

TAKAMAZ

Realizing High-accuracy Cutting with
a Built-in Spindle Motor

CNC ■ Spindle ■ Slide Precision Lathe

J-WAVE PLUS

Make use of dead space for mass production!

Surprisingly compact thanks to incorporation of a 4-inch, gang type, built-in spindle motor!! A machine with advanced functions specialized in small part production makes its debut.



※The image shows the loader equipped machine.

Machine Specifications

Item		Unit	J-WAVE PLUS
Capacity	Optimum turning diameter	mm	φ30
	Max. turning diameter	mm	φ170
	Max. turning length	mm	175
	Chuck size	inch	Collet, 4
	Max. swing over bed	mm	φ380
Spindle	Spindle nose	JIS	A ₂ -4
	Spindle bearing I.D.	mm	φ65
	Through-hole on spindle	mm	(φ20)
	Spindle speed	min ⁻¹	Max.4,500
Tool post	Type		Gang type
	Tool shank	mm	□20
	Boring holder I.D.	mm	φ25
	Max. stroke	mm	X:200 Z:250
	Rapid traverse rate	m/min	X:18 Z:18
Motors	Spindle motor	kW	AC5.5/3.7
	Feed motor	kW	X:AC0.75 Z:AC0.75
	Coolant motor	kW	(AC0.18)
	Hydraulic motor	kW	(AC0.75)
Size	L×W×H	mm	1,506×1,250×1,395 (780×1,735×1,700*)
	Machine weight	kg	1,550 (1,700*)
Total electric capacity		KVA	12

*When the loader is mounted.

() : Option

Standard Accessories

- ☐ Boring holder 1 set
☐ O.D. holder 1 set
☐ Collet flange 1 set
☐ Air solid chucking cylinder 1 set
- ☐ Spindle cooling device (Cooling fan) ... 1 set
☐ Thread cutting unit
 (Including constant surface speed control) ... 1 set
☐ Service tool kit 1 set
☐ TAKAMAZ instruction manual ... 1 set

Optional Accessories

- ☐ Tool holders
☐ Collet chucks
☐ Hydraulic chucking cylinder
☐ Hydraulic unit (With a separate tank)
☐ TAKAMAZ loader system
☐ Chip conveyor*1
 (Floor type/Spiral type)
☐ Front air blower
☐ Rear air blower
☐ Rear coolant unit
- ☐ Coolant unit (116 lit.)
☐ Work light
☐ Signal light (1-color/2-color/3-color)
☐ Automatic fire extinguisher
☐ Automatic power shut-off device
☐ Special color
☐ Others*2

*1 Can only be installed at the rear with the loader specification and at the left side with the standard specification.

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

Controller Specifications

Item	TAKAMAZ & MITSUBISHI M80
Controlled axes	2 axes (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 2 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	F0, 100%
Program number	Program file name 32 characters
Backlash compensation	0~9999μm
Program memory capacity	500Kbyte (1,280m)
Tool offsets	99 sets
Registered programs	1,000 pcs.
Tool geometry/Wear offset	Standard
Canned cycle	G90, G92, G94
Background editing	Standard
Direct drawing dimension programming	Standard
Custom macro	Standard
Nose R compensation	G40, G41, G42
Inch/Metric conversion	G20/G21
Programmable data input	G10
Multiple repetitive cycle	G70~G76
Multiple repetitive cycle II	Pocket-shaped
Canned drilling cycle	Standard
Chamfering/Corner R	Standard
Constant surface speed control	G96, G97
Variable lead thread cutting	G34
Clock function	Standard
Alarm history display	512 sets
Sub-program call	up to 8 loops
Decimal point input	Standard
2nd reference point return	G30
Work coordinate system setting	G50, G54~59
Stored stroke check	Standard
Input/Output interface	SD card, USB Flash Memory, Ethernet
Graphic trace	Standard
Graphic check	Standard
Tool life management	Standard
Multiple M codes in one block	Max. 3
Set of Instruction Manuals for Control Device	CD-ROM

Optional Specifications

Spindle orientation
RS232C

- If you modify the machine or replace the loader yourself, our after-sales service may not be available.

TAKAMAZ

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The user must not export, sell, or relocate the product, to any country with different regulations or standards.

