Takumi
Respect, Teamwork, Innovation, Service

Specifications

Travel	Unit	BC2116	BC3116
X axis	mm	2100	3100
Y axis	mm	1600	
Z axis	mm	800	
Distance from spindle nose to table	mm	200-1000	
Distance from spindle center to column surface	mm	430	
Distance between columns	mm	1700	
Table			
Dimension	mm	2000 x 1500	3000 x 1500
Max. load	kg	5000	7000
T-slot (widthxpitchxnumber)	mm	22 x 200 x 8	22 x 200 x 8
Spindle			
Spindle type	-	Gear	
Spindle speed	rpm	6000	
Spindle motor power (cont. /30 min rated)	kW	18.5/22	
Spindle taper	-	BT50	
Feed			
Rapid traverse（X/Y/Z）	m/min	24/24/15	
Cutting feed rate	mm/min	1~10000	
Motor power（X/Y/Z）	kW	7.0/7.0/4.0	
ATC & Magazine			
ATC type	-	Arm	
Magazine capacity	pcs	24	
Max. tool diameter (next pockets empty)	mm	125/215	
Max. tool length	mm	400	
Max. tool weight	kg	15	
Tool shank	-	BT50	
Pull stud	-	MAS407	
Space & System Requirement			
Pneumatic pressure	kgf/cm^2	6	
Electrical power consumption	kVA	55	
Machine net weight	kg	24000	28000
Machine dimensions (LxWxH)	mm	6700 x 4700 x 4600	8500 x 4700 x 4600

■ Standard Accessories

- FANUC 0iMF controller
- 6,000 rpm, BT50, gear type spindle
- 24T, BT50, arm type
- Twin hydraulic cylinders with pneumatic assistance
- Spindle air blast
- Cutting air blast
- Spindle oil cooler
- Spindle gear box cooling system
- Cutting coolant system
- Automatic centralized lubrication system (oil)
- Full enclosure (without top cover)
- Working light
- Indication lamp
- Washing gun & air gun
- Chip conveyor
- Chip augers
- Coolant tank
- Manual pulse generator (MPG)
- Ethernet & RS-232C interface
- Heat exchanger for electrical cabinet
- Tool kits
- Leveling bolts & pads
- Operation manuals
- One-year machine warranty
  (Spindle warranty depends upon spindle manufacturer)
- Controller warranty
  (Fanuc：24 month from shipping date)

■ Optional Accessories

- 10,000 rpm, BT50, direct-drive type spindle
- 22/26 kW motor power (for Fanuc NC only)
- 32T, BT50, arm type
- Coolant through tool holder
- Coolant through spindle (30 BAR)
- Ball screw cooling system
- Linear scales (3 axes)
- 1,000mm Z-axis travel
- 200mm higher column
- Sub-table
- Oil skimmer
- Oil mist device
- Air conditioner for electrical cabinet
- 4th axis rotary table
- 4th axis rotary table interface preservation
- Tool length measurement system
- Workpiece measurement system
- Manual 90° head, extended head, universal head
- Transformer
- Full enclosure (with top cover)
- CE (CE area only)

*** All data listed here are based on machines with standard accessories. Data will be altered according to different options. For detailed information, please refer to local dealers or Takumi sales.**
*** Takumi reserves the right on the modifications of the machine specifications.**

TAKUMI ： Professional Team and Outstanding Brand

Takumi
Respect, Teamwork, Innovation, Service

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2014.09 DESIGNED BY 884-4-2296-9693

BC SERIES
ENGLISH

BC Series

BC2116 / BC3116

Double Column Machining Center

- **Rigid Structure Design**
- **3 Axes Linear Guide Ways**
- **Excellent Heavy Cutting Performance**

CE APPROVED ISO 9001:2000 ANAB IAF

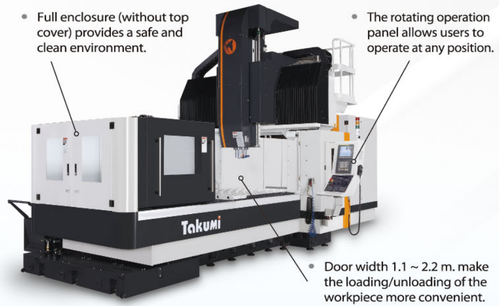
Takumi
Respect, Teamwork, Innovation, Service

BC Series

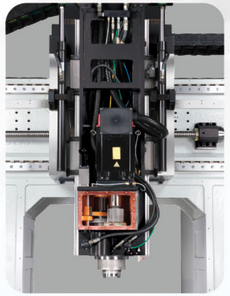
Double Column Machining Center

Takumi
Respect, Teamwork, Innovation, Service

The Embodiment of Technical Expert – the perfect combination for high-speed and high-accuracy machining



- Full enclosure (without top cover) provides a safe and clean environment.
- The rotating operation panel allows users to operate at any position.
- Door width 1.1 ~ 2.2 m. make the loading/unloading of the workpiece more convenient.



- Bed, columns, beam, saddle, head and other main castings are made of Meehanite grade casting iron with the internal stress released by heat treatment, ensuring the best structural rigidity and positioning accuracy.
- The ladder type design of beam provides wider supporting surface for saddle, ensuring powerful and stable cutting performance.
- Beam and column are made of one piece casting iron to ensure structural rigidity.
- Pneumatic-assistant balancing system with twin hydraulic cylinders on spindle headstock assures high accuracy.
- 3 axes are equipped with roller type linear guide ways to provide high rigidity, low friction and quick acceleration/deceleration.
- 3 axes ball screws and linear guide ways are lubricated by automatic centralized lubrication system.
- X axis adopts gear power transmission to ensure optimal rigidity.
- Chip augers provide effective chip removal performance.
- Manual 90° head, extended head and universal head are available (optional).

High Heavy Cutting Performance

* Gear type spindle, 6000rpm, 18.5/22kW motor power.
* Cutting material: S50C
* Notice: cutting performance is subject to change with different cutting conditions.

Drilling
- Diameter: ø49
- Spindle speed: 800 rpm
- Feed rate: 250 mm/min
- Depth: 147 mm

Face Milling
- Tool diameter: 160 mm
- Spindle speed: 450 rpm
- Feed rate: 810 mm/min
- Depth: 6 mm
- Width: 130 mm
- Material removal rate: 631 cm³/min

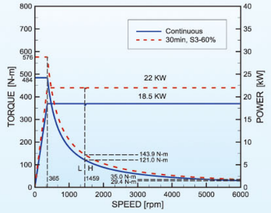
End Milling
- Tool diameter: 63 mm
- Spindle speed: 800 rpm
- Feed rate: 400 mm/min
- Depth: 40 mm
- Width: 10 mm

High Accuracy and High Performance Spindle

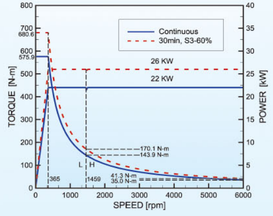
- Spindles are from professional spindle manufacturers, featuring high accuracy and high performance.
- The complete cooling system to the gears, bearings and spindle reduces thermal deformation and prolongs the working life of spindle.

Spindle Power and Torque Chart

- Gear type spindle, 18.5/22 kW, 6000 rpm (standard)



- Gear type spindle, 22/26 kW, 6000 rpm (optional)



Milling Head (optional)

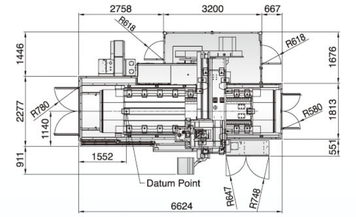
90° head N75ST-01

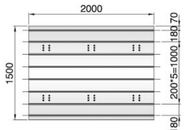
Max. tool diameter	Ø150 (6")
Gear Ratio	1:1
Max. Power	38kw
Max. Speed	2000rpm
Spindle Revolution	forward

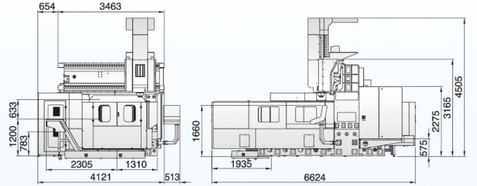
Universal head C50-TL02

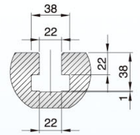
Max. tool diameter	Ø200 (8")
Gear Ratio	1:1
Max. Power	42kw
Max. Speed	1200rpm
Spindle Revolution	forward

BC2116 Dimension — Table & T-slot

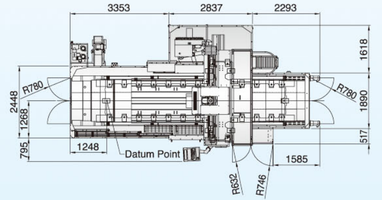


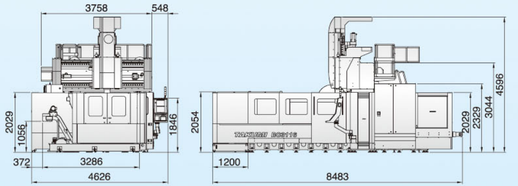


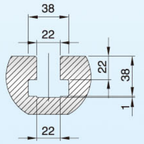




BC3116 Dimension — Table & T-slot







Unit: mm