

WT-250II

NAKAMURA-TOME
PRECISION INDUSTRY CO.,LTD.



Stable accuracy and
high cutting ability

WT-250II has two-opposed spindles, milling on both turrets and a Y-axis on the upper side, ensuring that flexible machining is performed simultaneously on either spindle with the upper and lower turrets. A wide range of parts can be machined faster from bar, shaft, or flange work. In addition, all axis are equipped with boxways, which enable highly rigid and stable machining. A full range of software is also available, such as programming support, tool-management, and setup support. This machine supports customers' production in terms of both hardware and software.

All axis with boxways

WT-250II is designed to be stable by lowering the center of gravity. This machine is equipped with all boxways, traditionally hand-scraped. The hardening and grinding process are applied to all slide-ways.



Upper-L/Lower-R Turning operation



Upper-L/Lower-R Boring operation



L-Simultaneous Upper and Lower
Milling operation



Upper-R/Lower-L Machining
operation



Transfer



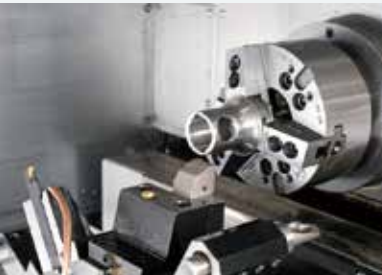
R-Simultaneous Upper and Lower
Milling operation

L-spindle

Standard	
Bar capacity	φ 65mm
Spindle motor	18.5/15kW 4,500min ⁻¹
Option	
Bar capacity	φ 65mm 35/26/22kW 4,500min ⁻¹
Spindle motor	Wide range 15/11kW 4,500min ⁻¹

R-spindle

Standard	
Bar capacity	φ 51mm
Spindle motor	11/7.5kW 5,000min ⁻¹
Option	
Bar capacity	φ 51mm 15/11kW 5,000min ⁻¹
Spindle motor	18.5/15kW 5,000min ⁻¹
Option	
Bar capacity	φ 65mm 11/7.5kW 4,500min ⁻¹
Spindle motor	15/11kW 4,500min ⁻¹ 18.5/15kW 4,500min ⁻¹



All axis with boxways
enable highly rigid and
stable machining.



Upper turret

Standard	
Type of turret head	Dodecagonal drum turret
Number of tool stations	12
Number of indexing positions	24
Option	
Milling motor	5.5/3.7kW 6,000min ⁻¹
Option	
Y1-axis slide travel	± 41mm

Lower turret

Standard	
Type of turret head	Dodecagonal drum turret
Number of tool stations	12
Number of indexing positions	24
Option	
Milling motor	5.5/3.7kW 6,000min ⁻¹
Option (R φ 65)	
Milling motor	5.5/3.7kW 3,600min ⁻¹

NT SmartX

Ease of use and reliability
for an outstanding operator
support
Powered by AI as standard
features

- NT Thermo Navigator AI
- 3D Smart Pro AI

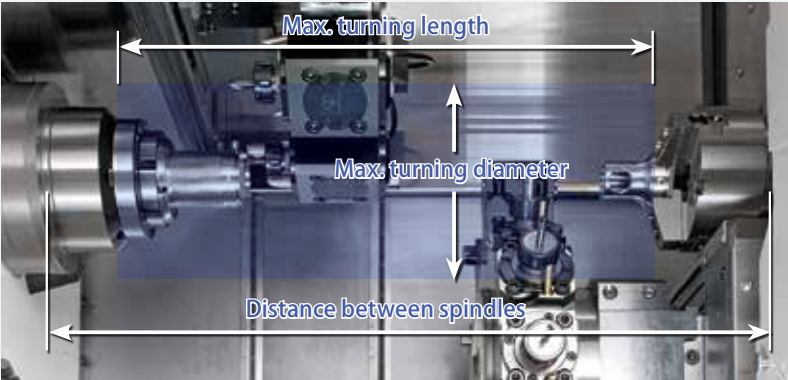


NT SmartX



Parts catcher type G ☐ Option

		φ 65	
Workpiece size	Method	Swing/Hand	
	Diameter	mm	φ 12-65
	Length	mm	15-200
	Weight	kg	3.0
Ejecting method		Belt conveyor & Chute	



Max. turning length 555mm
Max. turning diameter φ250mm
Distance between spindles Max. 885mm
Min. 265mm

※ Specification: L-spindle φ65, R-spindle φ51

WT-250II

Machine Specification

■ Capacity		φ51mm	φ65mm
Max. turning diameter		250mm	
Max. turning length		555mm	
Distance between spindles		max. 885mm/ min. 265mm(L: φ65, R: φ51) max. 870mm/ min. 250mm(L: φ65, R: φ51)	
Bar capacity	L	-	φ65mm
	R	φ51mm	φ65mm(op.)
Chuck size		8" / 6"	

■ Axis travel/Rapid feed

X1/X2 axis slide travel	195mm/195mm
Z1/Z2 axis slide travel	600mm/600mm
Y1-axis slide travel (op.)	±41mm
B2-axis slide travel	620mm
X1/X2 axis rapid feed rate	16m/min
Z1/Z2 axis rapid feed rate	30m/min
Y1-axis rapid feed rate (op.)	6m/min
B2-axis rapid feed	30m/min

■ L-spindle

Spindle speed	-	4,500min ⁻¹
Spindle speed range	-	Stepless
Spindle nose	-	A2-6
Hole through spindle	-	80mm
I. D. of front bearing	-	110mm
Hole through draw tube	-	66mm

■ R-spindle

Spindle speed	5,000min ⁻¹	4,500min ⁻¹
Spindle speed range	Stepless	Stepless
Spindle nose	A2-5	A2-6
Hole through spindle	63mm	80mm
I. D. of front bearing	90mm	110mm
Hole through draw tube	52mm	66mm

● Safety quality specifications

Various interlocks, such safety fences, auto extinguisher devices, and other safety related equipment may be required. These have to be selected during the configuration of the machine.

① Safety devices include electromagnetic door lock, chuck interlock, hydraulic pressure switch, air pressure switch, short circuit breaker and quill interlock. (Door interlock and chuck interlock are standard equipment.)

② In case of automation, various safety fences may be required, such as work stocker safety fences, robot safety fences, ...etc.

During the configuration of machine specifications, please discuss these requirements with the Nakamura-Tome machine sales representative.



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■ C-axis (op.)

Least input increment	0.001°
Least command increment	0.001°
Rapid speed	600min ⁻¹
Cutting feed rate	1 - 4,800° /min
C-axis clamp	Disk clamp
C-axis connecting time	1.5sec.

■ Upper turret

Type of turret head	Dodecagonal drum turret
Number of tool stations	12 (Max. 24)
Number of indexing positions	24
Tool size (square shank)	□25mm
Tool size (round shank)	φ32mm

■ Lower turret

Type of turret head	Dodecagonal drum turret
Number of tool stations	12 (Max. 24)
Number of indexing positions	24
Tool size (square shank)	□25mm
Tool size (round shank)	φ32mm

■ Milling (op.)

Rotary system	Individual rotation	
Milling spindle speed	6,000min ⁻¹ (L: φ65, R: φ51) 3,600min ⁻¹ (L: φ65, R: φ65)	
Spindle speed range	Stepless	
Number of milling stations	12×2	
Holder type and tool size	Straight holder	φ1mm- φ16mm
	Cross holder	φ1mm- φ16mm

■ Drive motor power

L-spindle	18.5/15kW (op. 35/26/22kW, 15/11kW[Wide range])
R-spindle	11/7.5kW (op. 15/11kW, 18.5/15kW)
Milling (op.)	5.5/3.7kW

■ General

Machine height	2,225mm
Floor space (W × D)	4,059mm × 2,314mm
Machine weight (incl. control)	8,700kg

● Precautions on the use of cutting fluids and lubricating oils

Some types of cutting fluids (coolant) are harmful to machine components, causing damages such as peeling of paint, cracking of resin, expanding of rubber, corrosion and rust build up on aluminum and copper. To avoid causing damage to the machine, never use synthetic coolants, or any coolants containing chlorine. In addition, never use coolants and lubricating oils which contain organic solvents such as butane, pentane, hexane and octane.

Machine warranty terms are void for any claims or damage arising from the use of inappropriate cutting fluids or lubricating oils.

* This catalog was published in February 2024. Specifications, illustrations and data given herein are subject to change without notice.

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