

HC-435 II

ROKU-ROKU

SINCE 1903

Super Hybrid Concept

Hard Milling

Graphite Milling

Highly Rigid Structure

- High rigidity, bridge-type monoblock structure allows high-speed, high-precision machining surpassing dedicated graphite machining by far.
- Minimized distance between guide surface and spindle center provides greater stability.
- High rigidity bed with ideal rib distribution has been designed by computer analysis.
- With linear scales included as standard equipment, Roku-Roku guarantees static positioning accuracy $\pm 0.000040''$ and $\pm 0.000012''$ repeatability.

Extended Speed Range

- Capable of a wide RPM range (3,000 through 36,000) using a specially designed long-life grease packed integral AC motor. Ideal for micro drilling and milling applications.

Z-axis Balance Cylinder

- Single Balance Cylinder, standard equipment on HC-435 II, reduces load on the ball screw and servo motor allowing for quick smooth motion of the Z-axis.

Fanuc 31i-B5 Super High-Speed Processor & AI Contour Control II

- The Fanuc 31i-B5 is a "NANO CNC System" with Intelligent Velocity Control, NANO Interpolation and NANO Smoothing. The look ahead has been expanded to 1000 blocks.

HC II Feature Upgrades

- Improved ATC capacity has gone from 11 to 20 tools and with the dual arm tool changer T to T time has been reduced from 10 sec. to 5 sec.
- All linear guides have been changed from ball ways to roller pack ways for improved rigidity and smooth operation.
- Automatic lubrication system improves serviceability by automatically greasing the ball screws and linear guides.
- The Blum Tool Setter laser has been placed outside the table to increase usable machining area.



The Ultimate Machine For Small
Electrode Making and Micro-Milling

Now Available

From MC Machinery Systems, Inc.

**MC MACHINERY
SYSTEMS, INC.**
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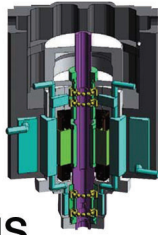
DUST PROTECTRION AND COLLECTION

As a graphite machining center, great care was taken in consideration of providing the best in dust collection and prevention. The HC Series provides a full enclosure cover and dust preventive structure for ways, screws, and ATC as standard equipment. The high-performance Amano PiA-15M Dust Collector is capable of changing the working area air six times per minute. The dust collection and protection during graphite machining both outside and inside of the machine, such as ball screw and LM guide rail for work table, are perfectly complete.



HIGH DYNAMIC BALANCE

Roku-Roku designs their integral motor spindles with the finest materials available including special ceramic bearings to achieve a dynamic run-out at the spindle taper of 0.5 µm.

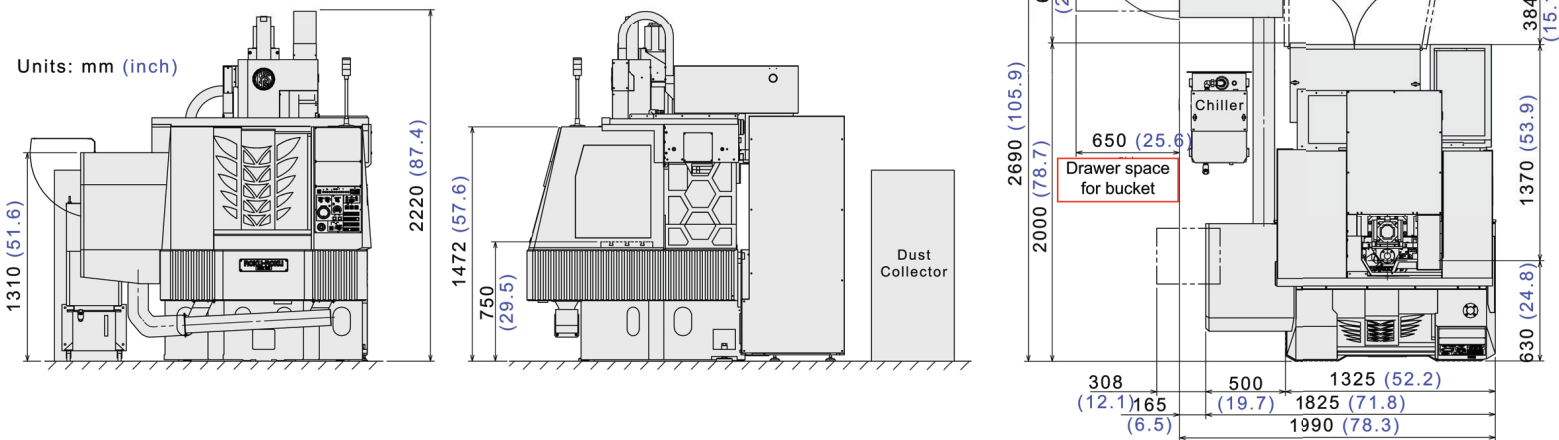


MULTIPLE APPLICATIONS

Beyond the excellent graphite machining capability, High-Speed direct hard milling can be done by dry or semi-dry (oil-mist) systems.



DIMENSIONS



Machine Height: 87.4" Installation Footprint: 78.3" x 105.9"(Machine Unit Only) Machine Weight: 5,732bs.
 Power Requirement: 200V +/-10%, 60Hz, 12.5kVA Compressed Air Supply: 14.1cu.ft./min. @ 72ps.

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SPECIFICATIONS

HC-435 II	
X x Y x Z Travels (in.)	16.0 x 13.0 x 7.87
Table Work Area (in.)	23.6 x 13.0
Table to Spindle Nose Distance (in.)	7.0 ~ 14.9 (+7.8 w Riser)
Max. Workpiece Weight (lb.)	220
Positioning Accuracy Full Stroke	±0.000040"
Repeatability	±0.000012"
Actual Measured Circularity (2.0" dia. @8 IPM)	0.000039"
Spindle Speed	3,000 ~ 36,000 RPM
Spindle Taper	HSK-E25
Spindle Air Purge	Standard
Air Blast through Spindle	Standard
Linear Scales X, Y, Z-axes	Heidenhain 0.000002mm Standard
ATC (Automatic Tool Changer)	11 Position Standard (30 or 60 with option)
Rapid Traverse Speed	590"/min
Cutting Speed (Normal Mode)	0.04 ~ 394"/min
Cutting Speed (GR Super PC Mode)	590"/min
Dust Collection System	Amano PiE-15 Standard
Machine Weight (lb.)	5732
Machine Height (in.)	87.4
Required Floor Space (Machine Unit) (in.)	72 x 79
Control Unit	Fanuc 31i-B5 with AI Contour Control II
Power Required	200 ~ 220V 12.5KVA
Air Supply	14.1 cu.ft./min @72 psi