

CNC 1 Spindle 1 Turret Precision Lathe

TAKAMAZ

XTL-8MY

Mill-Turn Lathe with Y Axis Ideal for Shaft Work



* Image shows
FGH loader specifications

Focused on Shaft Work

The machine has a maximum turning length of 508 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 toolholders with XT-8M and XT-8MY models. The machine construction allows machining over the full Z-axis stroke even with special high chuck specifications.

Features High-level Power Tool Performance (BMT55 Turret)

Improvements in productivity are achieved with motor outputs of AC 5.5/3.7/2.2 kW and a milling unit with a maximum tool size of $\phi 20$ mm. The half-indexing mechanism allows up to 24 tools to be mounted. This makes it possible to reduce time for setup changes.

(A maximum of 12 power tools can be mounted.)

Combines Productivity with Energy Savings

The energy-saving level selection function and idle stop function can be used to reduce power consumption, not just while the machine is running but during setup work too. 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, a FANUC control loader is available. It improves working convenience during setup with the loader teaching function and tool offset support function. In addition, data on the machine status can be saved for each workpiece, making workpiece traceability achievable.

Units to Support Machining

A variety of units such as the programmable tailstock unit, built-in tailstock unit, and also steady rest units, are provided to assist with a wide range of cutting.

Machine Specifications

Item		Unit	XTL-8MY
Capabilities	Max. turning diameter	mm	φ220
	Max. turning length	mm	508
	Max. bar diameter	mm	Solid (φ42, φ51)
	Chuck size	inch	8
Spindle	Spindle nose	JIS	A2-6
	Spindle bearing I.D.	mm	φ100
	Through-hole on spindle	mm	φ61
	Spindle speed	min ⁻¹	4,000
Tool post	Type		12-station Turret
	Tool shank	mm	□25
	Boring holder I.D.	mm	φ40
	Max. stroke	mm	X:175 Z:550 Y:+35,-40
Power tools	Rapid traverse rate	m/min	X:18 Z:24 Y:10
	Tool storage capacity	pcs.	12
	Rotation speed	min ⁻¹	4,000
	Capacity		
Motors	Drill	mm	φ20
	Endmill	mm	φ20
	Tap	mm	M16
	Tap	mm	M16
Cs-axis	Rapid traverse rate	deg./min	36,000
Motors	Spindle motor	kW	AC15/11
	Feed motor	kW	X:AC1.7 Z:AC2.5 Y:AC1.0
	Coolant motor	kW	AC0.25
	Hydraulic motor	kW	AC1.5
Tailstock	Power tools motor	kW	AC5.5/3.7/2.2
	Front taper		MT-4
	Quill O.D.	mm	φ75
	Tailstock stroke	mm	240
Size	Max. thrust	kN	5.3
	L×W×H	mm	Manual machine2,410(1,840 ^{※1})×1,930×1,880 Machine with loader2,410(1,840 ^{※1})×1,930×2,400
	Machine weight	kg	5,000
	Total electric capacity	KVA	26~27(Depends on the specifications.)

() : Option

※1 Bed width

Standard Accessories

- ☐ Boring holder 2sets
☐ O.D.holder 2sets
☐ Hydraulic chucks(8 inch) 1set
☐ Hydraulic chucking cylinder(Hollow) 1set
☐ Hydraulic unit 1set
☐ Chuck clamp detector 1set
☐ Tailstock 1set
- ☐ Spindle indexing device(Cs-axis) 1set
☐ Power tools drive unit 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
☐ Power tools(Face/Side milling)
- ☐ 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	4axes (X,Z,C,Y)
Simultaneously controllable axes	Simultaneous 4 axes
Least input increment	0.001mm (X in diameter)
Least command increment	X:0.0005mm Z,Y:0.001mm C:0.001deg.
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 (Y axis: Max. 5,000/mm/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
Y-axis offsets	Standard
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
Rigid tapping	For Power Tools only
Polar coordinate interpolation	Standard
Cylindrical interpolation	Standard
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
Helical interpolation	
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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