CNC AUTOMATIC LATHE

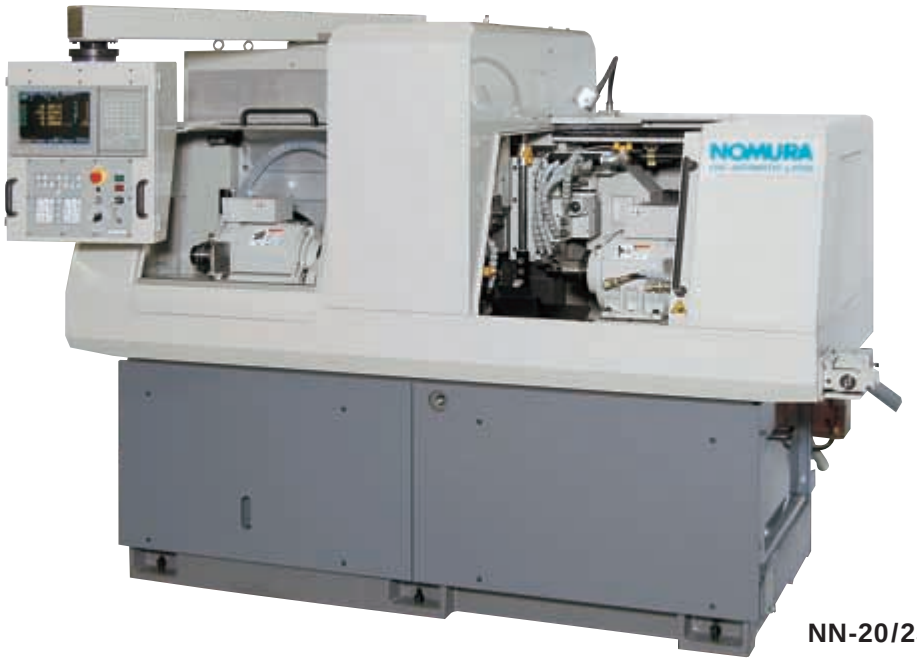
NN-20/25/32YB

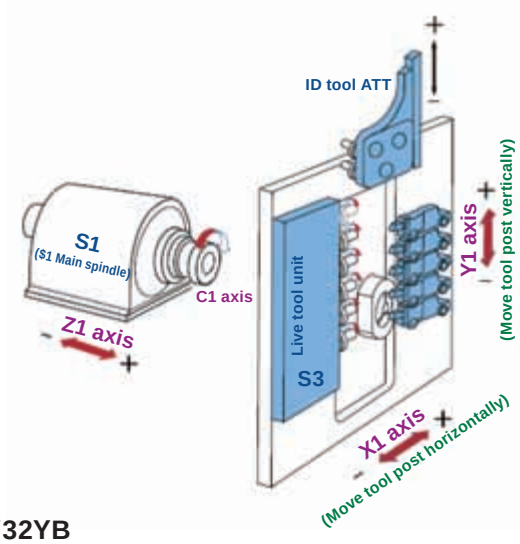
NOMURA VTC AUTOMATIC LATHE CO., LTD.

NOMURA VTC

NOMURA VTC Flagship "YB" Series

C-axis control and phase-synchronization/stand-alone control of main and back spindle enabled.
Milling, tapping, and cross drilling processing are enabled by rotary tool unit, which is applicable to various processing needs, equipped on both main and back side.





NN-20/25/32YB

MAIN TOOL POST

Tool Name	Size		
	NN-20YB	NN-25YB	NN-32YB
OD Tool	□12 × 6	□16 × 5	□16 × 5
ID Tool	ER16 × 4	4 (ER16 × 3 + ER20 × 1)	4 (ER16 × 3 + ER20 × 1)
Live Tool (Standard)	7 (ER16 × 6 • Drill + Tap × 1)	6 (ER20 × 5 + ER16 × 1)	6 (ER16 × 1 + ER20 × 5)
Live Tool	4 (ER16 × 4 • Drill × 3 + Tap × 1)	3 (ER20 × 2 + ER16 × 1)	—
E unit	3 off-center tool (ER11)	3 off-center tool (ER11)	3 Live tool (ER16 × 1 +ER20 × 2) 3 off-center tool (ER11)
OD Tool (Option)	—	—	□20 × 6 (Direct mount type)

BACK TOOL POST

Safety System (Standard Equipment)

Coolant oil cut-off detector
Stops the machine automatically when the pressure of coolant oil decreases below specified level.

Door safety interlock switch
Causes the main power breaker to trip and the power to shut down when electric cabinet cover is opened.

Lightning surge protection function
Protects electronic circuit from high voltage surge noise such as lightning.

Auto power interception
Switches off the power breaker on the machine automatically when the machine is stopped during the automatic operation for any reason.

Main spindle load detection mode
Stops the machine detecting defects in the main spindle when standard load and actual main spindle load are different.

Cut-off tool breakage detector
Stops the machine automatically detecting materials that cannot be completely cut-off due to the breakage failure of the parting tool.

Tap breakage detector (Option)
Stops the machine automatically detecting broken tap while processing the edge face of the tap.

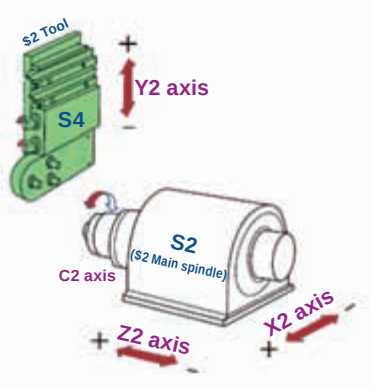
Standard Accessories

Description	NN-20YB	NN-25YB	NN-32YB
ID attachment	●	●	●
Live tool unit	●	●	●
Back Tool unit A	●	●	●
2 OD tool + 3 ID tool + 2 Live tool			
Main spindle cooling unit (for main and back)	●	●	●
Synchronous rotary guide bush unit/transmission unit	●	●	●
Drill holder	●	●	●
Tap holder	●	●	●
Tool holder	●	●	●
Main: Chuck sleeve/Spring/Spindle cap (1 set) *	●	●	●
Back: Chuck sleeve/Spring/Spindle cap (1 set) *	●	●	●
Auto power interception	●	●	●
Automatic lubricator (with level detector)	●	●	●
Coolant oil unit (for main and back)	●	●	●
Coolant oil cut-off detector (for main and back)	●	●	●
Cut-off tool breakage detector	●	●	●
Door safety interlock	●	●	●
Working light (LED light)	●	●	●
Parts conveyor (with parts receiver and basket)	●	●	●
Parts catcher	●	●	●
Leveling pads	●	●	●

* for CE specifications

Optional Accessories

Description		NN-20YB	NN-25YB	NN-32YB
Main	Main E unit 4 live tool (ER16 × 4) + 3 Off-center drill (ER11)	●		
	3 Live tool (ER16 × 1 + ER20 × 2) Eccentric drill (ER11)		●	●
Back	Back tool Type B 1 OD tool (□12.7) + 3ID tool (ER16) + 3 Live tool	●		
	1 OD tool (□16) + 3ID tool (ER16) + 3 Live tool (ER16)		●	●
	Back tool Type C			
	1 OD tool (□12) + 3ID tool (ER16) + 1 Live tool (ER16) +2 Off-center drill (ER11)	●	●	●
Sleeve & nut for synchronous rotary bush		●	●	●
Fixed guide bush unit		●	●	●
Bush sleeve & nut for fixed guide bush		●	●	●
Tap breakage detector (for main and back)		●	●	●
REGO-FIX cap & wrench		●	●	●
Tool presetter		●	●	●
Manual pulse generator 37P		●	●	●
NC display language (English/Chinese/Korean and others)		●	●	●
Singal warning light (1-stage and 3-stage type)		●	●	●
Chip conveyor		●	●	●
Medium pressure coolant		●	●	●
Automatic fire extingushisher		●	●	●
Dent preventive kit		●	●	●
Oil mist collector		●	●	●
Specified color		●	●	●
Tooling		●	●	●
Working tool kit		●	●	●
NC manual		●	●	●

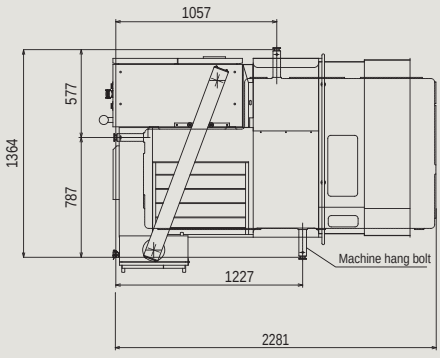


Tool Name		Size		
		NN-20YB	NN-25YB	NN-32YB
Tool Type A (Standard)	OD Tool	□12 × 2	□16 × 2	
	ID Tool	ER16 × 3		
	Live Tool	ER16 × 2		
Tool Type B (Option)	OD Tool	□12 × 1	□16 × 1	
	ID Tool	ER16 × 3		
	Live Tool	ER16 × 3		
Tool Type C (Option)	OD Tool	□12 × 1		
	ID Tool	ER16 × 3		
	Live Tool	ER16 × 1		
	Off-center Tool	ER11 × 3		
Tool Type D (Option)	OD Tool	□12 × 3	3 (□16 × 2 + □12 × 1)	—
	ID Tool	ER16 × 4		—
ID Tool (Option)		—	—	ER20 × 3

NC control model has adopted MITSUBISHI M65S for faster processing speed and better operability. It also pursued mobility and usability of using pendant operation board.

***Main spindle 2.2kW/3.7kW built-in motor**
A robust bush base is adopted to support heavy cutting.

Floor Layout



***Back spindle 1.5kw/2.2kW built-in motor (above photo includes E unit)**

Finished parts are taken out of the machine with parts conveyor and are placed in stock on the parts receiver (oil-bath style).

Specification Item			Specification Value		
			NN-20YB	NN-25YB	NN-32YB
Max. Machining Capacity	Main	Max. Machining diameter	ϕ20mm (0.79")	ϕ25mm (0.98")	ϕ32mm (1.26")
		Max.Machining length	200mm (7.87")		190mm (7.48") / chuck
		ID tool	10mm (Holder ϕ23)		4
		ID tool length	50mm (1.97")		
		ID tap	M10 × 1.5		
		Live tool	ϕ8mm (0.31")		
		Live tap	M8 × 1.25		
	Back	Parts unloading length	120mm (4.72")		
		Parts pick-up length	93mm (3.66")		
		ID tool	ϕ8mm (0.31")		
		ID tool length	60mm (2.36")		
		ID tap	M8 × 1.25		
		Live tool	60mm (2.36")		
		Live tap	M6		
Number of Tools	Main	OD tool	□12.7mm (□0.5") × 6	□16mm (□0.63") × 5	
		ID tool	ER16 × 4	ER16 × 3 + ER20 × 1	
		Live tool	6 (ER16)	5 (ER20)	
		Live tap	1 (ER16)		
	Back	OD tool	□12.7mm (□0.5") × 2	□16mm (□0.63") × 2	
		ID tool	3 (ER16)		
		Live tool	2 (ER16)		
Main Spindle	Live tool spindle RPM		200 to 6000 r.p.m.		
	Main spindle through-hole diameter		ϕ24mm (0.94")	ϕ27mm (1.06")	ϕ37mm (1.46")
	Main spindle indexing C-axis		0.001°		
	Main spindle indexing angle		0.001°		
	Main spindle RPM		300 – 10000 r.p.m.	300 – 8000 r.p.m.	
	Tool RPM		200 – 6000 r.p.m.		
Feed Rate	$1Z axis		15m / min.		
	$1X axis		14m / min.		
	$1Y axis		20m / min.		
	$2Z axis		15m / min.		
	$2X axis		20m / min.		15m / min.
	$2Y axis		20m / min.		15m / min.
NC / Motors / Others	NC		MITSUBISHI 65S		
	NC display		10.4" color TFT LCD		
	$1 Main spindle motor		2.2kW / 3.7kW built-in		
	$2 Main spindle motor		1.5kW / 2.2kW built-in		
	$1 Rotary tool axis motor		1.5kW		
	$2 Rotary tool axis motor		1.5kW		
	Axis feed motor: Z1		1kW		
	Axis feed motor: X1		1kW		
	Axis feed motor: Y1		1kW: w/ brake		
	Axis feed motor: Z2		1kW		
	Axis feed motor: X2		1kW		
	Axis feed motor: Y2		1kW: w/ brake		
	Coolant pump		Main 0.4kW + Back 0.25kW		
	Lubricant pump		0.003kW (Lubricant scarcity float switch)		
	Hydraulic pump		0.75kW (Tank capacity 10L, VG32)		
	Main spindle cooling pump		0.075kW × 2 (Tank capacity 20L VG32)		
	Main spindle cooling fan		0.034kW × 2 (Radiator fan)		
Dimensions/ Others	Main spindle height		1000mm (39.37")		
	W + D + H		2280 × 1257 × 1825mm (89.76" × 49.49" × 71.85")		
	Weight		2950kg (6504lbs)		
	Floor space requirements		2280 × 1175mm (90" × 46")		
	Total power capacity		15KVA		

Note: The specification is based on the specifications applied within Japan. Specifications are subject to change without notice.

Note: The product could be classified as strategic item or other export regulated under the Foreign Exchange and Foreign Trade Law. Contact our sales representative when exporting this product.

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