

Item	Specification
Controlled axes	Simultaneous 2 axes control
Interpolation	Straight, Spiral, Round
Data input	Key
Automatic recognition	EIA / ISO
Decimal point setting	Standard
Least command	0.001 m/m 0.0001 inch
Lease increment	X/Z-axes 0.001 m/m 0.0001 inch
Max. programmable dimension	99999.999 m/m
Cutting feed override	0.001-999.999 mm/rev
Tool offset memory	6 digits 64 pairs
Compensation (M.S.T)	Standard
Dwell	0-99999.999 sec
Canned cycle	G90;G92;G93
Part program storage capacity	640 M
Backlash compensation	0-0.255 mm
Dry run	Standard
Optional block skip	Standard
Single block	Standard
Machine block	Standard
Program number search	Standard
Spindle orientation	Standard
Stroke restriction	Standard
Inch / metric conversion	Standard
Spindle speed	Standard
Multiple repetitive cycle	G70-G76
Tool breakage compensation	Standard
Cutter compensation	G40-G42
Run hour display	Standard
Graphic display	Standard
Drawing dimension input	Standard
Program of compensation data input	Standard

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Standard Accessories

- Work light
- Totally enclosed guard
- Coolant system
- Hydraulic unit
- O.D. tool holder base x 2 sets
- O.D. tool gasket x 6 sets
- I.D. tool holder base x 4 pcs
- Bo bar sleeve x 5 pcs
- Drill sleeve x 3 pcs
- Rotating center x 1 pc
- Soft jaws x 1 set
- Side chip conveyor

Optional Accessories

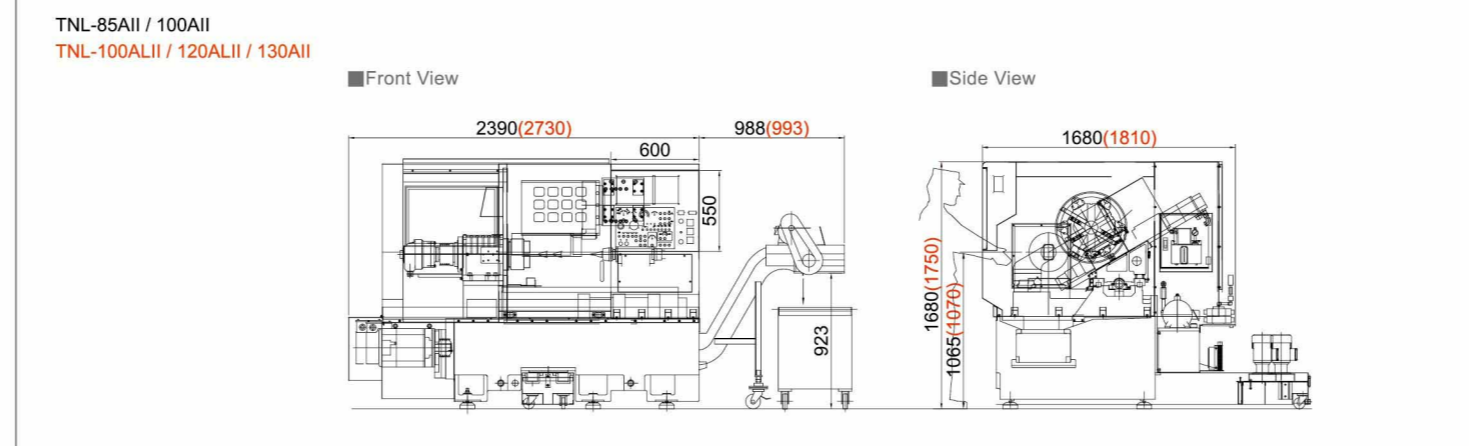
- Auto door
- Auto bar feeder
- Oil mist collector
- Bar feeder interface
- Tool presetter
- Voltage stabilizer
- Parts catcher
- Rear chip conveyor
- Bar puller
- Workpiece conveyor
- Air blow unit
- Customer setting program
- Transformer
- Oil skimmer
- Robot auto loading and unloading unit
- Spindle orientation function
- Direct panel programming with graphic function (10.4 LCD)

TNL-85AII/100AII/100ALII/120ALII/130AII Standard Specifications

Item	Specification	Unit	TNL-85AII	TNL-100AII	TNL-100ALII	TNL-120ALII	TNL-130AII	
Turning capacity	Max. swing diameter	mm	Ø600		Ø600			
	Max. swing diameter over saddle	mm	Ø320		Ø320			
	Max. turning diameter	mm	Ø264		Ø300(Opt. power turret Ø285)			
	Max. turning length	mm	400		600			
Spindle	Spindle nose		A2-6		A2-6	A2-8		
	Spindle speed	rpm	4800 (Opt. 3500)	3000 (Opt. 4500)	3000 (Opt. 4500)	2500 (Opt. 3500)		
	Chuck O.D.	inch	8"		8"(Opt. 10")	10"(Opt. 12")		
	Through-spindle hole diameter	mm	Ø56	Ø62	Ø62	Ø76	Ø86	
	Bar capacity	mm	Ø44	Ø51	Ø51	Ø64	Ø74	
	Spindle bearing diameter	mm	Ø85	Ø100	Ø100	Ø120	Ø130	
	Turret	Tool capacity	pc	12(Opt. 8)		12(Opt. 8)		
		O.D. tool	mm	25×25		25×25		
		I.D. tool	mm	Ø32		Ø32		
	Power turret (Opt.)	Tool capacity	pc	12(VDI-30)		12(VDI-40)		
Motor		kw	3.7/2.2		5.5/3.7			
O.D. tool		mm	25		25			
I.D. tool		mm	Ø32		Ø40			
Stroke	X/Z axis stroke	mm	150/400		170/600			
	Feed	X/Z axis rapid traverse	m/min		24/30			
Tailstock	Cutting feedrate	mm/rev	0.001-500		0.001-500			
	Tailstock/Hydraulic stroke	mm	275/100		500/100			
	Tailstock taper		MT#5		MT#5			
	Center diameter	mm	Ø75		Ø75			
Hydraulic unit	Driving system		Manual		Manual			
	Hydraulic tank capacity	L	30		30			
Coolant unit	Hydraulic motor	kw	1.5		1.5			
	Coolant tank capacity	L	140		140			
Motor	Coolant motor	kw	0.37		0.37			
	Spindle motor (50% ED)	kw	9/7.5	15/11	15/11			
Controller	X/Z axis servo motor	kw	1.6/1.6		1.6/3.0			
			FANUC 0i-T		FANUC 0i-T			
Machine size	L×W×H	mm	2390×1680×1680		2730×1810×1750			
	Weight	kg	3200	3500	4200	4300	4400	

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Machine Dimensions



Tongtai Machine & Tool Co., Ltd.

• HEAD OFFICE
NO.3, LUKE 3rd. RD., LUZHU DISTRICT, KAOHSIUNG CITY, 82151, TAIWAN.
TEL : 886-7-9761588 FAX : 886-7-9761589/886-7-9761590
Website : <http://www.tongtai.com.tw>

• CHINA OFFICE
SHUZHOU TONG-YU MACHINE & TOOL CO., LTD.
TEL : 86-512-63430168 FAX : 86-512-63431622
E-mail : sales@tong-yu.com.cn

• TAoyuan OFFICE TEL : 886-3-4551399 FAX : 886-3-4559730

• TAICHUNG OFFICE TEL : 886-4-23589313 FAX : 886-4-23588913

• TONGTAI SEIKI U.S.A INC. TEL : 1-845-2675500 FAX : 1-845-2675546

• Tongtai Machine & Tool Japan Co., Ltd. TEL : 81-4-71438355 FAX : 81-4-71438360

• TONGTAI SEIKI VIETNAM LIMITED TEL : 84-435112529

• EUROPE OFFICE TEL : 31-161-454639 FAX : 31-161-454768

• THAILAND OFFICE TEL : 66-2-7443440 FAX : 66-2-3986518

• INDONESIA OFFICE TEL : 62-21-45850521 FAX : 62-21-45840522

• MALAYSIA OFFICE TEL : 60-3-78456815 FAX : 60-3-78456851

• WUHAN OFFICE TEL : 86-27-59409109 FAX : 86-27-59409110

• SHANGHAI OFFICE TEL : 86-21-24208138 FAX : 86-21-34073262

• CHONGQING OFFICE TEL : 86-23-67865925 FAX : 86-23-67867717

• GUANGZHOU OFFICE TEL : 86-755-27222119 FAX : 86-755-27222115

• TIANJIN OFFICE TEL : 86-22-24417640 FAX : 86-22-24416738

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ISO 9001 ISO 14001 CE
A Worldwide Tradition of Quality Products and Customer Service

CNC Lathe
TNL-85AII/100AII
TNL-100ALII/120ALII/130AII

High ■Quality ■Precision ■Efficiency ■Economy



CNC Lathe

TNL-85AII/100AII

TNL-100ALII/120ALII/130AII

Ultra-high speed 24m/min rapid traverse

High rigidity machine bed structure design

- The lathe bed is one of the best type casted. It was designed and analyzed many times by CAD method to assure the best structure. The structure assures rigidity and absorbs vibrations. It is a proof of high precision metal cutting.

High efficiency cutting ability

- High torque spindle motor, TNL-85AII : 9 kw. TNL-100AII : 15 kw.
- P class LMT (Linear Motion Transducers)
- Big diameter size of precision ball screw.
- 8" hydraulic chuck.
- Max. cutting diameter is 264 mm (TNL-85AII/100AII)
300 mm (TNL-100ALII/120ALII/130AII)

High speed rapid traverse minimizes the non-cutting time

- Rapid traverse X-axis : 20 m/min. Z-axis : 24 m/min. (TNL-85AII/100AII)
24 m/min. Z-axis : 30 m/min. (TNL-100ALII/120ALII/130AII)

Lubrication system

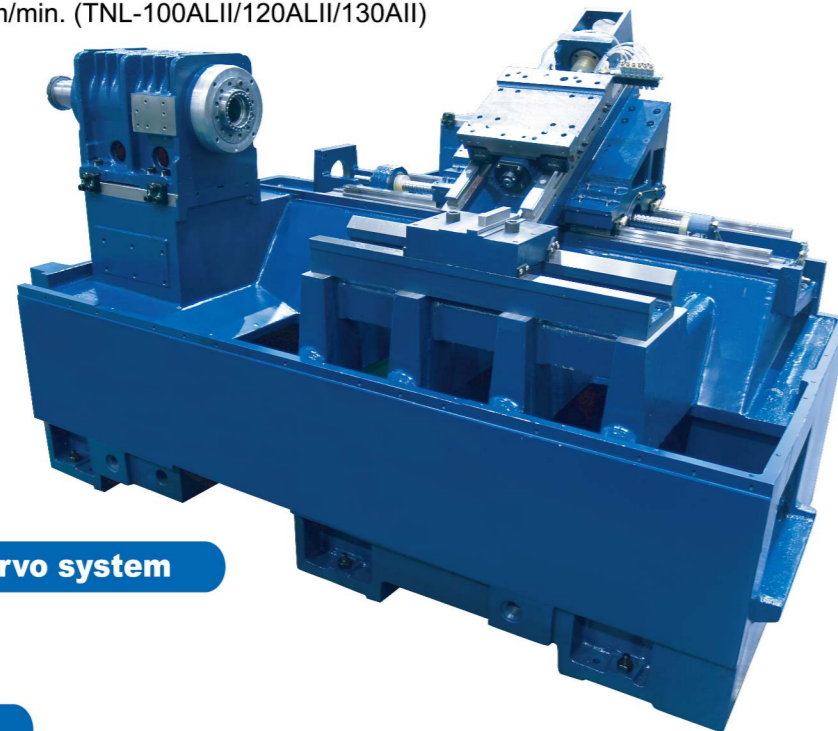
- Good quality high-pressure lube pump provides 15 kg/cm pressure and pressure control type distributors to assure every point is lubed to reduce the blockage of pipeline.

The ABS (absolute pulse coder) servo system

- The ABS system never needs "Zero Return"
- Eliminates troublesome limit switches.

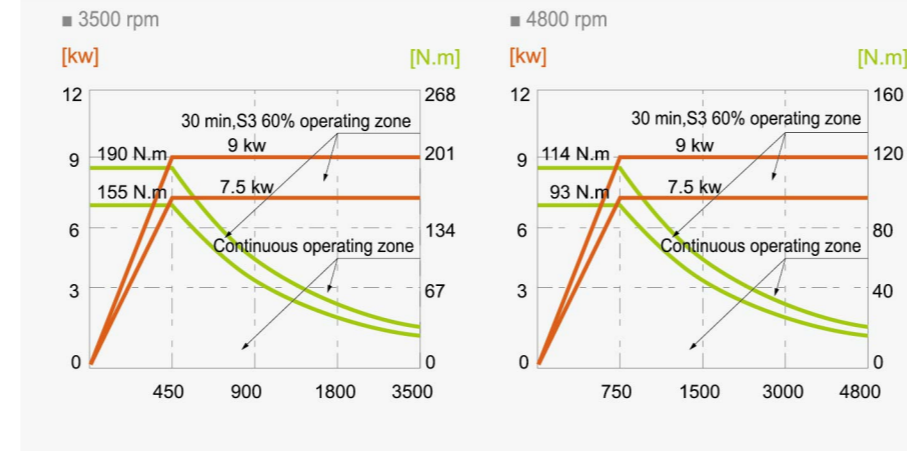
Designed for minimal floor space

- The floor space requirement is 3.30 M x 1.77 M (TNL-85AII/100AII)
- Chip conveyer can be installed at the rear side or right hand side. It can minimize the floor space required for the production line or single machine working.

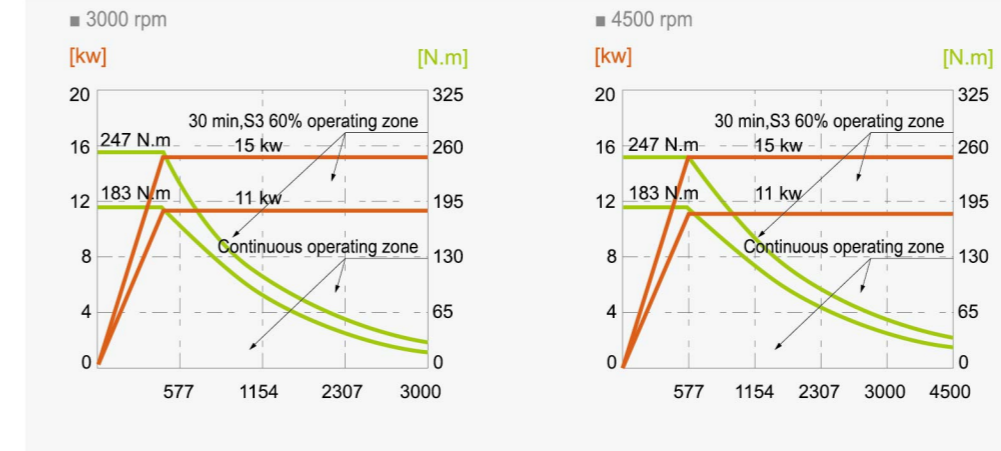


Powerful and rigid high speed spindle

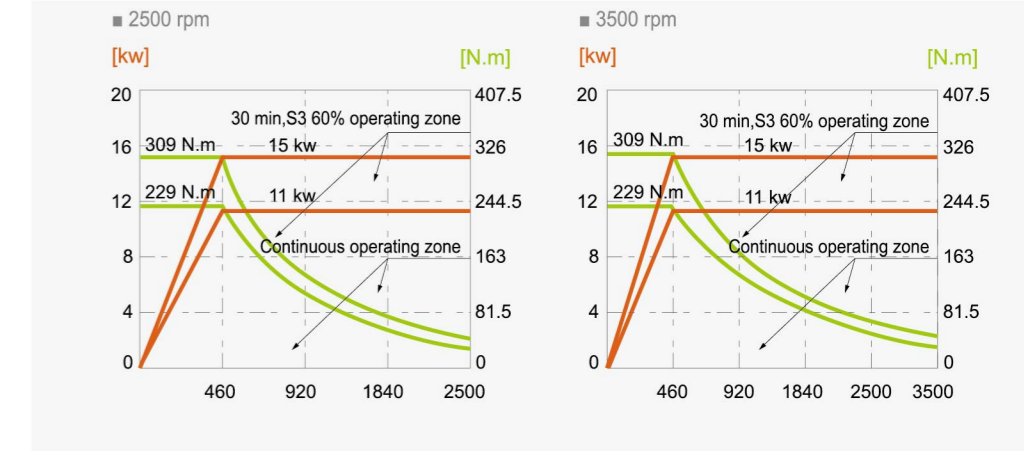
Spindle motor αP15 (TNL-85AII)



Spindle motor αP22 (TNL-100AII/100ALII)



Spindle motor αP22 (TNL-120ALII/130AII)



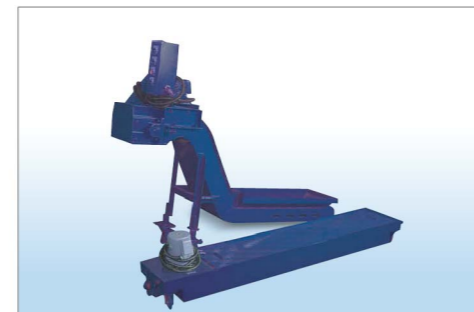
High speed precision cam type hydraulic turret

- Station to station time is 0.7 sec
- Corvic-coupling for location indexing.
- Repeatability is 0.003 mm (0.0001")

Simple operation hydraulic tailstock

- Easy to adjust. Accurate motion.
- Simple structure. Easy maintenance.

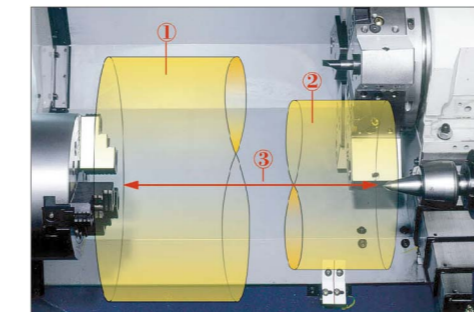
Standard accessories



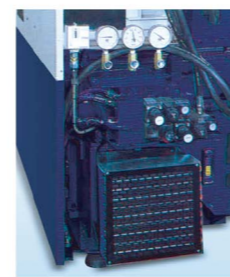
Chip conveyor



Tailstock



Electrical cabinet with heat exchanger.

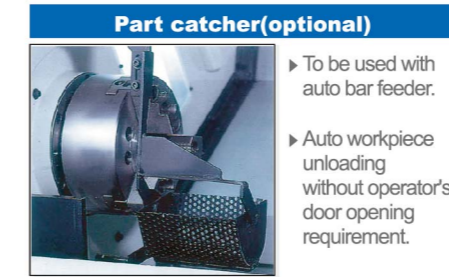


Hydraulic cooling system.



Standard turret

- Easy for tool setting.
- Tough and reliable.



Part catcher (optional)

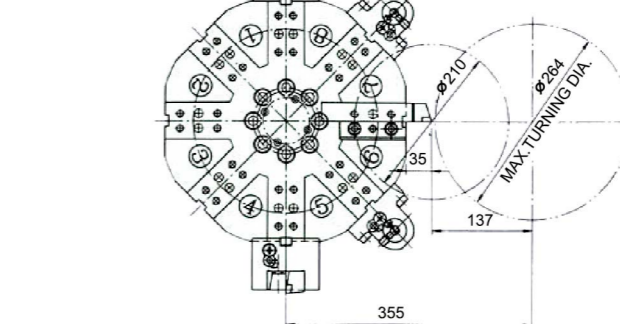
- To be used with auto bar feeder.
- Auto workpiece unloading without operator's door opening requirement.

	TNL-85AII/100AII	TNL-100ALII /120ALII/130AII
1 Max. swing diameter:	Ø600 mm / 23.6 inch	Ø600 mm / 23.6 inch
2 Max. turning diameter:	Ø264 mm / 10.4 inch	Ø300 mm / 11.8 inch (Opt. power turret Ø285 mm)
3 Max. turning length:	Ø400 mm / 15.7 inch	Ø600 mm / 23.6 inch
4 Max. swing over saddle diameter:	Ø320 mm / 12.6 inch	Ø320 mm / 12.6 inch

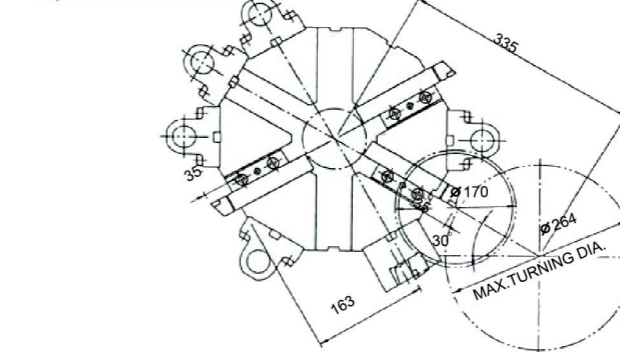
Working area/ Tool interference / Standard tooling system

Tool Interference (85AII/100AII)

Standard: 8 tools

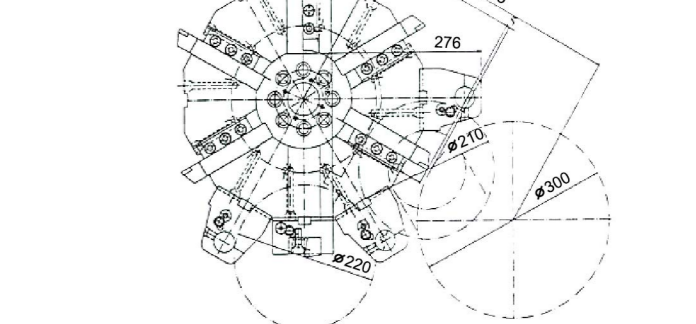


Optional: 12 tools



Tool Interference (100ALII/120ALII/130AII)

Standard: 12 tools



Standard: 8 tools

