

<b>Spindle Type –Inverter for Programmable RPM</b>	
<b>STANDARD ACCESSORIES</b>	
<ul style="list-style-type: none"> <li>• Two Year Parts Warranty</li> <li>• Fully Ground Solid Ways</li> <li>• Precision Ground Ball Screws</li> <li>• Tail Stock</li> <li>• Heavy Duty Metal Enclosure with Sliding Doors</li> <li>• Chuck Guard and Door Interlock Safety Switches</li> <li>• High Torque Vector Spindle Drive</li> <li>• Fully Programmable Accessories including Spindle On/Off and Spindle RPM (IPM)</li> <li>• Constant Surface and Feed/Rev. with Threading Cycles</li> <li>• Spindle Load Meter</li> <li>• Work light</li> <li>• Programming &amp; Machine Manuals in Electronic Format</li> <li>• Turning, Facing, Grooving, Tapping, Boring Cycles, &amp; User-definable Macros w/ Trig Help</li> <li>• Single Spare "M" Function with CNC "Wait" Channel</li> </ul>	<ul style="list-style-type: none"> <li>• Pattern Repeat, Chamfering, Radius Programming Assist with Hand wheel Teach Mode</li> <li>• Thread Chasing Features</li> <li>• Automatic Metered Lubrication with Low Lube Fault</li> <li>• PC-based 7200 T CNC includes 12 MB Parts Storage Memory</li> <li>• 12" LCD Active Matrix Color Display</li> <li>• Conversational Plus G &amp; M Code Programming with Tool Path Graphics</li> <li>• 3.5" Floppy Drive / RS-232 with DNC Buffer</li> <li>• 1200 Block/Sec High Speed Processor</li> <li>• Large Program Management Software (Allows Editing of 10 MB Files)</li> <li>• Auxiliary Keyboard Port for PC Keyboard</li> <li>• All Axes Laser Calibrated</li> </ul>
<b>CONVENIENCE PACKAGE</b>	
Rigid Tap Cycle	
LCD Hour Meter	
Dual Electronic Handwheel for Teach, Manual or Automatic Operation	
Flood Coolant Pump with Nozzle	
Auto DXF File Import	
Edit Key Lock-Out Switch	
Offline FastCAM Software Programming & Training	
<i>Items may be purchase separately</i>	
<b>PERFORMANCE PACKAGE</b>	
Super Dorian Tool Post & Riser Block, 3/4" <i>No tool holders included</i>	
6" 150mm Chuck Mounted on TL14/40	
Upgrade to 18/12 HP 13/9 kw	
Steady Rest, Brass Tips, 1/4" – 5" 6mm – 125mm	
Follow Rest, Brass Tips, 1/2" – 3" 12mm – 75mm	
<i>Items may be purchased separately</i>	
<b>OTHER ACCESSORIES</b>	
Upgrade to Solid State Non-Volatile Memory 256 MB Flash Card	Optional
Networking Option includes 30 Days Phone Support ( <i>Recommend 256 MB Option</i> )	Optional
Multi Format Flash Card Reader	Optional
Dorian Quadra Post & Riser Block, 3/4" <i>No tool holders included - Requires purchase of Performance Package</i>	Optional
Upgrade to Automatic Turret, 8 Station 5/8" with Riser Block, One Boring Bar Holder & One Axial Tool Holder Included <i>Requires purchase of Super Dorian Tool Post or Performance Pkg</i>	Optional
Additional Boring Bar Holders for Automatic Turret	Optional
Additional Axial Holders for Automatic Turret	Optional
<b>OTHER ACCESSORIES CONTINUED</b>	
5C Air Operated Royal Collet Closer with Footswitch	Optional

Tooling Riser Block <i>Specify tooling type or height; will require on-site machining</i>	Optional
Spare "M" Functions - Block of 4 <i>Maximum 2 Blocks</i>	Optional
Spare "M" Functions – Block of 4 <i>Maximum 2 blocks; price is for each block</i>	Optional
RS-232 Cable, 50' <i>15 Meters</i>	Optional
Printed Programming Manual (Electronic Format Standard)	Optional
Printed Machine Manual (Electronic Format Standard)	Optional
UL/CUL Compliance	Optional
Export Handling Fee	Consult Factory
Crating Charge	Consult Factory
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø	Standard
Optional Voltage 208-240 VAC, 50 – 60 hz, 1Ø (Without Turret)	Optional
380-480 Transformer (Reduces Voltage to 208-240) – 20 kVA <i>Factory recommended sizes. Consult local electrical codes for proper transformer sizing.</i>	Optional
Two Year Parts Warranty <sup><i>See Note</i></sup>	Standard
Factory Start-up and Training On Site, U.S. only	Optional
Training at Milltronics ( <i>Includes lunches, training, materials and manual</i> )	Optional
<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 FCA Waconia, Minnesota USA; Prices do not include taxes, duties, transportation, insurance, rigging or start-up. Milltronics reserves the right to amend or change without notice without incurring obligation; not responsible for typographical errors. Consult Written Warranty Statement for Details of Two Year Parts Warranty All sales of equipment, parts, software and service are subject to Milltronics' Standard Terms and Conditions of Sale.</i></p>	

Effective June 1, 2011

**TL14/40**

Control Type	Milltronics 7200 T CNC
Number of Axes	2
Spindle RPM	CNC Auto Programmable RPM
Functions	Dual Handwheel, Handwheel Teach, Conversational G / M Code, Manual or Automatic Operation of Spindle RPM and Coolant
<b>CAPACITY</b>	
Bed Length	40" <i>1000 mm</i>
Swing Over Bed	14" (dia.) <i>355 mm</i>
Swing Over Cross Slide	7.8" (dia.) <i>198 mm</i>
Swing Over Gap	N/A
Cross Slide "T" Slots	None
Travel (X Axis) Cross Slide	7" <i>178 mm</i>
Travel (Z Axis) Long Slide	30.5" <i>775 mm</i>
Center Height	7" <i>177 mm</i>
Center Distance	36" <i>915 mm</i>
Bed Width	9.8" <i>248 mm</i>
Machine Weight	4000 lbs <i>1800 kg</i>
Ball Screw Size, Grade C5	X 20mm / Z 40mm
Ball Screw Pitch X axis / Z axis	5 mm / 10 mm
Maximum Weight of Part With Chuck <i>No Center</i>	50 lbs. <i>23 kg</i>
Maximum Weight of Part With Chuck with Center	500 lbs. <i>230 kg</i>
Maximum Weight of Part with Centers and Steady Rest	1000 lbs. <i>460 kg</i>
<b>SPINDLE</b>	
Closed Loop Vector Spindle Drive	Standard
Standard Horsepower <i>1 Minute / 30 Minutes</i>	12/10 HP <i>9/7.5 kw</i>
Reference Torque Chart:	12/10/1/B/Y
Optional Horsepower <i>1 Minute / 30 Minutes</i>	18/12 HP <i>13/9 kw</i>
<i>Available in Performance Package</i>	Reference Torque Chart: 18/12/1/B/Y
Spindle Bore	1.65" <i>42 mm</i>
Spindle Nose Type	Camlock D1-5
Spindle Taper	MT#4
Spindle Speed	100 – 3000
3 Jaw Chuck Size - Accessory	6" <i>150 mm</i>
Tailstock Quill Travel	5.5" <i>140 mm</i>
Tailstock Quill Diameter	1.875" <i>47 mm</i>
Tailstock Quill Taper	MT#3
Tailstock Safety Switch	Standard
<b>TOOLING ACCESSORIES</b>	
Super Dorian Tool Post Option – (SD35CXA)	3/4" <i>20 mm</i>
Dorian Quadra Post Option – (QITP 35)	3/4" <i>20 mm</i>
8 Station Automatic Turret Option – (5/8")	5/8" x 3.5"
5/8" Turret Boring Bar Capacity	1"
8 Station Automatic Turret Option – (3/4") <i>Not available on TL14</i>	N/A
3/4" Turret Boring Bar Capacity	N/A
Steady Rest – Brass Tips Option ( <i>Performance Package</i> )	1/4 - 5" <i>6 - 127 mm</i>
Follow Rest – Brass Tips Option ( <i>Performance Package</i> )	1/2 - 3" <i>12 - 76 mm</i>
<b>PERFORMANCE</b>	
Rapid Traverse	300 ipm <i>7.6 mpm</i>
Feedrate Range	.1-100 ipm <i>2.5 - 2540 mmpm</i>
Position Accuracy <i>See note</i>	±.0004" <i>.01 mm</i>
Repeatability <i>See note</i>	.0004" <i>.01 mm</i>

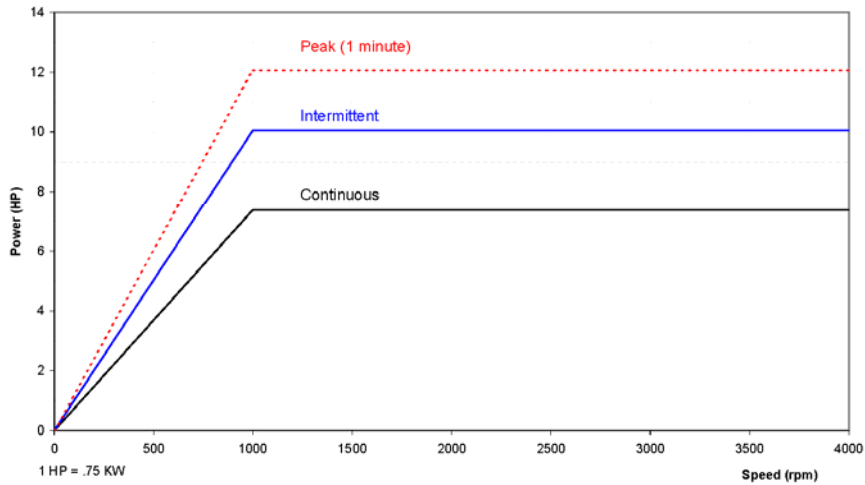
Resolution	.0001" <i>.003 mm</i>	
Thrust, Machine Duty Rating	X: 800 lbs. <i>360 kg</i> Z: 1600 lbs. <i>725 kg</i>	
<b>MISCELLANEOUS</b>		
Automatic Home Sequence, Chuck Guards, Safety Switch	Standard	
5C Royal Collet Closer with Foot Switch	Optional	
Full Enclosure with Sliding Doors and Safety Switch	Standard	
Auto Metered Lubrication with Low Lube Fault	Standard	
1/8 Horsepower Flood Pump Option	Convenience Package	
Flood Coolant Capacity	25 gal. <i>90 L</i>	
Way Surface	Hardened/Ground	
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø	30 amps 11 kVA	
Power 380-480 VAC, 50 – 60 hz, 3Ø	Req Transformer	
Warranty	Parts: 2 Years (or 4200 hours, whichever occurs first) on all normal failures. Service: 1 Year (or 2100 hours, whichever occurs first) from distributor	
Floor Space Requirement	60" x 104" <i>1524 x 2640 mm</i>	74" x 109" <i>1875 x 2760 mm</i>
<p><i>Notes: Measurements performed with Renishaw laser. Measurements are linear over entire travel, and temperature changes and loading may affect tolerances. Centurion features covered under separate literature. Additional Centurion 7 features and additional options covered under separate literature. Milltronics reserves the right to change specifications at any time without incurring obligation.</i></p>		

***For heavy duty lathes see Milltronics ML Series***

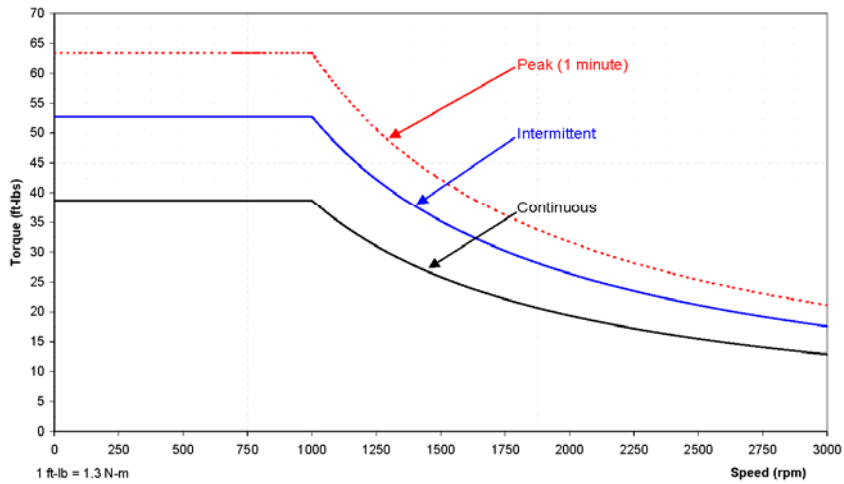
### Yaskawa Torque Chart 12/10/1/B/Y – Belted Spindle

Used on: Standard TL1440  
 Optional N/A

Power Characteristics of TL14 With 12/10 HP Single Winding Motor



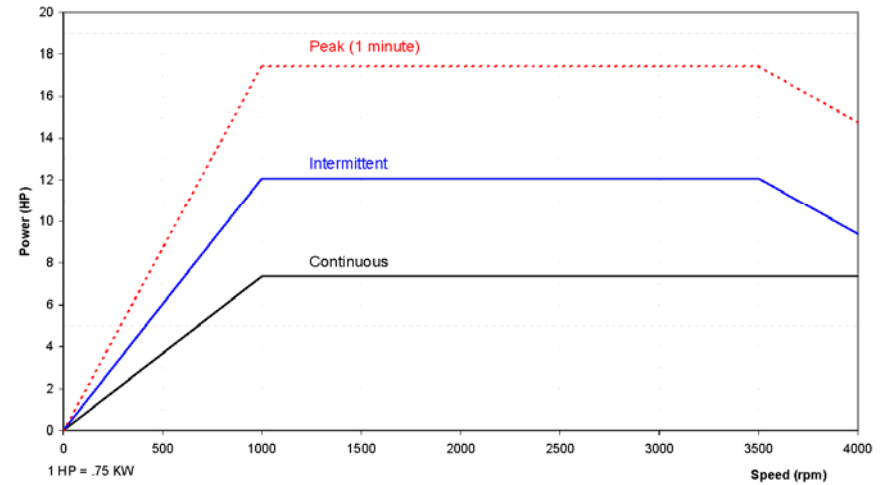
Torque Characteristics of TL14 With 12/10 HP Single Winding Motor



### Yaskawa Torque Chart 18/12/1/B/Y – Belted Spindle

Used on: Standard N/A  
 Optional TL1440

Power Characteristics of TL14 With 18/12 HP Single Winding Motor



Torque Characteristics of TL14 With 18/12 HP Single Winding Motor

