

# *MedCenter 5AX*

HIGH SPEED **5-AXIS VERTICAL** MACHINING CENTER





# MedCenter5AX

# The Machine for

## Unrivaled Accuracy - Ultra Compact Footprint

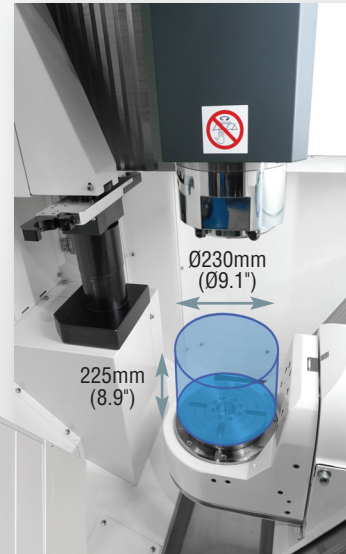
Never before has there been a machine that packs so much production, precision and machining flexibility into such a compact footprint. But don't be fooled. The MedCenter5AX boasts the largest work envelope in its class and weighs in at a massive 3,800 kg (8,300 lbs) for unrivaled high-speed, ultra precise simultaneous 5-axis machining.

### Standard High Accuracy Package Includes:

- High resolution optical scale feedback on all axes (includes 4th & 5th)
- 67 million pulse encoder system
- 16mm fine pitch ballscrews
- Arumatik®-Mi High Speed Processing Control

Largest Work Envelope in its class.

Max Workpiece Size Dia. x H:  
Ø230mm (Ø9.1") x 225mm (8.9")



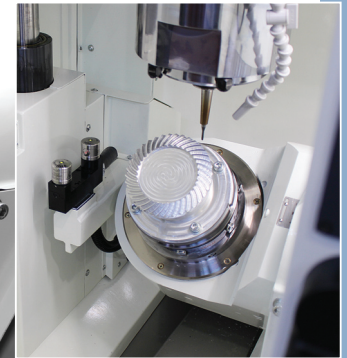
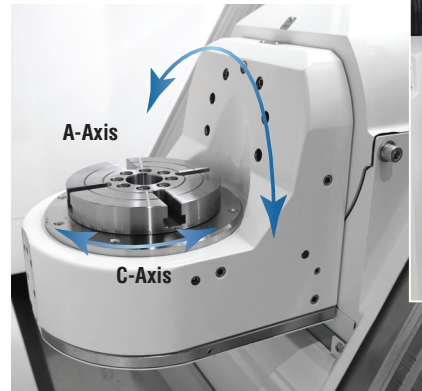
Positioning Accuracy:  $\pm 0.001\text{mm}$  ( $\pm 0.000039''$ ) / Full Stroke    Repeatability:  $\pm 0.0005\text{mm}$  ( $\pm 0.00002''$ )

# Complex Parts and Micro Machining

## High-Speed Direct Drive 4th & 5th Axis Rotary Table

As simultaneous 5-Axis machining becomes ever-increasingly popular, it's even more critical to keep the competitive edge. That's why we equipped the MedCenter5AX with highly rigid, high-speed, 4th & 5th axis rotary tables with high resolution optical scale feedback for ultra precise accuracies and smooth movement in complex cutting applications.

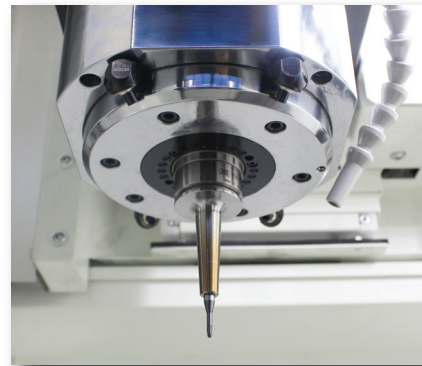
	Stroke	Rapids
A-Axis	+/-120 degrees	100min <sup>-1</sup> (36,000deg/min) Integral Motor
C-Axis	360 degrees	200min <sup>-1</sup> (72,000deg/min) Integral Motor



## High Speed 30,000min<sup>-1</sup> 18kw (24.5HP) Integral Spindle (HSK-E40)

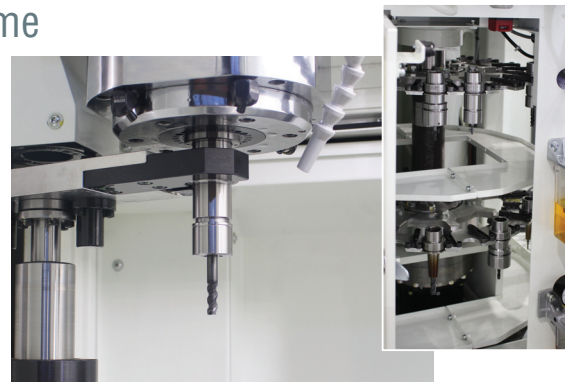
Ideal for highly precise, highly intricate work requiring superb rigidity and ultimate stiffness in spindle construction and function.

- Ideal for small diameter tools
- Hard milling
- Super fine finish capabilities
- Standard air through spindle feature available for dry cutting
- Up to 7MPa (1000psi) coolant through the spindle ready (option) available for deep hole drilling requirements



## High-Performance ATC Optimizes Cutting Time

The MedCenter5AX is equipped with Kitamura's patented "Fixed-Pot" ATC renowned for unrivaled tool handling. Old tools are returned to their pot while the next tool is held in the ready position. Tool changes are a lightning fast 1.5 seconds. The tool magazine holds 40 tools and is located at the back of the machine to assure optimum operator access and convenience when setting up tools or performing routine maintenance. A 120 tool field retrofittable upgrade is available for expanded tool capacity.



## Automation Solutions for Every Application

Eliminate waste, increase productivity and lower costs with flexible automation options.

- Optional 12 and 20 station automatic pallet system
- Optional 120 tool upgrade
- Robot interface ready
- Automatic Door is an available option
- Anywhere-Remote<sup>®</sup> email notification and machine condition monitoring software

# SPECIFICATIONS *MedCenter 5AX*

## Table

Size	Ø170mm (Ø6.7")
Maximum Table Load	20kg (44 lbs)
Maximum Workpiece Diameter	Ø230mm (Ø9.1") with Limitation
Maximum Workpiece Height	225mm (8.9")

## Travel

X-Axis	254mm (10.0")
Y-Axis	330mm (13.0")
Z-Axis	330mm (13.0")
A-Axis	240 Degrees (-120 to +120 Degrees)
C-Axis	0 to 360 Degrees
Distance from Table Surface to Spindle Center	100 to 430mm (3.9' to 16.9')
Distance from Table Center to Spindle Nose	50 to 380mm (2.0" to 15.0")

## Spindle

Spindle Taper	HSK-E40
Spindle Speed	300 to 30,000min <sup>-1</sup>
Drive Method	Integral
Spindle Motor	18kw (24.5 HP) AC/2 Min. 15kw (20 HP) AC/Cont.
Spindle Torque	14.6 N·m (10.8 ft·lbs) / 10 Min.

## Feed

Rapid Feed X, Y-Axes	60m/min (2,362ipm)
Rapid Feed Z-Axis	50m/min (1,969ipm)
Rapid Feed A-Axis	36,000 deg/min (100min <sup>-1</sup> )
Rapid Feed C-Axis	72,000 deg/min (200 min <sup>-1</sup> )
Cutting Feed	50m/min (1,969ipm)

## ATC

Tool Storage Capacity	40 Tools (120 Tools Opt.)
Tool Holder Style	HSK-E40
Max. Tool Diameter	Ø50mm (Ø2.0")
Max. Tool Length	200mm (7.9")
Max. Tool Weight	2kg (4.4 lbs)
Tool to Tool	1.5 Seconds

## Utilities

Power Requirement	35KVA, 200V AC, 3 Phase
Air Requirement	0.5MPa, 390L/min (90 psi, 14 cfm)

## Machine Dimensions

Required Space (W x D)	1,200 x 2,045mm (47.2" x 80.5")
Machine Height	2,228mm (87.7")
Machine Net Weight	3,800 Kg (8,300 Lbs)

## Control

**Arumatik-Mi**

All specifications subject to change without notice.

**KITAMURA®**

Machining Challenges-Simplified®

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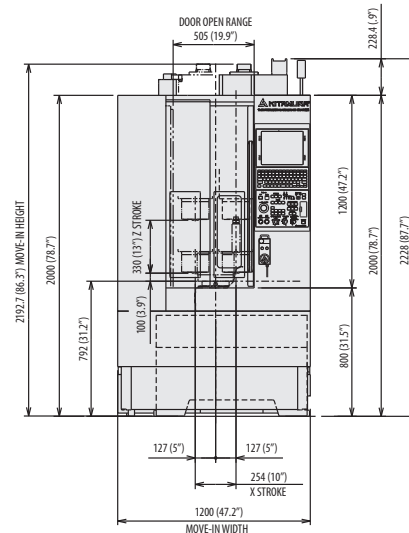
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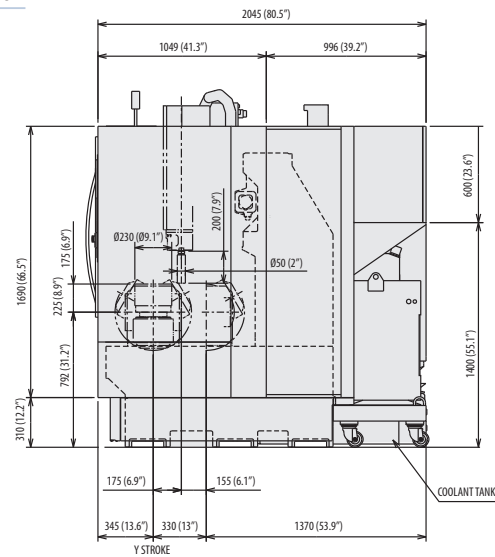
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# FLOOR PLANS

## Front View



## Side View



## Layout View

