

TAKAMAZ

CNC2-Spindle 2-Turret Precision Lathe

XW-60/60M



NEW

Introducing a 6-inch Mid Size Machine Offering High Productivity through Space Savings, Compound Machining and High-speed Automation

Space Savings in Production Lines

- Due to the turret and slide structure, the width of the machine with the loader transfer has been cut to 1,595 mm, the smallest in the class. (25% smaller than existing models)
This reduces the workpiece transfer distance from the machine to peripheral devices, allowing the width of the production line to be reduced.

Enhanced Machining Variations

- A single-tool drive system is used for power tools, which increases the transmission efficiency and improves the machining capacity.
And up to 20 power tools can be mounted, broadening the range of machining possibilities.
(60M : Power tool specifications)

Shorter Machining Cycles

- A 7.5/5.5 kW spindle motor is installed, and the increased power reduces spindle acceleration/deceleration times.
(Comparison with previous models: Acceleration/deceleration time reduced 22% with max. speed of 4,500 rpm)
The reduction in non-cutting time shortens cycle times and improves productivity.

High-speed Automation System Enables Speedy Mass Production

- A new 3-axis high-speed loader is installed. The loader was engineered in conjunction with the lathe, realizing an optimum transfer system for the machine to reduce cycle times.
(The shortest cycle time for front and back machining with processes 1 and 2 is 17.5 seconds, an 8% reduction compared to previous models.)

Energy Saving Target : 5% Reduction (Compared to Previous Models)

Machine Specifications

Item		Unit	XW-60	XW-60M
Capacity	Optimum turning size	mm	φ60	
	Max. turning diameter	mm	φ175	
	Max. turning length	mm	130	
	Chuck size	inch	Collet, 6(5)	
Spindle	Spindle nose	JIS	A2-5(A2-4)	
	Spindle Bearing I.D.	mm	φ75(φ65)	
	Through-hole on spindle	mm	φ46(φ36)	
	Spindle speed	min ⁻¹	Max.4,500(6,000)	
Tool post	Type		8-station turret×2	10-station turret×2
	Tool shank	mm	□20	
	Boring holder I.D.	mm	φ25	
	Max. stroke	mm	X:125	Z:140
	Rapid traverse rate	m/min	X:18	Z:18
Motors	Spindle motor	kW	AC7.5/5.5×2	
	Feed motor	kW	X: AC0.75×2	Z: AC1.2×2
	Coolant motor	kW	AC 0.25×2	
	Hydraulic motor	kW	AC 0.75×2	
Size	L×W×H	mm	1,595(1,950)×2,005×2,100(2,600)	
	Machine weight	kg	4,500	5,500
Total electric capacity		KVA	29	31

():Option

Power Tools Specifications

Item		Unit	XW-60M
Power tools	Tool storage capacity<one side>	pcs.	10
	Max. rotating speed	min ⁻¹	Max.4,000
	Drill	mm	φ13
	Capacity Endmill	mm	φ13
	Tap	mm	M8
	Drive motor	kW	AC 2.5
Cs-axis	Rapid traverse rate	deg./min	18,000
	Split indexing angle	deg.	0.001

Loader Specifications

Item	Unit	XW-60/60M (3 axes):1 unit
Loadable workpiece diameter	mm	φ60
Weight capacity<one side>	kg	1.0
Rapid traverse rate	m/min	X:45 Z:120 Y:125

Standard Accessories

- Boring holder..... 4 pcs.
- O.D. holder..... 4 pcs.
- TAKAMAZ collet chuck..... 1 set
- TAKAMAZ loader system..... 1 unit
- Hydraulic chucking cylinder... 1 set
- Thread cutting unit (Including constant surface speed control) ... 1 set
- Coolant unit..... 1 set
- Work light..... 1 set
- Service tool kit..... 1 set
- TAKAMAZ Instruction manual... 1 set

Optional Accessories

- Chucking system
- Rear chip conveyor (Spiral type/Floor type)
- Front air blower
- Power tool drive unit
- Spindle Cs-axis function
- Rear coolant unit
- Special coolant pump
- Signal light(1-color/2-color/3-color)
- Automatic fire extinguisher
- Automatic power shut-off device
- Special color
- Others*

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

Item	TAKAMAZ & FANUC Oi-TF
Controlled axes	4(6) axes X, Z (C)×2
Simultaneously controllable axes	Simultaneous 2 (3) axes×2
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	1~5,000mm/min
Command system	Incremental/Absolute
Linear interpolation	G01
Circular interpolation	G02, G03
Cutting feedrate override	0~150%
Rapid traverse override	FO, 100%
Program number	4 digit
Backlash compensation	0~9999μm
Part program storage length	1Mbyte (2,560m) (Dual systems total)
Tool offsets	128sets(Dual systems total)
Registered programs	800pcs. (Dual systems total)
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
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	50pcs.
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 Tool only
Polar coordinate interpolation	Power tool specifications as standard
Cylindrical interpolation	Power tool specifications as standard
Stored stroke check 1	Standard
Stored stroke check 2,3	Standard
Input/Output interface	USBFlash 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	Standard
Automatic screen deletion function	Standard
TAKAMAZ option functions	Work/Tool counter,Tool load monitor,Other
TAKAMAZ maintenance functions	Standard
FANUC set of manuals	DVD-ROM

Optional Controller Specifications

Input/Output interface	RS232C
Spindle orientation	
Tool life management	
Multiple M codes in one block	
Dynamic graphic function	
FANUC set of manuals	Bound

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