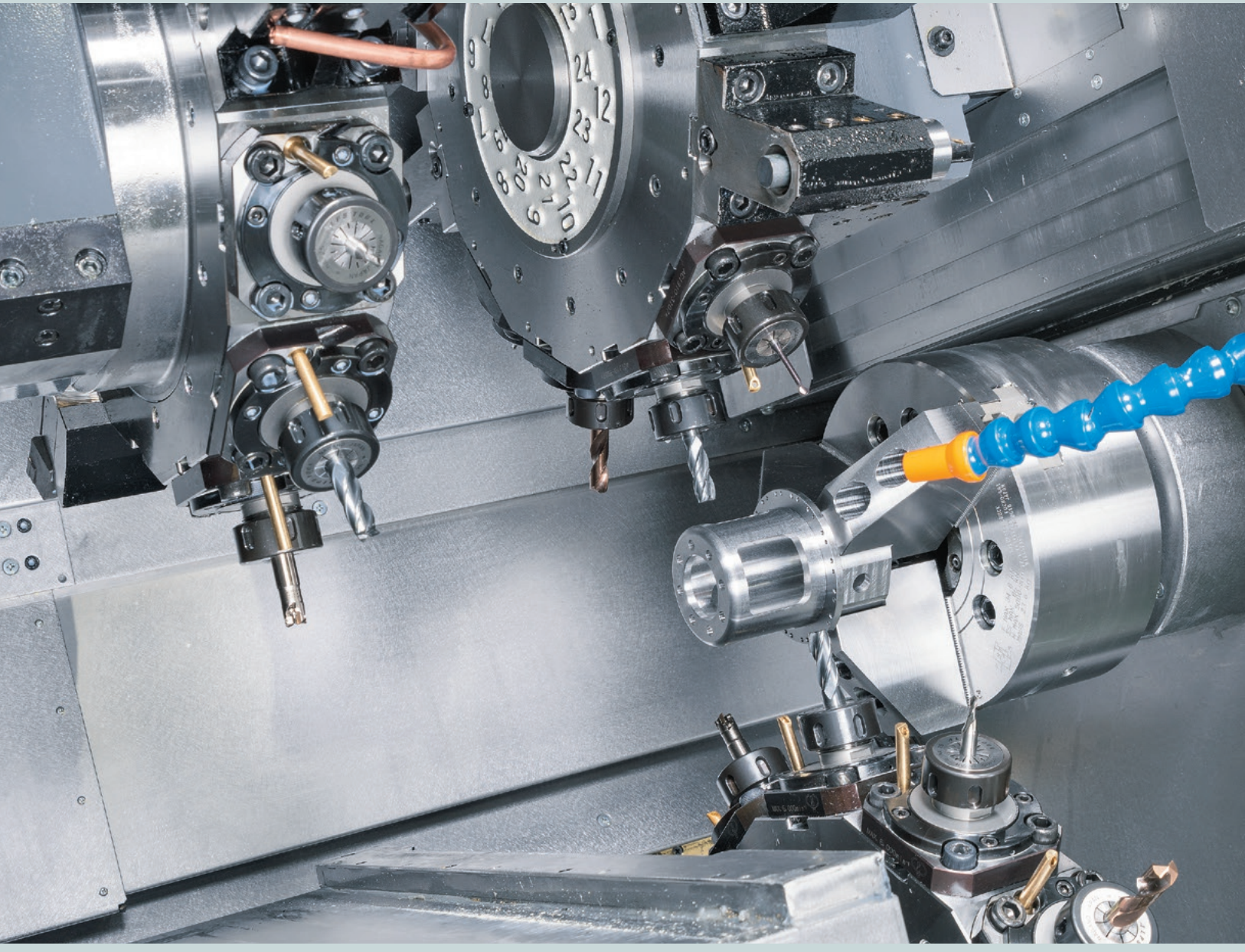
GENERAL CATALOG

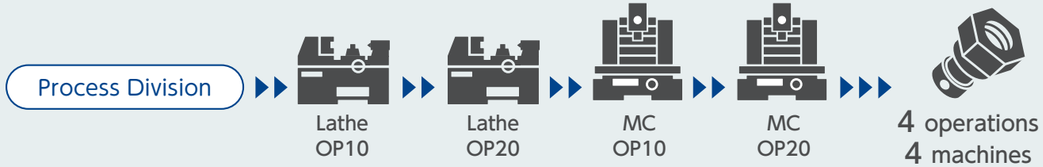


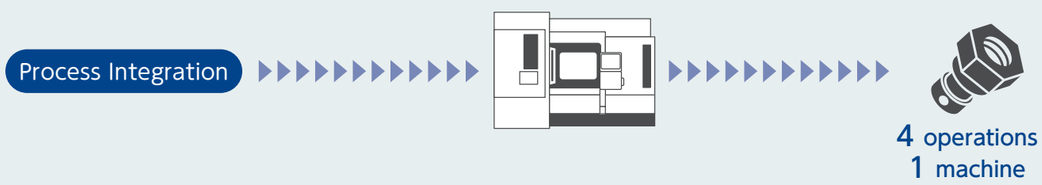
NAKAMURA-TOME
PRECISION INDUSTRY CO.,LTD.

From Blank Materials to Finished Products in ONE MACHINE

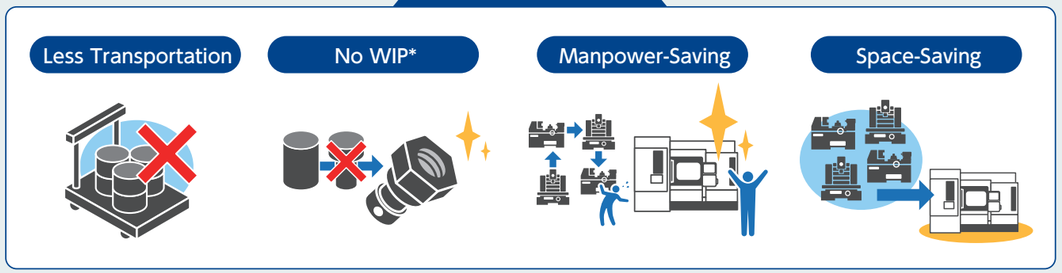
Nakamura-Tome's multitasking machines can handle various processing methods such as turning, milling, hobbing, and more. In other words, even for workpieces with multiple processing steps, it is possible to process everything to the finished products with just one machine by simply loading blank materials. These are some of the many benefits of making a part complete with a single multitasking machine:

- Reduction of Transportation costs.
- Reduction of Work-in-progress inventory.
- Reduction of Operator man-hours.
- Reduction of Floor space, etc.





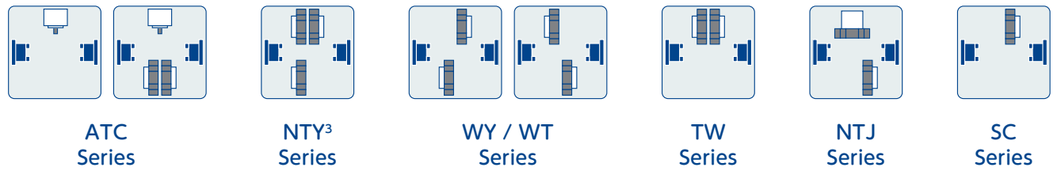
Benefits



* WIP: Work-in-progress

Wide Range of Capabilities

Product Line-up



We meet our customers' needs with a wide range of machine configurations in our lineup and strong adaptability to work requirements.

ATC series

* The photos of the machines shown in the chart include some options.

		Unit	JX-200			JX-250			
			ϕ51	ϕ65	ϕ80(op.)	ϕ65	ϕ71(op.)	ϕ80(op.)	ϕ90(op.) *1
■ Capacity									
Max. turning diameter / Max. turning length		mm	325 / 1,058			320 / 1,650			320 / 1,587
Distance between spindles【max. / min.】		mm	1,250 / 240			1,850 / 300			1,787 / 237
Distance between centers【max. / min.】		mm	–			–			
Bar capacity	L	mm	–	ϕ65	ϕ80(op.)	ϕ65	ϕ71(op.)	ϕ80(op.)	ϕ90(op.)
	R	mm	ϕ51	ϕ65(op.)	–			–	–
Chuck size		inch	6",8"			8", 10", 12", 15"		8", 10", 12"	
■ Slide travel									
Y-axis slide travel		mm	Y1:±105 / Y2:±35			Y1:±125 / Y2:±40 /(op. Y3:±40)			Y1:±125 / Y2:±40 / -
B2-axis slide travel		mm	770			1,550			
■ L/R spindle									
Spindle speed	L	min-1	–	4,500	3,500	4,500	4,500	3,500	2,500
	R		6,000	4,500(op.)	–	4,500 *2	4,500	–	–
Spindle motor	L	kW	–	15/11	18.5/15	18.5/15		18.5/15, 22/18.5	22/18.5
	R		11/7.5	15/11 (op.)		18.5/15	18.5/15, 15/11	–	–
■ Tailstock(op.)									
Driving system		–	–			–			
Quill taper		–	–			–			
Range of thrust force		kN	–			–			
■ Tool spindle									
Tool spindle speed		min-1	12,000 (op. 18,000)			12,000 (op. 18,000)			
Tool spindle motor		kW	15/11			22/15			
B-axis swiveling range		–	±95°			±120°			
Tool coupling type		–	CAPTO C6 (op. HSK-T63)			CAPTO C6 (op. HSK-T63)			
■ ATC									
Number of tools		–	80 (op. 40, 120)			80 (op. 40, 120)			
Long-tool ATC storage capacity / Length(op.)		– /mm	–			–			
■ Lower turret									
Number of turrets		–	1			1 (op. 2)			
Type of turret head / Number of indexing pos.		–	Dodecagonal drum turret / 24			Dodecagonal drum turret / 24			
Milling spindle speed		min-1	6,000 (op. 8,000)			6,000			
Milling motor		kW	5.5/3.7			5.5/3.7			
■ General									
Machine Dimensions	Height	mm	2,925			2,954			
	Width		5,250			5,578.5			
	Depth		2,987.2			3,257.7			
Machine weight (incl. control)		kg	23,000			23,000			

*1 It is only available for single turret machine.
It is NOT available for gantry loader specifications.

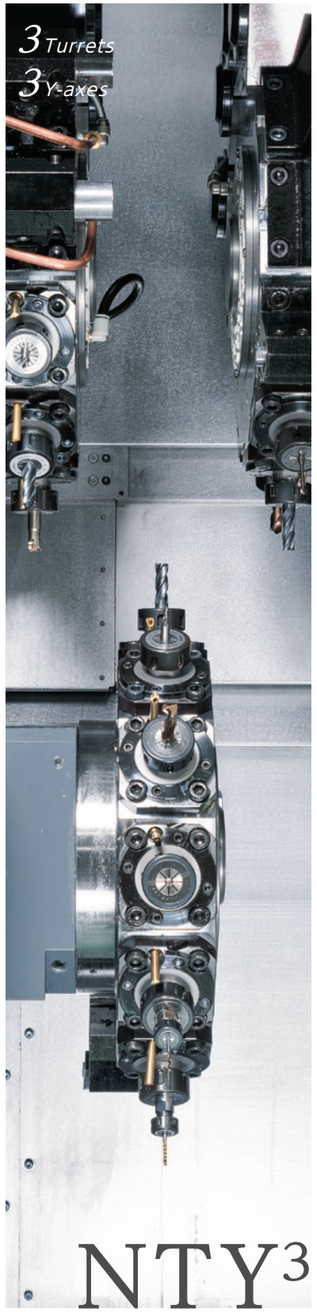
*2 There is limitation on maximum spindle speed with 15-inch chuck.

MX-100		NTRX-300					NTRX-300L				
ϕ51	ϕ65(op.)	ϕ65	ϕ71(op.)	ϕ80A(op.)	ϕ80B(op.)	ϕ90(op.)	ϕ65	ϕ71(op.)	ϕ80A(op.)	ϕ80B(op.)	ϕ90(op.)
305 / 834		640 / 1,100					640 / 1,600				
1,000 / 230		1,350 / 250					1,850 / 300 *5				
–		1,225 / 125					1,725 / 175 *6				
ϕ51	ϕ65(op.)	ϕ65	ϕ71(op.)	ϕ80(op.) *3	ϕ80(op.) *4	ϕ90(op.)	ϕ65	ϕ71(op.)	ϕ80(op.) *3	ϕ80(op.) *4	ϕ90(op.)
	–					ϕ80(op.) *4					ϕ80(op.) *4
8"		8", 10"					8", 10"				
Y1:±105 / Y2: –		±125					±125				
770		1,100					1,550 (1,015 / Steady rest)				
6,000	3,4,500	4,500	3,500	3,500	2,500	2,500	4,500	3,500	3,500	2,500	2,500
	–					–					–
11/7.5	15/11	15/11 / 22/18.5(op.)		22/18.5(op.)			15/11 / 22/18.5(op.)		22/18.5(op.)		
11/7.5	–	15/11 / 22/18.5(op.)		22/18.5(op.)		–	15/11 / 22/18.5(op.)		22/18.5(op.)		–
–		NC control servo-driven type					NC control servo-driven type				
–		MT-5(Built-in center)					MT-5(Built-in center)				
–		2.5～6.5					2.5～6.5				
12,000 (op. 20,000)		8,000 (op. 12,000)					8,000 (op. 12,000)				
11/7.5		22/15					22/15				
±95°		-120° , +105°					±120°				
CAPTO C4 (op. HSK-T40)		CAPTO C6 (op. HSK-A63)					CAPTO C6 (op. HSK-A63)				
36 (op. 48, 72)		40 (op. 60, 80, 120)					40 (op. 60, 80, 120)				
–		—					3 / ϕ65× L450*7				
1		–					–				
Dodecagonal drum turret / 24		–					–				
6,000	6,000	8,000(op.)	–				–				
7.1/2.2	7.1/2.2	6/1.5 (op.)	–				–				
2,662		2,615					2,615				
4,350		4,529					5,440				
2,795		2,670					2,670				
14,000		17,000					19,000				

*3 Direct connecting pipe *4 Joint connection *5 R-spindle + Steady rest specification : max.1,850mm / min.835mm
*6 Tailstock + Steady rest specification : max.1,725mm / min.710mm *7 Not available when Unloading Hand Gripper(op.) is selected

NTY^3 series

* The photos of the machines shown in the chart include some options.



NTY^3-100V

NTY^3-150

NTY^3-250

		Unit	NTY^3-100V			NTY^3-150		NTY^3-250				
			ϕ42	ϕ51(op.)	ϕ65(op.)	ϕ51	ϕ65(op.)	ϕ51	ϕ65	ϕ71(op.)	ϕ80(op.)	
■ Capacity												
Max. turning diameter	12st	mm	200			225		225			180	
	15st		190			–		–				
Max. turning length		mm	588			685		Upper : 310.5 / Lower : 905.5				
Distance between spindles [max. / min.]		mm	820 / 200			970 / 200		1,200 / 255				
Bar capacity	L	mm	ϕ42	ϕ51(op.)	ϕ65(op.)	ϕ51	ϕ65(op.)	–	ϕ65	ϕ71(op.)	ϕ80(op.)	
	R				–		–	ϕ51	ϕ65 (op.)		–	
Chuck size	L / R	inch	6" / 6"			6" / 6"		8" / 6"				
■ Slide travel												
Y1/Y2/Y3 axis slide travel	12st	mm	±42 / ±42 / ±32.5			±45 / ±45 / ±35		-61, +51 / -61, +51 / -51, +61				
	15st		±31			–		–				
B2-axis slide travel		mm	620			770		945				
■ L/R spindle												
Spindle speed	L	min^{-1}	6,000	6,000	5,000	5,000	4,500	–	5,000 (op. 4,000)		3,500	
	R				–		–	5,000			–	
Spindle motor	L	kW	11/7.5	11/7.5 (op. 15/11)	11/7.5 (op. 15/11)	15/11		–	18.5/11 (op. 26/22)			
	R				–	11/7.5 (op.15/11)		18.5 / 11			–	
■ Upper/Lower turret												
Number of turrets(Upper/Lower)		–	2 / 1			2 / 1		2 / 1				
Type of turret head / Number of indexing pos.	12st	–	Dodecagonal drum turret / 24			Dodecagonal drum turret / 24		Dodecagonal drum turret / 24				
	15st		15 stations turret / 15			–		–				
■ Milling												
Milling spindle speed	12st	min^{-1}	6,000 (op. 10,000)			6,000 (op. 8,000)		6,000				
	15st		6,000			–		–				
Milling motor		kW	7.1/2.2 (op. 7.5/2.2)			5.5/3.7		5.5/3.7				
Rotary system / Number of milling stations	12st	–	Individual rotation / 12			Individual rotation / 12		Individual rotation / 12				
	15st		Individual rotation / 15			–		–				
■ General												
Machine Dimensions	Height	mm	2,255.3			2,200		2,395				
	Width		3,864.2			3,814		4,900				
	Depth		2,245.7			2,257		2,580				
Machine weight (incl. control)		kg	10,000			10,500		14,425				

WY series

* The photos of the machines shown in the chart include some options.

WY-100V

WY-150V

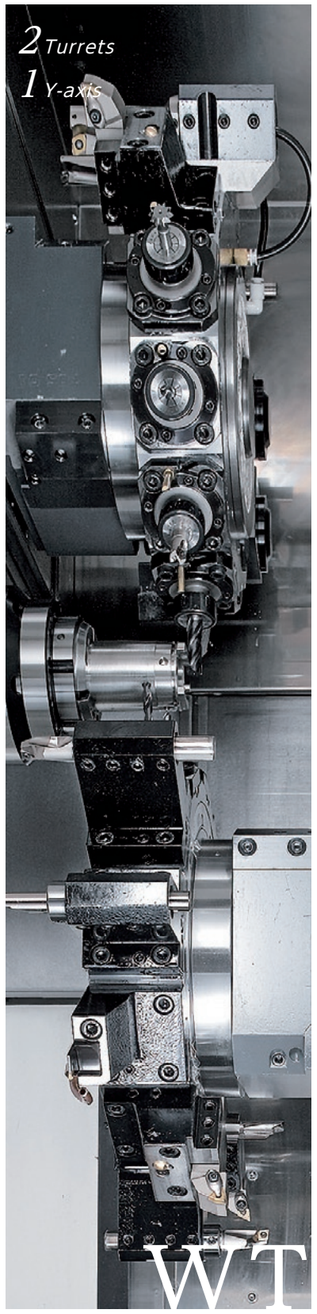
WY-250L

		Unit	WY-100V		
			ϕ42	ϕ51(op.)	ϕ65(op.)
Capacity					
Max. turning diameter	12st	mm	200		
	15st		190		
Max. turning length		mm	588		
Distance between spindles [max. / min.]		mm	820 / 200		
Bar capacity	L	mm	ϕ42	ϕ51(op.)	ϕ65(op.)
	R				–
Chuck size	L / R	inch	6" / 6"		
Slide travel					
Y1/Y2 axis slide travel	12st	mm	±42 / ±32.5		
	15st		±31		
B2-axis slide travel		mm	620		
L/R spindle					
Spindle speed	L	min^{-1}	6,000	6,000	5,000
	R				–
Spindle motor	L	kW	11/7.5	11/7.5 (op. 15/11)	11/7.5 (op. 15/11)
	R				–
Upper/Lower turret					
Number of turrets(Upper/Lower)		–	1 / 1		
Type of turret head / Number of indexing pos.	12st	–	Dodecagonal drum turret / 24		
	15st		15 stations turret / 15		
Milling					
Milling spindle speed	12st	min^{-1}	6,000 (op. 10,000)		
	15st		6,000		
Milling motor		kW	7.1/2.2 (op. 7.5/2.2)		
Rotary system / Number of milling stations	12st	–	Individual rotation / 12		
	15st		Individual rotation / 15		
General					
Machine Dimensions	Height	mm	2,255.3		
	Width		3,849.1		
	Depth		2,245.7		
Machine weight (incl. control)		kg	9,500		

WY-150V			WY-250L			
ϕ51	ϕ65(op.)	ϕ80(op.)	ϕ51	ϕ65(R op.)	ϕ71(op.)	ϕ80(op.)
225			225			180
–			–			
685			910			
970 / 200			1,200 / 255			
ϕ51	ϕ65(op.)	ϕ80(op.)	–	ϕ65	ϕ71 (op.)	ϕ80 (op.)
		–	ϕ51	ϕ65 (op.)	–	–
6", 8"		8"	8" / 6"			
±45 / ±35			±50 / -50,+20			
–			–			
770			945			
6,000	5,000	4,000	–	4,500	4,000	3,500
		–	5,000	4,500	–	
15/11	18.5/11	28/15	–	18.5/11 (op. 26/22)		
		–	15/11 (op. 18.5/15)			–
1 / 1			1 / 1			
Dodecagonal drum turret / 24			Dodecagonal drum turret / 24			
–			–			
10,000			6,000			
–			–			
7.5/3.7			5.5/3.7 (op. 7.5/3.7)			
Individual rotation / 12			Individual rotation / 12			
–			–			
2,280			2,395			
4,245.2			4,620			
2,389.7			2,593			
11,000			13,000			

WT series

* The photos of the machines shown in the chart include some options.



NT-Flex

WT-100

WT-150II

WT-250II

WT-300

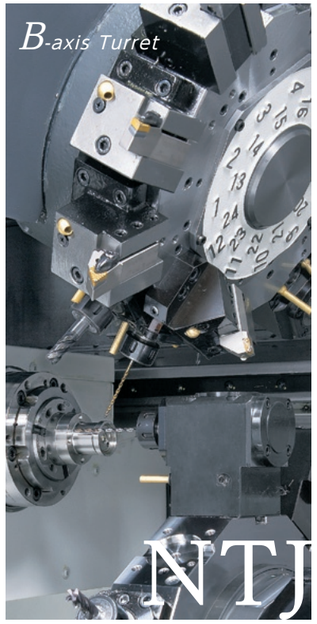
		Unit	NT-Flex		WT-100
			ϕ32	ϕ38(op.)	ϕ42
Capacity					
Max. turning diameter	Upper	mm	150		190
	Lower				
Max. turning length		mm	250		503
Distance between spindles [max. / min.]		mm	655 / 200		735 / 210
Bar capacity	L	mm	ϕ32	ϕ38 (op.)	ϕ42
	R				
Chuck size		inch	5"		6"
Slide travel					
Y-axis slide travel (Upper)		mm	±25		±31
B2-axis slide travel		mm	455		525
L/R spindle					
Spindle speed	L	min-1	8,000		6,000
	R				
Spindle motor	L	kW	7.5/5.5		11/7.5
	R				
Upper/Lower turret					
Number of turrets(Upper/Lower)		–	1 / 1		1 / 1
Type of turret head / Number of indexing pos.		–	Dodecagonal drum turret / 24		Dodecagonal drum turret / 24
Milling					
Milling spindle speed		min-1	8,000 (op. 10,000)		6,000
Milling motor		kW	7.1/2.8 (op. 7.5/2.2)		7.1/2.2
Rotary system / Number of milling stations		–	Individual rotation / 12		Individual rotation / 12
General					
Machine Dimensions	Height	mm	2,213		1,940
	Width		3,500		2,630
	Depth		1,380		1,923
Machine weight (incl. control)		kg	6,500		5,700

*8 Tooling dimensions are limited when installing an 8-inch chuck.

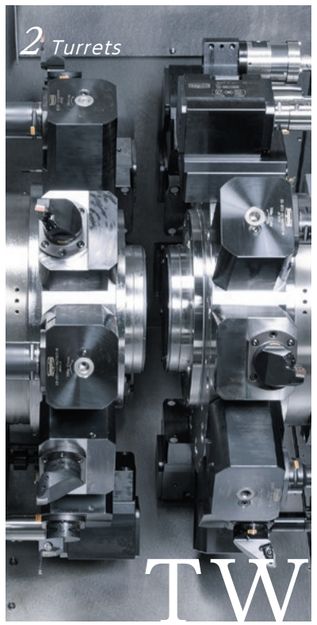
WT-150II		WT-250II		WT-300			
ϕ51	ϕ65(op.)	ϕ51	ϕ65	ϕ65	ϕ71(op.)	ϕ80(op.)	ϕ102(op.)
190		250		270		199	199
						270	270 (L: ϕ102 / R: ϕ65) 229 (L: ϕ102 / R: ϕ102)
515		555		780			
800 / 200		885 / 265 (L: ϕ65 / R: ϕ51) 870 / 250 (L: ϕ65 / R: ϕ65)		1,100 / 250			
ϕ51	ϕ65 (op.)	–	ϕ65	ϕ65	ϕ71 (op.)	ϕ80 (op.)	ϕ102 (op.)
	–	ϕ51	ϕ65 (op.)		–	–	
6", 8" *8		8", 6"		8"		12"	
±35 (op.)		±41 (op.)		±60 (op.)		±40 (op.)	
600		620		850			
5,000	4,500	–	4,500	4,500	4,000	3,500	2,500
	–	5,000	4,500(op.)		–	–	
15/11		18.5/15 (op. 35/26/22, 15/11 Wide range)		15/11 (op. 18.5/15, 22/18.5)			
11/7.5		11/7.5 (op. 15/11, 18.5/15)		15/11 (op. 18.5/15)			
1 / 1		1 / 1		1 / 1			
Dodecagonal drum turret / 24		Dodecagonal drum turret / 24		Dodecagonal drum turret / 24			
6,000(op.)		6,000 (L:65 / R:51)(op.) 3,600 (L:65 / R:65)(op.)		3,600(op.)			
5.5/3.7(op.)		5.5/3.7(op.)		5.5/3.7(op.)			
Individual rotation / 12(op.)		Individual rotation / 12(op.)		Individual rotation / 12(op.)			
1,858.5		2,225		2,276			
3,675		4,059		4,230	4,275		4,345
2,258.2		2,314		2,487			
9,000		8,700		14,000			

NTJ series / TW series

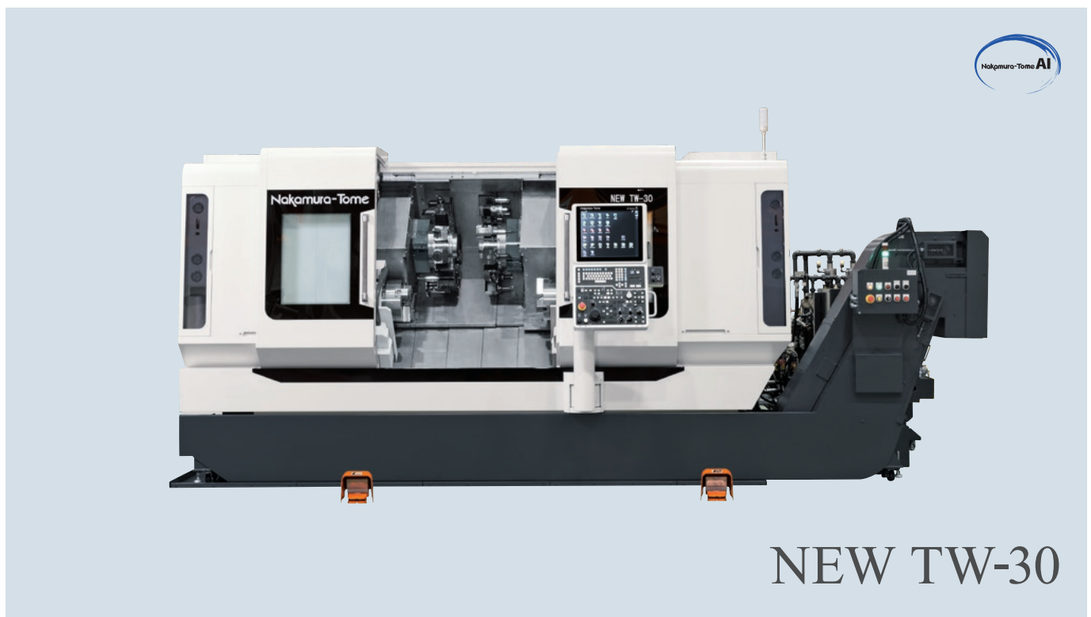
* The photos of the machines shown in the chart include some options.



		Unit	NTJ-100		Super NTJ	
			ϕ51	ϕ65(op.)	ϕ65	ϕ51
Capacity						
Max. turning diameter		mm	175		190	
Max. turning length		mm	678		620	
Distance between spindles [max. / min.]		mm	910 / 200		970 / 210	
Bar capacity	L	mm	ϕ51	ϕ65(op.)	ϕ65	ϕ51(op.)
	R				–	ϕ51
Chuck size		inch	6"		6"	
Slide travel						
Y1/Y2 axis slide travel		mm	±40 / ±32.5		±45 / –	
B2-axis slide travel		mm	680		760	
L/R spindle						
Spindle speed	L	min⁻¹	5,000	4,500	4,500	5,000
	R				–	
Spindle motor	L	kW	11/7.5		15/11	
	R		11/7.5		11/7.5	
Upper/Lower turret						
Number of turrets(Upper/Lower)		–	1 / 1		1 / 1	
Type of turret head / Number of indexing pos.		–	Dodecagonal drum turret / 24		Dodecagonal drum turret / 24	
Number of tool stations	Standard	–	Turning/Milling tool 24/0 - 0/12		Turning/Milling tool 24/0 - 0/12	
	Extra tools specifications(op.)		Turning/Milling tool 24/0 - 6/12		–	
Swiveling range(Upper)		–	±91°		±91°	
Milling spindle speed		min⁻¹	6,000		6,000	
Milling motor		kW	7.1/2.2		5.5/3.7	
General						
Machine Dimensions	Height	mm	2,565		2,170	
	Width		3,799		3,660	
	Depth		2,110		2,320	
Machine weight (incl. control)		kg	10,000		12,500	



		Unit	NEW TW-30
			ϕ71
Capacity			
Max. turning diameter		mm	335 (op. large swing spec. 400)
Max. turning length		mm	300
Distance between spindles [max. / min.]		mm	1,300 / 320
Bar capacity		mm	ϕ71
Chuck size		mm	10"
Slide travel			
RZ-axis slide travel		mm	980
L/R spindle			
Spindle speed		min⁻¹	3,500
Spindle motor	L	kW	22/18.5
	R		22/18.5
Upper turret			
Number of turrets		–	2
Type of turret head / Number of indexing pos.		–	Dodecagonal drum turret / 12
Milling (op.)			
Milling spindle speed		min⁻¹	6,000
Milling motor		kW	7.5/3.7
General			
Machine Dimensions	Height	mm	2,250
	Width		4,370
	Depth		2,125
Machine weight (incl. control)		kg	14,500



SC series

* The photos of the machines shown in the chart include some options.

SC-100

SC-100X²

SC-200IIL

SC-200II

AS-200L

AS-200

SC-300IIL

SC-300II

SC-450L

	Unit	SC-100X²	SC-100	SC-200II		SC-200IIL *11	
		ϕ51	ϕ51	ϕ65	ϕ71(op.)	ϕ65	ϕ71(op.)
■Capacity							
Max. turning diameter	mm	195	230	390 / 340(op. 16st) *9		390 / 340(op. 16st)	
Max. turning length	mm	400	400 / 300(op. Tailstock)	317.8		522.8	
Distance between centers	mm	-	430	510		715	
Bar capacity	mm	ϕ51	ϕ51	ϕ65	ϕ71	ϕ65	ϕ71(op.)
Chuck size	mm	6"	6"	8"	10"	8"	10"
■Slide travel							
Y-axis slide travel	mm	±40	±40	±50 *10		±50	
■Spindle							
Spindle speed	min⁻¹	6,000	5,000	4,500		4,500	
Spindle motor	kW	11/7.5	11/7.5	15/11(op. 18.5/15)		15/11 (op. 18.5/15)	
■Turret							
Type of turret head / Number of indexing pos.	12st	Upper : Dodecagonal / 24 Lower : Flexible special design turret / 9	Dodecagonal / 24	Dodecagonal / 24		Dodecagonal drum turret / 24	
	15st	-	-	-		-	
	16st	-	-	Hexadecagon / 16 *9		Hexadecagon / 16	
■Milling							
Milling spindle speed	min⁻¹	6,000	6,000	6,000		6,000	
Milling motor(kW)	12st	7.1/2.2	7.1/2.2	5.5/3.7		5.5/3.7	
	15st	-	-	-		-	
	16st	-	-	5.5/3.7		5.5/3.7	
Number of milling stations	12st	12	12	12		12	
	15st	-	-	-		-	
	16st	-	-	16 *9		16	
■Tailstock (op.)							
Driving System	-	-	NC control servo-driven type	NC control servo-driven type		NC control servo-driven type	
Travel	mm	-	400	305		470	
Quill taper	-	-	MT-3 (Rotating center)	MT-4 (Rotating center), MT-3 (Built-in center)		MT-4 (Rotating center), MT-3 (Built-in center)	
■Sub spindle (op.)		standard				*12	
Chuck size / Bar capacity	mm	5"(6") / ϕ42	5"(6") / ϕ42	-		6", 8" / ϕ51	
Spindle speed / spindle motor	min⁻¹ / kW	6,000 / 7.5/5.5	6,000 / 7.5/5.5	-		5,000 / 15/11	
Distance between spindles [max. / min.]	mm	600 / 200	600 / 200	-		800 / 260	
B-axis slide travel	mm	-	400	-		540	
■General							
Machine Dimensions Height	mm	1,799	1,780	2,125		2,125	
Machine Dimensions Depth	mm	3,072	2,524	3,195		3,787.5	
Machine Dimensions Width	mm	1,974	1,825	1,967		1,967	
Machine weight (incl. control)	kg	6,500	4,500	7,500		8,500	

*9 16st cannot be selected for specifications without milling.

*10 Y-axis cannot be selected for specifications without milling.
With or without Y-axis can be selected for specifications with milling.

	AS-200		AS-200L		SC-300II		SC-300IIL		SC-450L	
	φ65	φ71(op.)	φ65	φ71(op.)	φ71	φ89(op.)	φ71	φ89(op.)	φ81	φ89(op.)
■Capacity										
Max. turning diameter	290 / 280(op. 15st)		290 / 280(op. 15st)		360		360		480	
Max. turning length	300		570		600 (Tailstock), 635 (R Spindle)		1,100 (Tailstock), 1,135 (R Spindle)		1,520	
Distance between centers	427		760		713.5		1213.5		1,752	
Bar capacity	ϕ65	ϕ71	ϕ65	ϕ71	ϕ71	ϕ89	ϕ71	ϕ89	ϕ81	ϕ89(op.)
Chuck size	8"		8"		10", 12"		10", 12"		12"	15"
■Slide travel										
Y-axis slide travel	±41		±41		±60		±60		±75(op.)	
■Spindle										
Spindle speed	4,500 / 3,000(op.) / 4,500(op. torque-up motor)		4,500 / 3,000(op.) / 4,500(op. torque-up motor)		3,500		3,500		2,500	
Spindle motor	15/11		15/11		22/18.5		22/18.5		30/22	
■Turret										
Type of turret head / Number of indexing pos. 12st	Dodecagonal / 24		Dodecagonal / 24		Dodecagonal / 24		Dodecagonal / 24		Dodecagonal drum turret / 12	
15st	15 stations turret / 15		15 stations turret / 15		-		-		-	
16st	-		-		Hexadecagon / 16		Hexadecagon / 16		-	
■Milling										
Milling spindle speed	6,000		6,000		6,000		6,000		3,600(op.)	
Milling motor(kW) 12st	5.5/3.7		5.5/3.7		7.5/3.7		7.5/3.7		5.5/3.7(op.)	
15st	5.5/3.7		5.5/3.7		-		-		-	
16st	-		-		5.5/3.7		5.5/3.7		-	
Number of milling stations 12st	12		12		12		12		12(op.)	
15st	15		15		-		-		-	
16st	-		-		16		16		-	
■Tailstock (op.)										
Driving System	Manual		Manual		NC control servo-driven type		Z-axis slide (knock type) / NC control servo-driven type		NC control servo-driven type	
Travel	200		435		500		900 / 1,000		1,490	
Quill taper	MT-4(Rotating center)		MT-4(Rotating center)		MT-5 (Rotating center), MT-4 (Built-in center)		MT-5 (Rotating center), MT-4 (Built-in center)		MT-5 (Rotating center, Built-in center)	
■Sub spindle (op.)										
Chuck size / Bar capacity	-		6" / ϕ42		6", 8" / ϕ51		6", 8" / ϕ51		10" / ϕ71	
Spindle speed / spindle motor	-		6000 / 7.5/5.5		5000 / 15/11		5000 / 15/11		3,500 / 15/11	
Distance between spindles [max. / min.]	-		800 / 220		910 / 310		1,310 / 310		1,694 / 485.5	
B-axis slide travel	-		580		600		1,000		1,208.5	
■General										
Machine Dimensions Height	1,852		1,935		2,300		2,300		2,184.9 / 2,531.3 (op. Y-axis)	
Machine Dimensions Depth	1,655		2,716		3,995		4,902		5,050	
Machine Dimensions Width	1,665		1,805		2,130		2,130		2,164.8	
Machine weight (incl. control)	4,500		5,500		9,000		11,000		9,000 / 10,000 (op. Y-axis)	

*11 NC tailstock (MT-4/Rotating center) specification is standard.

*12 When the sub spindle specification is selected, the dodecagonal turret is not selectable.

Gantry Loader①

GR-210 High-Speed 3 axes

SC-300Ⅱ + GR-210 High-Speed

GR-210 NEW 3 axes

WT-300 + GR-210 NEW + WS-445W

GR-203 High-Speed 3 axes

NTY^3-150 + GR-203 High-Speed

GR-203Ⅱ 3 axes

WT-150Ⅱ + GR-203Ⅱ + WS-231

※1		Unit	GR-210 High-Speed 10kg	GR-210 High-Speed 20kg (op.)	GR-210 NEW 10kg	GR-210 NEW 20kg (op.)
■ Speed						
Loading/Unloading time ※2		sec	6.0/6.0	10.5/10.5	10.5/10.5	
■ Hand						
Workpiece diameter	Flange	mm	Φ20~ Φ220		Φ20~ Φ220	
	Shaft		Φ20~ Φ100		Φ20~ Φ100	
Workpiece length	Flange	mm	20~100		20~100	
	Shaft		50~200		50~200	
Hand turning	Flange	-	0.75sec/180°	3.0sec/180°	1.8sec/180°	3.0sec/180°
	Shaft		1.8sec/180°		1.8sec/180°	
Hand back turning			-		-	
Workpiece weight	Flange	kg	10×2	20×1	10×2	20×1
	Shaft					
Jaw stroke	Flange	mm	Φ40	Φ32	Φ40	Φ32
	Shaft		Φ30		Φ30	
■ Work Stocker List						
Multi-layer work stocker	WS-221		-	-	-	-
	WS-231		-	-	-	-
	WS-442W		○	○	○	○
	WS-445W		○	○	○	○
Single-layer work stocker	WS-121		-	-	-	-
	WS-122		-	-	-	-
	WS-124		-	-	-	-
	WS-132		-	-	-	-
HAKO-BEI Rail extension is required when B type is selected.			-	-	-	-

※1 Specifications may differ for each model to be installed.
※2 Loading/unloading time are approximate. It varies for each model to be installed.

※1		Unit	GR-203 High-Speed 3kg	GR-203 High-Speed 5kg (op.)	GR-203II 3kg	GR-203II 5kg (op.)
■ Speed						
Loading/Unloading time ※2		sec	4.7/4.6	6.7/6.7	7.8/7.8	8.1/8.1
■ Hand						
Workpiece diameter	Flange	mm	Φ20~ Φ130		Φ20~ Φ130	
	Shaft		Φ15~ Φ30		Φ15~ Φ30	
Workpiece length	Flange	mm	20~110		20~110	
	Shaft		35~200		35~200	
Hand turning	Flange	-	0.9~1.1sec/90°		1.4~1.6sec/90°	
	Shaft		1.2sec/180°		1.2sec/180°	
Hand back turning			-		-	
Workpiece weight	Flange	kg	3.0×2	5.0×2	3.0×2	5.0×2
	Shaft		1.0×2		1.0×2	
Jaw stroke	Flange	mm	Φ16		Φ16	
	Shaft		Φ25		Φ25	
■ Work Stocker List						
Multi-layer work stocker	WS-221		○	○	○	○
	WS-231		○	○	○	○
	WS-442W		-	-	-	-
	WS-445W		-	-	-	-
Single-layer work stocker	WS-121		○	○	○	○
	WS-122		○	○	○	○
	WS-124		○	○	○	○
	WS-132		○	○	○	○
HAKO-BEI Rail extension is required when B type is selected.			○	○	○	○

Gantry Loader②

GR-201 High-Speed 2 axes

SC-100 + GR-201 High-Speed

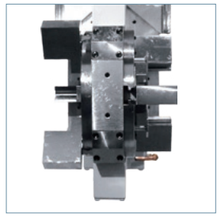
GR-201 Tilt

WT-100 + GR-201 + WS-221

Gantry Loader Installation table	GR-210 High-Speed	GR-203 High-Speed	GR-201 High-Speed	GR-210 NEW	GR-203 II	GR-203	GR-201
SC-100			○				
SC-200II		○					
SC-200IIL		○					
SC-300II	○						
TW-8						○	
WT-100							○
WT-150II		○					
WT-250II				○	○		
WT-300	○						
WY-100V		○					
WY-150V		○					
WY-250L				○	○		
NTY³-100V		○					
NTY³-150		○					
NTY³-250				○	○		
JX-250	○						

※1	Unit	GR-201 High-Speed 1kg	GR-201 High-Speed 3kg (op.)	GR-201 1kg	GR-201 3kg (op.)
■ Speed					
Loading/Unloading time ※2	sec	3.2/4.0	6.0/6.5	6.0/6.0	8.0/8.0
■ Hand					
Workpiece diameter Flange	mm	Φ20~ Φ60	Φ20~ Φ80	Φ20~ Φ60	Φ20~ Φ80
Workpiece diameter Shaft	mm	Φ15~ Φ30		Φ15~ Φ30	
Workpiece length Flange	mm	20~50	20~75	20~50	20~75
Workpiece length Shaft	mm	35~200		35~200	
Hand turning Flange	-	1.8sec/270°		1sec/90°	
Hand turning Shaft	-	* Varies depending on specifications.		1.2sec/180°	
Hand back turning	-	-		-	
Workpiece weight Flange	kg	1.0×2	3.0×2	1.0×2	3.0×2
Workpiece weight Shaft	kg	1.0×2		1.0×2	
Jaw stroke Flange	mm	Φ12		Φ15	
Jaw stroke Shaft	mm	Φ25		Φ25	
■ Work Stocker List					
Multi-layer work stocker WS-221		○	○	○	○
Multi-layer work stocker WS-231		○	○	-	-
Multi-layer work stocker WS-442W		-	-	-	-
Multi-layer work stocker WS-445W		-	-	-	-
Single-layer work stocker WS-121		-	-	○	○
Single-layer work stocker WS-122		-	-	○	○
Single-layer work stocker WS-124		-	-	○	○
Single-layer work stocker WS-132		-	-	-	-
HAKO-BEI Rail extension is required when B type is selected.		○	○	○	○

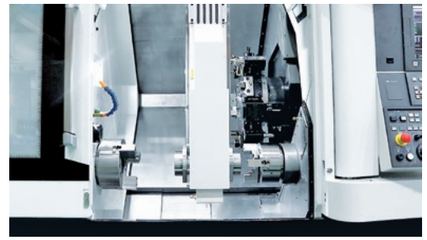
※1 Specifications may differ for each model to be installed.
※2 Loading/unloading time are approximate. It varies for each model to be installed.



● GR-210 Series hand

● GR-203 Series hand

● GR-201 Series hand



Gantry loader loading/unloading type

Standard, Left side,RIght side,Left extension, Right extension, Passing.
* However, there are restrictions depending on the machine model and specifications.

Standard / Left side

NTY³-100 + GR-203 High-Speed

Right side / Extension

TW-8 + GR-203

* Right side, chip conveyor is rear discharge type.

Passing

WT-100 + GR-201

* Passing, chip conveyor is rear discharge type.

Compact Loader

WY-150
+Compact Loader+HAKO-BEI

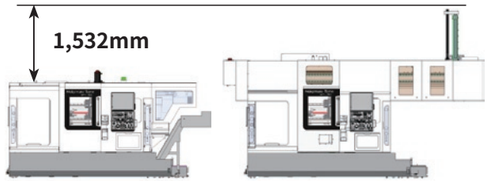
* The combination of transfer devices is limited to IN conveyor/OUT conveyor, IN conveyor/OUT chute, and transfer device (material/finished part).
* Loading/unloading times are for reference only and may vary depending on actual machining conditions.

		Unit	MX-100	WY-100V / NTY³-100V				WY-100II / NTY³-100		WY-150 / NTY³-150	
			Compact Loader servo	Standard		Travel axis extended by 150mm (op.)		Standard	Travel axis extended by 150mm (op.)	Standard	Travel axis extended by 150mm (op.)
				3kg	5kg (op.)	3kg	5kg (op.)				
Workpiece Size	Diameter	mm	ϕ20~ϕ130	ϕ32~ϕ110				ϕ32~ϕ100		ϕ32~ϕ100	
	Length	mm	20~110	20~100				20~100		20~100	
	Weight	kg	3.0×2	3.0×2	5.0×2	3.0×2	5.0×2	3.0×2		3.0×2	
Z-axis Travel	Drive	-	Servomotor	Servomotor				Servomotor		Servomotor	
	Stroke	mm	2,580	1,910		2,060		1,955	2,105	2,105	2,255
Arm Advance/Retract	Drive	-	-	Servomotor				Air cylinder		Air cylinder	
	Stroke	deg.	-	52				50		50	
Hand Up/Down	Drive	-	Servomotor	Servomotor				Air cylinder		Air cylinder	
	Stroke	mm	420	185				150		150	
Hand Swing	Drive	-	Air cylinder	Air cylinder				Air cylinder		Air cylinder	
	Stroke	°	90°	90°				90°		90°	
	Speed	sec./90°	2	1.7				1.7		1.7	
Hand	Drive	-	Air cylinder	Air cylinder				Air cylinder		Air cylinder	
	Stroke	mm	32 (±16)	12 (±6.0)				15 (±7.5)		15 (±7.5)	
Loading/Unloading Time		sec	7.6/7.5	4.8/4.2	7.6/6.4	4.8/4.2	7.6/6.4	6.5/6.5		6.5/6.5	
Transport Device	Loading/ Unloading	-	Conveyor/ Conveyor Transfer	Conveyor/ Conveyor Conveyor/Chute Transfer	Conveyor/ Conveyor Conveyor/Chute Transfer	-	-	Conveyor/ Conveyor Conveyor/Chute Transfer	-	Conveyor/ Conveyor Conveyor/Chute Transfer	-

Space-saving, Multifunctional Automated System

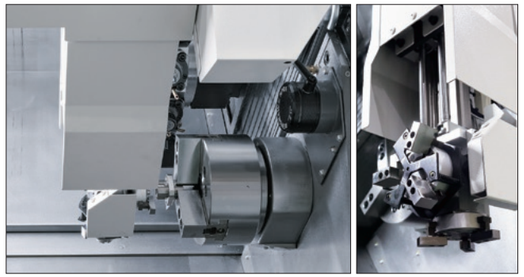
"Compact Loader" developed with an emphasis on "Space-saving" is a transfer device that performs loading/unloading inside the machine.
The machine height is the same as that of standard machines, which has the advantage of being less subject to factory height restrictions.

Compact Loader Height Comparison(WY-150)



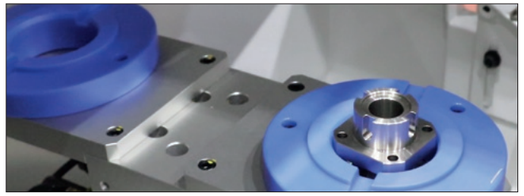
Compact Loader　　Gantry Loader

"Compact Loader" Internal conveyor system



Transport Device

Transfer/Conveyor/Chute type is selectable.



Shaft Loader/Unloader

Loading and Unloading of shaft work is fully automated by installing a set of ZEN-BEI and HAI-BEI.
Our original automation equipment contributes to the improvement of customers' work efficiency.

Shaft Loader ZEN-BEI

	Unit	SL08W-800	SL10W-1000	SL20W-1000
Push rod stroke	mm	1,730	1,730	1,790
Workpiece diameter(ϕ)×Length	mm	ϕ10~ϕ34×100~800	ϕ10~ϕ42×100~1,000	ϕ10~ϕ51×100~1,000
Push rod bar, A size workpiece length	mm	100~500	100~400	100~400
Push rod bar, B size workpiece length	mm	500~800	400~700	400~700
Push rod bar, C size workpiece length	mm	–	700~1,000	700~1,000
Number of workpiece stock capacity	–	23	23	23
Loading time	sec	7	7	7
Machine Dimensions (L×W×H)	mm	2,135×879×1,151	2,135×879×1,176	2,235×879×1,269

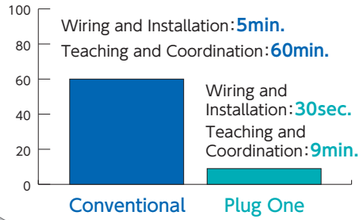
Shaft Unloader HAI-BEI

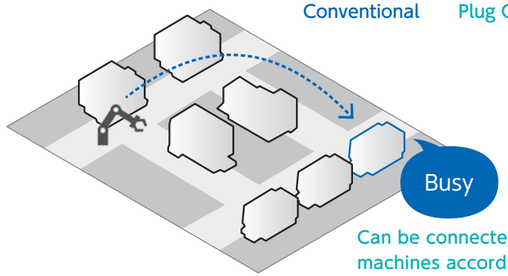
	Unit	SU08W-800	SU10W-1000	SU20W-1000
Pull out bar stroke	mm	1,830	1,830	1,950
Workpiece diameter(ϕ)×Length	mm	ϕ12~ϕ34×100~800	ϕ15~ϕ42×100~1,000	ϕ15~ϕ51×100~1,000
Pull out bar, A size workpiece length	mm	100~500	100~400	100~400
Pull out bar, B size workpiece length	mm	500~800	400~700	400~700
Pull out bar, C size workpiece length	mm	–	700~1,000	700~1,000
Number of workpiece stock capacity	–	20	20	20
Max. workpiece weight	kg	8	8	8
Unloading time	sec	7	7	7
Machine Dimensions (L×W×H)	mm	2,529×680×1,178	2,529×680×1,203	2,649×680×1,296

Plug One

One-touch connection system for one-touch connection and disconnection of machines and robot, robot and work stocker.
This is a new style of automation proposed by Nakamura-Tome to solve these problems:
"The installed automation system is not operating well due to fluctuating demand."
"Robotic systems require safety fences, and the systems are large and take up a lot of space."

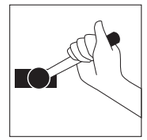
With the introduction of the Plug One system, installation is completed within 10 minutes.





Can be connected to busy machines according to production schedules

One-touch



Equipped with a connection unit that consolidates electrical and air wiring.

No safety fence

Cooperative robots are used, so safety fences are not required.

Flexible

Flexible change the layout of the machine to respond to demand fluctuations.

Work Stocker

Multi-layer work stocker

WT-150+GR-203+WS-221
* A conveyor shown in the picture is optional.

【GR-203 High-Speed】【GR-203II】
【GR-201 High-Speed】【GR-201】

WS-221 ※1	Type	Multi-layer Pallet
	Workpiece diameter	ϕ15～ϕ100mm
	Number of pallets	10
	Stack height	300mm
	Max. loading weight	18kg/Pallet
WS-231 ※1	Type	Multi-layer Pallet
	Workpiece diameter	ϕ20～ϕ150mm
	Number of pallets	10
	Stack height	300mm
	Max. loading weight	32kg/Pallet

【GR-210 High-Speed】【GR-210NEW】

WS-442W ※2	Type	Multi-layer Pallet
	Workpiece diameter	ϕ20～ϕ220mm
	Number of pallets	20
	Stack height	450mm
	Max. loading weight	40kg/Pallet
WS-445W ※2	Type	Multi-layer Pallet
	Workpiece diameter	ϕ20～ϕ220mm
	Number of pallets	14
	Stack height	450mm
	Max. loading weight	40kg/Pallet

Single-layer work stocker

GR-203+WS-122

【GR-203 High-Speed】【GR-203II】
【GR-201】

WS-121	Type	Single-layer Pallet
	Workpiece diameter	ϕ20～ϕ80mm
	Number of pallets	30
	Max. loading weight	2kg/Pallet
WS-122	Type	Single-layer Pallet
	Workpiece diameter	ϕ20～ϕ80mm
	Number of pallets	60
	Max. loading weight	2kg/Pallet
WS-124	Type	Single-layer Pallet
	Workpiece diameter	ϕ20～ϕ80mm
	Number of pallets	120
	Max. loading weight	2kg/Pallet

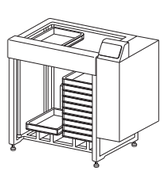
【GR-203 High-Speed】【GR-203II】

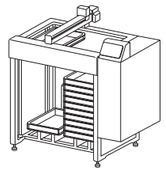
WS-132	Type	Single-layer Pallet
	Workpiece diameter	ϕ20～ϕ150mm
	Number of pallets	20
	Max. loading weight	10kg/Pallet

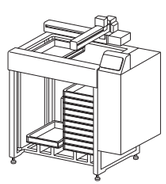
*1 GR-201 is only available with WS-221.
*2 There are 2 loading stations to shorten outboard service time.

If jigs are required, a meeting and a separate estimate will be required.

Work Stocker "HAKO-BEI"







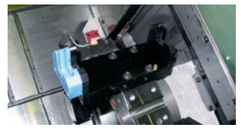
			Unit	B2 Type	C2 TYpe	HAKO-BEI Link	D Type
General	Machine dimensions		mm	1,385×1,020×1,342	1,385×1,215.5×1,630	1,466×1,750×1,523	1,673×1,152×1,675
	Tray exchange method		–	Pass-through type			
	Loading capacity on tray		kg	150	150	200	150
	Total weight		kg	200	215	215	100
	Workpiece loading height		mm	960 from the floor level			
Tray	Tray external dimensions	9 tier	mm	W600× D440× H79			
		4 tier		W600× D440× H150			
	Tray limit weight		kg	15 (Heavy duty specification: 15-20)		20	15 (Heavy duty specification: 15-20)
Drive Axis	Shuttle (Built-in)	Drive	–	AC servomotor	AC servomotor	AC servomotor	Special feed control
		Stroke	mm	500			
	Tray up/down drive	Drive	–	Chain drive (reversible motor)			
		Stroke	mm	769			
	Robot		–	–	1-axis (1-axis servo)	2-axis (2-axis servo)	2-axis (HAKO-ROBO)
	X-axis	Drive	–	–	–	–	AC servomotor
		Stroke	mm	–	–	–	650
	Y-axis	Drive	–	–	AC servomotor	AC servomotor	AC servomotor
		Stroke	mm	–	850	1,300	500
	Z-axis	Drive	–	–	Air cylinder	AC servomotor	Air cylinder
		Stroke	mm	–	175	200	150
		Carrying load	kg	–	0.3	1	0.3
Loading/unloading cycle time			s	–	8~20	8~20	8~20
Tray exchange time			s	30			

Please select from the following specifications for bar feeders.

This is required when bar feeder is equipped.

Workpiece ejecting device
Parts Catcher

Parts Catcher | Shaft Unloader | Gantry Loader | Work Rest



A Parts catcher is a device to unload finished parts into a bucket and brings them out of the machine.
Parts catcher specifications such as Maximum part diameter × Length × Weight vary from one model to another. (*1) If anti-scratch measures are required for finished parts for quality, select Parts catcher type G or Turret Servo Gripper type that grasps the workpiece by hand or a Gantry Loader+HAKO-BEI instead of the Parts catcher type A, drop type. (*2)

*1 Custom orders outside the standard specifications may also be available. Please ask our distributors for details.

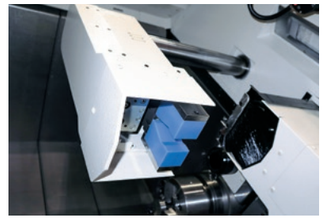
*2 A workpiece discharge confirmation device is required for drop type unloaders.

Parts catcher type A (Bucket type)

When a larger spindle's bar capacity is selected, a parts catcher with larger specifications is to be selected accordingly. (op.)

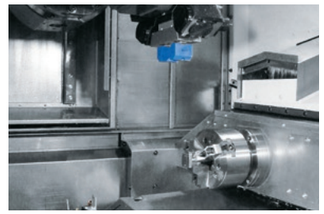
Part catcher type G (Gripper type)

It unloads the finished parts from R-side chuck. It is a one-gripper type parts catcher. The finished parts are pulled out by moving the R-spindle.



Turret Servo Gripper type

The milling motor can be used as a drive source to control the gripping force through torque control.

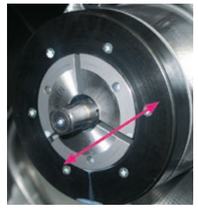


This is required when Parts catcher A or B is equipped.

Parts ejector and Parts eject checker

Pneumatic parts ejector (Recommended)

The finished parts are ejected with a pneumatic cylinder. It includes parts ejection confirmation. Two limit switches are equipped on both stroke ends of the pneumatic cylinder: one on the front end, and one on the back end. Part ejection is confirmed when the switch at the forward end is turned ON. An ejecting head corresponding to the workpiece diameter and shape is necessary. (Engineering arrangement for each part is necessary).



Air-blow through the right hand side spindle

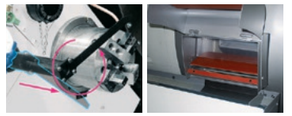
Parts ejector spring type

The finished parts are ejected by spring force. An ejecting head corresponding to the workpiece diameter and shape is necessary. (Engineering arrangement for each part is necessary) Ejecting heads with air blow holes are also available. In this case, air blow through the spindle (op.) is necessary.

+

Parts eject checker (necessary)

It prevents collision by mistake during workpiece transfer.
We can offer two kinds of parts confirmation:
1. Check if there is a workpiece in the L-side chuck.
2. Check if the finished part was ejected from the R-side chuck



1. Detect no workpiece 2. Workpiece eject detection

Parts eject checker is necessary when parts eject conveyor is equipped.

Parts outlet Door pocket shape

Stocker type

The finished parts are stocked into a door-mounted box.

Outlet chute type (Recommended)

The finished parts are unloaded through the door onto a conveyor or a bucket.
To prevent scratching the finished parts during unloading, a conveyor is recommended. (op.)
To prevent scratching the finished parts during unloading, additional plastic plates on the chute can be specified.

Advanced Production System

NT Smart X

Easy, Fast and Accurate
for Everyone

Nakamura-Tome AI

- Powered by AI as standard equipment
  - NT Thermo Navigator AI
  - 3D Smart Pro AI

NT Thermo Navigator AI

Thermal Growth
Compensation using AI.

① Time
② Measured Dimensions
③ Retrieval of Wear Offset Data

Acquired Data analyzed with NT Thermo Navigator AI

Feedback

Compensation model built using AI machine learning.

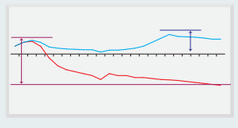
Standard for NT Smart X

Powered by AI

Time and measured dimension data are input into a dedicated AI Learning software, to build an optimized thermal growth compensation model.

High Precision Thermal Growth Compensation

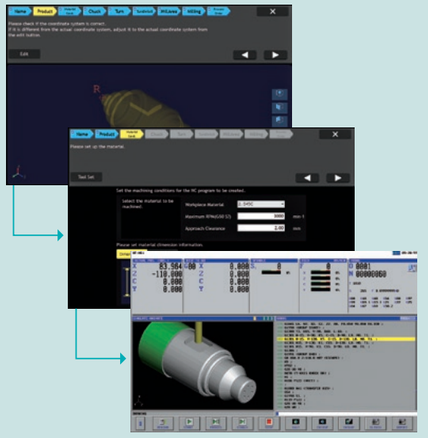
The compensation value is calculated from acquired data.
The more data is input, the more accurate is the compensation value.



—— Pre-correction thermal displacement data
—— Thermal displacement data after correction

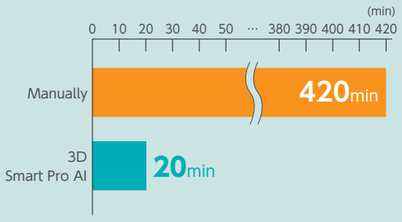
3D Smart Pro AI　AI Analysis NC Programming Support Function

This function analyzes 3D CAD model data and generates an NC program for processing from blank to finished parts.
Simply follow the displayed guidance and enter the required information to create the program.



Operators can also set detailed machining methods.

It drastically reduces man-hours required for creating NC programs and improves set up and production efficiency.



* NC programming level : Beginner engineer

Transfer Setting

Once the transfer position is set, the machining area and transfer program are created.

Tolerance Setting

Once the tolerance value is input, the target value for machining can be set.

Optimization of Machining Processes

In addition to defining the required machining processes, AI proposes a suitable machining process sequence.

Tool Guide

If the tool configuration is incomplete, the AI analyzes the CAD model data and provide the necessary tool information.

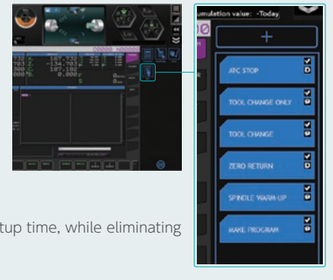
Digital Chuck Interlock

Set the Chuck Open and Close detection position easily.
The chuck open / close position is set on the NT SmartX screen.
Setup time and machining cycle time are reduced.

One Touch MDI

This function is to register frequently used program blocks or cycles, such as zero return or tool change, and call them again with one touch.

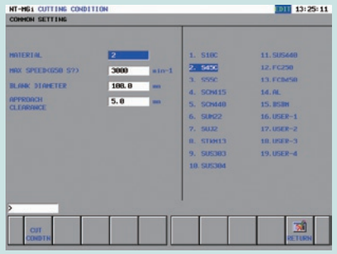
Reduce programming and setup time, while eliminating input errors.



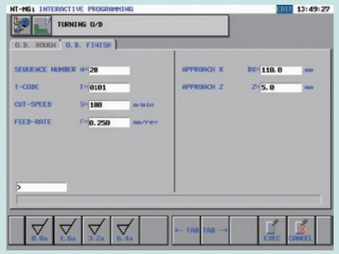
NT Manual Guide i ～LUCK-BEI Ⅱ～

It helps to make NC programs (ISO/EIA G-code programs) used in a machining process program.

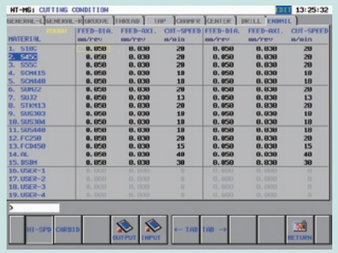
A programming guidance system with the ability to generate NC programs (ISO/EIA G-code programs) easily. Processes created in conversational mode can be cut, copied or pasted ensuring flexibility. Additionally, several cycles such as part-transfer cycle, requiring waiting M-codes, are readily made with the "NC program editing support function". The "NC program simulation function" can be used to check created- programs by tool-path simulation or solid-model animation.



By selecting the material, cutting conditions are automatically input.



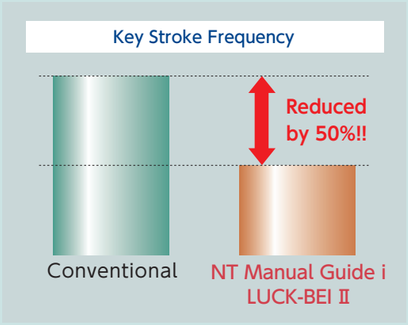
By selecting the material, cutting conditions are automatically input.

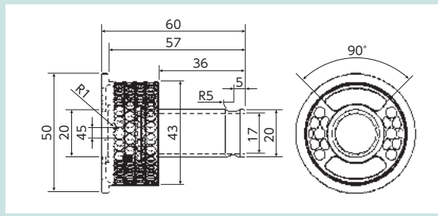


Cutting conditions
End mill

Automatic Cutting-Condition Setting Function

By setting the material type and required surface roughness, cutting conditions are automatically generated. These can be also changed depending on customer's experience.



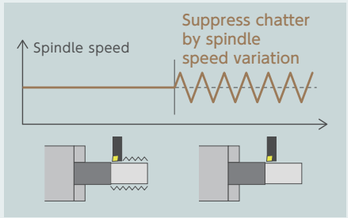


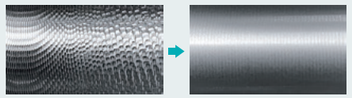
By introducing the "automatic cutting condition setting function", the number of key strokes required to make a program were reduced by 50% reduced, compared with the previous NT Manual Guide i version.

Chatter Canceller

Reduce the chatter and vibration by automatically changing the spindle speed up/down continuously during cutting.
The function can be easily turned on with the M-code, and the amplitude and frequency can be set arbitrarily.

* It does not guarantee that the function works without chatter and vibration.
* Chatter and vibration reduction depend on the setup and the cutting condition.





Double safety features for maximum protection

NT Machine Simulation / NT Collision Guard + Airbag (Overload detection)

The machine comes protected with dual safety features: "NT Machine Simulation/NT Collision Guard" to prevent a collision beforehand, and the "Airbag Function" minimizes damage to the machine in case of collision.

NT Machine Simulation

Machine collisions are avoidable with Preventive safety technology!
Interference checks can be carried out based on the machining paths obtained from the NC program. By simulating machine operations before starting machining, it is possible to reduce the risk of machining errors and interference.

Simulation is performed while checking the remaining movement amount and modal information.

It is possible to override the settings for rapid and cutting feed individually. Additionally, simulation by process or by single block is possible.

By process
Single feed

Image shown here is of a 2-turret machine

NT Collision Guard

NT Machine Simulation is synchronized with the machine operation, allowing the machine to be operated while performing interference checks. Available in automatic and manual mode. If interference is detected, the machine will stop just before the collision.

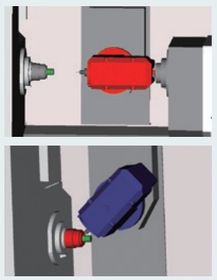


Image shown here is of a Tool spindle machine

Airbag (Overload detection)

The software's barrier system is not foolproof. Making a data input mistake will result in a machine collision. However, Nakamura-Tome machines will not break even after the machine collision.

When the machine collides, there is no reason to panic.

The Airbag (Overload detection) of the machine tool significantly reduces the impact of a collision and protects the machine.

Barrier?
Even with barrier function, machine collisions may occur

Without Airbag

Machines will not stop immediately. The slide continues to move even after a collision.

With Airbag

Retraction within 0.001 sec

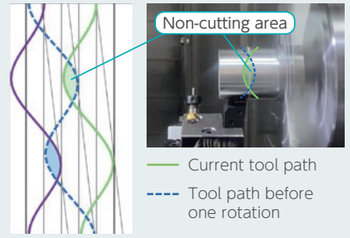
Crash?
Within one millisecond after a collision, the servo motor direction is reversed, and the machine stops in EMG mode.

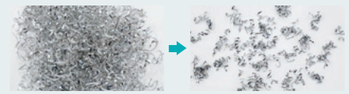
▲Video

* It is not a function that guarantees the prevention of machine break. This function does not eliminate the impact on the machine.

Oscillation Cutting (op.)

By oscillating the tool for a certain period, the chips are cut into small pieces. It can be activated easily by using a simple FANUC G-code and resolve workpiece damage issues caused by chips twined around the part.





Material : Aluminum
Cutting speed : 200mm/min
Cutting feed : 0.1mm/rev
Cutting depth : 1.0mm

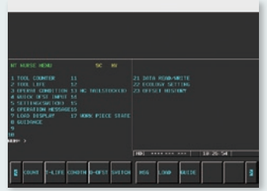
NT NURSE

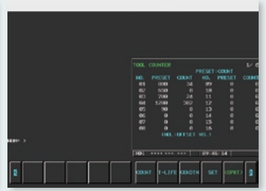
※Depending on machine specifications, some functions are not available.

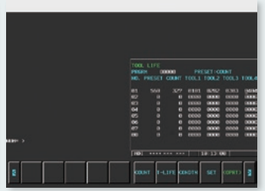
All-in-one software!

NT NURSE is software that provides the operator with user-friendly support for operation, programming and production on the machine. Among vital features are phase recognition (a must for multi-tasking), direct chucking to prevent positioning error during transfer, and perfect synchronization of the left and right hand spindles. Among other features, are the load monitor for detecting tool wear and tool breakage, tool life management, operation condition monitoring, in addition to many other features to simplify programming, set up, operation and production, all offered in one single package.

Useful functions

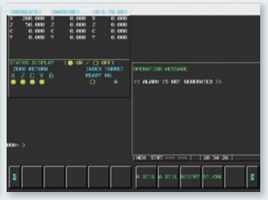

Menu Screen


Tool Counter


Tool Life


Energy Saving


Operation Condition of each Tool


Operation Message

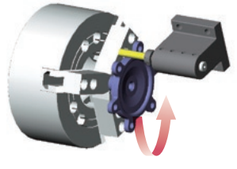

Quick Offset

NT WORK NAVIGATOR

X Y Z B C

No fixtures required

Machining parts with non-round shapes, such as forgings or castings require that the raw part coordinates be recognized by the CNC control.
It works just by touching the part with a simple inexpensive probe (mostly a round bar mounted on a tool holder) and using the torque control feature of the servo-motor, which is to record required coordinates in the CNC.
The NT WORK NAVIGATOR is eliminating the need for positioning fixtures and special clamping devices.


▲VTR

NT Smart Sign

Nakamura-Tome IoT software

■ Monitoring

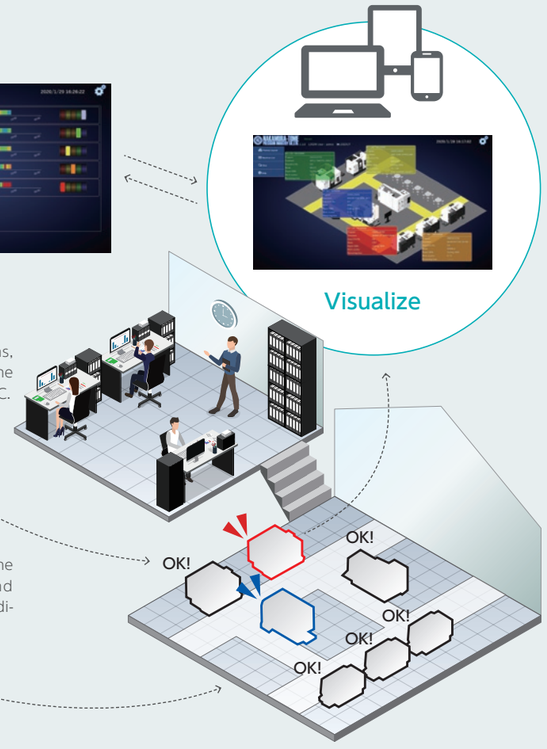
Real Time Monitoring of machine running conditions, in addition to visualizing alarm history and past events.

■ Data Input/Output

Input and output programs, tool data and other machine data from the monitoring PC.

■ Diagnosis

Diagnose problems with the machine servo drives and spindle drives, using a dedicated program.



NT Update

* Please check Nakamura-Tome website for the countries where this service is provided.

Web site of Nakamura-Tome Exclusive membership.
The necessary software can be downloaded and update your machine's software to the latest version.

Just register as a user on the membership website and start using the service right away.

Scan here to register as a user ▶

① Registration

Enter user and machine information on the membership website.

② Download Software

Enter the issued user ID and password to log in.

Download the software in the membership website.

③ Software Update

Save the installer to USB and insert it into the machine.

Put the machine in emergency stop and execute Setup.bat in the USB to install the following software.

NT-IPS	NT NURSE
NT Collision Guard	NT Manual Guide i

NC specification chart / All models

* Option : ●

			Control			Part program storage length / Number of registrable programs														Number of tool offset				Machining support functions						
			Control	HMI	Display	128kbyte	256kbyte	512kbyte		1Mbyte			2Mbyte				4Mbyte		8Mbyte		Standard			Option			NT Collision Guard	NT NURSE	NT WORK NAVI	Airbag	NT-MGi	Chatter Canceller	Oscillation Cutting *3
						(320m)	(640m)	(1280m)		(2560m)			(5120m)				(10240m)		(20480m)													
Model			FANUC	NT SmartX	Standard	250	500	400	1000	800	1000	2000	400	800	1000	4000	1000	4000	1000	4000	*2			99	200	999							
ATC Multitasking Machine	ATC series Tool spindle + Lower turret	JX-200	31i-B5 Plus (2-PATH)	std.	19" color LCD touch panel	–	–	–	–	–	–	–	–	–	–	–	–	std.	–	●	ATC 40	ATC 80	ATC 120	–	–	●	std.	std.	std.	std.	std.	std.	●
																					300+99	300+99	300+99									
		JX-250 Standard	31i-B5 (2-PATH)			–	–	–	–	–	–	std.	–	–	–	●	–	●	–	●	ATC 40	ATC 80	ATC 120	–	–	●							●
		JX-250 L-lower turret(op.)	31i-B5 (3-PATH)			–	–	–	–	–	–	–	–	–	–	std.	–	●	–	●	ATC 40	ATC 80	ATC 120	–	–	●							
																					200+99+99	200+99+99	300+99+99									
		MX-100	31i-B5 (2-PATH)			–	–	–	–	–	–	std.	–	–	–	●	–	●	–	●	ATC 36	ATC 48	ATC 72	–	–	●							●
																					99+99	99+99	300+99									
	ATC series	NTRX-300 / 300L Standard	31i-B5			–	–	–	std.	–	●	●	–	–	●	●	●	●	●	●	ATC 40	ATC 60･80	ATC 120	–	●	●							●
																					99	99	200									
		NTRX-300 / 300L Sub spindle(op.)																			ATC 40	ATC 60･80	ATC 120									
																					99	200	400									
	NTY³ series	NTY³-100V	31i-B Plus (3-PATH)	std.	19" color LCD touch panel	–	–	–	–	–	–	–	–	–	–	–	std.	●	●	●	99+99 + 99			–	–	●	std.	std.	std.	std.	std.	std.	●
		NTY³-150	31i-B (3-PATH)			–	–	–	std.	–	●	●	–	–	●	●	●	●	●	●												
		NTY³-250																														
	W Y series	WY-100V	31i-B Plus (2-PATH)	std.	19" color LCD touch panel	–	–	–	–	–	–	–	–	–	–	–	std.	●	●	●	99+99			–	–	●	std.	std.	std.	std.	std.	std.	●
		WY-150V	32i-B Plus (2-PATH)			–	–	–	–	–	–	–	–	–	–	–	std.	●	●	●												
		WY-250L	32i-B (2-PATH)			–	std.	–	●	–	●	●	–	–	●	●	●	●	●	●												
Turret Type Multitasking Machine	W T series	NT-Flex	0i-TF Plus (2-PATH)	NT Smart Xs	15" color LCD touch panel	–	–	–	–	–	–	–	–	–	–	–	std.	–	–	●	99+99			–	–	–	–	std.	std.	std.	std.	std.	std.
		WT-100	32i-B (2-PATH)	std.	19" color LCD touch panel	–	std.	–	●	–	●	●	–	–	●	●	●	●	●	●	99+99			–	–	●	std.	std.	std.	std.	std.	std.	●
		WT-150Ⅱ																														●
		WT-250Ⅱ																														–
		WT-300																														–
	B-axis series	NTJ-100	31i-B (2-PATH)	std.	19" color LCD touch panel	–	–	–	–	–	–	std.	–	–	–	●	–	●	–	●	99+99			–	–	●	std.	std.	std.	std.	std.	std.	●
		Super NTJ		–																						–							●
	T W series	NEW TW-30	32i-B (2-PATH)	std.	19" color LCD touch panel	–	std.	–	●	–	●	●	–	–	●	●	●	●	●	●	99+99			–	–	●	std.	std.	std.	std.	std.	std.	–
	S C series	SC-100X²	Nakamura-Tome FANUC	–	15" color LCD touch panel	–	–	–	–	–	–	–	–	–	std.	–	–	–	–	–	99+99			–	–	–	–	std.	std.	std.	std.	std.	std.
		SC-100 Standard			15" color LCD			std.	●	–	–	–	●	–	●	–	–	–	–	–	99			–	●	–					●	std.	●
		SC-100 Sub spindle(op.)						–	–	std.	●	–	–	●	●	–	–	–	–	–												
		SC-200Ⅱ / 200Ⅱ L			15" color LCD touch panel			–	–	–	–	–	–	–	std.	–	–	–	–	–	99			–	●	–					std.	std.	–
		AS-200 / 200L						–	–	–	–	–	–	–	std.	–	–	–	–	–	99			–	–	–					std.	std.	●
		SC-300Ⅱ / 300Ⅱ L Standard			15" color LCD			std.	●	–	–	–	●	–	●	–	–	–	–	–	99			–	●	–					●	std.	–
		SC-300Ⅱ / 300Ⅱ L Sub spindle(op.)						–	–	std.	●	–	–	●	●	–	–	–	–	–												
		SC-450L Standard			10.4" color LCD			std.	–	–	–	–	–	–	–	–	–	–	–	–	64			●	–	–					●	–	–
		SC-450L Sub spindle(op.)						–	–	std.	–	–	–	–	–	–	–	–	–	–												

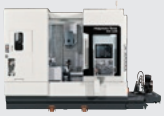
*1 This specification is not available when manual handle retrace is selected.

*2 The number of tool offsets differs according to the number of tools in automatic tool changers in the case of ATC multitasking machines.

*3 Only X/Z axis of Linear Guide can be used.

Lineup Multitasking Machine

ATC series


MX-100


JX-200


JX-250


NTRX-300


NTRX-300L

B-axis series 2-Turrets


NTJ-100


Super NTJ

NTY³ series 3-Turrets


NTY³-100V


NTY³-150


NTY³-250

WY series 2-Turrets


WY-100V


WY-150V


WY-250L

AS series 1-Turret


AS-200


AS-200L

WT series 2-Turrets


NT-Flex


WT-100


WT-150II


WT-250II


WT-300

TW series 2-Turrets


NEW TW-30

SC series 1-Spindle


SC-100X²


SC-100


SC-200II


SC-200IIL


SC-300II


SC-300IIL


SC-450L

Automation

Shaft Loader: ZEN-BEI

Shaft Unloader: HAI-BEI

Gantry Loader: GR-203 High-Speed

Built-in Automation: Compact Loader

Work Stoker: HAKO-BEI

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