

BR – Bridge Mill Pricing

Effective September 1, 2010



Machine Model	BR50	BR60	BR80
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 1 minute / 30 minutes	Single Speed 24/15 HP 18/11 kw		
Optional Horsepower 1 minute / 30 minutes	Two Speed 24/15 HP 18/11 kw		
Optional Horsepower 1 minute / 30 minutes	Two Speed 35/25 HP 26/18 kw		
MACHINE FEATURES		CONTROL FEATURES	
<ul style="list-style-type: none"> • Two Year Parts Warranty • Heavy Duty 45 mm Linear Ball Way Construction with Roller Way Option • Precision Ground Double Anchored Ball Screws • #40, Five Bearing 8000 RPM Air Purged Spindle Cartridge Assembly, Optional 15,000 RPM • Metal Way Covers • 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 • Spindle Load Meter • All Axes Laser Calibrated and Ballbar Inspected • Rigid Tap • End of Cycle Light 		<ul style="list-style-type: none"> • PC-Based CNC Includes 2 MB Parts Storage Memory • 12" LCD Active Matrix Color Display • Conversational Plus G & M Code Programming • 3-D Part and Wire Frame Tool Path Graphics on Series 7200 Plus Solid Modeling Graphics on Series 8200 • 6 MB Virtual Disk / RS-232 with DNC Buffer • High Speed Processor (7200 Series 1200 block/sec, 8200 Series 2000 blocks/sec) • Optional Four & Five Axis Simultaneous Interpolation Software & Interface • High Torque AC Digital Servo Drives • High Torque Closed Loop Vector Spindle Drive System • All Axes Laser Calibrated and Ballbar Inspected • Networking Option Includes 30 days Phone Support 	
SOFTWARE PACKAGE A		PERFORMANCE PACKAGE C	
<p>Additional 10 MB Parts Storage (Total of 12 MB) Coordinate Rotating, Scaling, Mirror Image, Thread Mill 3.5" Floppy Drive Auto DXF File Import Front Panel Mounted Electronic Handwheel Plus Handwheel Controlled Program Execution Engraving, Helical Interpolation, Auto Routines, & User Definable Macros with Trig Assist, & Irregular Pocket Clearing 24 MB Program Execution Memory with Large Program Management Software (Allows editing of 10 MB file) LCD Hour Meter</p> <p><i>Items may be purchased separately</i></p>		<p>Air Blast Nozzle Programmable by CNC Off-line FastCAM Software for Programming & Training Edit Key Lock-out Switch Bridge Mounted Work Light Upgrade to Two Speed 24/15 HP (18/11 kw) Wye/Delta Spindle Drive Tool Release Foot Switch Programmable Spray Mist</p> <p><i>Items may be purchased separately</i></p>	
CONVENIENCE PACKAGE B		8200 Control Package D - Includes all the following:	
<p>Package B is Not Available on This Product Line</p>		<p>Solid State Non-Volatile Memory Upgrade to 300 MB Enhanced CPU Increases Block Processing Speed from 1200 to 2000 bps Solid Model Graphics Functionality USB Connectivity in lieu of Floppy Disk Drive High Speed Performance with Enhanced Jerk Control and Look Ahead MT Connect Compliant</p>	

PREMIER PACKAGE E (For Package Price, Purchase of Packages A, C, and D is Required)					
Convert 45 mm Linear Ball Ways on Y and Z axis to 45mm Roller Ways					
Convert 60 mm Spindle Cartridge to 70mm Spindle Cartridge					
<i>Items may be purchased separately</i>					
SPINDLE CONFIGURATIONS — #40					
#40 CT Type					
#40 BT Type					
Upgrade to 15,000 RPM Ceramic Bearing 60 mm Spindle (Consider Inline BR)					
Upgrade to 15,000 RPM Ceramic Bearing 70 mm Spindle <i>Requires Purchase of 70 mm Upgrade in Package E (Consider Inline BR)</i>					
Upgrade to Two-Speed 35/25 HP (26/18 kw) Wye/Delta Spindle Drive System (Requires Purchase of Package E)					
FLOOD COOLANT SYSTEM & CHIP CONTROL ACCESSORIES					
Flood Coolant System With Through Head Cooling, Six Nozzles, Coolant Tank and Wash Down Hose – Plus: <i>(Not available on BR50IL)</i>					
BR50 – Table Coolant Collector and Programmable Spray Mist					
BR60 & BR80 – Coolant Troughs with Dual Chip Augers					
Removable Side Doors and Other Chip Control Features <i>(Requires Coolant System Option, not Available on BR50)</i>					
AUTOMATIC TOOL CHANGER					
24 Pocket Carousel ATC with Remote Tool Changer Control Panel					
GRAPHITE AND ABRASIVE MATERIAL ACCESSORIES					
Pressurized Air/Oil Purge System for Ball Screws and Bearing Blocks <i>(Requires purchase of automatic lubrication)</i>					
Torit Vacuum System Model DFT2.2MILL (Consider Environmental Noise)					
Dust Collection System — Consult factory					
ROTARY TABLE ACCESSORIES					
Rotary Tables		6.5" (165 mm)	8,900	9.0" (228 mm)	
<i>Includes 4th axis amp & motor; Application may require riser</i>		10.0" (254 mm)	13,900	5C Collet Table	
Rotary Table Tail Stock	6.5" (165 mm)	1,200	9.0" (228 mm)	1,400	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					
Upgrade to Solid State Non-Volatile Memory 256 MB Flash Card – <i>7200 Controls only</i>					
Automatic Lubrication in Place of Grease Zerks					
Remote Handwheel Unit					
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>					
Spindle Chiller Loop (Reduces Flood System to Two Nozzles)					
6" 150 mm Riser Block in Columns <i>(Non-removable)</i>					
Spare “M” Functions – Block of 4 <i>Maximum 2 blocks (Price is For Each Block)</i>					
Contact Tool Offset Probing with Macros					
Work Offset Probing with Macros					
Combo Pack – Contact & Work Tool Offset Probing with Macros					
Laser Tool Setter					
Digiscan Digitizing 3-D Software, Probe, Manuals					
RS-232 Cable, 50' 15 Meters					
Additional Programming Manual					
Programming Manual in Electronic Format on CD					
Additional Machine Manual					
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø					

OTHER ACCESSORIES		
380-480 Transformer (Reduces Voltage to 208-240) <i>Factory Recommended Sizes Consult Local Electrical Codes for Proper Transformer Sizing.</i>	24/15 HP 18/11 kw, 20 KVA	
	35/25 HP 26/18 kw, 40 KVA	
UL/CUL Compliance		
Two Year Parts Warranty <i>See Note</i>		
Factory Start-up and Training On Site, U.S. Only <i>(Does not include airfare)</i>		
Training at Milltronics <i>(Includes Lunches, Training, Materials and Manual)</i>		
<p><i>Terms within USA: Cash or terms with approved credit; down payment due with order. 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>Consult Written Warranty Statement for Details of Two Year Parts Warranty</i></p> <p><i>Milltronics reserves the right to amend or change without notice without incurring obligation; not responsible for typographical errors.</i></p>		

This product is not marketed outside the U.S.A.

BR – Bridge Mill Specifications



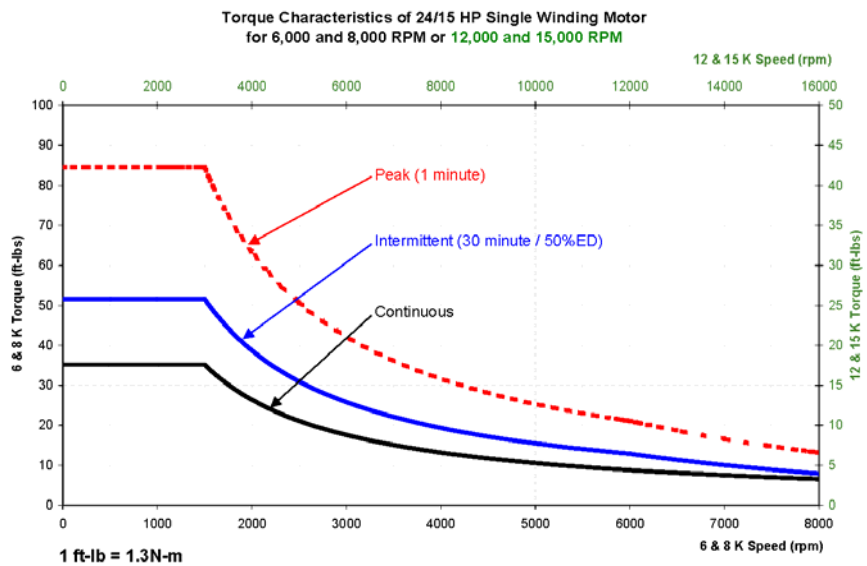
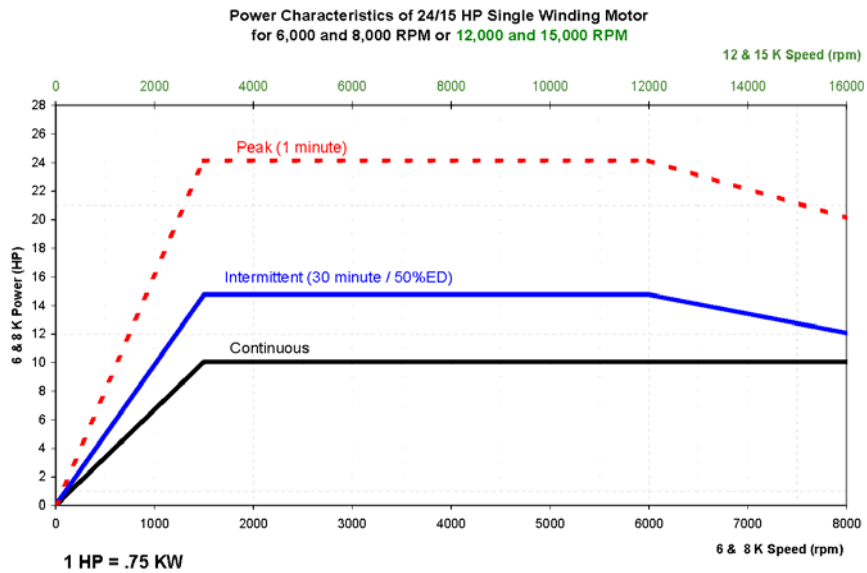
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Machine Model	BR50	BR60	BR80
Control Type	Milltronics CNC		
Number of Axes	3 (Optional 4 or 5)		
CAPACITY			
Table Size – Standard 100" Travel	48" x 96" <i>1220 x 2440 mm</i>	60" x 96" <i>1524 x 2440 mm</i>	80" x 96" <i>2032 x 2440 mm</i>
Table Size – 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 Ball Type		
Premier Series Linear Way Type and Size	45 mm Roller Type		
SPINDLE – #40			
Standard Horsepower <i>1 minute / 30 minutes</i> Reference Torque Chart:	Single Speed 24/15 HP <i>18/11 kw</i> 24/15/1/B/Y		
Optional Horsepower <i>1 minute / 30 minutes</i> Package C Reference Torque Chart:	Two Speed 24/15 HP <i>18/11 kw</i> 24/15/2/B/Y		
Optional Horsepower <i>1 minute / 30 minutes</i> Reference Torque Chart:	Two Speed 35/25 HP <i>26/18 kw</i> 35/25/2/B/Y		
Standard Spindle Size	60 mm		
Premier Series 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 <i>Recommend Two Speed</i>		
***** <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)	3.5" / 11" / 15 lb <i>80 mm / 280 mm / 7 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 <small>see note</small>	±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 <small>see note</small>	.0003" <i>.005 mm</i>		
Feedback Resolution	.00004" <i>.001 mm</i>		
Thrust, Machine Duty Rating, XYZ	5000 lb <i>2270 kg</i>		
COOLANT THROUGH SPINDLE			
Coolant Through Spindle Option (CTS) <i>Requires ANSI Retention Knob and 70 mm Spindle</i>	300 psi <i>20 bar</i>	300 psi <i>20 bar</i>	300 psi <i>20 bar</i>
CTS – Pump Filtration	11 Micron	11 Micron	11 Micron
CTS – Additional Coolant Capacity	118 Gal <i>450 L</i>	118 Gal <i>450 L</i>	118 Gal <i>450 L</i>
CTS – Flow Rate	5 gal/min <i>19 L/min</i>	5 gal/min <i>19 L/min</i>	5 gal/min <i>19 L/min</i>
CTS – Pump HP	5 HP <i>3.7 kw</i>	5 HP <i>3.7 kw</i>	5 HP <i>3.7 kw</i>

Machine Model	BR50	BR60	BR80
MISCELLANEOUS			
Lubrication	Grease		
Automatic Metered Lubrication with Low Lube Fault	Included in Performance Package C		
Metal Way Covers	Standard		
¼ HP Flood Pump Capacity - <i>Convenience Package B</i>	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>		
Power 208-240 VAC 50-60hz, 3Ø – 24 HP	50 amps 19 kVA		
Power 208-240 VAC 50-60hz, 3Ø – 35 HP	100 amps 38 kVA		
Power 208-240 VAC, Single Phase	Not Recommended		
Power 400-440 VAC – 24 HP <i>Requires Transformer</i>	Requires Transformer		
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. Centurion features covered under separate literature. For machine duty rating, see "Truth in Specifications" on www.milltronics.net. Milltronics reserves the right to change specifications at any time without incurring obligation.</i></p>			

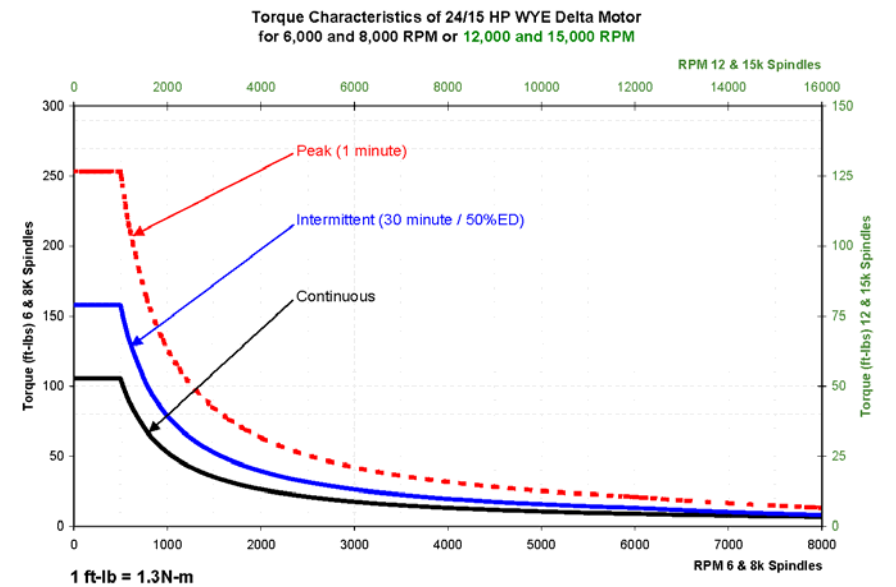
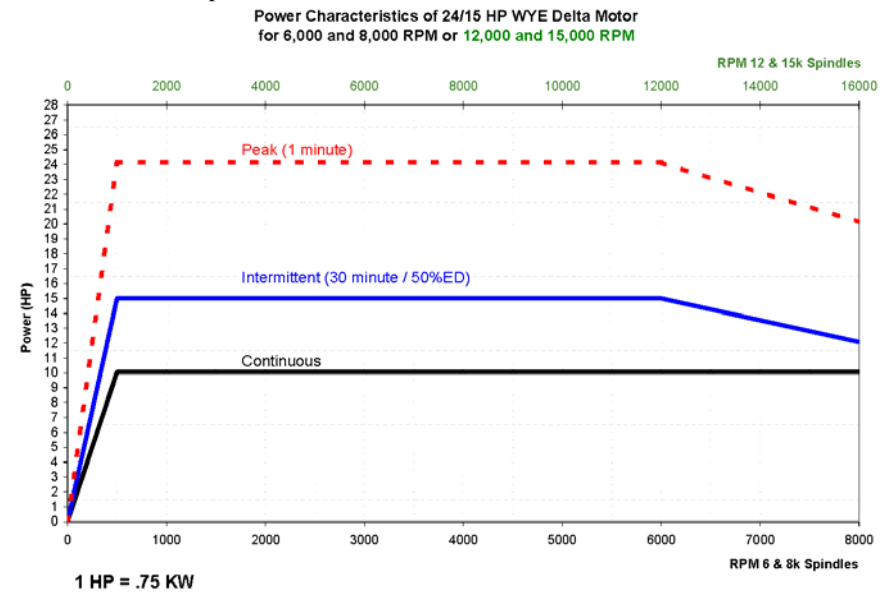
Yaskawa Torque Chart 24/15/1/B/Y – Belted Spindle

Used on: Standard BR50, BR60, BR80
 Optional N/A



Yaskawa Torque Chart 24/15/2/B/Y – Belted Spindle

Used on: Standard N/A
 Optional BR50, BR60, BR80



Yaskawa Torque Chart 35/25/2/B/Y – Belted Spindle

Used on: Standard N/A

Optional BR50, BR60, BR80

Power Characteristics of 35/25 HP WYE Delta Motor
for 6,000 and 8,000 RPM or 12,000 and 15,000 RPM

