

# SL Slant Bed Turning Center Pricing

Effective Sept. 1, 2007



	<i>Preliminary Information</i>		
Machine Model	SL6	SL10	SL12
Base Price	\$45,980	\$59,980	\$89,980
Extended Bed Price	N/A	N/A	\$104,980
Chuck Size	6"	10"	12"
Spindle Bar Capacity	1.65" <i>42mm</i>	2.55" <i>65mm</i>	3.58" <i>91mm</i>
Spindle RPM	6000	4000	2500
Spindle Horsepower	Single Speed 12/10 HP 9/7.5 kw	Single Speed 24/15 HP 18/11 kw	Two Speed 24/15 HP 18/11 kw
Optional Spindle Horsepower	Single Speed 18/12 HP 13/9 kw	Two Speed 24/15 HP 18/11 kw	Two Speed 35/25 HP 26/18 kw
Turret – See Accessories for other Turret Options	8 Position, 1" <i>25 mm</i>	8 Position, 1" <i>25 mm</i>	8 Position, 1 ¼" <i>32 mm</i>

MACHINE FEATURES	CONTROL FEATURES			
<ul style="list-style-type: none"> <li>• Two Year Parts Warranty</li> <li>• Heavy Duty Linear Way Construction on SL6 &amp; SL10, Box Way Construction on SL12</li> <li>• Precision Ground Ball Screws</li> <li>• Metal Way Cover Construction</li> <li>• Automatic Metered Lubrication with Low Lube Fault</li> <li>• 1" 8 Position or 3/4" 12 position Automatic Turret on SL6 &amp; SL10</li> <li>• 1 ¼" 8 Position Automatic Turret on SL12</li> <li>• Hydraulic Tail Stock with Tail Stock Foot Switch</li> <li>• Heavy Duty Metal Enclosure with Work Lamp</li> <li>• Hydraulic 3 Jaw Chuck with Foot Switch (Optional Collet System)</li> <li>• Flood Coolant System</li> <li>• Closed Loop High Torque Vector Spindle Drive System</li> <li>• Door Interlock Safety Switch</li> </ul>	<ul style="list-style-type: none"> <li>• PC-based Centurion 7 CPU includes 2 Mb Parts Storage Memory <i>Non-volatile motionless disk</i></li> <li>• 12" LCD Active Matrix Color Display with Discrete Push Buttons</li> <li>• 6 Mb Virtual Disk / RS-232 with DNC Buffer</li> <li>• 1200 Block/Sec High Speed Processor</li> <li>• Conversational plus G &amp; M Code Programming with Part and Tool Path Graphics</li> <li>• Turning, Facing, Grooving, Tapping and Boring Cycles</li> <li>• Constant Surface (RPM changes with radius) and Feed/Rev. (IPR) with Threading Cycles</li> <li>• Pattern Repeat, Chamfering, Radius Programming</li> <li>• Auxiliary Keyboard Port for PC Keyboard</li> <li>• High Torque AC Digital Servo Drives</li> <li>• Rigid Tap Cycle</li> <li>• Automatic Home Sequence with Home Switches</li> <li>• All Axes Laser Calibrated</li> </ul>			

SOFTWARE PACKAGE A	PERFORMANCE PACKAGE C	SL6	SL10	SL12
Spindle Load Meter \$ 400	Upgrade to Single Speed 18/12 HP 13/9 kw \$ 3,500		N/A	N/A
8 Mb Program Execution Memory with Large Program Management Software 1,000	Upgrade to Two Speed 24/15 HP 18/11 kw N/A	\$ 3,500	\$ 3,500	N/A
3.5" Floppy Drive 500	Upgrade to Two Speed 35/25 HP 26/18 kw N/A		N/A	\$ 3,500
LCD Hour Meter 300	Parts Catcher 2,500	2,500	2,500	2,500
Edit Key Lock-out Switch 300	<i>Limits maximum turning diameter</i>			
End of Cycle Light 300	<i>Items may be purchased separately</i>			
Single Spare "M" Function and "Wait" Channel 300	<b>List Total \$6,000</b>	<b>\$6,000</b>	<b>\$6,000</b>	<b>\$6,000</b>
Front Panel Mounted Electronic Handwheel plus Handwheel Controlled Program Execution 600	<b>Package Price \$4,000</b>	<b>\$4,000</b>	<b>\$4,000</b>	<b>\$4,000</b>
User Definable Macros with Trig Help 900				
Off-line FastCAM Software for Programming and Training 400				
<i>Items may be purchased separately</i>				
<b>List Total \$5,000</b>				
<b>Package Price \$2,000</b>				

CONVENIENCE PACKAGE B	HIGH SPEED LARGE PROGRAM PACKAGE D
Additional 10 Mb Parts Storage Memory (12 Mb total) \$ 800	Solid State, Non-Volatile, Memory Upgrade to 256 Mb 900
Turret Tooling Set with One Axial Holder, Two Boring Bar Holders and 8 Wedge Blocks 1,000	Networking Option includes 30 Days Phone Support 900
Chip Conveyor 3,800	<i>Recommend 256 Mb Option</i>
Chip Removal Bucket for Chip Conveyor 400	Multi Format Flash Memory Card Device 900
<i>Items may be purchased separately</i>	Additional 16 Mb Program Execution Memory 800
<b>List Total \$6,000</b>	<i>Allows editing of 10 Mb programs</i>
<b>Package Price \$4,000</b>	"S" Curve Accel/Decel Ramp Modifier with Feed Forward and Look-Ahead for High Speed Machining or 3-D Milling 1,800
	Auto Import of DXF Files Conversion Software 700
	<i>Items may be purchased separately</i>
	<b>List Total \$6,000</b>
	<b>Package Price \$4,000</b>

<b>OTHER ACCESSORIES</b>	<b>SL6</b>	<b>SL10</b>	<b>SL12</b>
Optional Barfeeder with Spindle Orient <i>No Spindle Sleeves Included</i>	11,900	11,900	11,900
Barfeeder Interface Only with Spindle Orient <i>Interface designed for Milltronics Barfeeder only. Consult the factory for other barfeeder interface.</i>	1,900	1,900	1,900
Upgrade to 12 Position ¾" 20 mm Turret	1,000	1,000	N/A
VDI Turret Face (No Tool Holders)	1,200	1,200	N/A
Metric Turret Face, 20 or 25 mm - Metric Turret face must be specified	750	750	750
1.5" / 1.25" Boring Bar Holder For 8 / 12 Station Turret – SL6 & SL10	250	250	N/A
1" / ¾" Axial Tool Holder For 8 / 12 Station Turret – SL6 & SL10	270	270	N/A
Wedge Blocks for Turning Holders – 8 / 12 Station Turret	30	30	N/A
5C Collet Chuck, <i>Collet chuck option is purchased additional to the standard chuck supplied with the machine</i>	2,000	2,000	N/A
16C Collet Chuck, <i>Collet chuck option is purchased additional to the standard chuck supplied with the machine</i>	2,400	2,400	N/A
Mechanical Tool Setter	2,800	2,800	3,500
Spare "M" Functions – Block of 4 <i>Maximum 2 blocks; price is for each block</i>	800	800	800
RS-232 Cable, 50' 15 meters	100	100	100
Additional Programming Manual	100	100	100
Programming Manual in Electronic Format on CD	50	50	50
Additional Machine Manual	50	50	50
Power Requirements 208-240 VAC, 50 – 60 hz, 3Ø	Standard	Standard	Standard
Optional Voltage 208-240 VAC, 50 – 60 hz, 1Ø <i>Includes different spindle drive system and 5 HP motor/generator set</i>	3,500	3,500	N/A
380-480 Transformer (Reduces Voltage to 208-240) 20 kVA SL6 & SL10 40 kVA SL12 <i>Factory recommended sizes. Consult local electrical codes for proper transformer sizing.</i>	2,000	2,000	3,000
UL/CUL Compliance	1,200	1,200	1,200
CE Code <i>Required for European Union Countries</i>	1,500	1,500	1,500
International Packaging	1,000	1,000	1,000
Two Year Parts Warranty	Standard	Standard	Standard
Factory Start-up and Training On Site, U.S. only <i>Includes travel expenses</i>	3,400	3,400	3,400
Training at Milltronics <i>Includes lunches, training, materials and manual</i>	400	400	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>  <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>  <i>Consult Written Warranty Statement for Details of Two Year Parts Warranty</i>  <i>Prices do not include taxes, duties, transportation, rigging or start-up.</i>  <i>All sales of equipment, parts, software and service are subject to Milltronics' Standard Terms and Conditions of Sale.</i></p>			

# SL Slant Bed Turning Center Specifications



**MILLTRONICS**  
C N C M A C H I N E S

Effective Sept. 1, 2007

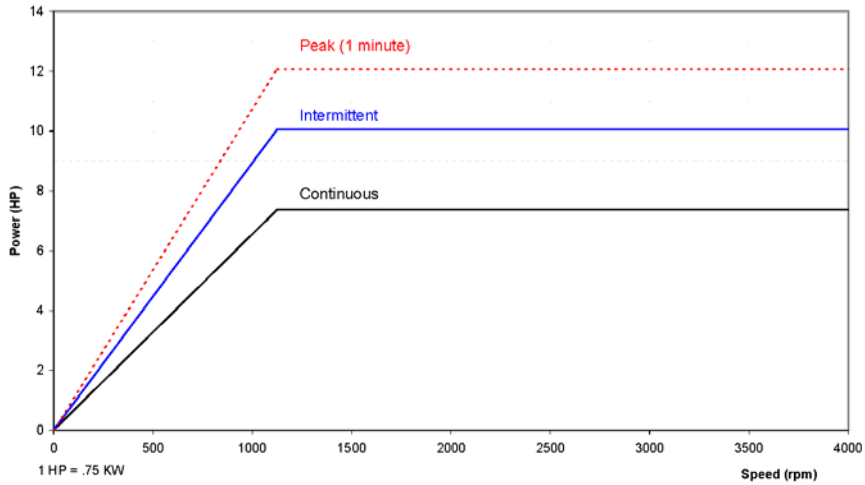
	<i>Preliminary</i>		
Machine Model	SL6	SL10	SL12
Control Type	Centurion 7T	Centurion 7T	Centurion 7T
Functions	Conversational, G/M Code		
<b>CAPACITY</b>			
Swing Over Way Cover	20" <i>510 mm</i>	20" <i>510 mm</i>	23" <i>600 mm</i>
Swing Over Carriage	9" <i>230 mm</i>	9" <i>230 mm</i>	
Turret – Standard	8 Position	8 Position	8 Position
Turret Optional	12 Position	12 Position	N/A
Travel (X Axis) Cross Slide	8" <i>200 mm</i>	8" <i>200 mm</i>	8.85" <i>225mm</i>
Travel (Z Axis) Long Slide	21" <i>530 mm</i>	21" <i>530 mm</i>	29.5" <i>750 mm</i>
Extended Bed Travel (Z Axis) Long Slide	N/A	N/A	49.2" <i>1250 mm</i>
Bar Capacity, Diameter	1.65" <i>42 mm</i>	2.55" <i>65 mm</i>	3.58" <i>91 mm</i>
Chuck Size	6" <i>152 mm</i>	10" <i>250 mm</i>	12" <i>305 mm</i>
Machine Weight	7000 lb <i>3180 kg</i>	7000 lb <i>3180 kg</i>	13,250 lb <i>6000 kg</i>
Extended Bed Machine Weight	N/A	N/A	18,750 lb <i>8500 kg</i>
Ball Screw Diameter	32 mm	32 mm	36 mm
Ball Screw Grade	C5	C5	C3
Ball Screw Pitch <i>X axis &amp; Z axis</i>	10 mm	10 mm	12 mm
Spindle Load Capacity (Work Holding + Part)	300 lb <i>135 kg</i>	450 lb <i>200 kg</i>	
Turning Diameter, <i>Max with 8 &amp; 12 Station Turret</i>	12.25" <i>310 mm</i>	12.25" <i>310 mm</i>	17.71" <i>450 mm</i>
<b>SPINDLE</b>			
Horsepower <i>1 minute / 30 minutes</i> Reference Torque Charts:	Single Speed 12/10 <i>9/7.5 kw</i> 12/10/1/B/Y	Single Speed 24/15 HP <i>18/11 kw</i> 24/15/1/B/Y	Two Speed 24/15 HP <i>18/11 kw</i> 24/15/2/B2/Y
Optional Horsepower <i>1 minute / 30 minutes</i> Reference Torque Charts:	Single Speed 18/12 <i>13/9 kw</i> 18/12/1/B/Y	Two Speed 24/15 HP <i>18/11 kw</i> 24/15/2/B/Y	Two Speed 35/25 HP <i>26/18 kw</i> 35/25/2/B2/Y
Maximum Spindle Runout at Nose	.00019" <i>.0048 mm</i>	.00032" <i>.008 mm</i>	
Spindle Nose Type	A2 - 5	A2 - 6	A2-8
Standard Spindle Speed	50 - 6000	50 - 4000	25 - 2500
Optional Two Speed Spindle Motor	N/A	50 - 1200, 1200 - 4000	25 - 750, 750 - 2500
Chuck Size - Hydraulic	3 Jaw, 6" <i>165 mm</i>	3 Jaw, 10" <i>250 mm</i>	3 Jaw, 12" <i>305 mm</i>
16C Collet System / 5C Collet System	Optional / Optional	Optional / Optional	N/A
Hydraulic Tail Stock with Tail Stock Foot Switch	Standard	Standard	Standard
Tail Stock Quill Stroke	2" <i>50 mm</i>	2" <i>50 mm</i>	4.7" <i>120 mm</i>
Tail Stock Quill Diameter	2.55" <i>65 mm</i>	2.55" <i>65 mm</i>	3.54" <i>90 mm</i>
Tail Stock Thrust ( <i>Hydraulic</i> )	550 lb <i>250kg</i>	550 lb <i>250kg</i>	
Tail Stock Base Travel	17" <i>432 mm</i>	17" <i>432 mm</i>	
Tail Stock Quill Taper Size	MT4	MT4	MT5
<b>TOOLING</b>			
Turret	1" <i>25mm</i> 8 Position	1" <i>25mm</i> , 8 Position	1 ¼" <i>32mm</i> , 8 Position
Optional Turret	¾" <i>20mm</i> 12 Position	¾" <i>20mm</i> 12 Position	N/A
Turret Indexing Mechanism	Electro / Mechanical Hurth Coupling	Electro / Mechanical Hurth Coupling	Hydraulic
Turret Time, 1 Station	0.7 Sec.	0.7 Sec.	
VDI Turret Face	Optional	Optional	N/A
Tool Shank Size – Standard 8 Station Turret	1 x 5" <i>25 x 125mm</i>	1 x 5" <i>25 x 125mm</i>	1 ¼ x 6" <i>32 x 150 mm</i>
Tool Shank Size – Optional 12 Station Turret	¾ x 5" <i>20 x 125mm</i>	¾ x 5" <i>20 x 125mm</i>	N/A

			<i>Preliminary</i>
<b>Machine Model</b>	<b>SL6</b>	<b>SL10</b>	<b>SL12</b>
Boring Bar Capacity – Standard 8 Station Turret	1.5" <i>38mm</i>	1.5" <i>38mm</i>	2" <i>50 mm</i>
Boring Bar Capacity – Option 12 Station Turret	1.25" <i>32mm</i>	1.25" <i>32mm</i>	N/A
<b>PERFORMANCE</b>			
Servo Type	AC Digital	AC Digital	AC Digital
Rapid Traverse X & Z	1,000 ipm <i>25.4 mpm</i>	1,000 ipm <i>25.4 mpm</i>	1,000 ipm <i>25.4 mpm</i>
Maximum Feedrate	400 ipm <i>10.16 mpm</i>	400 ipm <i>10.16 mpm</i>	400 ipm <i>10.16 mpm</i>
Position Accuracy <i>See note</i>	±.00039" <i>.001 mm</i>	±.00039" <i>.001 mm</i>	±.00039" <i>.001 mm</i>
Repeatability <i>See note</i>	.00019" <i>.005 mm</i>	.00019" <i>.005 mm</i>	.00019" <i>.005 mm</i>
Feedback Resolution	.00004" <i>.001 mm</i>	.00004" <i>.001 mm</i>	.00004" <i>.001 mm</i>
Thrust, Machine Duty Rating	X: 1000 lb <i>450 kg</i> Z: 1000 lb <i>450 kg</i>	X: 1000 lb <i>450 kg</i> Z: 1000 lb <i>450 kg</i>	
<b>MISCELLANEOUS</b>			
Optional Barfeeder – Bar Diameter	.2 - 1.5" <i>5 - 38 mm</i>	.2 - 2.55" <i>5 - 65mm</i>	.2 - 2.55" <i>5 - 65mm</i>
Optional Barfeeder – Maximum Bar Length	30" <i>760 mm</i>	30" <i>760 mm</i>	
Optional Barfeeder – Loading Capacity	10 Bars x 2.55" <i>65mm</i>	10 Bars x 2.55" <i>65mm</i>	10 Bars x 2.55" <i>65mm</i>
Parts Catcher Capacity	1.5 x 5" <i>38 x 125 mm</i>	1.5 x 5" <i>38 x 125 mm</i>	
Mechanical Tool Setter	Optional	Optional	Optional
Separate Lube Oil Collection <i>Prevents Coolant Contamination</i>	Standard	Standard	Standard
Flood Pump	3/4 HP	3/4 HP	3/4 HP
Flood Capacity	36 Gal <i>140 L</i>	36 Gal <i>140 L</i>	48 Gal <i>185 L</i>
1.5 HP <i>1.1 kw</i> Hydraulic Pump	Standard	Standard	Standard
Hydraulic Tank Capacity	10.5 Gal <i>40 L</i>	10.5 Gal <i>40 L</i>	
Hydraulic Oil Type <i>(Or equivalent)</i>	Mobil DTE 24	Mobil DTE 24	Mobil DTE 24
Way Lube Type <i>(Or equivalent)</i>	Vactra #2	Vactra #2	Vactra #2
Way Surface	30 mm Linear Way	30 mm Linear Way	Box Ways
Floor Space Requirement With Conveyor	126" x 71" <i>3200 x 1800 mm</i>	126" x 71" <i>3200 x 1800 mm</i>	162" x 70" <i>4115 x 1755 mm</i>
Floor Space Requirement With Conveyor – Extended Bed	N/A	N/A	182" x 70" <i>4615 x 1755 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 dealer or available from factory during second six months if air ticket supplied.		
<b>MACHINE SIZE AND POWER</b>			
Bed Inclination	30°	30°	45°
Overall Length Without Accessories	91" <i>2300 mm</i>	91" <i>2300 mm</i>	119" <i>3015mm</i>
Overall Length Without Accessories – Extended Bd	N/A	N/A	139" <i>3515mm</i>
Overall Height	69" <i>1750 mm</i>	69" <i>1750 mm</i>	80" <i>2015 mm</i>
Overall Width	71" <i>1800 mm</i>	71" <i>1800 mm</i>	70" <i>1755mm</i>
Power 208-240 VAC, 50-60hz, 3Ø	40 amps 16 kVA	50 amps 19 kVA	50 amps 19 kVA
Power 208-240 VAC, 50-60hz, 3Ø – 35 HP	N/A	N/A	100 amps 38 kVA
Power 208-240 VAC, 50-60hz, Single Phase	Optional	Optional	N/A
<p><i>Note: Measurements performed with Renishaw laser and ballbar systems. Measurements are linear over entire travel.</i></p> <p><i>Temperature changes and table loads may affect tolerances. Tolerances are guaranteed over 10" sq. area.</i></p> <p><i>Centurion features covered under separate literature. For machine duty rating, see "Truth in Specifications" on <a href="http://www.milltronics.net">www.milltronics.net</a>.</i></p> <p><i>Milltronics reserves the right to change specifications at any time without incurring obligation.</i></p>			

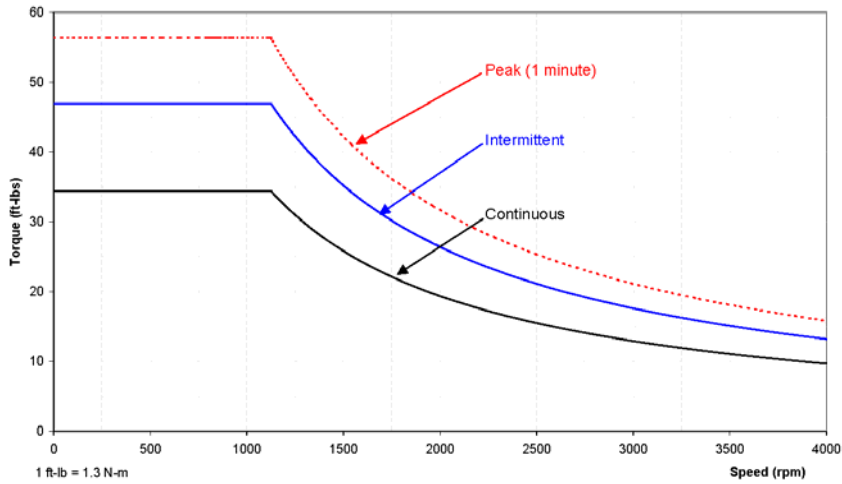
### Yaskawa Torque Chart 12/10/1/B/Y – SL6 Belted Spindle

Used on: Standard SL6  
Optional N/A

Power Characteristics of SL6 With 12/10 HP Single Winding Motor



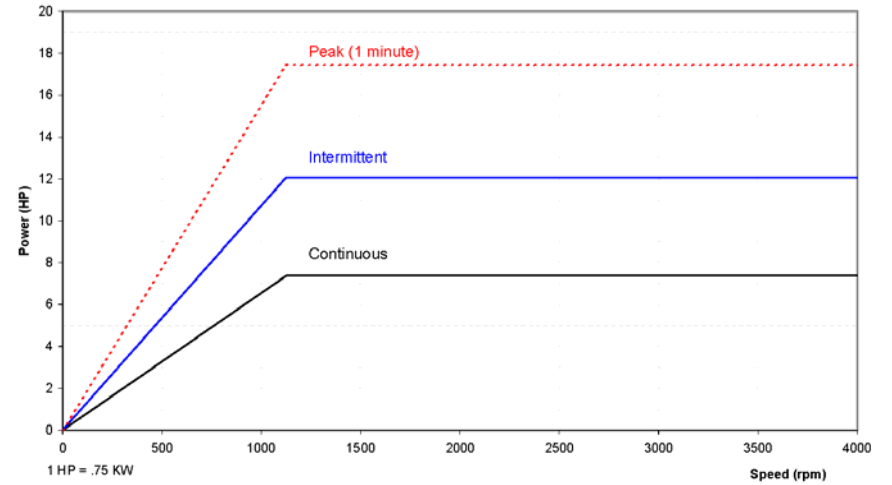
Torque Characteristics of SL6 With 12/10 HP Single Winding Motor



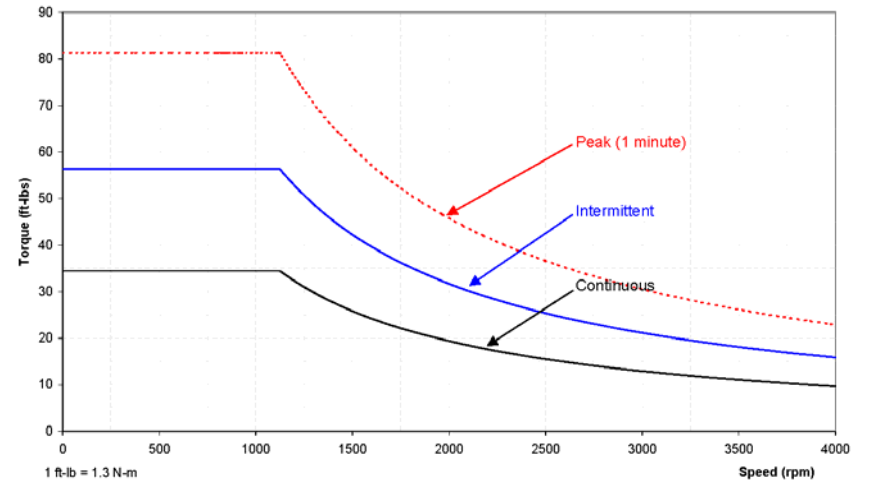
### Yaskawa Torque Chart 18/12/1/B/Y – SL6 Belted Spindle

Used on: Standard N/A  
Optional SL6

Power Characteristics of SL6 With 18/12 HP Single Winding Motor



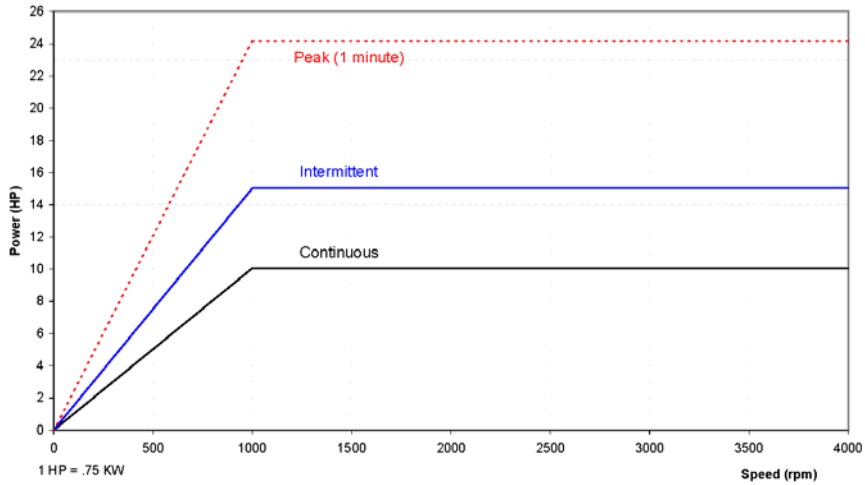
Torque Characteristics of SL6 With 18/12 HP Single Winding Motor



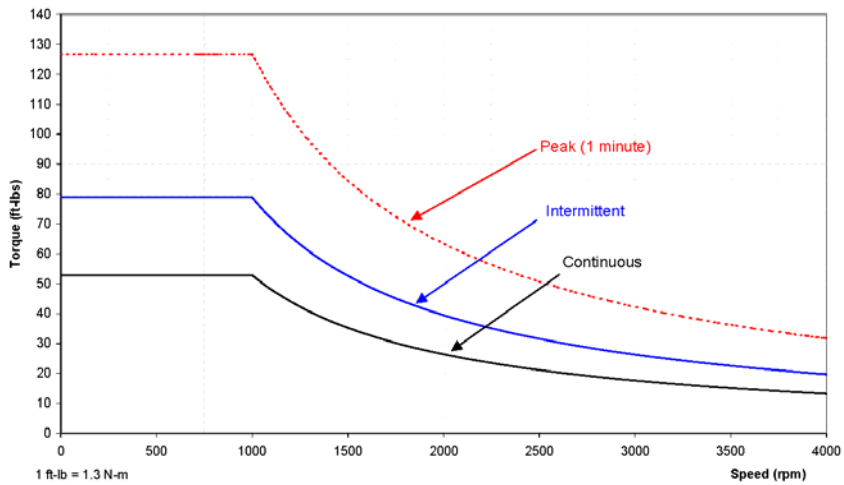
### Yaskawa Torque Chart 24/15/1/B/Y – SL10 Belted Spindle

Used on: Standard SL10  
Optional N/A

Power Characteristics of SL10 With 24/15 HP Single Winding Motor



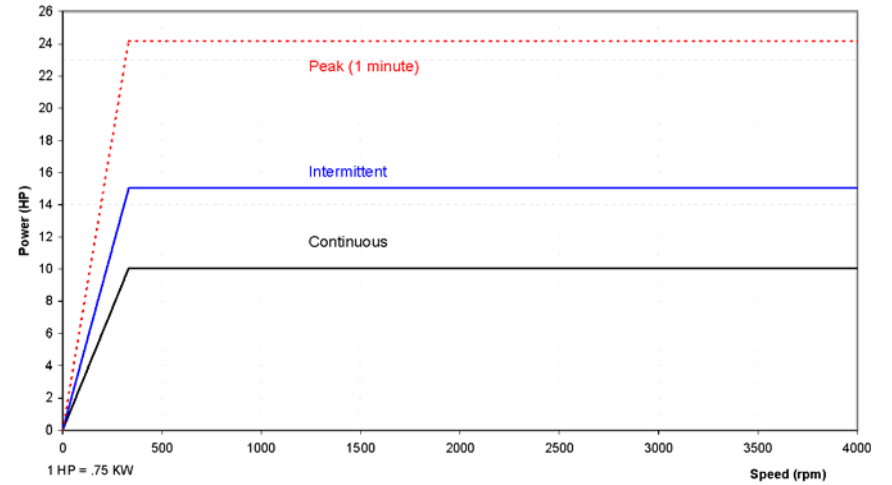
Torque Characteristics of SL10 With 24/15 HP Single Winding Motor



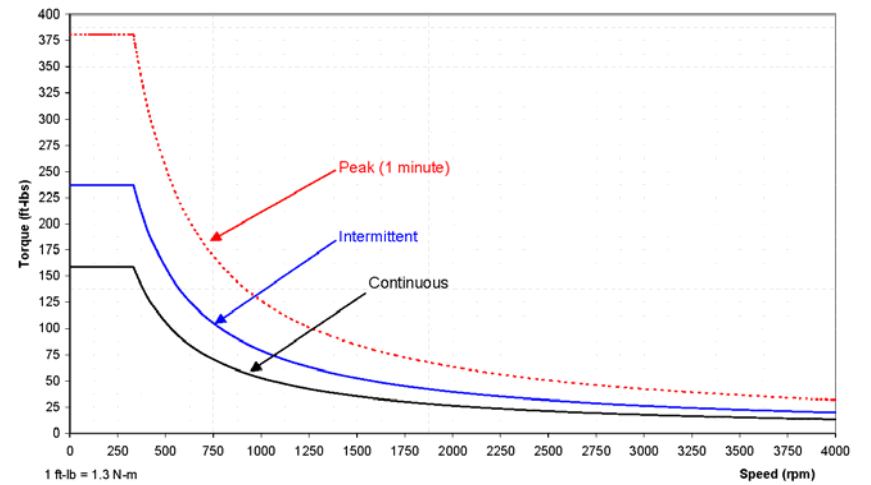
### Yaskawa Torque Chart 24/15/2/B/Y – SL10 Belted Spindle

Used on: Standard N/A  
Optional SL10

Power Characteristics of SL10 With 24/15 HP WYE/Delta Motor

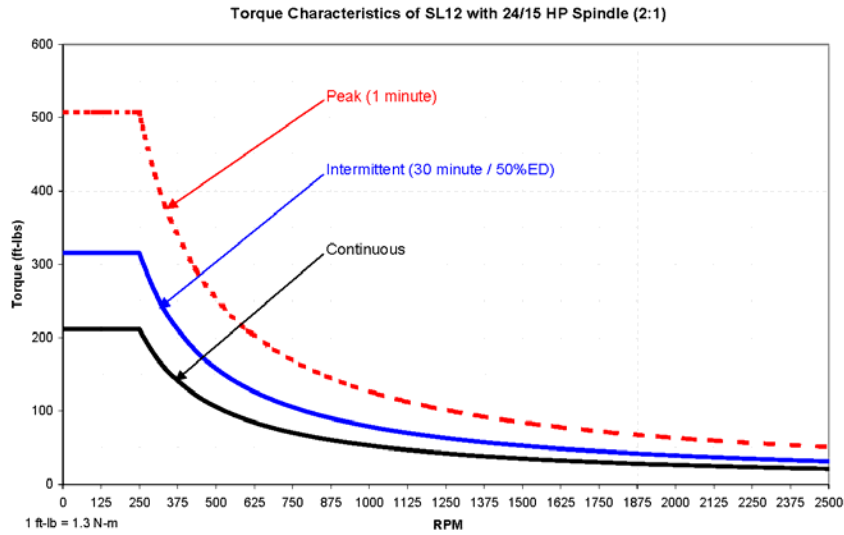
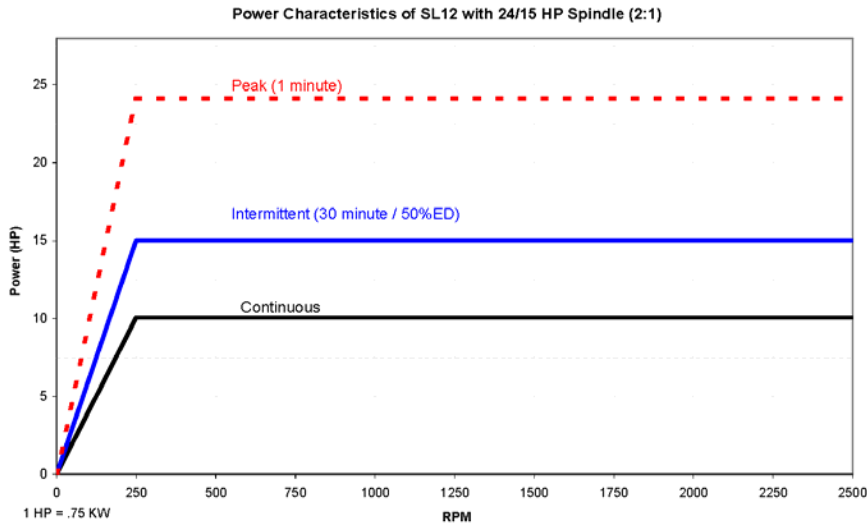


Torque Characteristics of SL10 With 24/15 HP WYE/Delta Motor



### Yaskawa Torque Chart 24/15/2/B2/Y – SL12 Belted Spindle

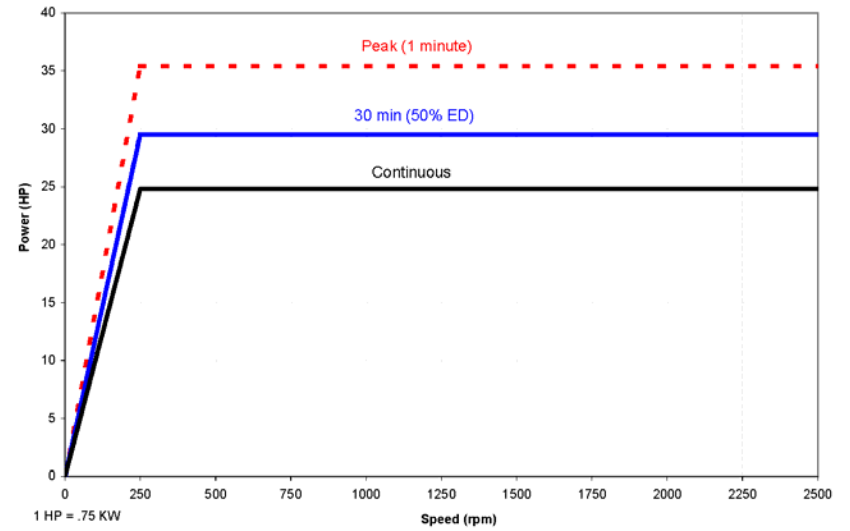
Used on: Standard SL12  
Optional N/A



### Yaskawa Torque Chart 35/25/2/B2/Y – SL12 Belted Spindle

Used on: Standard N/A  
Optional SL12

Power Characteristics of SL12 with 35/25 HP Spindle (2:1)



Torque Characteristics of SL12 with 35/25 HP Spindle (2:1)

