

MM – Medium Duty Bed Milling Machine Pricing



Effective September 1, 2010

MM18

Spindle Taper / RPM / Diameter	40 / 8000 / 60 mm
Spindle Horsepower <i>1 minute / 30 minute</i>	12 / 10 HP 9 / 7.5 kw
Travel (XYZ")	30 x 18 x 18"
STANDARD ACCESSORIES	
<ul style="list-style-type: none"> • Two Year Parts Warranty • Heavily Ribbed Cast Iron Construction • 35 mm Linear Rails <i>Not inverted</i> • Precision Ground Double Anchored Ball Screws • Precision Ground Table Surface • Metal Way Covers • Automatic Metered Lubrication with Low Lube Fault • High Torque AC Digital Servo Drives • High Torque Closed Loop Vector Spindle Drive System • #40, 8000 RPM Air Purged 60 mm Spindle • Work Lamp • Spindle Taper Blow-out and Tool Release Push Button • Fully Programmable Accessories including Spindle On/Off, Spindle RPM, and Accessories 	<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 • Spindle Load Meter
SOFTWARE PACKAGE A	
<p>Additional 10 MB Parts Storage (Total of 12 MB) Coordinate Rotating, Scaling, Mirror Image, Thread Mill 3.5" Floppy Drive Engraving, Helical Interpolation, Auto Routines, & User definable Macros with Trig Assist, & Irregular Pocket Clearing Front Panel Mounted Electronic Handwheel plus Handwheel Controlled Program Execution 24 MB Program Execution Memory with Large Program Management Software (Allows editing of 10 MB files) LCD Hour Meter Auto DXF File Import</p> <p><i>Items may be purchased separately</i></p>	
CONVENIENCE PACKAGE B	
<p>Programmable On/Off Flood Coolant System Rear Splash Guards Coolant Drip Pan Table Chip Guard Rigid Tap Networking Option Includes 30 Days Phone Support Edit Key Lockout Switch Offline FastCAM Software for Programming & Training</p> <p><i>Items may be purchased separately</i></p>	
8200 CONTROL PACKAGE D - Includes all the following:	
<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>	

OTHER ACCESSORIES		
Upgrade to Solid State Non-Volatile Memory 256 MB Flash Card – 7200 Controls only		
Specify Spindle type	CT40	
	BT40 or DIN69871	
16 Pocket Carousel Type ATC with Electronic Orient		
CE Table Chip Guard <i>Requires purchase of Pkg B</i>		
End of Cycle Light		
Spray Mist Programmable On/Off		
Off-line FastCAM Software for Programming and Training		
Rotary Tables (<i>Includes 4th axis amp & motor</i>)	6.5" (165 mm)	
	9.0" (228 mm)	
	5C Collet Table	
Tail Stock for Rotary Tables	6.5"	
	9.0"	
Spare "M" Functions – Block of 4 <i>Maximum 2 blocks; price is for each block</i>		
Dual Electronic Handwheels		
Remote Handwheel Unit		
Contact Tool Offset Probing with Macros		
Work Offset Probing with Macros		
Combo Pack – Contact & Work Tool Offset Probing with Macros		
Laser Tool Setter with Macros		
<i>Digiscan</i> Digitizing 3-D Software, Probe & Manual		
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		
Optional Voltage 208-240 VAC, 50 – 60 hz, 1Ø <i>May reduce spindle power by up to 20%</i>	Without ATC	
	With ATC	
380-480 Transformer (Reduces Voltage to 208-240) – 20 kVA <i>Factory recommended sizes. Consult local electrical codes for proper transformer sizing.</i>		
CE Code <i>Required for European Union countries</i>		
International Packaging		
UL/CUL Compliant		
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 in 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, Minnesota 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 or rigging.</i></p> <p><i>All sales of equipment, parts, software and service are subject to Milltronics Standard Terms and Conditions of Sale.</i></p>		

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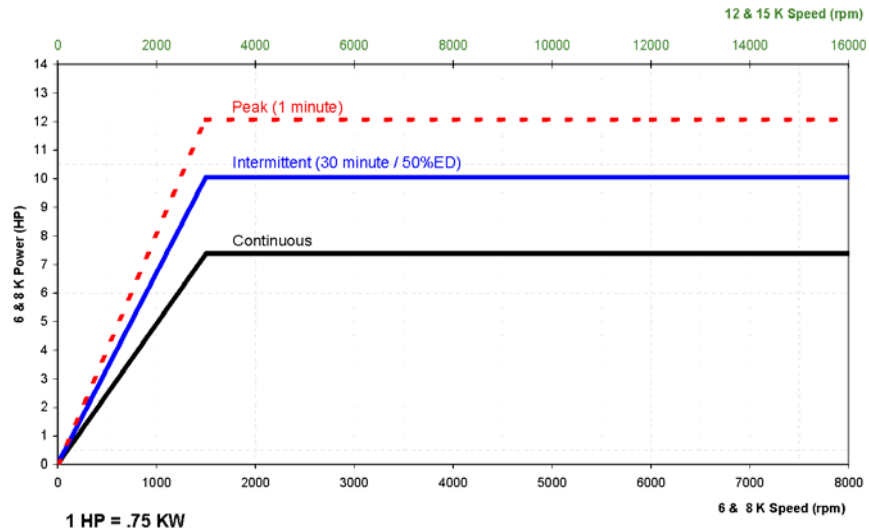
Control Type	Milltronics CNC
Software	CNC or SLS
Number of Axes	3 (opt 4)
Spindle RPM	CNC Auto Prog. RPM
Functions <i>Automatic</i>	Spindle Start/Stop, Mist, Flood, RPM
CAPACITY	
Standard Table Size	35" x 16" <i>890 x 405 mm</i>
Table Travel <i>X Axis</i>	30" <i>760 mm</i>
Saddle Travel <i>Y Axis</i>	18" <i>460 mm</i>
Head Travel <i>Z Axis</i>	18" <i>460 mm</i>
Throat Distance <i>Spindle to Column</i>	18" <i>460 mm</i>
Spindle to Table Top	4 - 22" <i>100 - 560 mm</i>
Maximum Table Load	1000 lbs <i>450 kg</i>
Machine Weight	7000 lbs <i>3180 kg</i>
T Slots	(4) .63" <i>16 mm</i>
Saddle Width	56" <i>1420 mm</i>
Ball Screw Size: <i>X,Y,Z Axis</i>	32 mm
Ball Screw Grade	C5
Ball Screw Pitch <i>X,Y,Z</i>	8 mm
SPINDLE #40	
Spindle Cartridge Assembly with Three Bearings	60 mm
Spindle Horsepower <i>1 minute / 30 minutes</i>	12/10 HP <i>9/7.5 kw</i>
Reference Torque Chart:	12/10/1/B/Y
Standard Spindle RPM	50 - 8000
PERFORMANCE	
Servo Type	AC
Rapid Traverse	X,Y: 500 ipm <i>12 mpm</i> Z: 300 ipm <i>7.6 mpm</i>
Feedrate Range	300 ipm <i>7620 mmpm</i>
Position Accuracy <i>See note</i>	±0.0003" <i>0.0076 mm</i>
Repeatability <i>See note</i>	0.0002" <i>0.005 mm</i>
Resolution	.00004" <i>.001 mm</i>
Thrust, Machine Duty Rating	X, Y: 800 lb <i>360 kg</i> Z: 1600 lb <i>720 kg</i>
OPTIONAL AUTOMATIC TOOL CHANGER	
16 Pocket Automatic Carousel Tool Changer	Optional
Maximum Diameter / Length / Weight	4" / 11" / 10 lb <i>100mm/280mm/4.5kg</i>
Max. Length With Table Guard	8" <i>200 mm</i>
Tool Change Time	7 Sec.
MISCELLANEOUS	
1/4 HP Flood Pump Capacity <i>Optional in Package B</i>	10 Gal. <i>40 L</i>
Drawbar Air Pressure Required	100 psi <i>6.8 bar</i>
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø	50 amps 19 kVA
Power 208-240 VAC, Single Phase	Optional
Power 380-480 VAC, 50 – 60 hz, 3Ø	Requires Transformer
Floor Space Requirement	110" x 78" <i>2800 x 1980 mm</i>
Warranty	Parts: 2 Year (or 4200 hours, whichever occurs first) on all normal failures. Service: 1 Year (or 2100 hours, whichever occurs first) from distributor.
<p><i>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>	

For similar machines see the RH20, VM15, VM16 and VM20

Yaskawa Torque Chart 12/10/1/B/Y – Inline Spindle

Used on: Standard MM18
Optional N/A

Power Characteristics of 12/10 HP Single Winding Motor
for 6,000 and 8,000 RPM or 12,000 and 15,000 RPM



Torque Characteristics of 12/10 HP Single Winding Motor
for 6,000 and 8,000 RPM or 12,000 and 15,000 RPM

