

CNC 1 Spindle 1 Turret Precision Lathe

XTL-8

TAKAMAZ

Eco-friendly Machine Optimized for Shaft Work



Focused on Shaft Work

The machine has a maximum turning length of 600 mm. It combines a highly rigid square box-way slide construction with a $\phi 100$ -mm spindle, and features a tailstock as standard. It can share chucks and tool-holders with the current XT Series machines.

The machine construction allows machining over the full Z-axis stroke even with special high chuck specifications.

Combines Productivity with Energy Savings

The energy-saving level selection function and idle stop function can be used to reduce the environmental load and running costs.

And with conversational programming (option), you

can efficiently create cutting programs and check cutting shapes.

The chuck stroke check function (option) allows you to adjust the chuck clamping confirmation position from the NC screen rather than by using proximity switches, and reduces the time spent on setup changes in high-mix production.

Improved Operability with the TAKAMAZ Operation System

With the automation specifications, the FANUC control loader improves working convenience during setup by the loader teaching function and tool offset support function, data of the machine status can be saved per workpiece, and traceability of workpieces can be achieved.

Machine Specifications

Item		Unit	8-station Specifications(Standard)	12-station Specifications(Optional)
Capabilities	Max. turning diameter	mm	φ340	φ300
	Max. turning length	mm	593	598
	Max. bar diameter	mm	Solid (φ42, φ51, φ65)	
Spindle	Chuck size	inch	8(10)	
	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.4,000(5,000)(3,000)	
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:600	
	Rapid traverse rate	m/min	X:18 Z:24	
Motors	Spindle motor	kW	AC15/11:φ100 4,000min ⁻¹ AC15/11:φ100 5,000min ⁻¹ AC15/11:φ120 3,000min ⁻¹	
	Feed motor	kW	X:AC1.7 Z:AC2.5	
	Coolant motor	kW	AC0.25	
	Hydraulic motor	kW	AC1.5	
Tailstock	Front taper	mm	MT-4	
	Quill O.D.	mm	φ75	
	Tailstock stroke	mm	240	
	Max. thrust	kN	5.3	
Size	L×W×H	mm	1,840×1,860×1,880	
	Machine weight	kg	4,500	
Total electric capacity		KVA	22~24(Depends on the specifications.)	
Noise level		dB(a)	68.6	

() : Option

Standard Accessories

- ☐ Boring holder 2sets
☐ Clamp block 8sets(12sets)
☐ Coolant block 8sets(12sets)
☐ Hydraulic chucks(8 inch) 1set
☐ Hydraulic chucking cylinder(Hollow) ... 1set
☐ Hydraulic unit 1set
☐ Tailstock 1set
- ☐ Chuck clamp detector 1set
☐ Thread cutting unit
 (Including constant surface speed control) ... 1set
☐ Coolant unit 1set
☐ Work light 1set
☐ Service tool kit 1set
☐ TAKAMAZ Instruction manual ... 1set

Optional Accessories

- ☐ Tool holders
☐ Collet chucks
☐ Thermory®
 (Thermal displacement correction system)
☐ TAKAMAZ loader system
☐ Bar feeder system
☐ Unloader
☐ Work set detector
☐ Special spindle speed
 (5,000min⁻¹, 3,000min⁻¹)
- ☐ Chip conveyor(Rear/Side)
 (Floor type/Spiral type)
☐ Front air blower
☐ Rear air blower
☐ Rear coolant unit
☐ Signal light(1-tier/2-tier/3-tier)
☐ Automatic fire extinguisher
☐ Automatic power shut-off device
☐ Automatic door system (Auto door/Shutter)
☐ Special color

Loader Specifications

Item	Unit	FGH(FANUC)
Loadable workpiece diameter	mm	φ75
Weight capacity	kg	5
Rapid traverse rate	m/min	Y:160 Z:160

※Some machine operation switches, and the loader operation switches, are of the touch-screen type.
(Subject to change without prior notice.)

Controller Specifications

Item	TAKAMAZ & FANUC Oi-TF Plus F Loader: Type O Standard: Type I
Controlled axes	2axes (X, Z)
Simultaneously controllable axes	Simultaneous 2 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
Tape code	EIA(RS232C)/ISO(840)automatic recognition
Cutting feedrate	1~7,000mm/min
Command system	Incremental/Absolute
Linear interpolation	G01
Circular interpolation	G02, G03
Cutting feedrate override	0~150%
Rapid traverse override	F0, 100%
Program file name	32 characters
Backlash compensation	0~9,999μm
Program memory capacity	2Mbyte (5,120m)
Tool offsets	64sets
Registered programs	1,000 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
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
Extended part program editing	Standard
Multiple repetitive cycle	G70~G76
Multiple repetitive cycle II	Pocket-shaped
Canned drilling cycle	Standard
Constant surface speed control	G96, G97
Continuous thread cutting	G32
Variable lead thread cutting	G34
Thread cutting retract	Standard
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	Flash Memory, Memory card※, Ethernet
Alarm message	Standard
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 (Standard specification only)
TAKAMAZ management support function	Work/Tool counter, Tool load monitor, Others
TAKAMAZ maintenance functions	Standard
FANUC set of manuals	DVD-ROM

Optional Specifications

Input/Output interface	RS232C
Tool life management	
Multiple M codes in one block	Max. 3
Spindle orientation	1set/6sets
Dynamic graphic display	Supported only with standard specifications
FANUC instruction manual	Bound
FANUC loader special control function	In-machine camera display function, wear compensation using digital measuring devices

※In the case of F loader specification, this is in the electric cabinet.

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