



# ROKU-ROKU

SINCE 1903

## CEGA SSS-300/400 5AXP

### Super - Hybrid Concept

High-Speed/Accuracy

5-Axis Milling, Drilling, Tapping

#### Highly Rigid Structure

- High rigidity, bridge-type monoblock structure allows high-speed, high-precision machining surpassing typical "C-Frame" construction 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  $\pm 0.000020"$  repeatability.

#### Extended Speed Range

- SSS 300: (200 ~ 30,000 RPM) / SSS 400: (200 ~ 40,000 RPM) using a long-life integral 20 or 7.4 HP AC motor. Ideal for micro drilling, tapping and milling applications.

#### Z-axis Balance Cylinder

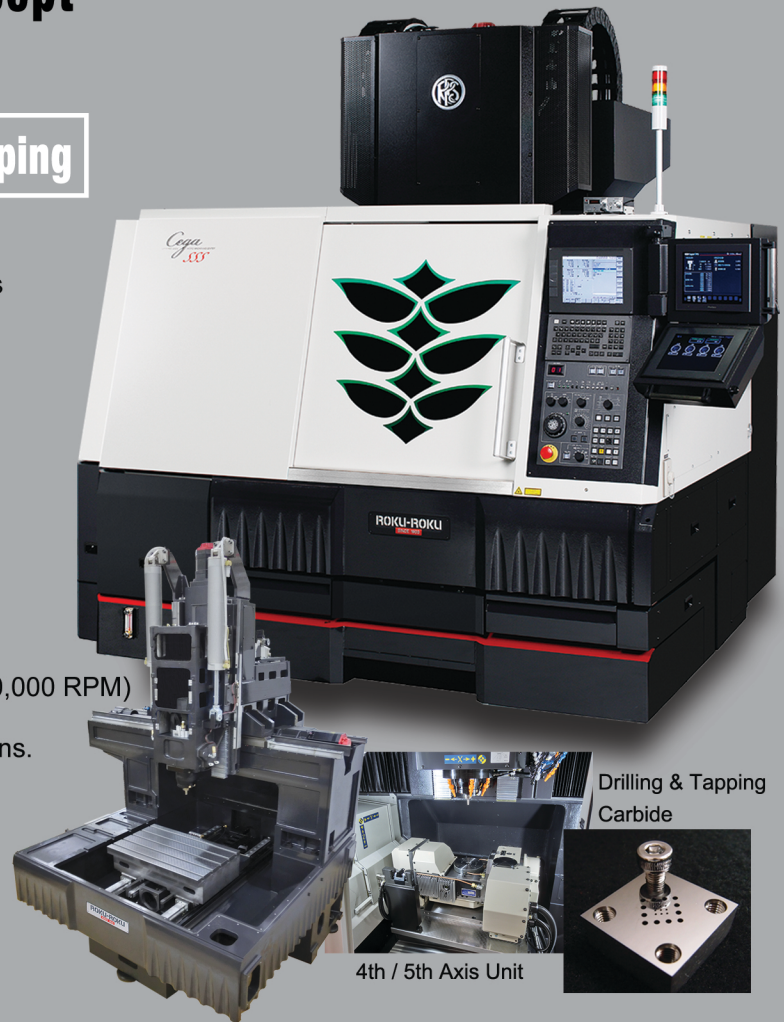
- Dual Balance Cylinders, standard equipment on CEGA SSS-300/400 5AXP, reduces load for the ball screw and servo motor allowing smooth motion of the Z-axis.

#### 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. The full 5-Axis Machining Package has been added for simultaneous 5-axis operation.

#### Multiple Applications

- High-speed direct 5-axis hard milling can be done by dry machining.
- Flush system is ideal for soft material 5-axis machining and micro drilling.
- Ultra-precision capability is ideal for non-metallic machining ie, Soda Glass, Zirconia and Machinable Ceramics.



Highest Precision and Productivity  
for 5-Axis Milling, Drilling and Tapping

### Now Available

From MC Machinery Systems, Inc.

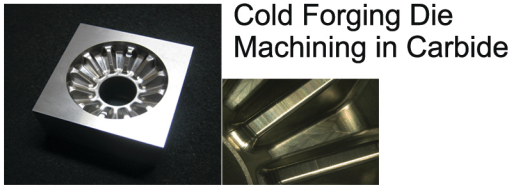
**MC MACHINERY SYSTEMS, INC.**  
a subsidiary of  Mitsubishi Corporation

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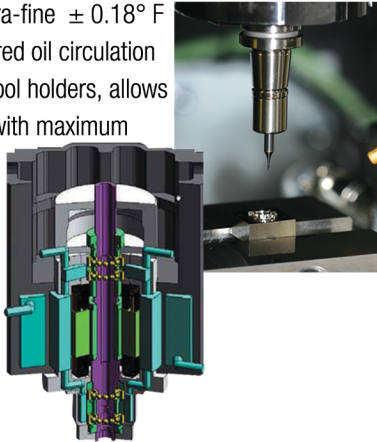
## SPECIFICATIONS

CEGA SSS-300/400 5AXP	
X x Y x Z Travels (in.)	20.1 x 16.1 x 12.2
Table Work Area (in.)	25.6 x 16.1
Max. Load on Table (lb.)	484
Rotary Faceplate to Spindle Nose (in.)	12.4 ~ 24.6
Max. Workpiece Weight Rotary (lb.)	44
Rotary Table Faceplate Dia. (in.)	5.9
Max. A-Axis Tilt Angle (deg.)	-110 ~ +30
Max. A-Axis Rotation Speed	12.5 RPM
Max. C-Axis Rotation Speed	22 RPM
Max. Part Dia. on Faceplate (3.0" above)	7.9 (9.8)
Linear Scales X, Y, Z-axes	Heidenhain 0.00002mm Standard
Positioning Accuracy Full Stroke	±0.000039 (±1.0µm)
Repeatability	±0.000012 (±0.3µm)
Index Accuracy (Tilt & Rotary)	±4 arc sec
Actual Measured Circularity (2.0" dia. at 8 IPM)	0.000039" (1.0µm)
Spindle Speed SSS-300 (400)	200~30,000 (200~40,000)
Spindle Taper	HSK-E40
Spindle Air Purge	Standard
ATC (Automatic Tool Changer)	20 Position Standard
Rapid Traverse Speed	590"/min.
Cutting Speed (Normal Mode)	0.01 ~ 394"/min.
Cutting Speed (GR Super PC Mode)	590"/min.
Machine Weight (lb.)	12,100
Machine Height (in.)	106
Required Floor Space w Options W x D	91.9" x 114.4"
Control Unit	Fanuc 31i-B5 with 5-axis package
Power Required	200~220VAC 32 kVA w options
Air Supply	17.5 cu.ft./min. @ 72 psi

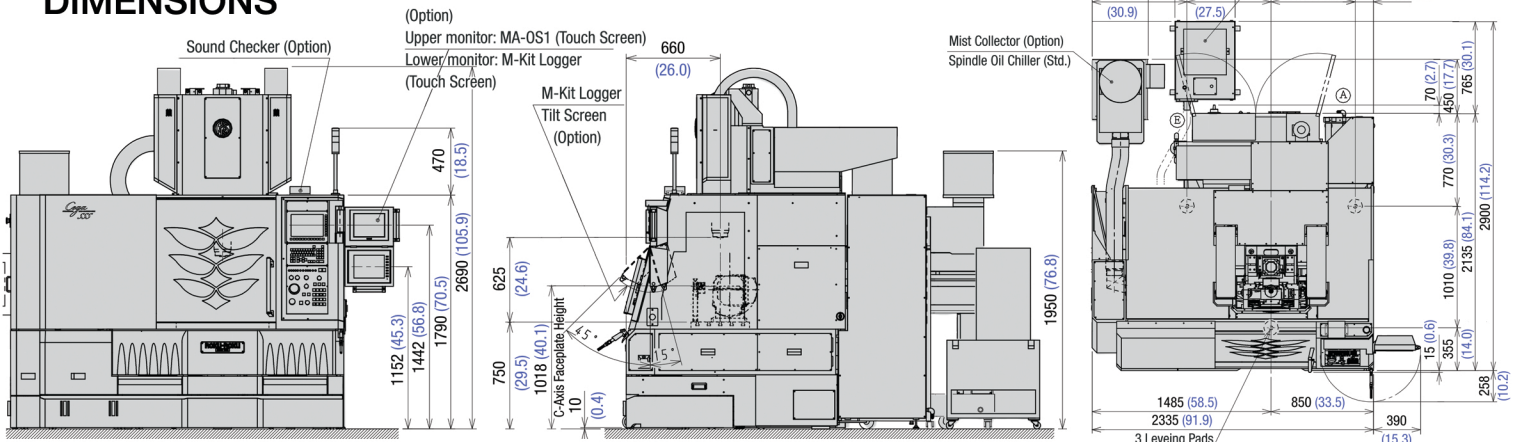


## COMMITMENT TO DYNAMIC BALANCE

High accuracy and fine surface finish are products of a dynamically balanced spindle and tool holder system. 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. Combined with an ultra-fine ± 0.18° F precision double-layered oil circulation jacket and HSK E40 tool holders, allows continuous operation with maximum speed realizing beautiful seamless surface finish with multiple tools.



## DIMENSIONS



Machine Height: 105.9" Installation Footprint: 91.9" x 114.2" w Chiller Machine Weight: 12,100 lbs.  
Power Requirement: 200V +/- 10%, 60Hz, 32kVA Compressed Air Supply: 17.5cu.ft./min. @ 72psi.

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