



LX & LLX SERIES



HORIZONTAL TURNING CENTERS

LX20T L3 / LLX20T L3



LX20T L5 / LLX20T L5



LX20T L7 / LLX20T L7



LX & LLX SERIES

LX & LLX series is a range of high-efficiency CNC turning centers.

LX20T / LLX20T takes an 8 inch chuck with a spindle speed upto 4000* rpm with a maximum turning diameter of 320 mm and maximum turning length varying between 310 mm and 687 mm.

- Optimal power – torque combination
- Low power consumption
- Increase in productivity

*4000 rpm is available only for LLX Series

MACHINE STRUCTURE

The box structure FG 300 grade grey cast iron bed optimized through computer analysis, to achieve extremely high vibration dampening characteristics. All major machine castings are stress relieved imparting long lasting accuracies.

SPINDLE ASSEMBLY

All spindle parts are manufactured in ultra high precision machines and in a completely temperature controlled environment to ensure consistency in quality and to deliver the best Cp and CpK values.

HYDRAULIC TURRET

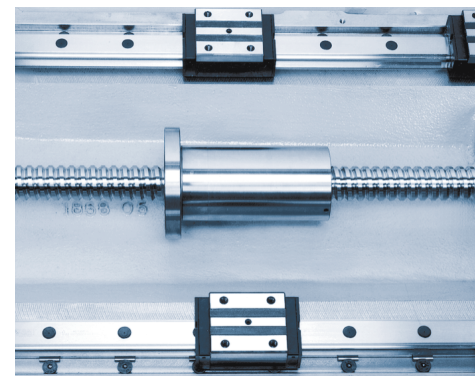
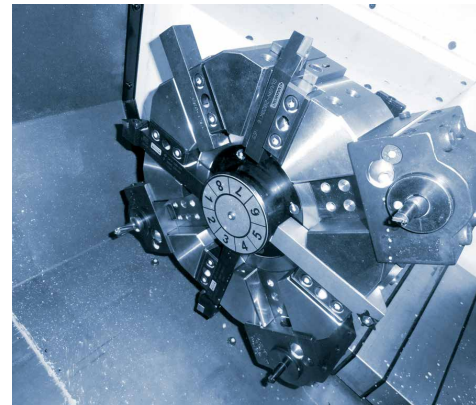
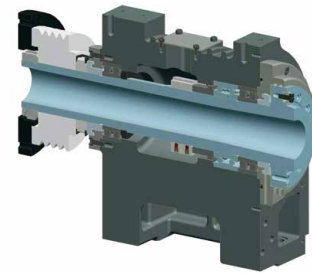
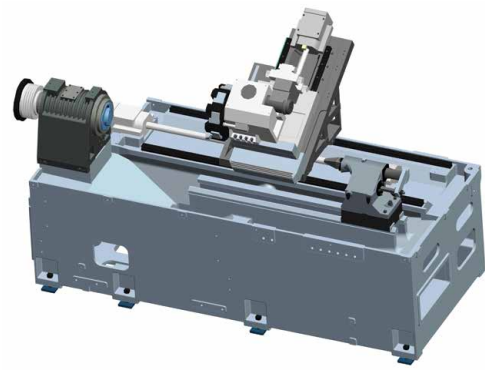
- High precision 8 station bidirectional hydraulic indexing turret.
- The indexing time is less than a second (station to station).
- Rigid clamping for high tool life and consistency in quality of parts produced.

HIGH RESPONSE FEED MECHANISM

- The X and Z axis traverses employs low friction and stick-slip free movement Linear Motion (LM) guide ways, high rapid rates to reduce the non-cut time.
- The axis motors, provides ample feed thrust to the ball screws resulting in high rapid traverse rates.
- High precision in positioning and phenomenal part to part repeatability.

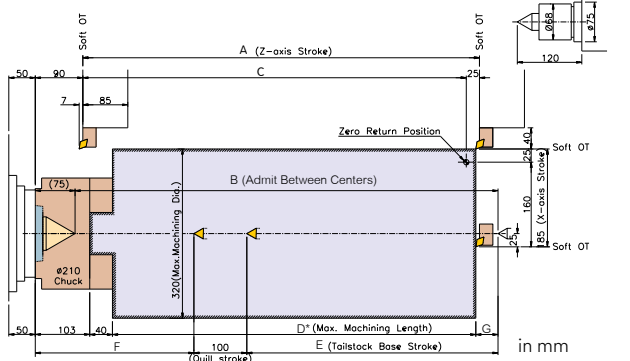
TAILSTOCK

- Manual tailstock with a hydraulically actuated MT-4 ADD-ON live centre.
- Programmable quill with a maximum thrust of 500 kgf for turning lengthy jobs.



MOVING RANGE

LX & LLX 20T L3 / L5 / L7

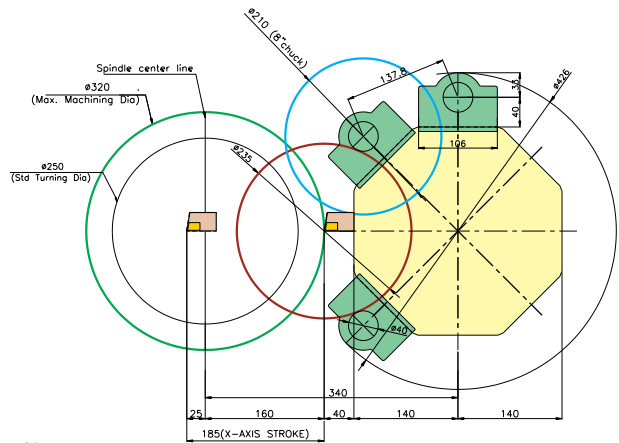


Description	L3	L5	L7
A	370	560	750
B	440	625	830
C	345	535	725
D	310	500	687
E	235	420	575
F	180	180	230
G	62	57	72

TURRET INTERFERENCE

LX & LLX 20T L3 / L5 / L7

8 Station

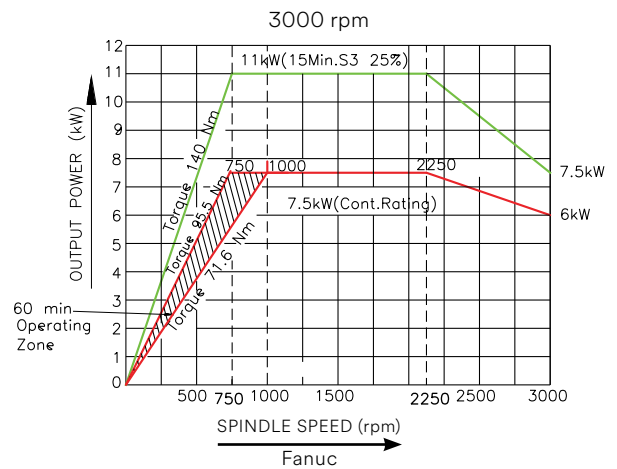
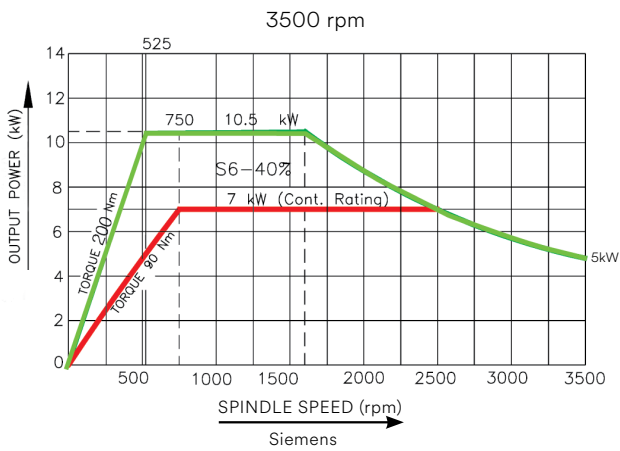


Note :
Tool shank size 25 x 25 mm, Max boring bar size 40 mm

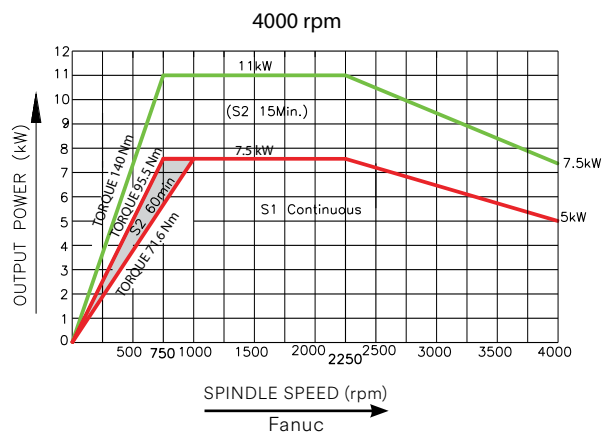
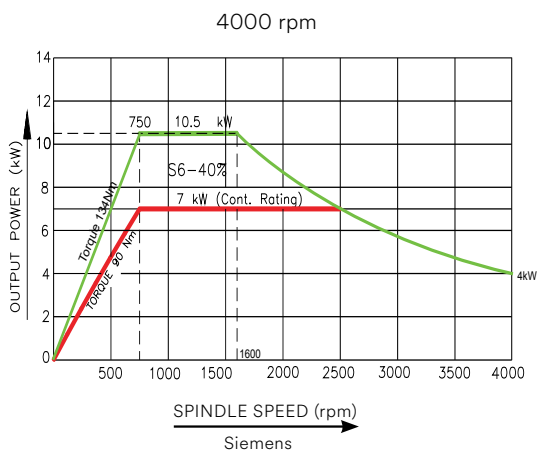
in mm

SPEED POWER CURVE

LX20T L3 / L5 / L7



LLX20T L3 / L5 / L7



SPECIFICATIONS

LX SERIES

Title	Description	Unit	LX20T L3	LX20T L5	LX20T L7
Capacity	Swing over bed	mm	510		
	Chuck dia. Max	mm	210		
	Max. Turning dia	mm	320		
	Max. Turning Length*	mm	310	500	687
	Admit between Centres	mm	440	625	830
Spindle	Spindle nose	-	A2-6		
	Hole through spindle	mm	61		
	Spindle speed	rpm	3000 (3500)*		
	Spindle motor power -15 min/Cont.(S6-40%/Cont.)	kW	11 / 7.5 (10.5 / 7)*		
Feed System	Cross travel X-axis	mm	185		
	Longitudinal travel Z-axis	mm	370	560	750
	Rapid traverse rate X/Z axes	m/min	30		
Turret	No. of stations	nos.	8		
	Tool shank size	mm	25 x 25		
	Max. Boring bar dia.	mm	40		
	Turret indexing	-	Bi-directional		
	Turret indexing time	sec	1.0		
Tailstock	Quill dia	mm	75		
	Quill stroke	mm	100		
	Quill taper	-	MT-4		
CNC System	Controller	-	Fanuc / (Siemens)#		
Power Supply	Power Requirement	kVA	17(18*)		
Machine Size	Front x Side x Height	mm	2065 x 1650 x 1920	2255 x 1650 x 1920	2705 x 1650 x 1920
	Weight (Approx.)	Kg	3200	3300	3600

LLX SERIES

Title	Description	Unit	LLX20T L3	LLX20T L5	LLX20T L7
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	Max. Turning Length*	mm	310	500	687
	Admit between Centres	mm	440	625	830
Spindle	Spindle nose	-	A2-6		
	Hole through spindle	mm	61		
	Spindle speed	rpm	3000(4000)*		
	Spindle motor power -15 min/Cont.(S6-40%/Cont.)	kW	11 / 7.5 (10.5 / 7.0)*		
Feed System	Cross travel X-axis	mm	185		
	Longitudinal travel Z-axis	mm	370	560	750
	Rapid traverse rate X/Z axes	m/min	30 / 24 (30 / 30)*		
Turret	No. of stations	nos.	8		
	Tool shank size	mm	25 x 25		
	Max. Boring bar dia.	mm	40		
	Turret indexing	-	Bi-directional		
	Turret indexing time	sec	0.8 to 1.0		
Tailstock	Quill dia	mm	75		
	Quill stroke	mm	100		
	Quill taper	-	MT-4		
CNC System	Controller	-	Fanuc / (Siemens)#		
Power Supply	Power Requirement	kVA	18		
Machine Size	Front x Side x Height	mm	2065 x 1650 x 1920	2255 x 1650 x 1920	2705 x 1650 x 1920
	Weight (Approx.)	Kg	3200	3300	3600

with siemens controller

Note: *May vary depending upon make / model of chuck.

LX & LLX
SERIESBASIC
INFORMATION

DIAGRAMS

SPECIFICATIONS

APPLICATIONS

MATERIAL REMOVAL RATE (MRR) STEEL C45



OUTER DIA TURN TEST

Description	Unit	LX	LLX
Diameter	mm	159.5	77.5
Cutting Speed	m/min	260	200
Spindle Speed	rpm	519	821
DOC	mm	2.50	3.75
Feed	mm/rev	0.35	0.25
Capacity	cc/min	228	188
Spindle Load	%	161	122

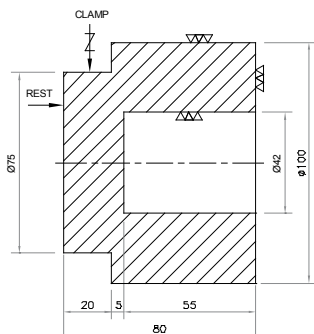


DRILLING TEST

Description	Unit	LX	LLX
Diameter	mm	40	42
Cutting Speed	m/min	125	120
Spindle Speed	rpm	1000	910
Feed	mm/rev	0.12	0.12
Spindle Load	%	91	90

Tool used: Insert type U-Drill

ACCURACY



Material	Aluminium / Brass
Clamping Area	Ø75 x 20 mm
Clamping Pressure	10 Kgf/cm ²
Tool Holder	SV JCR 2525 M16
Insert	VCG x 160404
Cutting Speed (Vc)	400 m/min
D.O.C	0.05 mm
Feed	0.05 mm/rev



Surface Finish Ra			Roundness mm		Perpendicularity mm		Cylindricity mm		Concentricity mm	Flatness mm
I.D.	O.D.	Face	I.D.	O.D.	I.D.	O.D.	I.D.	O.D.		
0.3	0.3	0.24	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.002

MATERIAL : STEEL



Rigid Tapping

Maximum Tap Size	M16 x 2
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Profile Turning

Sphericity	0.007 mm
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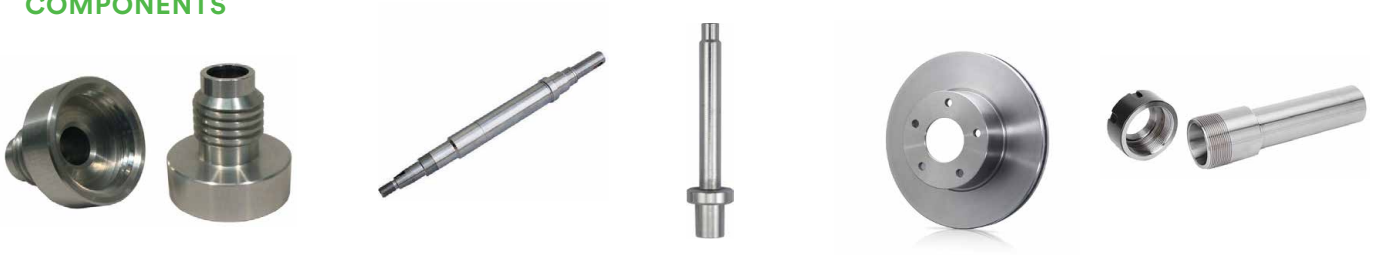
Note : Values shown are in test conditions, may vary depending on tools, materials and cutting parameters / conditions

LIST OF OPTIONAL ACCESSORIES / FEATURES*

- Tailstock with built-in live Centre
- Rear / Side Chip conveyor with interface
- Tilt type chip bin
- Auto door
- Parts catcher
- Bar Puller
- Programmable tailstock
- Steady rest
- Bar feeder
- Mist Collector
- Coolant / air nozzle above headstock
- Coolant gun
- Oil skimmer
- Voltage Stabilizer

* Optional Accessories is available only for LLX Series.

COMPONENTS

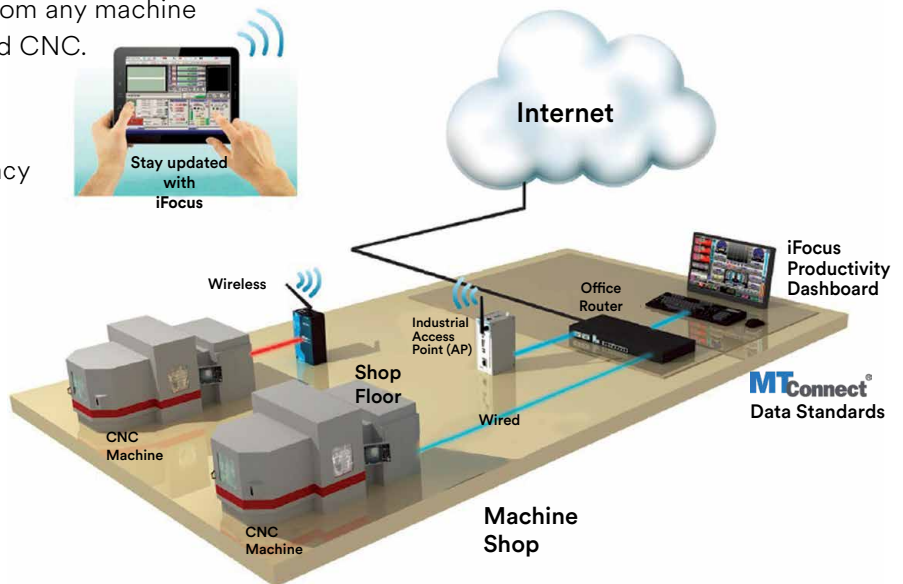


INTERNET OF THINGS (IOT)

i-Focus monitoring provides realtime dashboards that display data the way we want to see it. Customized by roll, machine type and process visibility into asset (Machines) performance and shopfloor process. Monitors data from any machine regardless of manufactures, age and CNC.

BENEFITS

- Increased utilization and efficiency
- Optimize down time
- Transparency and go digital



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- APPLICATIONS

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