

MB Toolroom Bed Mills with Quill Head Pricing



Effective September 1, 2008

Machine Model		MB20	
Base Price		\$39,980	
Spindle Taper		40	
Spindle Horsepower		10/7.5 HP 7.5/5 kw	
Travel (XYZ")		40 x 20 x 24	
MACHINE FEATURES		CONTROL FEATURES	
<ul style="list-style-type: none"> • Two Year Parts Warranty • Heavily Ribbed Cast Iron Construction • Fully Ground Solid Ways with Turcite Surfaces • Precision Ground Double Anchored Ball Screws • Precision Ground Table Surface • Metal Way Covers in Front and Rear of Saddle • Box Ways on Column and Base • Manual Quill Operation Retained • Automatic Metered Lubrication with Low Lube Fault • Safety Ring for Drive Dog on #40 Spindles • High Torque 8:1 Back Gear • High Torque AC Digital Servo Drives • High Torque Vector Spindle Drive System • Rigid Tap Option 		<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 7000 Plus Solid Modeling Graphics on Series 8000 When Released • 6 MB Virtual Disk / RS-232 with DNC Buffer • High Speed Processor (7000 Series 1200 Block/Sec, 8000 Series 2000 Blocks/Sec) • Optional Four & Five Axis Simultaneous Interpolation Software & Interface • High Torque Closed Loop Vector Spindle Drive System • All Axes Laser Calibrated and Ballbar Inspected • Spindle Load Meter 	
SOFTWARE PACKAGE A		PERFORMANCE PACKAGE C	
Additional 10 MB Parts Storage (Total of 12 MB)	\$500	Rigid Tap	\$1,500
Coordinate Rotating, Scaling, Mirror Image, Thread Mill	800	Edit Key Lock-out Switch	300
3.5" Floppy Drive	500	Removable Table Chip Guard	2,800
Engraving, Helical Interpolation, Auto Routines, and User definable Macros with Trig Assist, & Irregular Pocket Clearing	1,200	Newall MHG Quill Scale Position Readout with CNC Feedback to Update Tool Length Offsets (Requires Quill Readout in Package B)	1,500
Front Panel Mounted Electronic Handwheel plus Handwheel Controlled Program Execution	600	Off-line FastCAM Software for Programming and Training	400
24 MB Program Execution Memory with Large Program Management Software (Allows Editing of 10 MB file)	1,400	Programmable Spray Mist On/Off	500
LCD Hour Meter	300		
Auto DXF File Import	700		
	List Price \$6,000	<i>Note: 8000 Series, Linux based software to be released early 2009</i>	List Price \$7,000
<i>Items may be purchased separately</i>	Package Price \$3,000	<i>*Immediate Release</i>	Package Price \$5,000
CONVENIENCE PACKAGE B		HIGH SPEED LARGE PROGRAM PACKAGE D	
Flood Coolant System with Programmable On/Off	900	Retains All Features of the 7000 Series with Integrated Dual Boot to either Series	
Safety Ring for Drive Dog on #40 Spindles	200	Solid State, Non-Volatile Memory Upgrade to 256 MB*, Multi Format Flash Memory Card Device*	
Coolant Drip Pan	1,400	Enhanced High Speed CPU Required to Run 8000 Series Software*	
Networking Option Includes 30 Days Phone Support	900	High Speed Performance with Enhanced Jerk Control and Look Ahead	
Single Spare "M" Function and CNC "Wait" Channel	300	Solid Model Graphics Functionality in Addition to Wire Frame	
End of Cycle Light	300	USB Connectivity	
Power Drawbar System	1,200	<i>Note: 8000 Series Linux based Software to be Released Early 2009</i>	
Quill Position Readout	600	List Value \$7,000	
Rear Splash Guards	900	Package Price \$5,000	
Work Lamp	300	<i>*Immediate Release</i>	
	List Total \$7,000		
<i>Items may be purchased separately</i>	Package Price \$5,000		

SPINDLE CONFIGURATIONS						
Specify Spindle Type for MB20	CT40			Standard		
	BT40, NMTB40, DIN2080			200		
ROTARY TABLE ACCESSORIES						
Rotary Tables <i>Includes 4th axis amp & motor</i> <i>Application may require riser</i>	6.5" (165 mm)			8,900		
	9.0" (228 mm)			10,900		
	10.0" (254 mm)			13,900		
	5C Collet Table			10,900		
Tail Stock for Rotary Table	6.5" (165 mm)	1,200	9.0" (228 mm)	1,400	10.0" (254 mm)	1,600
4 th Axis Servo Amplifier & Motor (Electrics only) – Contact factory for 5 axes <i>Included with Rotary Table Accessory</i>			4,800	4,800	4,800	4,800
OTHER ACCESSORIES						
Dual Electronic Handwheels				1,200		
4" Riser Block – <i>Not Removable</i>				2,000		
Spare “M” Functions – Block of 4 (<i>Maximum 2 blocks – Price is For Each Block</i>)				800		
Digiscan Digitizing 3-D Software, Probe, Manuals				3,900		
RS-232 Cable, 50' 15 Meters				100		
Additional Programming Manual				100		
Programming Manual in Electronic Format on CD				50		
Additional Machine Manual				50		
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø				Standard		
Voltage 208-240 Single Phase <i>May Reduce Spindle Power by up to 20%</i>				200		
380-480 Transformer (Reduces Voltage to 208-240) – 20 kVA <i>Factory Recommended Sizes. Consult Local Electrical Codes for Proper Transformer Sizing.</i>				2,000		
UL/CUL Compliance				500		
CE Code <i>Required for European Union Countries – Also Requires CE Table Guard</i>				800		
International Packaging				1,000		
Two Year Parts Warranty <i>See Note</i>				Standard		
Factory Start-up and Training On Site, U.S. only (<i>Does not Include Airfare</i>)				3,400		
Training at Milltronics (<i>Includes Lunches, Training, Materials and Manual</i>)				400		
<p><i>Terms within USA: Cash or terms with approved credit; down payment due with order. Terms outside USA: Cash or approved Letter of Credit</i></p> <p><i>F.O.B Waconia, MN USA</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> <p><i>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>						

For similar machines see the RH20, RH30, RH33 and RH35 toolroom bed style milling machines with rigid head and ATC.
Also see VKM4 knee mill machines with quill and Milltronics' patented MillSlide.

MB Toolroom Bed Mills with Quill Head Specifications



Effective September 1, 2008

Machine Model	MB20
Control Type	Milltronics CNC
Software	CNC or SLS
Number of Axes	3 (Opt 4 or 5)
Functions: <i>Automatic</i>	Auto operation of spindle start/stop, mist, flood, RPM
Functions: <i>Manual</i>	All functions are both manual or automatic, except back gear is manual shift
CAPACITY	
Standard Table Size	54 x 16" <i>1370 x 405 mm</i>
Table Travel - X Axis	40" <i>1015 mm</i>
Saddle Travel - Y Axis	20" <i>510 mm</i>
Head Travel - Z Axis	24" <i>610 mm</i>
Quill Travel <i>Worm gear style quill feed not available</i>	6" <i>152 mm</i>
Throat Distance <i>Spindle to Column</i>	21" <i>530 mm</i>
Spindle to Table Top - <i>Quill up</i>	3¾ - 27¾" <i>95 - 705 mm</i>
Maximum Table Load	2500 lb <i>1130 kg</i>
Machine Weight	7000 lb <i>3200 kg</i>
T Slots	(5) .63" <i>16 mm</i>
Saddle Width	46" <i>1160 mm</i>
Ball Screw Size: X,Y,Z Axis	32/40/40mm
Ball Screw Grade	C5
Ball Screw Pitch X,Y,Z	.2"
Head Swivel	±45°
SPINDLE	
Horsepower <i>1 minute / 30 minutes</i>	10 / 7.5 HP <i>7.5 / 5.5 kw</i>
High Torque Type (Manual Shift)	Back Gear
Spindle Speeds: <i>Low</i> (CNC Programmable)	60 - 500 RPM
Spindle Speeds: <i>High</i> (CNC Programmable)	500 - 4000 RPM
Standard Tool Holder Type <i>See note</i>	CT40
Optional Tool Holder Type <i>See note</i>	BT40 NMTB40 DIN2080
Quill Size	4.125" <i>104 mm</i>
PERFORMANCE	
Servo Type	AC Digital
Rapid Traverse	X,Y: 500 ipm <i>12 mpm</i> Z: 300 ipm <i>7.6 mpm</i>
Maximum Feedrate	300 ipm <i>7620 mm/m</i>
Position Accuracy <i>See note</i>	±0.00039" <i>0.01 mm</i>
Repeatability	0.0002" <i>0.005 mm</i>
Resolution	0.00004" <i>0.001 mm</i>
Thrust, Machine Duty Rating	X, Y: 3000 lb <i>1360 kg</i> Z: 4000 lb <i>1800 kg</i>
MISCELLANEOUS	
1/4 HP Flood Pump Capacity <i>Optional in Package B</i>	15 Gal. <i>25 L</i>

Machine Model		MB20
Drawbar Air Pressure Required		80 psi <i>5.5 bar</i>
Power 208-240 VAC 50-60hz, 3Ø		30 amps 11 kVA
Power 400-440 VAC		Req. Transformer
Floor Space Requirement		129" x 78" <i>3280x1980 mm</i>
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>		

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