MultiCam®
CNC Cutting Solutions

MultiCam® 1000 Series CNC Router Feature and Specification Guide

Maximum Flexibility Made Affordable!

MultiCam® accepted the industry challenge to build a rigid, reliable CNC machine platform with excellent performance at an affordable price. Over 20 years of cutting-edge, industry-leading design experience created the MultiCam 1000 Series Router. This machine offers a price/performance breakthrough in CNC router design.

The MultiCam 1000 Series Router provides more standard features than any other machine in its class. It's the perfect solution for any application requiring value, performance and price in a CNC router.

Ideal for Cutting:

- *Wood*
- *Plastics*
- *Non-Ferrous Metals*
- *Composite Materials*

And More

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Innovation. Quality. Performance.

1000-R Series Specifications

No machine offers more standard features than the innovative and versatile MultiCam 1000 Series Router.

- Solid-steel frame construction
- High-frequency 4-hp spindle
- EZ Control® user-friendly operator interface
- Automatic tool calibration
- High-speed three-axis motion controller
- Precision dual X-axis drives
- Cast dust collector shroud/pressure foot
- 25-mm linear bearing rails for maximum stiffness

EZ Control®

MultiCam EZ Control® is one of the most powerful yet easy-to-use motion-control systems available on machine tools today. No wonder MultiCam named its motion system EZ Control!

- Hand-held operator interface with graphic icons
- 12-MB memory with unlimited file-size transfer capabilities
- Multiple home positions
- Automatic Z surfacing
- Electronic depth safety system
- Proximity restart
- Cut speed and spindle rpm override
- Standard Ethernet TCP/IP connection

Automatic Tool Changer (ATC)

All ATC systems come standard with automatic tool calibration. Tool change routines built into the controls simplify integration with your favorite CAM software. Machine width determines the number of tool locations.

Working Surfaces

An aluminum T-slot table provides a low-cost manual clamping working surface. Or order an optional phenolic grid top with or without vacuum zoning. Choose from a selection of MultiCam vacuum pump options.

1000-R Series Specifications

Base Frame

A solid-steel frame design is standard on the popular 1000 Series CNC Router. It provides a heavy and accurate platform that translates into vibration-free motion for clean, smooth cuts. Fork lift tubes are integral to facilitate rigging and installation. Precision datums machined into the X-axis beams allow accurate linear bearing positioning.

Gantry

MultiCam engineered the gantry tube from aircraft-quality aluminum extrusion for maximum stiffness. Its 10-mm wall thickness ensures rigidity. References for the precision linear bearings are extruded in the design and have excellent parallelism. The rack on top of the extrusion is in a position to minimize swarf and chip contamination.

Gantry Supports

Cast-aluminum gantry supports machined on a four-axis horizontal machining center guarantee perpendicularity and precision placement of linear bearings. Castings have inherent vibration-dampening characteristics and give very stiff support to the gantry tube.

Linear Bearings

The 25-mm linear bearing profile rails with stainless spring steel strip covers are standard in the X, Y and Z axes.

- High rigidity and top-load capacities in all load directions
- Lowest possible noise level and best running characteristics
- High-torque load capacity
- Four bearing packs per axis
- 4000-pound load capacity per bearing

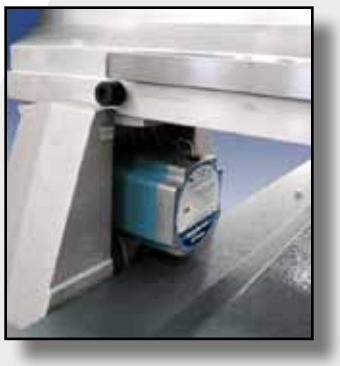
1000-R Series Specifications

Z-Screw Assembly

The 1000 Series utilizes a ½" diameter stainless steel lead screw. For high axial force loads, a precision mounting block with dual angular contact ball bearings holds it in place firmly. A brass lead screw nut carries the Z-axis load.

Drive Motor System

For the 1000 Series, MultiCam selected extensively tested two-phase, digital, brushless, synchronous electric motors. Optimized inductance and resistance of the windings provide system smoothness. Integrated digital motor drives run these motors very efficiently.



Drive Assembly

Transmissions on the X and Y axes based on a precision-machined aluminum casting feature steel cable urethane belt drives for smooth transmission of power. A dual bearing arbor with wide bearing separation supports output pinions for optimum stiffness.

Regulator Units

Machines equipped with tool-changing spindles come standard with SMC filter regulator units.

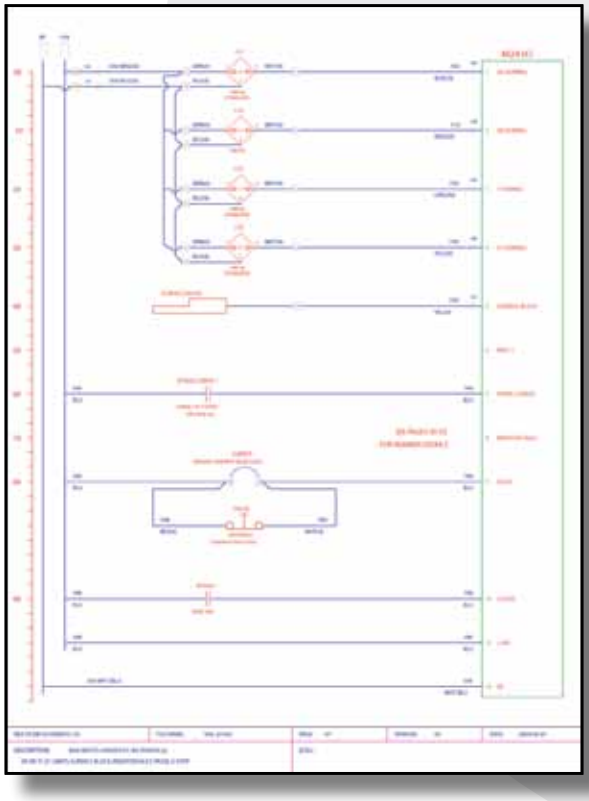
1000-R Series Specifications

Standard Features

Leveling Feet

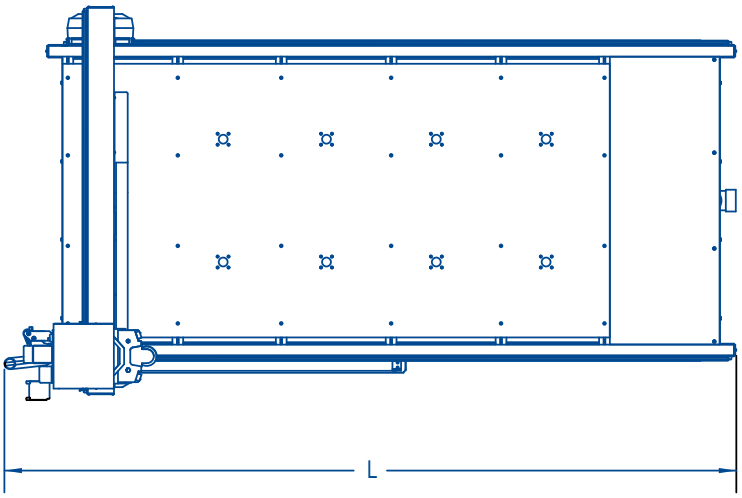
Tool Box

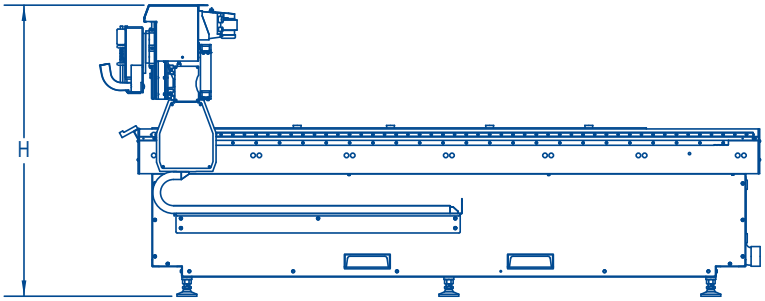
Operation Manual

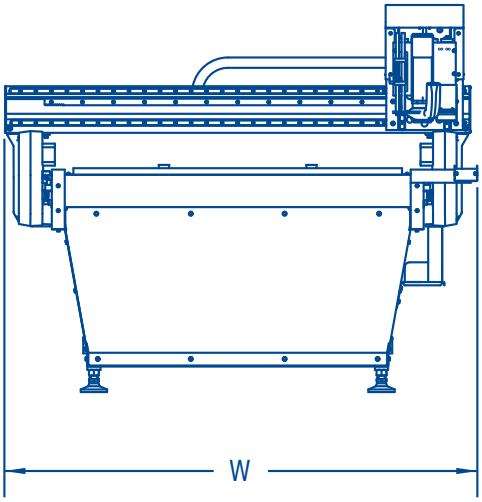


Electrical Schematics

1000-R Series Specifications







MultiCam®

1000 Series

1000 Series Specifications (Inches)

- Z-Axis Clearance: 4.5"
- Z-Axis Travel: 6"
- Repeatability: +/- 0.001"
- Cutting Speed: 600 IPM
- Rapid Traverse: 850 IPM
- Drive System X and Y Axes: Rack and Pinion
- Drive System Z Axis: Lead Screw
- Standard Work Surface: Aluminum T-Plate Extrusion

Size Chart (Inches)

MODEL	L	W	H	WORKING AREA	WEIGHT LBS.
1-103	155	71	54	50 x 100	2612
1-204	177	81	54	60 x 120	3157
1-205	199	81	54	60 x 144	3474
1-304	177	101	54	84 x 120	3828
1-305	199	101	54	84 x 144	4193
1-306	225	101	54	84 x 170	4988

1000 Series Specifications (Metric)

- Z-Axis Clearance: 114 mm
- Z-Axis Travel: 152 mm
- Repeatability: +/- 0.0254 mm
- Cutting Speed: 15.2 MPM
- Rapid Traverse: 21.6 MPM
- Drive System X and Y Axes: Rack and Pinion
- Drive System Z Axis: Lead Screw
- Standard Work Surface: Aluminum T-Plate Extrusion

Size Chart (Metric)

MODEL	L	W	H	WORKING AREA	WEIGHT Kg
1-103	3937	1803	1371	1270 x 2540	1184
1-204	4495	2057	1371	1524 x 3048	1431
1-205	5054	2057	1371	1524 x 3657	1575
1-304	4495	2565	1371	2133 x 3048	1736
1-305	5054	2565	1371	2133 x 3657	1901
1-306	5715	2565	1371	2133 x 4318	2262

Specifications subject to change.