

NTY³-150V

NAKAMURA-TOME
PRECISION INDUSTRY CO.,LTD.

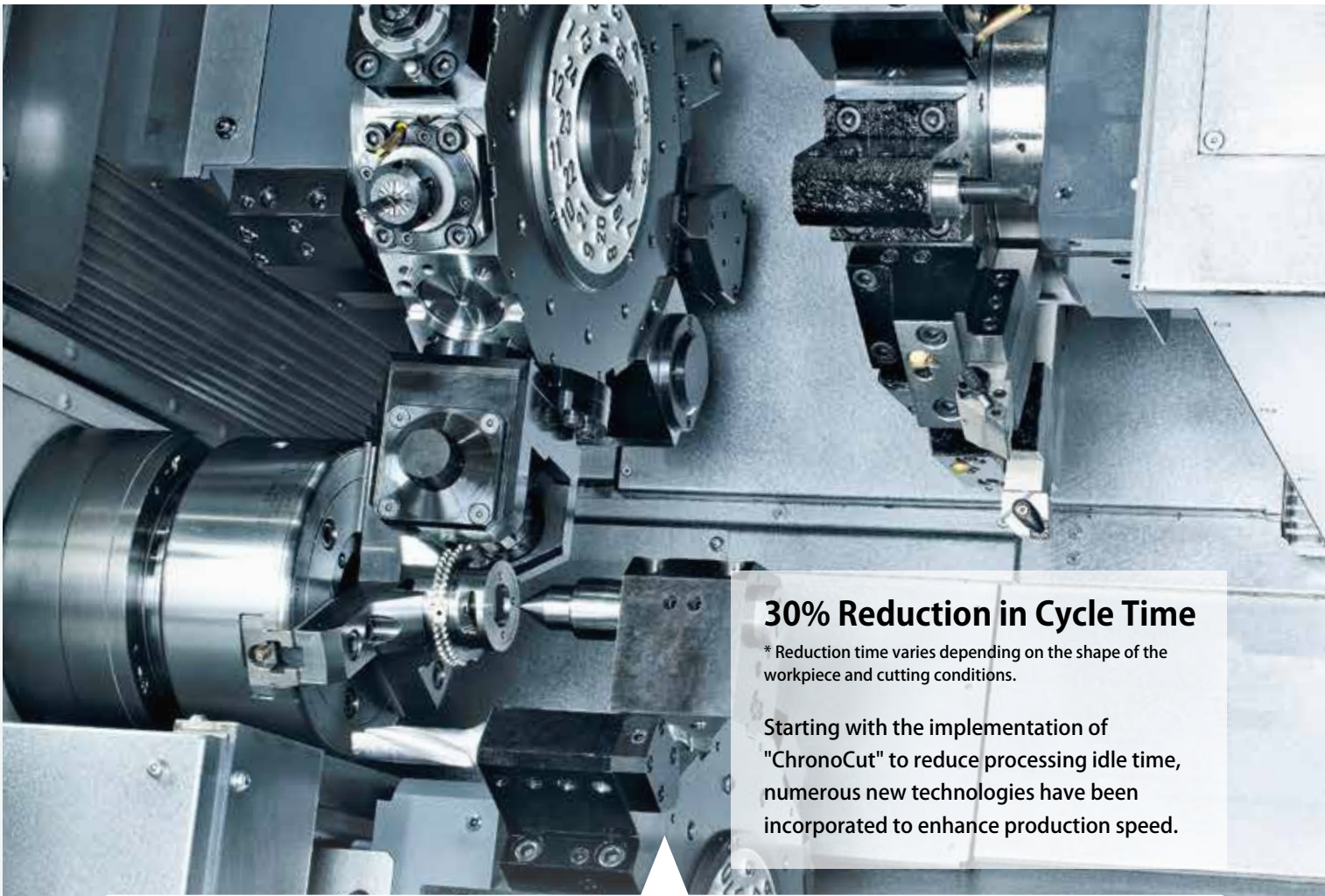
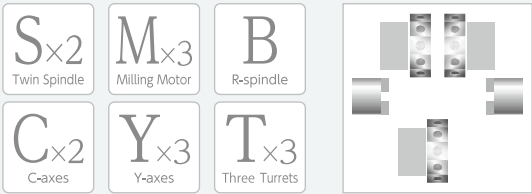
Faster than
the fastest

Innovative
Technology

~Creating new values~

NTY³-150V

The fourth 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.



30% Reduction in Cycle Time

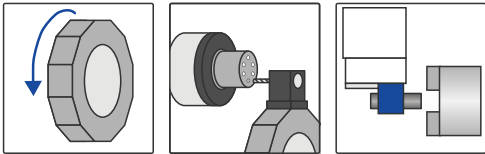
* Reduction time varies depending on the shape of the workpiece and cutting conditions.

Starting with the implementation of "ChronoCut" to reduce processing idle time, numerous new technologies have been incorporated to enhance production speed.

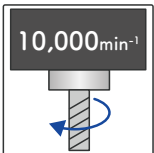


ChronoCut

A unique function by Nakamura-Tome designed to reduce idle time. This new software minimizes idle time during manufacturing without compromising accuracy, even without any changes to the cutting conditions.

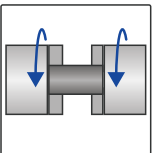


- High-speed indexing
- High-speed spindle synchronization
- Execution of multiple M-codes within the same block
- High-speed rigid tapping
- Reduction of PC-G unloading time, etc.



UP Machining conditions

By improving the machining capabilities of the milling speed, torque, and more, the machine achieves high performance under demanding conditions.



UP Acceleration / Deceleration

The acceleration and deceleration during starting and stopping have been improved, enabling quick attainment to the maximum speed.

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

The combination of bar capacity and motor is available from following patterns.

Standard		Option	
L-spindle	R-spindle	L-spindle	R-spindle
Bar capacity φ51mm (A2-5)	Bar capacity φ51mm (A2-5)	Bar capacity φ65mm (A2-6)	Bar capacity φ51mm (A2-5)
Spindle speed 6,000min ⁻¹	Spindle speed 6,000min ⁻¹	Spindle speed 5,000min ⁻¹	Spindle speed 6,000min ⁻¹
Spindle motor 15/11kW	Spindle motor 15/11kW	Spindle motor 18.5/11kW	Spindle motor 15/11kW

Option		Option	
L-spindle	R-spindle	L-spindle	R-spindle
Bar capacity φ65mm (A2-6)	Bar capacity φ65mm (A2-6)	Bar capacity φ80mm (A2-8)	Bar capacity φ65mm (A2-6)
Spindle speed 5,000min ⁻¹	Spindle speed 5,000min ⁻¹	Spindle speed 4,000min ⁻¹	Spindle speed 5,000min ⁻¹
Spindle motor 18.5/11kW	Spindle motor 18.5/11kW	Spindle motor 28/15kW	Spindle motor 18.5/11kW



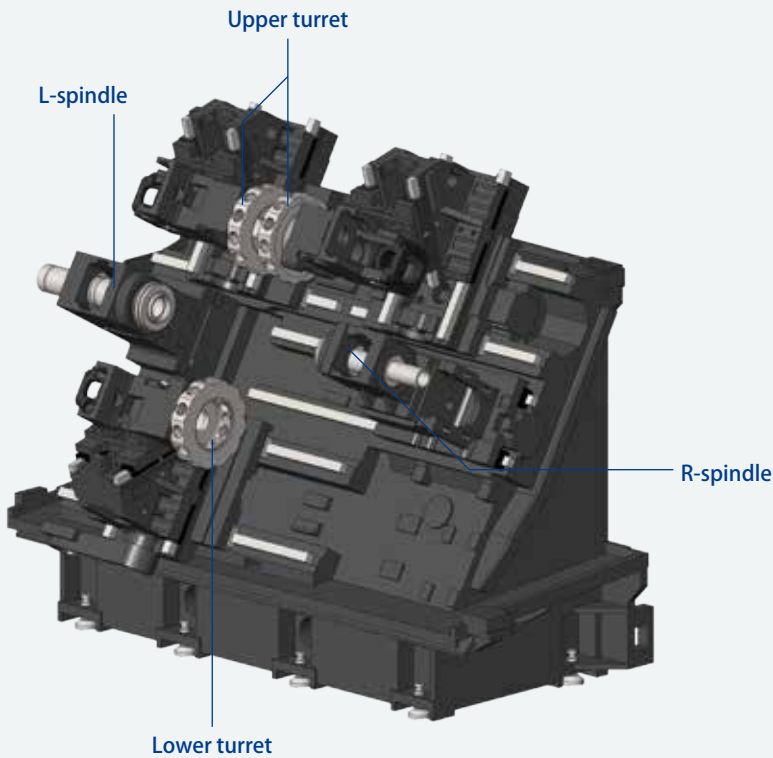
Y-axis and Milling are standard.



Upper/Lower turret

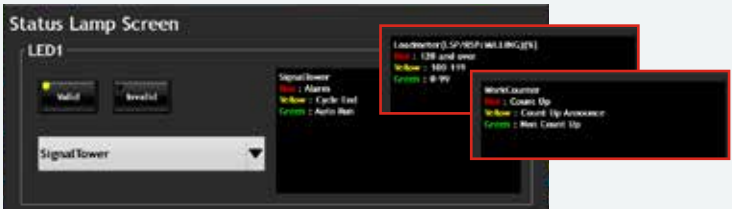
Y-axis slide travel	Upper : ±45mm Lower : ±35mm
Number of milling stations / Number of indexing positions	12 / 24

Standard	
Milling speed	10,000min ⁻¹
Milling motor	7.5/3.7kW



Status Lamp

The lamps on the front doors can be used as signal lights, changing color according to the machine's operating status. They can also display different colors based on the Loadmeter or Work Counter values, or be set to any custom color.



NT SmartX
19 inch touch screen

With a movable operation panel, the angle can now be adjusted by the operator.



Large window for easy viewing of the machining area

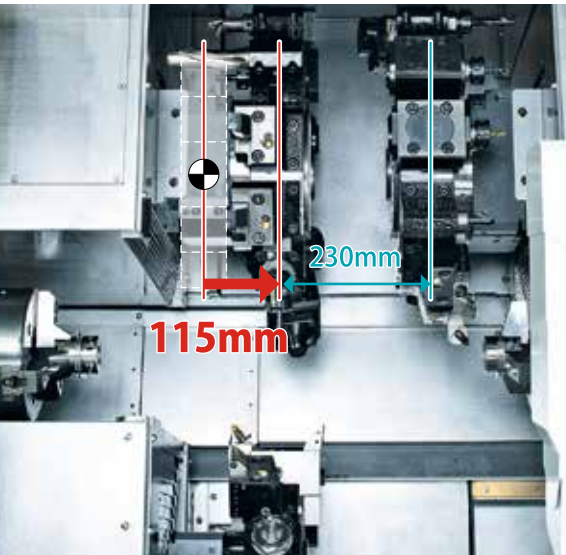
The door windows are equipped with wipers that keep the windows clean.



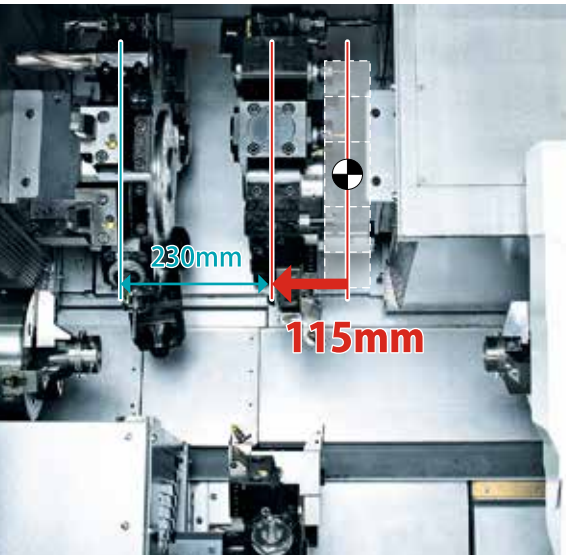
Cross Over Travel for Upper Z-axis

When one turret is retracted in the Z-axis direction, the other turret can advance beyond its Z-axis reference point, ensuring a larger Z-axis travel. This greatly increases the machining range of the upper turrets.

L-upper turret / Z1 stroke : 115mm



R-upper turret / Z2 stroke : 115mm



Various Options to Meet our Customer's Needs.

Oil skimmer

Liquid level detection

High pressure coolant unit

Coolant temperature control unit

Coolant line filter

Chip bucket

Chip conveyor

Barfeeder

Signal tower

Fire prevention damper

Automatic fire extinguisher

Mist collector

Chip conveyor

- Side
- Right side & Rear
- Left side & Rear

FogFree

Built-in mist collector.

Drill breakage detection

Coolant pipe above spindle

Fixed air blow

Internal spindle air/oil blow

Turret air/oil blow

Parts catcher type G

Bar remnant parts catcher

The bar remnants can be collected from the chute in the lower right corner of the machine.

HAN-BEI (in-process measuring system)

Tool setter

Compact loader

The entire process from loading the blank material, to unloading a finished part, can be automated.

GR-203 High-Speed

The entire process from loading the blank material, to unloading a finished part, can be automated.

* The image is of NTY³-100.

Nakamura-Tome is committed to the environment as an eco-friendly manufacturer.

1 Work light off function

2 Motor fan stop except during auto operation

3 Servo power off except during auto operation

4 Energy saving mode for each axis acc./dec.

5 LED back light off function

6 Electric consumption display function on the operation screen

7 Use of regenerative energy

8 Standard chip conveyor intermittent timer

9 Mist lubrication for guide block stops when milling is stopped.

10 Hyd. and Lub. pump motor stop except during auto operation



Power consumption monitoring screen

The monitor, lighting, and servo can be set to automatically turn off from the power saving setting screen. The amount of power consumption and the amount of power reduction by power saving settings are displayed.

Use of regenerative energy

Addition of ECO mode function to NT SmartX

Improvement of power control system

Inverter-Driven Hydraulic Power Unit

Grease lubrication for all liner axes

■ Capacity		φ51	φ65(op.)	φ80(op.)
Max. turning diameter		225mm		
Distance between spindles		max. 970mm / min. 200mm		
Max. turning length		685mm		
Bar capacity	L-spindle	φ51mm	φ65mm	φ80mm
	R-spindle	φ51mm	φ65mm	-
Chuck size		6", 8"		8"

■ Axis travel

X1-axis slide travel	160.5mm	150.5mm
X2-axis slide travel	160.5mm	
X3-axis slide travel	160.5mm	150.5mm
Z1-axis slide travel	350mm	
Z2-axis slide travel	350mm	
Z3-axis slide travel	685mm	
Y1-axis slide travel	±45mm	
Y2-axis slide travel	±45mm	
Y3-axis slide travel	±35mm	
B2-axis slide travel	770mm	

■ 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	5,000min ⁻¹	4,000min ⁻¹
Spindle speed range	Stepless	Stepless	Stepless
Spindle nose	A2-5	A2-6	A2-8
Hole through spindle	63mm	80mm	90mm
I.D. of front bearing	90mm	110mm	120mm
Hole through draw tube	52mm	66mm	81mm

■ R-spindle

Spindle speed	6,000min ⁻¹	5,000min ⁻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	-

■ 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

■ Upper/Lower turret		φ51	φ65(op.)	φ80(op.)
Type of turret head		Dodecagonal drum turret		
Number of indexing positions		24		
Tool size (square shank)		□25mm		
Tool size (round shank)		φ32mm		

■ Milling

Rotary system	Individual rotation
Milling spindle speed	10,000min ⁻¹
Spindle speed range	Stepless
Number of milling stations	12 × 3
Holder type and Tool size	Straight holder φ1mm ~ φ20mm
	Cross holder φ1mm ~ φ20mm

■ Drive motor

L-spindle	15/11kW	18.5/11kW	28/15kW
R-spindle	15/11kW	18.5/11kW	-
Milling	7.5/3.7kW (40.0N·m)		

■ General

Height		2,010mm
Max. height of movable part		2,280mm
Floor space (W × D)	L-spindle φ51, φ65	4,244.2mm × 2,261mm
	L-spindle φ80	4,331.2mm × 2,261mm
Machine weight (incl. control)		11,500kg

■ Power supply

Power supply	54.6kVA (L-spindle 15/11kW, R-spindle 15/11kW)
	54.6kVA (L-spindle 18.5/11kW, R-spindle 15/11kW)
	54.6kVA (L-spindle 18.5/11kW, R-spindle 18.5/11kW)
	58.1kVA (L-spindle 28/15kW, R-spindle 18.5/11kW)

● Safety quality specifications

Various interlocks, such as 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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* This catalog was published in July 2025. Specifications, illustrations and data given herein are subject to change without notice.

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