

BRC – Bridge Mill Pricing Belted and Inline Spindle Configurations

Effective September 1, 2008 Rev B



Machine Model		BRC50 (IL)	BRC60 (IL)	BRC80 (IL)
Standard 100" Travel				
Extended 150" Travel				
Standard Travel (XYZ")		100 x 50 x 28	100 x 60 x 28	100 x 80 x 28
Extended Travel (XYZ")		150 x 50 x 28	150 x 60 x 28	150 x 80 x 28
Horsepower FANUC 1 min/30 min	Belted Spindle	Two Speed 26/20 hp 19/15 kw		
	Inline Spindle	Two Speed 24/15 hp 18/11 kw		
Belted Spindle Taper / Size / RPM		40 Taper Belted / 70 mm / 8000 or 15,000		
Inline Spindle Taper / Size / RPM		40 Taper Inline / 70 mm / 10,000 or 15,000		
Optional Automatic Tool Changer		24 Pocket Carousel		
MACHINE FEATURES				
<ul style="list-style-type: none"> • Two Year Parts Warranty • Heavy Duty 45mm Linear Roller Way on Y and Z axes • Precision Ground Double Anchored Ball Screws • #40, Five Bearing Air Purged Spindle Cartridge Assembly • Spindle Taper Blow-out and Tool Release Push Button • High Torque AC Digital Servo Drives with 1000 ipm Rapids • High Torque Closed Loop Vector Spindle Drive System • Single Spare "M" Function and CNC "Wait" Channel • Optional Dual Auger • Bridge Mounted Work Light • Optional Coolant and Chip Control Enclosure • End of Cycle Light • Edit Key Lock-out Switch • LCD Hour Meter • Operator Air Blast Hose • Optional Spindle Chiller Loop System <i>Standard on inline(IL)</i> • Metal Way Covers • All Axes Laser Calibrated and Ballbar Inspected 				
GE FANUC 0i-MC CONTROL FEATURES				
<ul style="list-style-type: none"> • ManualGuide™ Conversational Programming System • Dynamic Graphic Display • 256 Kb Program Storage • Macro Executor • 10.4" Color LCD Display • Scaling, Rotation & Mirror Imaging • PCMCIA Slot • Electronic Handwheel • 8ms Block Processing Speed (4ms with AICC Option) • Manuals on CD ROM (Bound Manuals are Optional) • RS232 Port with DNC Capability • Ethernet Port 				
GE FANUC CONTROL OPTIONS				
Data Server with 256 MB Parts Storage				
AICC – 4ms Block Processing				
Remote Electronic Handwheel				
PERFORMANCE OPTIONS – Belted Spindles				
Upgrade Standard 8000 RPM 70mm Spindle to Ceramic Bearing 15,000 RPM 70mm Spindle (<i>Consider Inline Spindle</i>)				
PERFORMANCE OPTIONS – Inline Spindles				
Upgrade Standard Belted 8000 RPM 70mm Spindle to 10,000 RPM 70mm Inline Spindle with BIG PLUS®				
Upgrade Standard Belted 8000 RPM 70mm Spindle to 15,000 RPM 70mm Inline Spindle with BIG PLUS®				
PERFORMANCE OPTIONS – Belted or Inline Spindles				
Spindle Chiller Loop (Reduces flood system to two nozzles)(Standard with Inline Spindles (IL))				
SPINDLE CONFIGURATIONS — #40				
#40 CT Type				
#40 BT Type				
Coolant Through Spindle – 300-PSI Low Pressure System (<i>Requires purchase of coolant system with side doors</i>) <i>Available only on BRC60 & BRC80</i>				

FLOOD COOLANT AND CHIP CONTROL ACCESSORIES			
Flood Coolant System Including, Coolant Tank and Wash Down Hose – Plus: BRC50 – Table Coolant Collector and Programmable Spray Mist			
Flood Coolant System Including, Coolant Tank and Wash Down Hose – Plus: BRC60 & BRC80 – Coolant Troughs with Dual Chip Augers			
Removable Side Doors and Other Chip Control Features (<i>Requires Coolant System Option, not Available on BRC50 (IL)</i>)			
AUTOMATIC TOOL CHANGER			
24 Pocket Carousel ATC with Remote Tool Changer Control Panel			
ROTARY TABLE ACCESSORIES			
Rotary Tables <i>Includes 4th axis amp and motor – application may require riser</i>	6.5" (165 mm)	9.0" (228 mm)	
	10.0" (254 mm)	5C Collet Table	
Rotary Table Tail Stock	6.5" (165 mm)	9.0" (228 mm)	10.0" (254 mm)
4 th Axis Servo Amplifier & Motor (Electrics only) – Contact factory for 5 axis; <i>Included with Rotary Table Accessory</i>			
OTHER ACCESSORIES			
Chip Bucket for Auger (\$400 each)			
Coolant Tank Oil Skimmer			
Coolant Through Spindle – 300 PSI <i>Low Pressure System</i> <i>Includes Drawbar Assembly for ANSI Retention Knobs and Rotary Coupling, Requires removable side doors</i>			
Programmable Spray Mist <i>On/Off</i> – <i>Included with Flood System on BRC50</i>			
Programmable Air Blast <i>On/Off</i>			
Tool Release Foot Switch			
Automatic Metered Lubrication in Lieu of Grease Zerks			
6" <i>150 mm</i> Riser Block in Columns <i>Non-removable. Consult factory for other sizes or special applications</i>			
Contact Tool Offset Probing with Macros			
Work Offset Probing with Macros			
Combo Pack – Contact & Work Tool Offset Probing with Macros			
Laser Tool Setter			
RS-232 Cable, 50' <i>15 Meters</i>			
Bound Programming, Maintenance or Operational Manual(s) - <i>each</i>			
Additional Programming Manual in Electronic Format on CD			
Additional Machine Manual			
Fanuc Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø			
Voltage 380-480 Three Phase Step Down Transformer <i>Factory recommended sizes. Consult local electrical codes for proper transformer sizing.</i>			40 KVA
UL/CUL Compliance			
Two Year Parts Warranty <i>See Note</i>			
On Site Factory Installation, U.S. only <i>Does not include airfare – Training available through Fanuc</i>			
<p><i>Terms within USA: Cash or terms with approved credit; down payment due with order.</i></p> <p><i>F.O.B Waconia, MN USA. Prices do not include taxes, duties, transportation, rigging or start-up.</i></p> <p><i>All sales of equipment, parts, software and service are subject to Milltronics' Standard Terms and Conditions of Sale.</i></p> <p><i>Milltronics reserves the right to amend or change without notice without incurring obligation; not responsible for typographical errors.</i></p> <p><i>Consult Written Warranty Statement for Details of Two Year Parts Warranty</i></p>			

BRC – Bridge Mill Specifications

Effective September 1, 2008

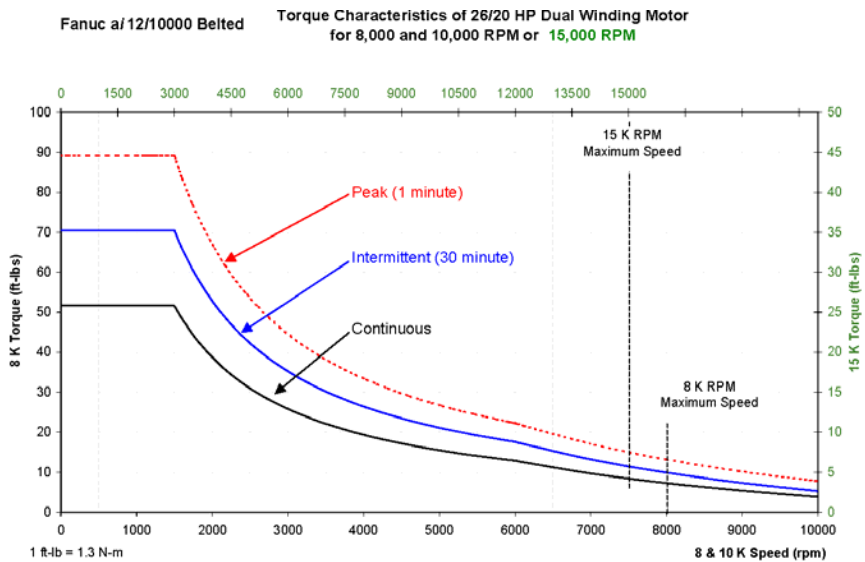
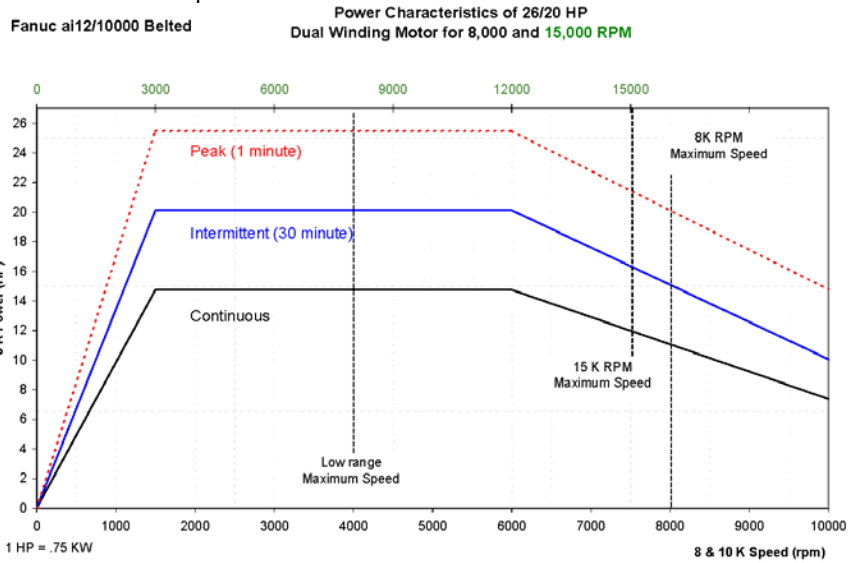


Machine Model	BRC50 (IL)	BRC60 (IL)	BRC80 (IL)
Control Type	Fanuc 0iMC		
Number of Axes	3 (Optional 4 or 5)		
CAPACITY			
Table Size – Standard 100" Travel	48" x 96" <i>1220 x 2440 mm</i>	60" x 96" <i>1524 x 2440 mm</i>	80" x 96" <i>2032 x 2440 mm</i>
Table Size – Optional 150" Travel	48" x 150" <i>1220 x 3800 mm</i>	60" x 150" <i>1524 x 3800 mm</i>	80" x 150" <i>2032 x 3800 mm</i>
Standard Table Travel X	100" <i>2540 mm</i>		
Optional Table Travel X	150" <i>3800 mm</i>		
Cross Travel Y	50" <i>1270 mm</i>	60" <i>1524 mm</i>	80" <i>2032 mm</i>
Head Travel Z	28" <i>710 mm</i>		
Spindle To Table Top	4" - 32" <i>100 - 810 mm</i>		
Optional Riser, Non-removable	6" <i>150 mm</i>		
Table Surface	6" <i>150 mm</i> Hole Matrix, ½" x 13		
Machine Weight – Standard Travel	13,000 lb <i>6000 kg</i>	14,000 lb <i>6400 kg</i>	16,000 lb <i>7300 kg</i>
Machine Weight – Optional Travel	15,000 lb <i>6800 kg</i>	16,000 lb <i>7300 kg</i>	18,000 lb <i>8200 kg</i>
Maximum Table Load <i>Consult factory for higher load capacities</i>	5000 lb <i>2270 kg</i>		
Ball Screw Grade	C5		
Ball Screw Diameter: X 100"/150", Y, Z (mm)	63/80, 40, 32		
Ball Screw Pitch: X, Y, Z (mm)	40, 20, 10		40, 25, 10
Linear Way Type and Size	45 mm Roller Type Y & Z and Ball Type on X		
SPINDLE – #40			
Standard Belted Horsepower FANUC <i>1 min/30 min</i> Reference Torque Chart:	Two Speed 26/20 HP <i>19/15 kw</i> 26/20/2/B/F		
Optional Inline Standard HP FANUC <i>1 min/30 min</i> Reference Torque Chart:	Two Speed 24/15 HP <i>18/11 kw</i> 24/15/2/I/F		
Inline Spindle Size	70 mm		
Standard Spindle RPM, Triplex Bearing	50 - 8000		
Optional Ceramic Duplex Bearing Spindle RPM <i>Requires balanced tooling</i>	100 - 15,000		
Optional Inline Spindle RPM <i>Requires balanced tooling</i>	100 - 10,000		
Optional Inline Spindle RPM <i>Requires balanced tooling</i>	100 - 15,000		
***** <i>Tools should be balanced to 2.5 G's at 15,000 RPM</i> *****			
AUTOMATIC TOOL CHANGER – # 40			
Tool Changer Type	24 Pocket Carousel Type		
Tool Changer Time – Tool to Tool	7 Seconds		
Maximum Tool Size (Diameter / Length / Weight)	4" / 11" / 10 lb <i>100 mm / 280 mm / 4.5 kg</i>		
PERFORMANCE			
Servo Type	Digital, AC Brushless		
Rapid Traverse X, Y, Z – <i>100" machine</i>	1000 ipm <i>25 mpm</i>		
Rapid Traverse X / Y, Z – <i>150" machine</i>	750 / 1000 ipm <i>19 / 25 mpm</i>		
Maximum Feedrate <i>Part dependent</i>	500 ipm <i>12.7 mpm</i>		
Positioning Accuracy ^{see note}	±0.001" <i>.025 mm</i> in 10" <i>250 mm</i> single axis move; ±0.005" <i>.127 mm</i> over full travel area		
Positioning Repeatability ^{see note}	.0003" <i>.005 mm</i>		
Feedback Resolution	.00004" <i>.001 mm</i>		

Machine Model	BRC50 (IL)	BRC60 (IL)	BRC80 (IL)
Thrust, Machine Duty Rating, XYZ	5000 lb <i>2270 kg</i>		
COOLANT THROUGH SPINDLE			
Coolant Through Spindle Option <i>Requires ANSI Retention Knob and 70 mm or Inline Spindle</i>	300 psi <i>20 bar</i>		
Pump Filtration	11 Micron		
Flow Rate	5 gal/min <i>19 L/min</i>		
Pump HP	5 HP <i>3.7 kw</i>		
MISCELLANEOUS			
Lubrication	Grease or Optional Automatic Metered Lubrication with Low Lube Fault		
Metal Way Covers	Standard		
¼ HP Flood Pump Capacity	16 gal <i>60 L</i>	100 gal <i>370 L</i>	100 gal <i>370 L</i>
Drawbar Air Pressure Required	100 psi <i>6.8 bar</i>		
Fanuc Power 208-240 VAC 50-60hz, 3Ø – 26 HP	100 amps 38 KVA		
Warranty	Parts: Two years or 4200 hours, whichever occurs first on all normal failures. Service: One year or 2100 hours (whichever occurs first) from distributor.		
<p><i>Note: Measurements performed with Renishaw laser and ballbar systems. Measurements are linear over entire travel. Temperature changes and table loads may affect tolerances. Tolerances are guaranteed over 10" sq. area. Milltronics reserves the right to change specifications at any time without incurring obligation.</i></p>			

Fanuc Torque Chart 26/20/2/B/F – Belted Spindle

Used on: Standard BRC50, BRC60, BRC80
 Optional N/A



Fanuc Torque Chart 24/15/2/I/F – Inline Spindle

Used on: Standard N/A
 Optional BRC50IL, BRC60IL, BRC80IL

