

CNC1 Spindle1 Turret Precision Lathe

XL-150



Special Mid Size Machine with More Cutting Capacity

Larger Spindle Motor Output and Spindle Diameter

- The standard spindle motor output is 11/7.5kW (X-150PLUS: 7.5/5.5kW) . As an option, 15/11kW is available and with this increase in capacity, 60% increase in cross-sectional area processing capacity is achieved. In addition, the spindle through diameter of $\phi 65$ is available as an option. With this option, larger diameter bar material can be cut.

8 inch class Maximum Livetool Capacity (As compared with other models)

- With the motor output of 5.5/3.7/2.2kW, this machine is equipped with $\phi 20$ maximum tool size milling unit that is 2.5 times larger than previous models. This is better by 1.7 times the cutting removal capacity resulting in wide range of cutting application and significant reduction in machining.

Longer Z Axis Stroke

- The floor space is the same as that of the [X-150 PLUS], but the Z-axis stroke is 400mm (X-150PLUS: 330mm) . This is approximately an increase of 20% that can correspond to long work shaft of up to 370mm.

Angle Slide Tailstock (Option)

- Adopted an angle slide tailstock with high rigidity similar to the X and Z axes slides. Also, conducted a review of the bed shape and 30% increase in rigidity as compared to the previous model.

Machine Specifications

Item	Unit	XL-150	XL-150	XL-150	
		8-station turret type	12-station turret type	Power tools type	
Capacity	Max. turning diameter	mm	φ320	φ280	
	Max. turning length	mm	370		
	Max. bar diameter	mm	Solid, φ42, φ51(φ65)		
	Chuck size	inch	8(10)		
Spindle	Spindle nose	JIS	A2-6(A2-8)		
	Spindle bearing I.D.	mm	φ100(φ120)		
	Through-hole on spindle	mm	φ61(φ80)		
	Spindle speed	min ⁻¹	Max.3,500 Max.5,000(Max.4,000)		
Tool post	Type		8-station turret	12-station turret	
	Tool shank	mm	□25		
	Boring holder I.D.	mm	φ40		
	Max. stroke	mm	X:190, Z:400		
Motors	Rapid traverse rate	m/min	X:18, Z:24		
	Spindle motor	kW	AC11/7.5(15/11)		
	Feed motor (X axis, Z axis)	kW	X1.2, Z1.8		
	Coolant motor	kW	AC0.25		
	Hydraulic motor	kW	AC0.75, 1.5		
	Tool storage capacity	pcs.	—		
	Spindle speed	min ⁻¹	—		
Power tools	Power tools motor	kW	—		
	Capacity	Drill	mm	—	
		Endmill	mm	—	
		Tap	mm	—	
	Spindle indexing	deg/min ¹	—		
Size	L×W×H	mm	1,600×1,535×1,700		
	Machine weight	kg	3,200		
	Total electric capacity	KVA	26(33)		

() : Option

Standard Accessories

- Service tool kit..... 1set
- TAKAMAZ instruction manual... 1set
- Splashguard..... 1set
- 8inch power chuck..... 1set
- Hydraulic chucking cylinder(Solid).... 1set
- Boring holder..... 2pcs.
- Coolant unit (120lit.)..... 1set
- Hydraulic unit..... 1set
- Clamp block..... 8pcs.
- Coolant block (For reverse cutting tools) ... 8pcs.
- Thread cutting unit..... 1set

Optional Accessories

- Tool holders
- Work light
- Stroke adjusting cylinder
- Chuck clamp detector
- Unloader
- Chip conveyor (Rear,Side)
(Spiral type/Floor type)
- Front air blower
- Signal light
- Automatic door system
- Spindle indexing device
- TAKAMAZ loader system
- Shutter
- Tailstock
- Power tool drive unit
(Power tools/C-axis)
- Others*

* For more information on attachments, consult our sales representative.

Optional Machine Specifications

Item	Unit	
Tailstock	Front taper	
	Quill O.D.	mm
	Quill stroke	mm
	Tailstock stroke	mm
	Max. thrust	kN

Item	XL-150	XL-150 Power tools type
	TAKAMAZ&FANUC Oi-TD	
Controlled axes	2axes (X,Z)	3axes (X,Z,C)
Simultaneously controllable axes	Simultaneous 2 axes	Simultaneous 3 axes
Least input increment	0.001mm (X in diameter)	
Least command increment	X: 0.0005mm Z: 0.001mm	
Auxiliary function	M-code 3 digit	
Spindle function	S-code 4 digit	
Tool function	T-code 4 digit	
Tap code	EIA(RS232C)/ISO(840) automatic recognition	
Cutting feedrate	1~5,000mm/min	
Command system	Incremental/Absolute	
Linear interpolation	G01	
Circular interpolation	G02, G03	
Cutting feedrate override	0~150%	
Rapid traverse override	F0, 100%	
Program number	4 digits	
Backlash compensation	0~9999μm	
Program memory capacity	512Kbyte (1,280m)	
Tool offsets	64 sets	
Registered programs	400 pcs.	
Tool geometry/Wear offset	Standard	
Canned cycle	G90, G92, G94	
Radius designation on arc	Standard	
Tool offset measurement input	Standard	
Background editing	Standard	
Direct drawing dimension programming	Standard	
Custom macro	Standard	
Additional custom macro common variables	#100~#199, #500~#999	
Pattern data input	Standard	
Nose R compensation	G40, G41, G42	
Inch/Metric conversion	G20/G21	
Programmable data input	G10	
Run hour/Parts count display	Standard	
Expansion program editing	Standard	
Multiple repetitive cycle	G70~G76	
Multiple repetitive cycle II	Pocket-shaped	
Canned drilling cycle	Standard	
Constant surface speed control	Standard	
Continuous thread cutting	G96, G97	
Variable lead thread cutting	G32	
Thread cutting retract	G34	
Clock function	Standard	
Help function	Standard	
Alarm history display	50 pcs.	
Self-diagnosis function	Standard	
Sub-program call	Up to 10 loops	
Decimal point input	Standard	
2nd reference point return	G30	
Work coordinate system setting	G50, G54~G59	
Stored stroke check 1	Standard	
Stored stroke check 2,3	Standard	
Input/Output interface	USB Flash Memory, RS232C, Memory card, Ethernet	
Alarm message	Standard (Smart Alarm Diagnostic)	
Graphic display	Standard	
Conversational programming with graphic function	Standard	
Abnormal load detection	Standard	
Manual handle trace	Standard	
Automatic data backup	Max. 3	
Automatic screen deletion function	Standard	
Rigid tapping	—	For Power Tools only
Polar coordinate interpolation	—	Standard
Cylindrical interpolation	—	Standard
FANUC set of manuals	CD-ROM	
TAKAMAZ option functions	Work/Tool counter, Tool load monitor, Others	
TAKAMAZ maintenance functions	Standard	

Optional Controller Specifications

Tool life management	
Multiple M codes in one block	Max. 3
Spindle orientation	
Dynamic graphic function*	
Manual guide Oi*	
FANUC instruction manual	Bound
Helical interpolation	

* These cannot be used together.



TAKAMATSU MACHINERY CO.,LTD.

■HEAD OFFICE & PLANT
1-8 ASAHIGAOKA HAKUSAN-CITY ISHIKAWA JAPAN. 924-8558 TEL +81-(0)76-274-1403 FAX +81-(0)76-274-8530
■EUROPE OFFICE
INDUSTRIEGEBIET, DIEPENBROICH 27 D-51491 OVERATH, GERMANY
TEL +49-(0)2206-866-150 FAX +49-(0)2206-866-123

TAKAMAZ TRADING (HANG ZHOU) CO.,LTD.

120 SHINXIN NORTH ROAD, XIAOSHAN ECONOMY AND TECHNOLOGY DEVELOPMENT AREA,
HANGZHOU, ZHEJIANG PROVINCE, CHINA TEL +86-(0)571-8287-9709 FAX +86-(0)571-8286-5311

TAKAMATSU MACHINERY USA INC.

■CHICAGO HEAD OFFICE
1320 LANDMEIER ROAD ELK GROVE VILLAGE, IL 60007 USA TEL +1-(0)847-981-8577 FAX +1-(0)847-981-8599
■CINCINNATI OFFICE
5233 MÜHLHAUSER ROAD, WEST CHESTER TOWNSHIP, OH 45011 USA TEL +1-(0)513-870-9777 FAX +1-(0)513-870-0325

TAKAMATSU MACHINERY (THAILAND) CO.,LTD.

■THAILAND HEAD OFFICE
888/17 MOO 19 BANGPLEE-DAMRU ROAD., BANGPLEEYAI, BANGPLEE, SAMUTPRAKARN 10540
TEL +66-(0)2-382-5372 FAX +66-(0)2-382-5373

TAKAMAZ MACHINERY EUROPE GmbH

■EUROPEAN HEAD OFFICE
INDUSTRIEGEBIET, DIEPENBROICH 27 D-51491 OVERATH, GERMANY
TEL +49-(0)2206-919-3960 FAX +49-(0)2206-865-123

http://www.takamaz.co.jp/

●Distributed by:

Precautions Related to Foreign Exchange and Foreign Trade Control Laws

This product (machine and ancillary equipment) may fall under the category of controlled goods by the foreign exchange and foreign trade control laws.

As such, the exportation must be authorized by the Japanese government as stipulated in the laws.

This product is manufactured in accordance with the regulations and standards that prevail in the country or region of destination. The user must not export, sell, or relocate the product, to any country with different regulations or standards.



This brochure is made from 100% recycled paper.