" (150mm) stroke and powered by a watt AC servo ensures accurate motion control and premium plasma performance. For HVAC application choose a roller ball plate rider rather than the RSVS-150.

CUTING TABLES
The HORNET SS is available with either single or multiple zone air tables or a water table. Multi zoned tables are recommended to reduce the required air flow of the exhaust system. Our water table offers the ability to raise and lower the water level to optimize cutting performance. The water table option is recommended for cutting plate thicker than ¾" (19mm).

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.

INDUSTRIAL 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 HORNET SS is the right choice.

HORNET SS STANDARD FEATURES:
- Heavy Wall Steel Tubing Machine Frame and Gantry Beam
- Hypertherm® Automation MicroEDGE™ Pro CNC Control
- 600 Watt (.8 HP) AC Servo Motors and Drive Amplifiers
- 1,000 IPM Rapid Traverse Speed (25m/min)
- Tucked Precision 20mm Linear Guides on Main Rail (X Axis)
- Dual Precision 20mm Linear Guides on Gantry Beam (Y Axis)
- ¾" Gear rack (19.5mm)
- Alloy Steel Pinion Gears
- Planetary Gear Heads
- Enclosed Flexible Cable Carriers on Both X & Y Axis
- Single Zone Down Draft Air Table
- Tool Carriage for (2) Tools

CNC CONTROL & OPERATOR CONTROL CONSOLE FEATURES:
- Microsoft® Windows® XP® - Embedded Version
- Hypertherm® Automation Phoenix® Motion Control Software
- Intel 2.4 Ghz or greater, 1 GB RAM or greater
- 120 Gigabyte Hard Drive or greater
- Ethernet LAN, Hypernet, USB and RS-232/422/485 isolated serial
- Machine side Opto-Isolation
- 68 Shapes Including Text
- 15" (380mm) LCD Touch-Screen Monitor
- Keyboard and Mouse
- Multiple E-STOP buttons

HORNET SS OPTIONS:
- Cutting Width: 5 ft (1.5m)
- Cutting Length: 10 ft (3.0m)
- Special Small Foot Print model with 48" x 48" cutting area (1.2m x 1.2m)
- Remote CNC Control Pedestal
- Plasma Systems up to 200 Amps (1 max)
- OFL-150 Oxy-fuel lifter and torch (1 max)
- Air Scribe Marker (1 max)
- Integrated 3rd Axis SENSOR Torch Height Control Interface
- RSVS-150 Plasma Torch Lifter with 600 IPM Vertical Lift
- Plasma Torch Collision Mount
- Plasma Torch Roller Ball Plate Rider
- Water Table with Adjustable water Level
- Multi Zone Down Draft Air Table
- Dust Collection Systems
- CAM & HVAC Programming Software
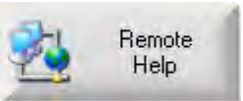
REMOTE HELP
Connect to factory technical support via the internet in less than a minute. Our technicians can:
- Observe CNC Screens
- Review Settings/Setups
- Review Part Programs
- Perform Software Updates
- Perform HPR Diagnostics
- Provide Technical Training
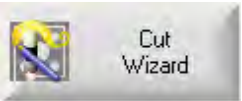
CUTPRO™ WIZARD
CutPro Wizard™ guides the operator through:
- Loading Part programs
- Selecting a Cutting Process
- Aligning a Plate
- Adjusting for Skew
- Selecting Scrap Clearance
- Starting the Cut

HEAVY DUTY FRAME DESIGN
- Wide Heavy Duty Fabricated End Truck
- Heavy Wall Steel Tubing Machine Frame
- Machined Assembly Surfaces
- Tucked 20mm Linear Guides (X Axis)
- Dual 20mm Linear Guides (Y axis)
- Gear Rack Facing Downward
- Enclosed 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
- Alloy Steel Pinion Gears

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

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

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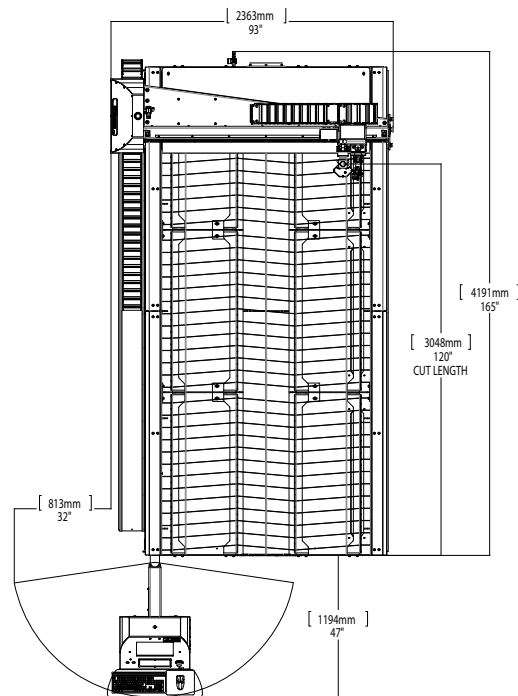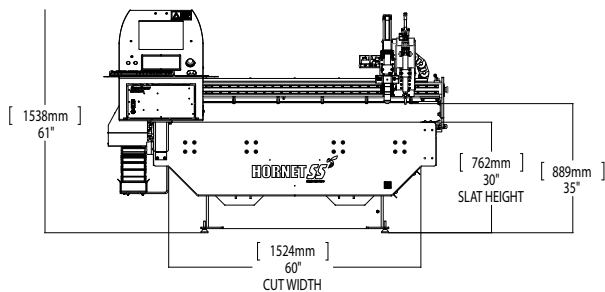
PLASMA CUT CHART
Operator selects material type, thickness, gases and amperage. The CNC controls the plasma torch height control and motion control variables throughout the cutting job.

OXY-FUEL CUT CHART
Operator selects material thickness and fuel type. The CNC controls the parameters it can and prompts the operator to set the others.

HORNET SS

Single Side Drive

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2363mm
93"

4191mm
165"

3048mm
120"
CUT LENGTH

813mm
32"

1194mm
47"
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1538mm
61"

762mm
30"
SLAT HEIGHT

889mm
35"

1524mm
60"
CUT WIDTH
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MACHINE SPECIFICATIONS*

Positioning accuracy +/- .010″ (.25mm)
Repeatability +/- .001″ (.025mm)

Effective cutting width	60″ (1524mm)
Effective cutting length	120″ (3048mm)
Overall machine height	61″ (1538mm)
Cutting table slat height	30″ (762mm) air tables / 29″ (737mm) water table
Heat shield distance from floor	35″ (889mm)
Clearance under gantry	5″ (127mm) air tables / 6″ (150mm) water table
Machine frame width without CNC	93″ (2363mm)
Machine frame length without CNC	165″ (4191mm)

NOTE: Machine mounted CNC swing path adds 32″ (802mm) to width and 46″ (1175mm) to length of machine.
Optional Remote CNC Control Pedestal dimensions are 36″ (914mm) L x 31″ (787mm) W x 57″ (1448mm) H

Maximum traverse speed	1,000 IPM (25,000mm/min)
Maximum tools	(2)
Plasma torches – max	(1)
Oxy-fuel torches – max	(1)
Air scribe marker – max	(1)
Recommended plasma systems	Hypertherm® Powermax™ series, Hypertherm® HSD130
Maximum table capacity (full sheet)	1,500 lb (680 kg) 3/4″ x 60″ x 120″ (19mm x 1524mm x 3048mm)
Input power for cutting machine	200-240 VAC, 50/60 Hz, 1- Phase, 20A Full Load Dedicated Circuit

NOTE: Specifications subject to change

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