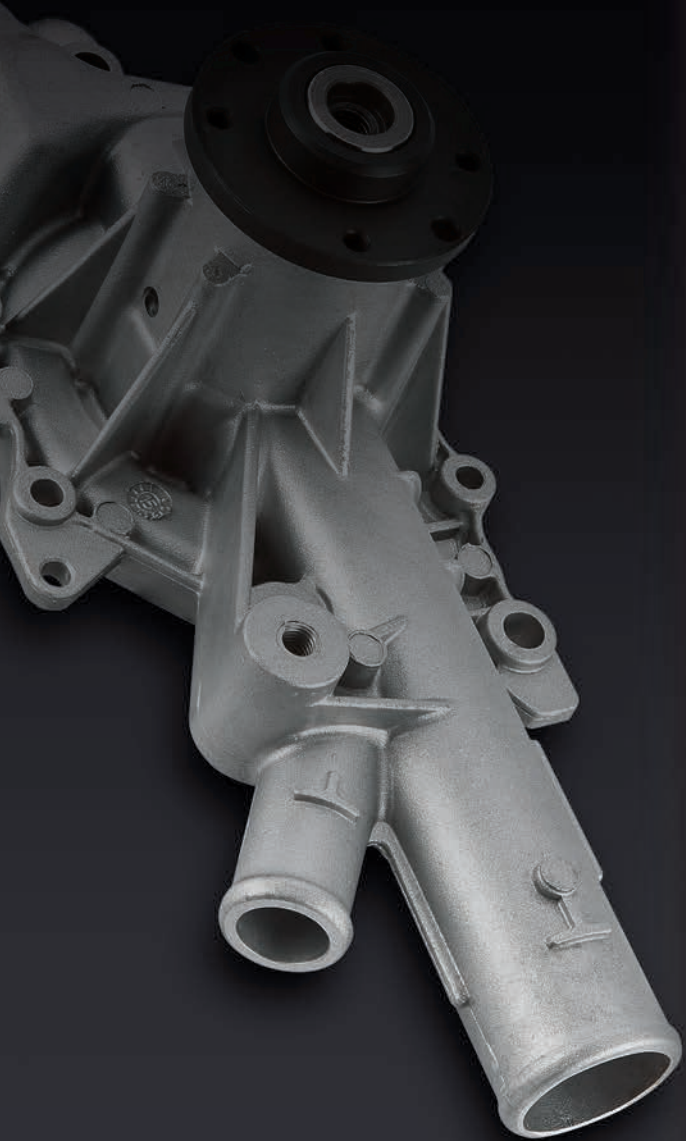


**MYCENTER**<sup>®</sup>

**HX400iG**



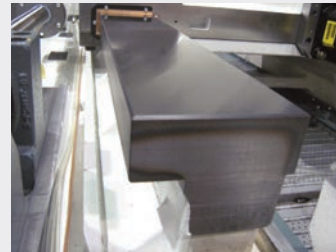
**HORIZONTAL** MACHINING CENTER

**SIMPLIFY THE COMPLICATED**

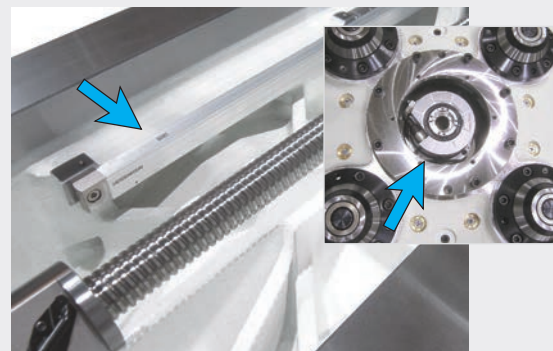
# HX400iG World's fastest 400mm mid to large

## Superior design and required precision

- Rigid 9,800kg (21,560Lbs) Meehanite cast construction manufactured in Japan with craftsmanship in handscraping techniques
- Field expandable 2-station APC with high speed 4th Axis rotary table and rotary scale. Integral drive motor driven with rapids 45,000deg/min (125min<sup>-1</sup>)
- Ultra-high-speed rapid/cutting feeds, 60m/min (2,362ipm) on solid box ways
- Induction Hardened Solid box guideways with linear scale feedback on all axes
- Powerful 15,000min<sup>-1</sup>, 30HP Direct Drive, Dual Contact Spindle. 20,000min<sup>-1</sup> HSK spindle is an available option.
- Ballscrew cooling in Z-axis
- Standard hinge belt style conveyor combined with dual internal chip augers = High efficiency chip evacuation



*In-house induction hardened solid box ways provide the mass, stability and damping capacity necessary to offer heavier cutting ability, superb surface finishes and longer tool life.*



*Standard linear (X,Y,Z) and rotary scale (B) feedback offer long term, highest in-class accuracy while minimizing displacement even at outer edges of table limits.*



*Pioneering Icon CNC Operation with Interactive Touchscreen Display Technology*

### **Arumatik® Mi**

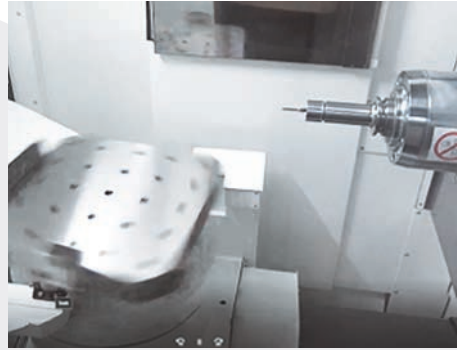
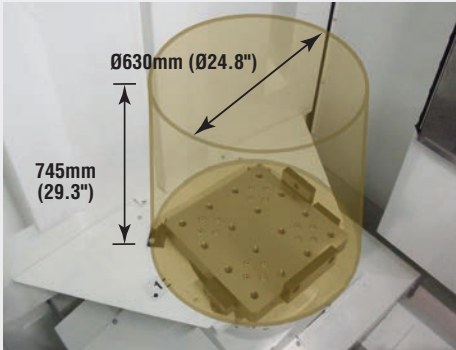
- 67 Million pulse encoder technology with 8,192 block look-ahead processing speeds
- Software upgrades throughout the life of the control
- Fanuc user-friendly
- Completely customizable and expandable user experience
- Video Guidance and visual programming screens
- Anywhere-Remote® E-Mail status updates

**Positioning Accuracy  $\pm 0.002\text{mm}$  ( $\pm 0.000079''$ ) / Full Stroke**

**World renowned JAPANESE**

# Large size horizontal machining technology

## for your most challenging workpieces



**High Speed B-Axis - Integral Drive Motor Driven 45,000deg/min (125min<sup>-1</sup>) Rotation.**

- Positioning Accuracy  $\pm 2$  arc sec
- High resolution built-in Heidenhain rotary encoder
- Zero backlash
- Dramatically faster indexing time reduces out of cut time and increases the amount of material removed in milling applications. Turning is possible with "Fastest in class"

### Generous Work Envelope.

$\varnothing 630\text{mm}$  ( $\varnothing 24.8"$ ) x  $745\text{mm}$  ( $29.3"$ ) H. Standard 2-APC system and full 4th axis offer smart fixturing and work holding options. An additional 5th axis can be added to BOTH pallets in the field for ultimate flexibility and less handling of your more complex parts.



### Exclusive 50-tool fixed pot ATC.

In-the-field tool capacity expansion up to 200 tools. Ultra-fast 1.3 sec. T-T change time optimizes machine performance.

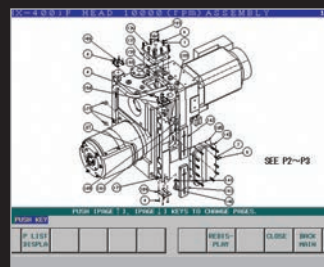
## The latest in control technology with a focus on ease of use for the operator



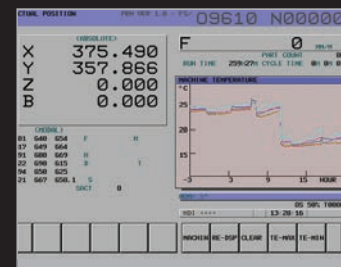
**Customizable Icon Screen.** Advanced touch screen capabilities with user customized main menu touch screen and a variety of visual programming screens and functions that offer the operator faster and easier methods of part set-up and processing.



**Work Set Assistance.** Set-up work offsets with just a few keystrokes. Four types of measurements are possible. Edge side measure, center measure, 3 point diameter center measure and corner measure if angular.



**Maintenance Support Function.** Kitamura's Maintenance Support Function Offers operator convenience in displaying methods of machining maintenance, repair and parts support on the NC Screen



**Intelligent Advanced Control System.** Controls the effects of heat displacement in order to ensure continuous accuracy in machining. Minimizes head displacement to less than  $\pm 5$  microns. 6 sensors positioned on the machine measure and monitor temperature of machine and compensation guarantees positioning accuracy of  $\pm 0.002\text{mm}$  ( $\pm 0.000079"$ ) / Full stroke. Kitamura patented system since 1998.

*\*Daily Thermal Graphic Display*

Repeatability  $\pm 0.001\text{mm}$  ( $\pm 0.000039"$ )

design, engineering and manufacture since 1933

# SPECIFICATIONS Mycenter-HX400iG

## Table

Table Size	400 x 400mm (15.7" x 15.7")
Table Indexing	0.001 Degree (4th Axis)
Tapped Hole (Size x Qty.)	M16 x 2.0 x 25
Max. Table Load	350 / 400kg (770/880 lbs.)
Max. Workpiece Dia.	Ø630mm (Ø24.8")
Max. Workpiece Height	745mm (29.3")

## Travels

X-Axis Travel	610mm (24.0")
Y-Axis Travel	610mm (24.0")
Z-Axis Travel	610mm (24.0")
B-Axis Travel	0 to 360 Degrees Full 4th Axis
Table Surf. to Spindle Center	40 ~ 650mm (1.6" to 25.6")
Table Center to Spindle Nose	100 ~ 710mm (3.9" to 27.9")

## Spindle

Spindle Taper	#40 NST (HSK-A63 Opt.)
Spindle Speed	40 ~ 15,000min <sup>-1</sup> (20,000min <sup>-1</sup> Opt.)
Drive Method	Direct Drive
Maximum Spindle Torque	95.5 N•m (70.4 ft•lbs)
Spindle Motor	22kW (30HP AC/ 5 min) 15kW (20HP AC/10 min) 11kW (15HP AC/30 min) 7.5kW (10HP AC/Cont.)

## Feed

Rapid Feed X,Y,Z	60m/min (2,362ipm)
Cutting Feed Rate X,Y,Z	60m/min (2,362ipm)
Rapid Feed (B-Axis)	45,000 deg/min (125min <sup>-1</sup> )

## APC

Number of Pallets	2
APC Change Time	8.5 seconds

## ATC

Tool Storage Capacity	50 Tools (Opt. 62, 100, 150, 200)
Tool Selection Method	Random bi-directional, Fixed Pot
Tool Holder Style	CT (BT) 40 (HSK-A63 Opt.)
Max. Tool Dia.	Ø95mm (Ø3.7") / Ø150mm (Ø5.9")
Max. Tool Length	370mm (14.6")
Max. Tool Weight	10kg (22 lbs.)
Tool to Tool	1.3 seconds
Chip to Chip	2.5 seconds, min.

## Utilities

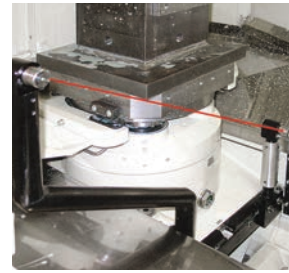
Power Requirement	50KVA, 200v AC, 3 Phase
Air Requirement	0.5 MPa, 350L/min (90psi, 13cfm)
For 20,000 min <sup>-1</sup> Spindle	0.5 MPa, 410L/min (90psi, 15cfm)

## Machine Dimensions

Required Space (W x D)	3,068 x 4,065mm (120.8" x 160.0")
Machine Height	2,739mm (107.8")
Machine Net Weight	9,800kg (21,560 lbs.)

<b>Control</b>	Arumatik®-Mi
----------------	--------------

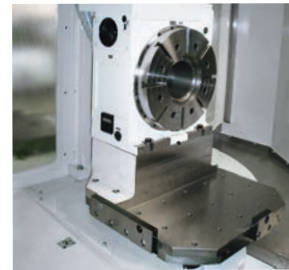
## Available Options



Non-Contact Tool Probe



Field Expandable Multi-Pallet Systems



Field Retrofittable 5th Axis Rotary Tables (available on both pallets)



Up to 1000psi Coolant Thru the Spindle Available



- Machine Monitoring Software Suite
- MTConnect Ready Adaptor



Double Decker Style Chip Conveyor



**Kitamura Machinery Co., Ltd. (Headquarters)**  
TEL: (0766) 63-1100 FAX: (0766) 63-1128  
www.kitamura-machinery.co.jp

**Kitamura Machinery of U.S.A., Inc. (Chicago)**  
TEL: (847) 520-7755 FAX: (847) 520-7763  
www.kitamura-machinery.com

**Kitamura Machinery GmbH (Düsseldorf)**  
TEL: (0211) 65-6077 FAX: (0211) 904-7916  
www.kitamura-machinery.eu

