

MYCENTER<sup>®</sup>

HX300iG



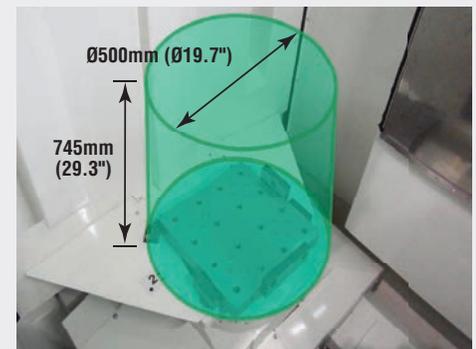
**HORIZONTAL** MACHINING CENTER

SIMPLIFY THE COMPLICATED

# HX300iG Ultra-compact mid-size #40 HMC

## Made in Japan quality, rigidity and reliability

- Rigid 9,100kg (20,020Lbs) 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 54,000deg/min (150min<sup>-1</sup>)
- Ultra-high-speed rapid/cutting feeds, 60m/min (2,362ipm)
- Ultra-high speed tool change, T-T 1.3 Seconds
- High performance THK double roller linear guideway system
- 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 and fine resolution linear Scale feedback in X, Y, Z axes.
- Standard hinge belt style conveyor combined with dual internal chip augers = High efficiency chip evacuation



*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  $\pm 0.002\text{mm}$  ( $\pm 0.000079\text{\"}$ ) / Full Stroke

**World renowned JAPANESE**

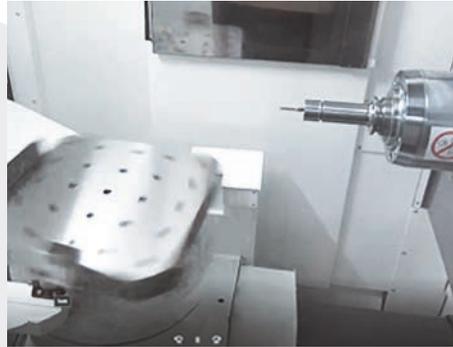
C offers high speed, profit enhancing features

# Ability for high-production environments

All mating surfaces are hand scraped to assure an absolutely perfect fit. No need for geometry compensation to adjust for squareness, parallelism and perpendicularity. High performance THK double roller linear guideways offer long life expectancy while holding accuracies. Smooth and quiet operation.

## Generous Work Envelope.

Ø500mm (Ø19.7") x 745mm (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.



## High Speed B-Axis - Integral Drive Motor Driven 54,000deg/min (150min<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"



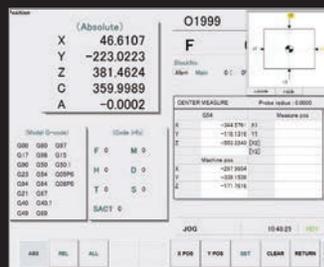
## Standard 50-Tool Automatic Tool Changer

minimizes tool change time for maximum cutting time. Kitamura's exclusive, patented fixed pot ATC system assures tools are always returned to the same pot and the next tool to be used is kept in a "stand-by" pot. Up to 200T can be added in the field for increased capability.

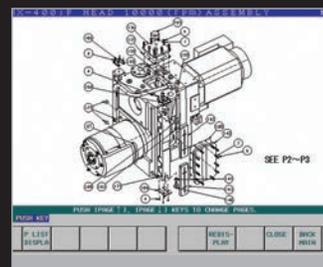
## The latest in control technology with a focus on ease of use for the operator



**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-HX300iG

## Table

|                          |                             |
|--------------------------|-----------------------------|
| Table Size               | 305 x 305mm (12.0" x 12.0") |
| Table Indexing           | 0.001 Degree (4th Axis)     |
| Tapped Hole (Size x Qty) | M16 x 2.0 x 16              |
| Max. Table Load          | 250kg (550 lbs.)            |
| Max. Workpiece Dia.      | Ø500mm (Ø19.7")             |
| Max. Workpiece Height    | 745mm (29.3")               |

## Travels

|                               |                             |
|-------------------------------|-----------------------------|
| X-Axis Travel                 | 460mm (18.1")               |
| Y-Axis Travel                 | 510mm (20.0")               |
| Z-Axis Travel                 | 560mm (22.0")               |
| B-Axis Travel                 | 0 to 360 Degrees            |
| Table Surf. to Spindle Center | 50 to 560mm (2.0" to 22.0") |
| Table Center to Spindle Nose  | 60 to 620mm (2.4" to 24.4") |

## Spindle

|                        |  |
|------------------------|--|
| Spindle Taper          | #40 NST (HSK-A63 Opt.)   |
| Spindle Speed          | 40 to 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)<br>15kW (20HP AC/10 min)<br>11kW (15HP AC/30 min)<br>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)     | 54,000 deg/min (150 min <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 (5.9")     |
| Max. Tool Length      | 350mm (13.8")                     |
| Max. Tool Weight      | 10kg (22 lbs.)                    |
| Tool to Tool          | 1.3 seconds                       |
| Chip to Chip          | 2.5 seconds, min.                 |

## Utilities

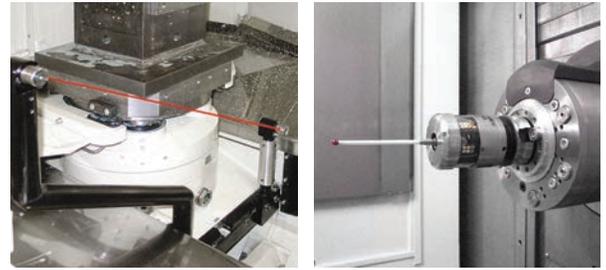
|                   |  |
|-------------------|--|
| Power Requirement | 45 KVA, 200v AC, 3 Phase<br>50 KVA, - Opt. 20,000rpm Spindle             |
| Air Requirement   | 0.5 MPa, 280L/min (90psi, 10cfm)<br>For 20,000 min <sup>-1</sup> Spindle |
|                   | 0.5 MPa, 350L/min (90psi, 13cfm)   |

## Machine Dimensions

|                        |                                   |
|------------------------|-----------------------------------|
| Required Space (W x D) | 2,759 x 3,574mm (108.6" x 140.7") |
| Machine Height         | 2,700mm (106.3")                  |
| Machine Net Weight     | 9,100kg (20,020 lbs.)             |

|         |                                   |
|---------|-----------------------------------|
| Control | Arumatik <sup>®</sup> -Mi Control |
|---------|-----------------------------------|

## Available Options



Spindle and Tool Probes



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



Smart Fixturing and Workholding Options



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