

CITIZEN

Miyano

BND-51/64 SY2

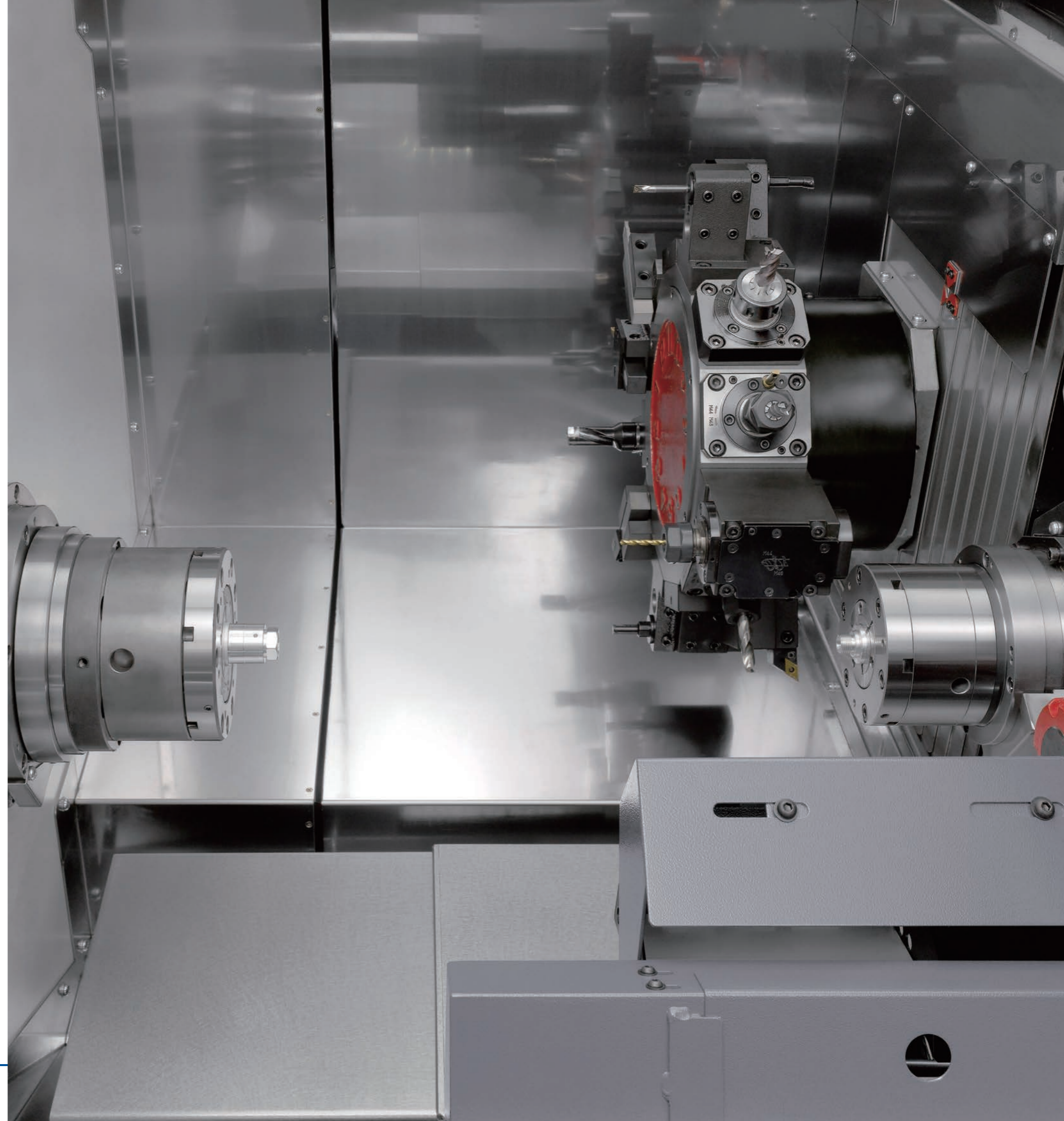
Fixed Headstock Type CNC Automatic Lathe



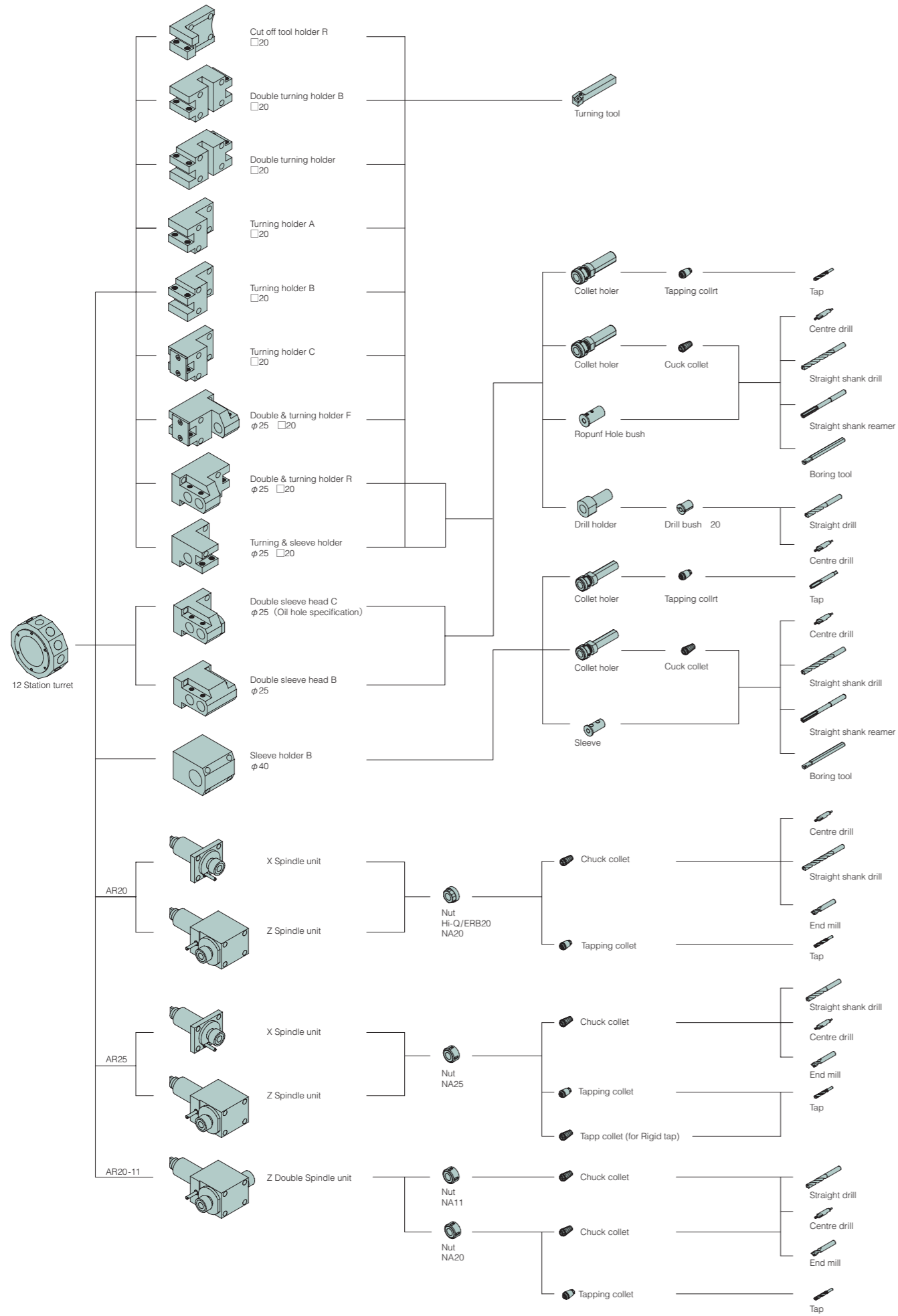
SY

We introduce a new bar machine equipped with a subspindle and a Y axis that can machine bar material up to $\phi 64$ mm.

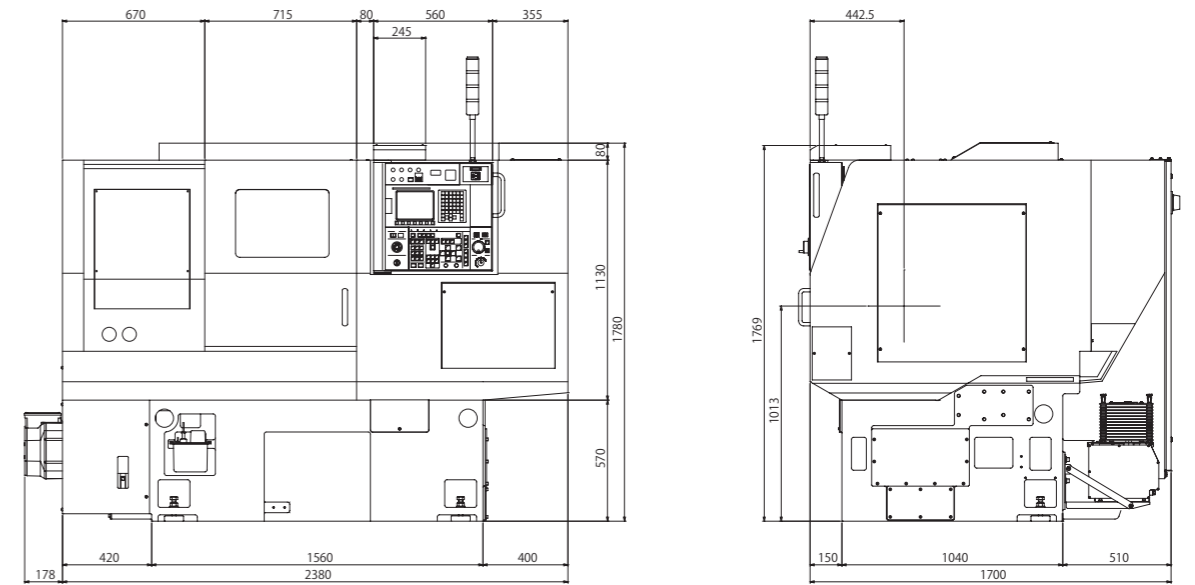
The machine structure consists of precision scraped square guideways that provide high rigidity and excellent vibration damping characteristics. Combined with a heavy 30° slanted, ribbed bed of platform construction this ensures optimal thermal stability and minimal dimensional changes over time, thus realising consistent high machining accuracy.



Tooling system



External view

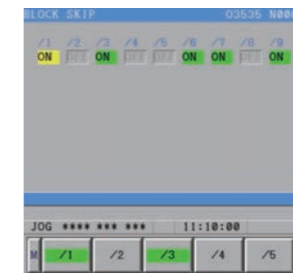


NC custom menu

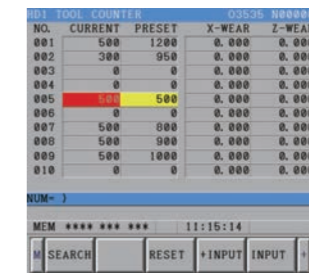
'One-touch' functions for faster set-ups.



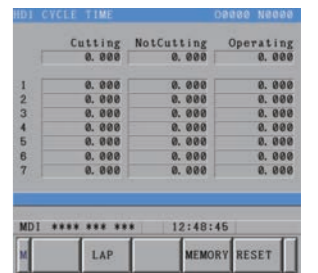
Custom menu
Displays the list of custom screens.



Block skip
Used to set block skip 1 to block skip 9.



Tool counter
Used to set and reset the tool counter stop value and enter the tool wear offsets.



Cycle time
Measures the cutting time, non-cutting time and running time in each cycle.



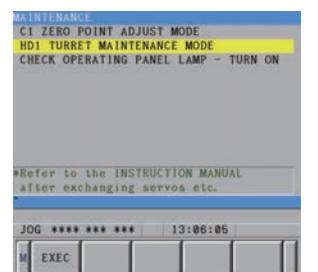
Automatic running monitor
Displays the control status of each axis. Used to set ON / OFF for the machine lock function.



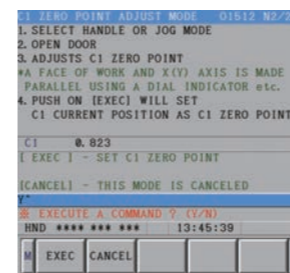
Start condition
Used to set the start conditions for automatic running.



Spindle & RVT
Used to set the rotational speed of the spindle and revolving tools. Used to set the spindle override.



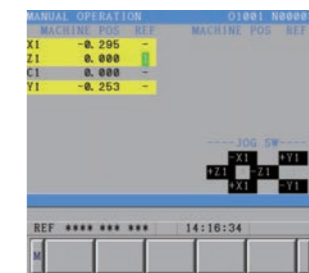
Maintenance
Used to set ON / OFF for the maintenance items. Used to set ON / OFF for turret zero point adjustment.



C Zero point adjust mode
Easy to adjust the C axis zero point.



Turret Maintenance
Used to adjust the turret zero point.



Manual operation
Displays the zero point lamp status and the machine coordinate of each axis.



Option device
Used to select an auxiliary device such as a part catcher to be operated manually.

Machine specification

Item		BND-51SY2	BND-64SY2
Machining capacity			
Maximum work length		320 mm	
Maximum bar Dia.	SP1	51 mm Dia.	64 mm Dia.
	SP2	42 mm Dia.	42 mm Dia.
Maximum blank diameter	chucker	Max. 210 mm Dia.	
Spindle			
Number of spindles		2	
Spindle speed		50 - 5,000min ⁻¹	
Draw tube Dia	SP1	52 mm Dia.	
	SP2	26 mm Dia.	
Power chuck type		Hydraulic	
Type of collet chuck	SP1	DIN 177E	
	SP2	DIN 173E	
Power chuck size and type	SP1	6" Through hole type	
	SP2	5" Through hole type	
Turret			
Number of turret		1	
Turret stations		12 ST.	
Shank size of square turning tool		20 mm Sq.	
Diameter of drill shank		25mm Dia.	
Turret index time		0.25 sec./ 1pos.	
Feed rate			
Slide stroke	Xaxis	175 mm	
	Zaxis	435 mm	
	Yaxis	75 mm	
	Baxis	530 mm	
Rapid feed rate	Xaxis	18 m/ min.	
	Zaxis	20 m/ min.	
	Yaxis	12 m/ min.	
	Baxis	18 m/ min.	
Revolving tool			
Number of revolving tools		Max12	
Tool spindle speed range		60 - 6,000min ⁻¹	
Capacity	Drill	Max 13 mm Dia.	
	Tap (Steel)	Max M8	
	Tap (Al, Brass)	Max M8	
Tank capacity			
Hydraulic oil tank capacity		10 L	
Lubricating oil tank capacity		2 L	
Coolant tank capacity		150 L	
Machine dimensions			
Machine height		1,700 mm	
Floor space		2,560 mm × 1,700 mm	
Machine weight		4,750 kg	
Motors			
Spindle motor	SP1	AC 15/ 11 kW	
	SP2	AC 5.5/ 3.7 kW	
Revolving tool motor		AC 2.2 kW 20 Nm	
Power supply			
Voltage		AC 200/ 220 V ± 10%	
Capacity		37 KVA	
Fuse		125 A	
Air supply		0.5 MPa (5 kgf/ cm ²)	

Others
 Splash guard interlock, Revolving tool driving unit, Pneumatic, Spindle brake No.1,
 High pressure coolant, Parts Catcher, Parts conveyor, Work ejector & inner high pressure coolant

Optional accessories
 Collet chuck system, Power chuck system, Spindle brake No.2, Chuck air blow, Automatic
 fire extinguisher, Automatic power shut-off, Coolant level switch, Sub spindle Inner high pressure
 coolant & air blow, Speed setter, Chip conveyor, Chip box, Foot switch, Total & preset counter,
 Coolant mist collector, Oil mist damper, Warning light, Cut-off confirmation, Large bore spindle,
 Bar feeder interface, Filler tube, Spindle inner bushing, RS-232C port, etc.

NC specification	
	FANUC 0i-TD
Axial control	X, Z, Y, B, Cs
Simultaneous control axis	4 axis
Minimum setting unit	0.001mm, 0.001deg, Cs axis
Minimum output unit	X: 0.0005mm, Z: 0.001mm Y: 0.001mm, B: 0.001mm, Cs: 0.001deg
Interpolation functions	G00, G01, G02, G03, G04, G32, G33
Program storage capacity	1 Mbyte (2560 m)
Spindle function	S4 digit
Cutting feed rate	F3.4 digits per revolution, F6 digits per minute directly specified
Feed rate override	0 - 150% (10% steps)
Rapid feed override	F0, 25, 50, 100%
Thread cutting	G32, G33, G92
Canned cycle	G90, G92, G94
Tool function	T AABB (AA=Tool number and geometry, BB=Wear offset number)
Tool position direct input function	by measured MDI Data input-and-output Memory card interface, USB memory interface, Auto data backup
Automatic operation	1cycle/ Automatic operation, Single block, Block delete, Machine lock, Optional block skip, Dry run, Feed hold
Others	8.4" color LCD/ MDI, Program storage capacity addition: 800pieces, A decimal point input, Manual pulse generator Memory protect, AC digital servo motor, The circle radius R command, Nose radius compensation, Constant surface speed control (G96), Back ground editing, Programmable date input (G10), Run hour/Parts count display, Multiple repetitive cycles (G70 - G76), Spindle rigid tap, Polar coordinate interpolation, Custom macro B, Canned cycles for drilling, Tool life management. etc.
NC Option	Helical interpolation, Leader puncher interface, etc.

CITIZEN

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