

WY-100V

Faster than
the fastest

Innovative
Technology

~Creating new values~

WY-100V

The first of the "V series" multitasking machines, with speed as the design concept behind it.

Y-axis on the upper/lower turret and opposed twin spindles are standard equipment.

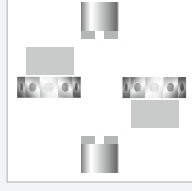
Enhanced processing capabilities and simultaneous left/right and upper/lower machining reinforce speedy production.

Furthermore, we have made software improvements to reduce idle time. It strives to be faster than the fastest that customers have ever experienced.

S×2
Twin Spindle

M×2
Milling Motor

B
Respindle



C×2
C-axes

Y×2
Y-axes

T×2
Double Turrets

30% Reduction in Cycle

* Reduction time varies depending on the shape of the workpiece.

Starting with the implementation of processing idle time, numerous new technologies are incorporated to enhance production efficiency.

Hydraulic valve component (sample)

Material

S45C

Material Size

φ50mm × L196mm



ChronoCut

A unique function by Nakamura-Tome reduces idle time. This new software function during manufacturing with high accuracy, even without any changeover conditions.



Nakamura-Tome WY-100V

Cycle Times are Faster Thanks to Simultaneous Machining with the L/R Spindles and Upper/Lower Turrets.

■ L-spindle

Standard	Option
Bar capacity Spindle speed Spindle motor	Bar capacity Spindle speed Spindle motor
φ42mm 6,000min ⁻¹ 11/7.5kW	φ51mm 6,000min ⁻¹ 15/11kW

Option	Option
Bar capacity Spindle speed Spindle motor	Bar capacity Spindle speed Spindle motor
φ65mm 5,000min ⁻¹ 11/7.5kW	φ51mm 6,000min ⁻¹ 15/11kW

Option	Option
Bar capacity Spindle speed Spindle motor	Bar capacity Spindle speed Spindle motor
φ65mm 5,000min ⁻¹ 11/7.5kW	φ51mm 6,000min ⁻¹ 15/11kW

■ Upper turret

Standard	Option
Milling speed Milling motor	Milling speed Milling motor
6,000min ⁻¹ 7.1/2.2kW	10,000min ⁻¹ 7.5/2.2kW

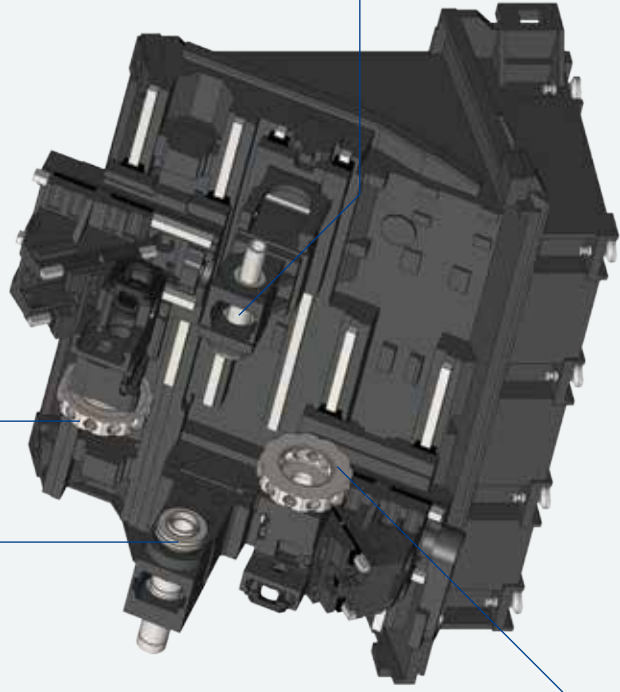
Dodecaagonal drum turret	15-station turret
Y-axis slide travel Number of milling stations / Number of indexing positions	Y-axis slide travel Number of milling stations / Number of indexing positions
±42mm 12 / 24	±31mm 15 / 15

Option	Option
Milling speed Milling motor	Milling speed Milling motor
6,000min ⁻¹ 7.1/2.2kW	10,000min ⁻¹ 7.5/2.2kW

15-station turret	15-station turret
Y-axis slide travel Number of milling stations / Number of indexing positions	Y-axis slide travel Number of milling stations / Number of indexing positions
±31mm 15 / 15	±31mm 15 / 15

Upper turret

L-spindle



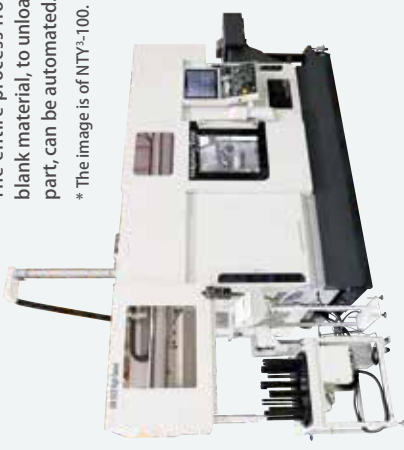
R-spindle

Lower turret

GR-203 High-Speed

The entire process from blank material, to unloaded part, can be automated.

* The image is of NTY²-100.



Large window for easy viewing of the machining area

The door windows are equipped with wipers that keep the windows clean.



Tool setter(op.)

Bar remna

■ R-spindle

■ Capacity		φ42	φ51(op.)	φ65(op.)
Max. turning diameter	12st	200mm		
	15st(op.)	190mm		
Distance between spindles		max.820mm / min.200mm		
Max. turning length		588mm		
Bar capacity		φ42mm	φ51mm	φ65mm
Chuck size		6"		

■ Axis travel

X1/X2 axis slide travel	12st	150mm / 141mm	
	15st(op.)	145mm / 130mm	
Z1/Z2 axis slide travel	12st	588mm / 578mm	
	15st(op.)	588mm / 560mm	
Y1/Y2 axis slide travel	12st	±42mm / ±32.5mm	
	15st(op.)	±31mm / ±31mm	
B2-axis slide travel		620mm	

■ Rapid feed

X-axis rapid feed rate	20m/min
Z-axis rapid feed rate	40m/min
Y-axis rapid feed rate	8m/min
B2-axis rapid feed rate	40m/min

■ L-spindle

Spindle speed	6,000min ⁻¹	6,000min ⁻¹	5,000min ⁻¹
Spindle speed range	Stepless	Stepless	Stepless
Spindle nose	A2-5	A2-5	A2-6
Hole through spindle	56mm	63mm	80mm
I.D. of front bearing	80mm	90mm	110mm
Hole through draw tube	43mm	52mm	66mm

■ R-spindle

Spindle speed	6,000min ⁻¹	6,000min ⁻¹	-
Spindle speed range	Stepless	Stepless	-
Spindle nose	A2-5	A2-5	-
Hole through spindle	56mm	63mm	-
I.D. of front bearing	80mm	90mm	-
Hole through draw tube	43mm	52mm	-

■ C-axis

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	1.5s

*1 The maximum gripping diameter varies depending on the collet manufacturer.

■ Upper/Lower turret		φ42	φ51(op.)	φ65(op.)
Type of turret head	12st	Dodecagonal drum turret		
	15st(op.)	15-station turret		
Number of indexing positions	12st	24		
	15st(op.)	15		
Tool size (square shank)		□20mm		
Tool size (round shank)		φ25mm		

■ Milling

Rotary system		Individual rotation	
Milling spindle speed	12st	6,000min ⁻¹ / 10,000min ⁻¹ (op.)	
	15st(op.)	6,000min ⁻¹	
Spindle speed range		Stepless	
Number of milling stations	12st	12	
	15st(op.)	15	
Holder type and Tool size		Straight holder φ1mm - φ14mm *1	
		Crossholder φ1mm - φ14mm *1	

■ Drive motor

L-spindle	11/7.5kW	11/7.5kW / 15/11kW(op.)
R-spindle	11/7.5kW	11/7.5kW / 15/11kW(op.)
Milling	6,000min ⁻¹	7.1/2.2kW
	10,000min ⁻¹ (op.)	7.5/2.2kW

■ General

Height	2,255.3mm
Max. height of movable part	2,119.4mm
Floor space (W × D)	3,849.1mm × 2,245.7mm
Machine weight (incl. control)	9,500kg (Standard)

■ Power supply

Power supply	35.6kVA (L-spindle 11/7.5kW, R-spindle 11/7.5kW)
	38.7kVA (L-spindle 15/11kW, R-spindle 11/7.5kW)
	41.1kVA (L-spindle 15/11kW, R-spindle 15/11kW)

● 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 the 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.

● 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, expansion 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.



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