

# ***BRIDGEcenter***<sup>®</sup> SERIES



**DOUBLE COLUMN  
MACHINING CENTERS**



**SIMPLIFY THE COMPLICATED**

# BRIDGECENTER SERIES



The ideal machines for large component processing.

Built on the forty-five year proven

Bridgecenter platform, the new **Bridgecenter Series Double Column Machining Centers** pack power and capacity into an even more space saving package.

These high-capacity machining centers are designed for high-precision machining of extra-large, heavy components. They are ideal for a wide spectrum of applications - from heavy-duty cutting of molds to high accuracy machining of high-tolerance parts. Available in various spindle configurations to meet your exacting requirements.

- Astounding accuracy of +/- 0.002mm (+/-0.000079") / full stroke
- Solid Boxway design with Linear Scale Feedback
- Fastest rapids in bridge style machines
- Space-saving compact footprints
- High performance Double Decker style chip disposal system
- 40-Tool fixed pot ATC (up to 80 tools available)
- Arumatik®-Mi icon driven CNC Control

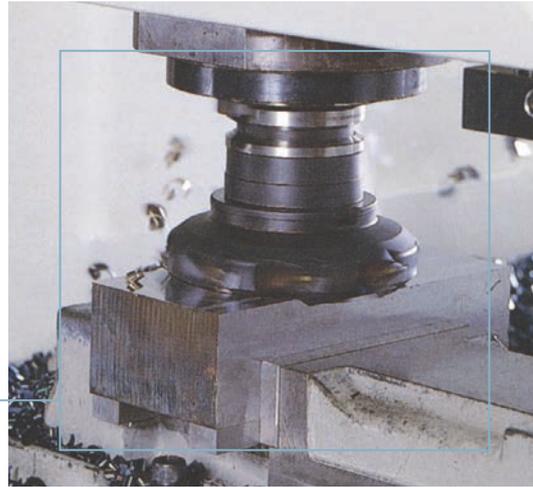
Bridgecenter-8G



# 6G, 8G, 10G, 12G Double Column Machining Centers

## Gear Driven Spindles are designed for extreme cutting capacity

- Delivering strong low-end torque and high-end fine finish capability, Kitamura's 4-step gear driven spindles deliver unmatched power and energy efficiency for increased productivity and energy savings.
- The dual contact design provides simultaneous taper and flange contact for optimum rigidity, improved surface finish and extended cutting tool life. The Bridgecenter series offers two spindle configurations.
- Your choice of powerful High Speed #40, 20,000rpm and high torque #50, 12,000rpm 4-step gear driven spindle configurations.



## **Arumatik-Mi** Pioneering Icon CNC Operation

- 67 million Pulse Encoder technology with 8,192 block look ahead processing speed
- Software upgrades throughout the life of the control
- Fanuc user-friendly
- Customizable and comfortable user experience
- Video Guidance and Visual Programming screens
- Anywhere-Remote mobile notification and machine monitoring suite



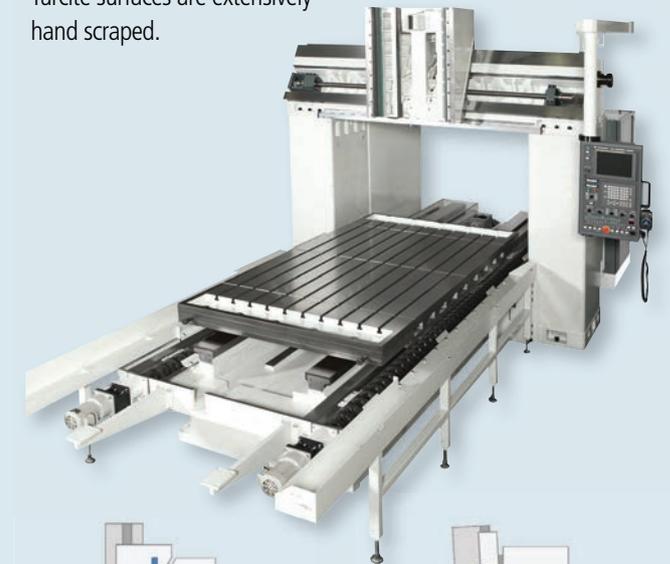
## Large Work Areas - Heavy Table Load Capacities

- Ample table sizes up to 1,370mm (53.9") x 3,500mm (137.8") and Y-Axis travel of up to 1,615mm (63.6").
- These large working areas in combination with heavy table load capacities up to 6,000kg (13,227Lbs) allow the Bridgecenter Series to achieve excellent performance on heavy duty cutting of molds to high accuracy cutting of precise parts.
- Designed for easy operator access to the work area. Telescoping doors, sliding control panel and open ceilings simplify part load and unload.



## Proven patented Kitamura design backed by over eighty years of Double Column machine design and engineering experience

- The basic construction of the Double Column Bridge Type Machine consists of a bed type casting with square section support columns, incorporating a triangular section cross beam. The application of high grade Meehanite castings provides maximum rigidity to enable high cutting load characteristics.
- For maintaining high precision during long term usage, all slide ways are in house induction hardened and ground. Turcite surfaces are extensively hand scraped.



### **KITAMURA**<sup>®</sup>

**Kitamura Patented Triangular Crossrail Construction** Evenly distributes headstock weight and cutting forces for chatter-free machining and superior accuracy and surface finishes.

The shorter distance from the Z-Axis slideway to the spindle center offers increased thermal stability over the X-Axis travel.

### **Conventional Construction**

**Conventional Construction** Competitive design is prone to deflection resulting in chatter, and compromised accuracy and surface finishes.

Bridgecenters are available in 4 sizes to meet your large component machining requirements.

\*All models available with optional 2-station APC

**Bridgecenter-6G**

Travel: 60" x 43" x 28"  
(1,530 x 1,095 x 710mm)



**Bridgecenter-8G**

Travel: 80" x 43" x 28"  
(2,032 x 1,095 x 710mm)



**Bridgecenter-10G**

Travel: 100" x 64" x 32"  
(2,540 x 1,615 x 800mm)



**Bridgecenter-12G**

Travel: 120" x 64" x 32"  
(3,050 x 1,615 x 800mm)



**SPECIFICATIONS BRIDGECENTER SERIES**

	Bridgecenter-6G #40/#50	Bridgecenter-8G #40/#50	Bridgecenter-10G	Bridgecenter-12G
<b>Table</b>				
Table Size	900 x 1,800mm (35.4" x 70.9")	900 x 2,500mm (35.4" x 98.4")	1,370 x 3,000mm (53.9" x 118.1")	1,370 x 3,500mm (53.9" x 137.8")
T-Slot (Width x Qty.)	18mm (0.7") x 7	18mm (0.7") x 7	18mm (0.7") x 5	18mm (0.7") x 5
Max. Table Load	3,000kg (6,600 lbs.)	3,500kg (7,700 lbs.)	6,000kg (13,227 lbs.)	6,000kg (13,227 lbs.)
Dist. from Floor to Table Surface	862mm (33.9")	862mm (33.9")	897mm (35.3")	897mm (35.3")
<b>Travel</b>				
X-Axis Travel	1,530mm (60.2")	2,032mm (80.0")	2,540mm (100.0")	3,050mm (120.1")
Y-Axis Travel	1,095mm (43.1")	1,095mm (43.1")	1,615mm (63.6")	1,615mm (63.6")
Z-Axis Travel	710mm (28.0")	710mm (28.0")	800mm (31.5")	800mm (31.5")
Dist. from Table Surface to Spindle Nose	152 ~ 862mm (6.0" ~ 33.9")	152 ~ 862mm (6.0" ~ 33.9")	150 ~ 950mm (5.9" ~ 37.4")	150 ~ 950mm (5.9" ~ 37.4")
Dist. Between Columns	1,143mm (45.0")	1,143mm (45.0")	1,696mm (66.8")	1,696mm (66.8")
<b>Spindle</b>				
Spindle Taper	Both Models Available in #40 NST and #50 NST		#50 NST	#50 NST
Spindle Speed	20 ~ 20,000min <sup>-1</sup> (#40)	35 ~ 12,000min <sup>-1</sup> (#50)	35 ~ 12,000min <sup>-1</sup>	35 ~ 12,000min <sup>-1</sup>
Drive Method	Gear Drive, 4 Step	Gear Drive, 4-Step	Gear Drive, 4-Step	Gear Drive, 4-Step
Max. Spindle Torque	266.4 N•m (196.5 ft•lbs)	585.9 N•m (432.1 ft•lbs)	585.9 N•m (432.1 ft•lbs)	585.9 N•m (432.1 ft•lbs)
Spindle Motor	22kW (20HP AC/15 min) 15kW (20HP AC/Cont.)	40kW (53HP AC/15 min) 22kW (30HP AC/Cont.)	40kW (53HP AC/15 min) 22kW (30HP AC/Cont.)	40kW (53HP AC/15 min) 22kW (30HP AC/Cont.)
<b>Feed</b>				
Rapid Feed X, Y, Z	24m/min (945ipm)	24m/min (945ipm)	24m/min (945ipm)	24m/min (945ipm)
Cutting Feed Rate X, Y, Z	24m/min (945ipm)	24m/min (945ipm)	24m/min (945ipm)	24m/min (945ipm)
<b>ATC</b>				
Tool Storage Capacity	40 Tools (Opt. 60, 80)		40 Tools (Opt. 60, 80)	40 Tools (Opt. 60, 80)
Tool Selection Method	Random bi-directional, Fixed Pot		Random bi-directional, Fixed Pot	Random bi-directional, Fixed Pot
Tool Holder Style	MAS CT (BT) 40 CT (BT) 50		MAS CT (BT) 50	MAS CT (BT) 50
Max. Tool Dia. w/ Adj. Pots Empty	#40 Ø75mm (Ø3.0") #40 Ø127mm (Ø5.0")	#50 Ø125mm (Ø4.9") #50 Ø220mm (Ø8.7")	Ø125mm (Ø4.9") Ø220mm (Ø8.7")	Ø125mm (Ø4.9") Ø220mm (Ø8.7")
Max Tool Length	400mm (15.7")		400mm (15.74")	400mm (15.74")
Max. Tool Weight	#40 10kg (22.0 lbs.)	#50 20kg (44.0 lbs.)	20kg (44.0 lbs.)	20kg (44.0 lbs.)
Tool to Tool	6.6 seconds		6.6 seconds	6.6 seconds
Chip to Chip	12.0 seconds, min.		14.0 seconds, min.	15.0 seconds, min.
<b>Utilities</b>				
Power Requirement	#40 35KVA, 200v AC, 3 Phase #50 45KVA, 200v AC, 3 Phase		50KVA, 200v AC, 3 Phase	50KVA, 200v AC, 3 Phase
Air Requirement	0.5 MPa (400L/min) (90 psi, 15 cfm)	0.5 MPa (400L/min) (90 psi, 15 cfm)	0.5 MPa (400L/min) (90 psi, 15 cfm)	0.5 MPa (400L/min) (90 psi, 15 cfm)
<b>Machine Dimensions</b>				
Required Space (W x D)	3,494 x 4,472mm (137.6" x 176.1")	3,494 x 5,866mm (137.6" x 230.9")	4,168 x 7,660mm (164.1" x 301.6")	4,168 x 8,800mm (164.1" x 346.5")
Machine Height	3,883mm (152.9")	3,883mm (152.9")	4,006mm (157.7")	4,006mm (157.7")
Machine Net Weight	17,500kg (38,500 lbs.)	20,000kg (44,000 lbs.)	28,000kg (61,600 lbs.)	31,000kg (68,200 lbs.)
<b>Control</b>				
	Arumatik®-Mi	Arumatik®-Mi	Arumatik®-Mi	Arumatik®-Mi



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Specifications subject to change without notice.