MYCENTER® SUPER MICRON®

Ultra-High Precision Vertical Machining Center

KITAMURA®

Machining Challenges-Simplified®

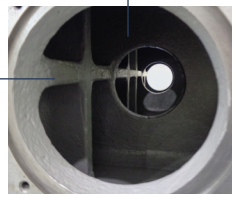
THE COMPETITIVE SOLUTION

Engineered for Accuracy

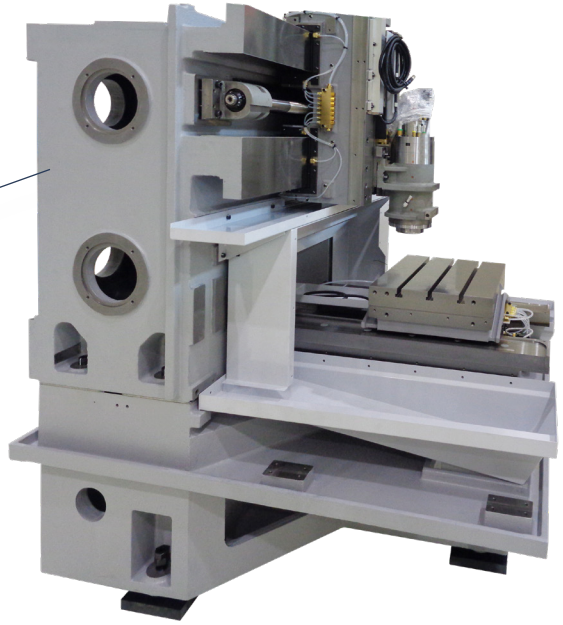
Expect Superior Finishes
and Ultra-High Precision

As the only machine in its class utilizing a mirror-finished box way design, the Mycenter Super Micron has been designed with exceptional dampening characteristics and a unique column design that promotes ultra high thermal rigidity for static accuracy (measured value) positioning +/-0.0005mm (+/-0.00002")/Full stroke.

Thoughtfully designed, the Mycenter Super Micron vertical machining center is the superior choice for medical/dental, mold/electrodes, hard milling, tool & die and prototype applications that require jig-bore-level accuracies.

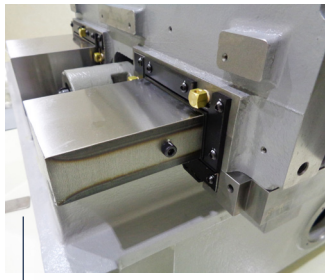


Thick ribbed walls offer excellent vibration damping qualities for fine surface finishes.



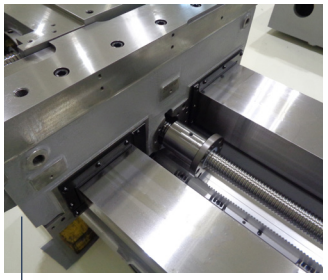
Unique Column Design
- Thermal Stability

Unique column design maintains the machine posture, providing the most stable accuracies possible. Thermal resistant fluid circulates within the column to reduce thermal displacement. Axis Motor Coupling isolates heat from servo motor to ballscrew.



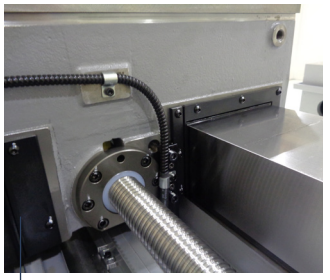
Striking Performance
- Longest Tool Life

High performance in-house hardened and ground box way slides coupled with craftsmanship in handscraping offer smooth accel/decal motion, and minimum wear and tear for best cutting performance, longer life expectancy and highest level accuracy.



Rigid Construction
- Excellent Stability

The design of the Super Micron's wider box way slides holds static accuracies under a variety of cutting conditions.



Highly Reliable
- Supreme Accuracy

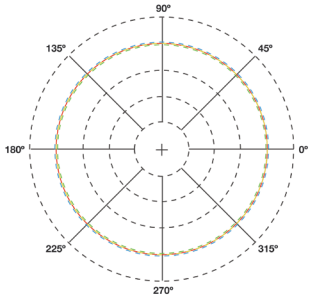
High Precision 6mm fine pitch ballscrews and Heidenhain linear glass scales are located at the center of two slide ways in all axis. 67 million pulse encoder servo motor system for smoother, more accurate surface finishes.

UNBEATABLE
Accuracy

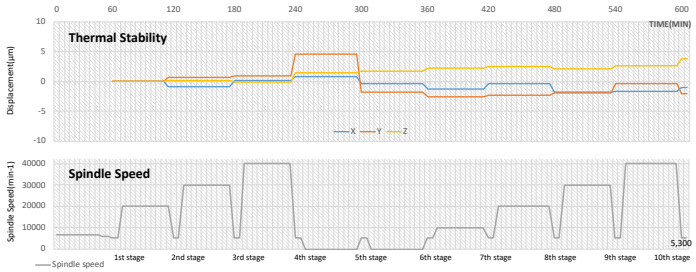
Static Accuracy/Full Stroke
Positioning ±0.0005mm (±0.00002")
Repeatability ±0.0005mm (±0.00002")

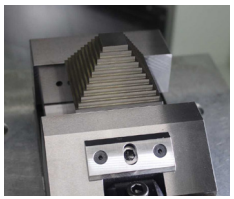
Achieved Actual Measured Value on repeatability
Repeatability ±0.0003mm (±0.000012")

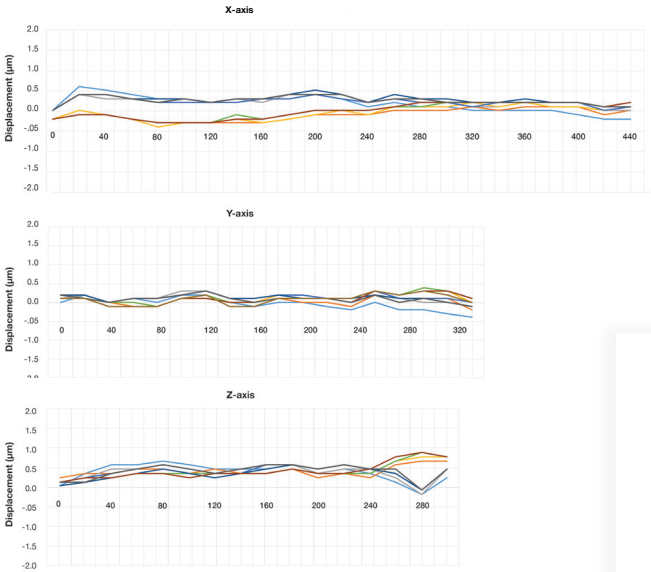
Circularity of 1.45 µm



X,Y, & Z Axis 10-Hour Thermal Displacement Test Results





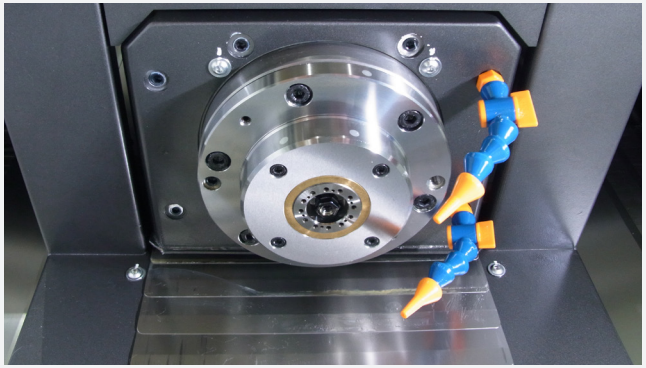


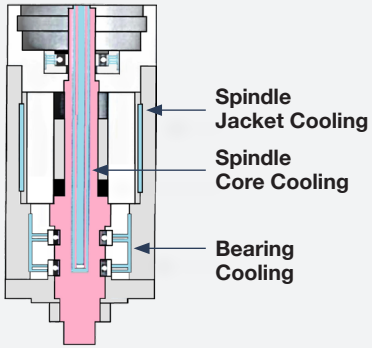
Positioning Accuracy

X ±0.5µm
Y ±0.4µm
Z ±0.5µm
(Actual Value)

High Speed 40,000 min^{-1} Spindle

The MyCenter Super Micron offers a high speed 40,000 min^{-1} spindle featuring an HSK-E32 taper perfectly suited for high precision, heavy duty cutting capabilities. Complemented by Kitamura's own patent-pending cooling system, the Super Micron is uniquely able to maintain stable accuracies.





Thermal growth is minimized with the integration of a spindle cooling system (patent pending), keeping the main spindle components cool throughout the day, maintaining stable accuracies.

Pioneering Icon CNC Operation

Kitamura's original Arumatik-Mi control puts control and customization within easy reach. With visual work setting screens, maintenance support functions and video guidance on the 19" LCD, it is specifically designed to maximize operator potential and performance.

MYCENTER SUPER MICRON SPECIFICATIONS

Standard Ultra Sensitive Low Pressure TLM

Good for small diameter tools with less chance for tool breakage during measurement

Optional Graphite Package Available

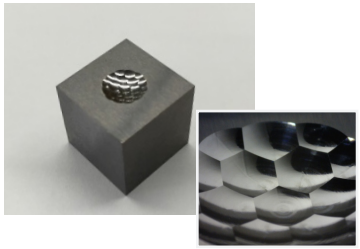
(In Lieu of Standard Coolant System)

Includes:

- Dust Collector
- Air Purge on Box Way Slides
- Air Blow Nozzle
- X & Z Axis Special Covers

Reflector

Material: Carbide FB20 (HRA91.5)



Electrode

Material: Copper Graphite

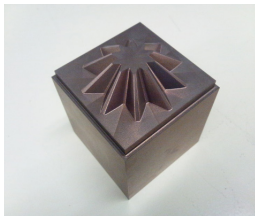


Table	**Size**	400 x 500 mm (15.7" x 19.7")
	T-Slot	14 mm (0.6") x 3
	Maximum Table Load	125 kg (275 Lbs.)
	Distance from Floor to Table Surface	850 mm (33.5")
Travel	**X-Axis Travel**	450 mm (17.7")
	Y-Axis Travel	350 mm (13.8")
	Z-Axis Travel	300 mm (11.8")
	Distance from Table Surface to Spindle	150 to 450 mm (5.9" to 17.7")
Spindle	**Spindle Taper**	HSK-E32
	Spindle Speed	400 to 40,000 min^{-1}
	Drive Method	Built-In
	Spindle Motor	10 HP (7.5kw)
	Spindle Max. Torque	1.8 Nm (1.33 ft-lbs.)
Feed	**Rapid Feed X, Y**	15 m/min (591 ipm)
	Rapid Feed Z	15 m/min (591 ipm)
	Cutting Feed	15 m/min (591 ipm)
ATC	**Tool Storage Capacity**	18 (40 Optional)
	Tool Holder Style	HSK-E32
	Max. Tool Size	Ø40 mm (Ø1.6")
	Max. Tool Length	130 mm (5.1")
	Max. Tool Weight	0.5 kg (1.1 Lbs.)
Dimensions	**Requirement Space (W x L)**	1,920 x 2,054 mm (75.6" x 80.9")
	Machine Height	2,260 mm (89.0")
	Machine Weight	5,500 kg (12,100 Lbs.)
Control	Arumatik-Mi	Anywhere-RemOte, Auto-Part-Producer

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*Specifications Subject to Change

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