



Model SR48



Model SR510



Model SR3513

MINTECH CNC ROUTER SR SERIES



Product Overview

The SR Series CNC Router, short for "Super Router", is a heavy-duty CNC machine engineered for machining extra-large, extra-thick, and extra-heavy materials. With robust construction, exceptional machining performance, and flexible customization options, the Mintech SR Series CNC Router is built to meet the demands of heavy-duty industrial applications. Engineered for precision machining of aluminum, copper, composites, and engineering plastics, the SR Series is trusted for its stability and accuracy across industries such as architecture, power generation, shipbuilding, aerospace, and automotive. Within the Mintech product lineup, it stands as the Super Router. The MinTech SR Series Industrial CNC Router is engineered for high-precision cutting of wood, plastics, composites, and soft metals. It offers $\pm 0.001"$ accuracy and spindle speeds up to 40,000 RPM, making it ideal for aerospace, signage, and industrial fabrication. Features include linear motors, intelligent automation, and a rigid steel frame for flawless repeatability.

Key Features:

- Heavy-Duty Construction
- High-Performance Spindle
- Advanced CNC Control
- Servo Motor Drive System
- Professional Automatic Tool Changing
- High-End Customization
- Localized Technical Support

Applications:

- Woodworking & Furniture
- Architectural Decoration
- Sign Manufacturing
- Mechanical Components
- Industrial Fabrication
- Aquariums & Pools

Performance Advantages:

- Superior surface finish quality with minimal post-processing required
- High-speed machining with exceptional dimensional accuracy
- Versatile compatibility with wood, composites, plastics, and non-ferrous metals
- Reliable operation in demanding industrial production environments
- Advanced safety features and operator protection systems
- Localized training, installation, and after-sales service – Rooted in California, Serving the Entire USA

Applicable Materials

Plastics and Acrylic Panels

- Ideal for oversized, high-thickness acrylic panels used in industrial and architectural applications.

Extra-Thick Metal Sheets

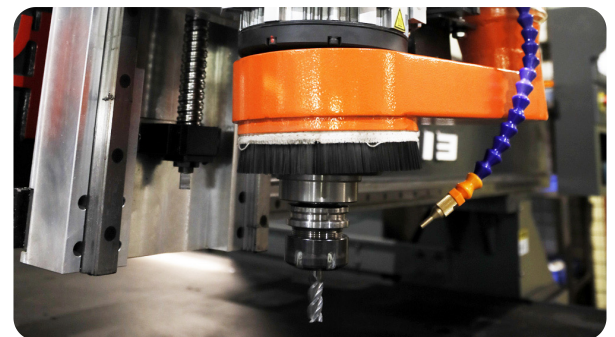
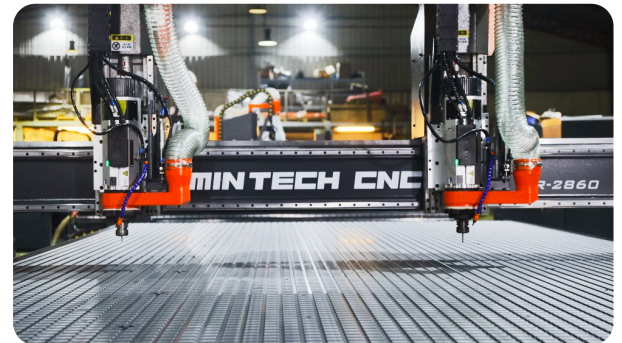
- Specially designed for high-strength aluminum and copper plates in industries like aerospace, shipbuilding, and power systems.

Composite Materials

- Precision machining of insulation boards, honeycomb panels, carbon fiber composites, and other advanced materials.

Hard Wood and Plywood

- Tailored for large-scale wood machining in the furniture and decorative industries.



Technical Specifications

Model	SR48	SR510	SR3513
Working area	4'× 8' (1250 × 2500 mm)	5' × 10' (1530 × 3060 mm)	11' × 43' (3500 × 13000 mm)
Dimensions	142" × 88" × 90" (3600 × 2230 × 2300 mm)	165" × 100" × 90" (4200 × 2530 × 2300 mm)	551" × 217" × 90" (14000 × 5500 × 2300 mm)
Weight	4200 lbs	5500 lbs	To Be Determined
Z-Axis Travel	11 inches (280 mm)	11 inches (280 mm)	25 inches (650 mm)
Material Thickness	≤ 7 inches (180 mm)	≤ 7 inches (180 mm)	≤ 13 inches (350 mm)
Working Surface	• Phenolic composite vacuum table with precision-milled grid and T-slot aluminum.		
Control System	• Industrial-grade CNC system supporting file formats like DXF, AI, CDR, NC, G-code for 2D and 3D machining. • Compatible with industrial controllers such as Weihong, Syntec, and Siemens.		
CAM Software Compatibility	• Compatible with industry-standard software like VCarve, Aspire, Alphacam, Engview, MasterCAM, Enroute, Type 3 and others		
Drive System	• Motion Type: Gantry movement. • Drive Type: Servo-driven motors. • Transmission:XY-Axis: Precision helical rack-and-pinion with linear guides. • Z-Axis: Ball screw with linear guides. • Speed:Max travel speed: 131 ft/min (40 m/min). • Precision:Positioning accuracy: ±0.004 inches (±0.05 mm/300 mm). • Repeatability: ±0.002 inches (±0.05 mm).		
Spindle	• Power: 12 HP (9 kW). • Speed: 24,000 RPM (air-cooled). • Options: Hiteco or HSD spindles. • Tool Holder: ISO 30 with ER32 collets.		
Tool Changing System	• 5-position linear tool rack (standard). • 8-position rotary tool changer (optional). • Fully customizable options available.		
Power and Utility Requirements	• Main Power: 208-240V, 3-phase, 60 Hz, 30A. • Compressed Air: 0.6-0.8 MPa (87-116 psi), ≥3-5 CFM (85-140 L/min). • Vacuum Requirements: 117.7-176.6 CFM (200-300 m³/h), vacuum pressure ≥85 mbar (8500 Pa).		
Cooling method	• Air Cooling		
Misting / Lubricating System	• Includes flexible loc-line nozzles for adjustable coolant or mist delivery to the cutting area, ensuring efficient lubrication and extended tool life.		
Environmental Requirements	• Temperature: 10-40°C. • Humidity: 40-60%.		
Available Configurations	• Optional high-resolution CCD camera for precise positioning and material alignment. • Optional automatic tapping system. • Optional 4-axis / 5-axis multi-axis system.		
Advantages	• Heavy-Duty Performance: Designed for large-scale machining of oversized and heavy materials. • Exceptional Precision: High-accuracy transmission systems ensure flawless machining of complex geometries. • Customization Flexibility: Tailored to meet specific industrial requirements, with options for larger sizes and additional functions. • Versatile Applications: Supports a wide range of industries and materials, from aerospace components to exhibition panels. • Durability: Built to endure high loads and long-term operation, ensuring reliable performance.		