ESAB CUTTING SYSTEMS



PIECEMAKER 2

Plasma Cutting Machine

The Piecemaker 2 CNC cutting machine is a rugged, high-speed gantry designed for high production plasma cutting operations, including HVAC.

The machine features a fast 750 ipm drive system with AC Brushless Drives, heavy duty machined T-rail, and precision V-rail guiding systems. It also features a unique material support table, using 5x5 or 6x6 square grid sections which can be turned for end loading or side loading. Systems are available with 5' x 10', 5' x 20', 6' x 12', and 6' x 24' cutting areas. The basic machines also include the Vision™ LE CNC, plate rider height control, and the PCM-1125 power supply with the PT-20AM torch.

The tables below list the available machine sizes, dimensions and specifications. Specifications are subject to change without notice. Please contact ESAB for the most current specifications.



Piecemaker 2	5'	6'
Cutting Width	60" (1524 mm)	72" (1828 mm)
Machine Width	85" (2159 mm)	97" (2464 mm)
Rail Gauge	75" (1905 mm)	87" (2209 mm)
Internal Clearance	68" (1727 mm)	80" (2032 mm)
Rail Length	16', 25' (4876 mm, 7620 mm)	16', 32' (4876 mm, 9753 mm)
Cutting Length	120" (3048 mm)	144" (3657 mm)

Specifications		
Positioning Accuracy	+/- 0.015" (.38 mm)	
Repeatability	+/- 0.005" (.13 mm)	
Speed Range	2 - 750 ipm (50 - 19050 mm/min)	
Maximum Plasma	1	
Parking Area	43" (1092 mm)	
Machine Height	66" (1676 mm)	
Cutting Table Slat Height	32" (813 mm)	
Maximum Workpiece Height	33" (838 mm)	
Power Requirement (for gantry)	230/460/575 VAC, 50/60 Hz, Single Phase, 30 Amp (Special input voltages are available upon request)	

Notes:

- Rails are available in increments of 9' and 16' (2743 and 4876 mm)
- Cutting Width listed is for a single process carriage.
- Machine may be equipped with one carriage, which may be equipped with one plasma and one pneumatic scribe marker.
- · Machine Height is to top of CNC.
- Accuracy is measured over a 60" x 60" area.

Standard Features

- ESAB's Vision LE CNC with Graphical User Interface
- 2 Axis Gantry with Rack-and-Pinion Drives
- Heavy 1/2" Wall Steel Tubing Construction for high rigidity.
- Precision V-Track Y-Axis Rail
- High-Stiffness Delta-Brace Design
- Digital AC Drive Amplifiers
- High-Speed AC Brushless Motors
- Heavy-Duty Precision Gearboxes for accuracy and long life
- In-Line Encoder for Zero Backlash
- Maximum Machine Speed: 750 ipm (19050 mm/min)
- Positioning Accuracy: +/- .015", Repeatability: +/- .005"
- Cross Axis Powertrack Hose & Cable Carriers
- Machined "T" Rail System For Accuracy and Durability
- Machined top and side surfaces
- Precision drive rack mounted directly to machined surface for precise rack alignment
- Tongue and groove joint system maintains joint alignment
- Cradle Mounted Rails for quick, easy installation
- Standard 16' rail system yields 12' travel length.
- 5' x 5' or 6' x 6' sectional table grids
- Four configurations available: 5x10 ft., 5x20 ft., 6x12 ft., or 6x24 ft.

Specifications are subject to change without notice. Please contact ESAB Cutting Systems for the most current specifications, numerical control, and available equipment.

Available Process Options

Plate Rider Torch Station

The Piecemaker 2 comes standard with a Plate Rider plasma torch station. This system provides optimum operation on gauge material for HVAC sheet metal work (up to 1 mm thick). A heavy-duty plate rider includes transfer balls to ride on the plate, keeping the plate flat while high-speed cutting, and automatically maintaining the torch standoff. A pneumatic cylinder automatically raises the plater rider during rapid traverse, and lowers the plate rider for cutting. The entire system is both durable and automatic.

Arc Voltage Height Control

Arc Voltage Height Control is an optional feature on the Piecemaker 2. This system allows for cutting of thicker material (over 1 mm thick). A motorized torch lifter is interfaced with the Vision CNC to provided fully automatic operation. The torch can be raised and lowered by the operator using the CNC interface. In automatic mode, the torch will automatically lower to the plate and set the initial height prior to cutting. After the arc is established, the system maintains the correct cutting height by driving the torch up or down to maintain the same arc voltage. At the end of cut, the torch is automatically raised for rapid traverse.

Pneumatic Air Scribe

A Pneumatic Air Scribe marker is available for the Piecemaker 2, which allows high speed marking of layout lines on the material prior to cutting. The unit uses a precision scriber mounted to an automated lifter, which raises and lowers for each scribe. Character Generator software is also available for text marking.









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