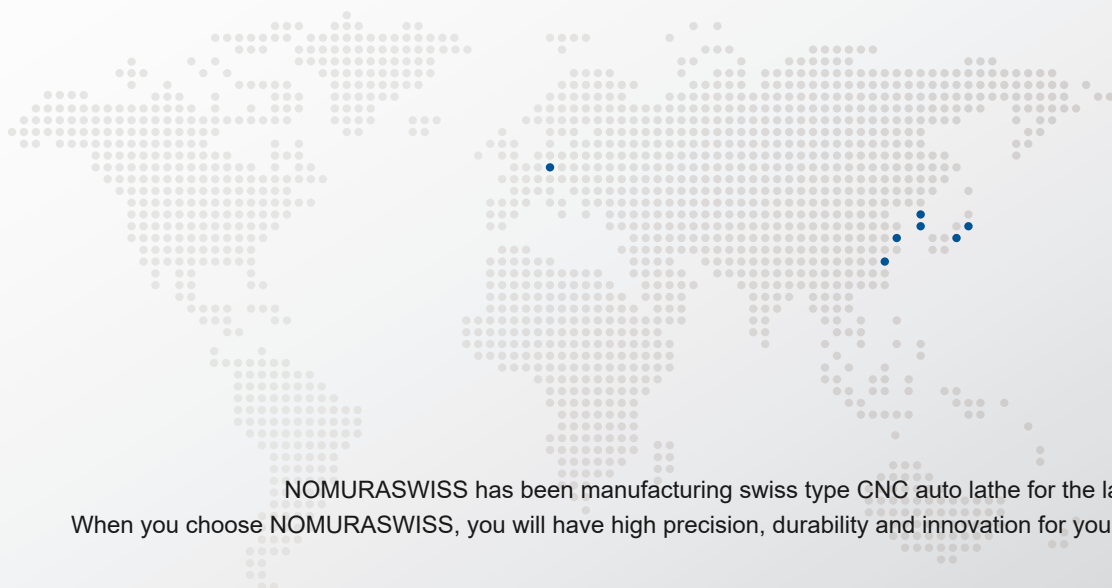




Swiss Type CNC Auto Lathe Series



NOMURASWISS has been manufacturing swiss type CNC auto lathe for the last 70 years.
When you choose NOMURASWISS, you will have high precision, durability and innovation for your production.



History

70 year's tradition for high quality
CNC Automatic Lathes

1935

- Lathe research started
(Founder: Mr. Koji Nomura)
- Established NOMURA

1960

- 4,000 sets of cam-type lathe sold
- NS1530, 8410 sales started in 1945

1970

- Developed IC 10A
- Export started from 1964
- Started sales of NC cam lathe

1980

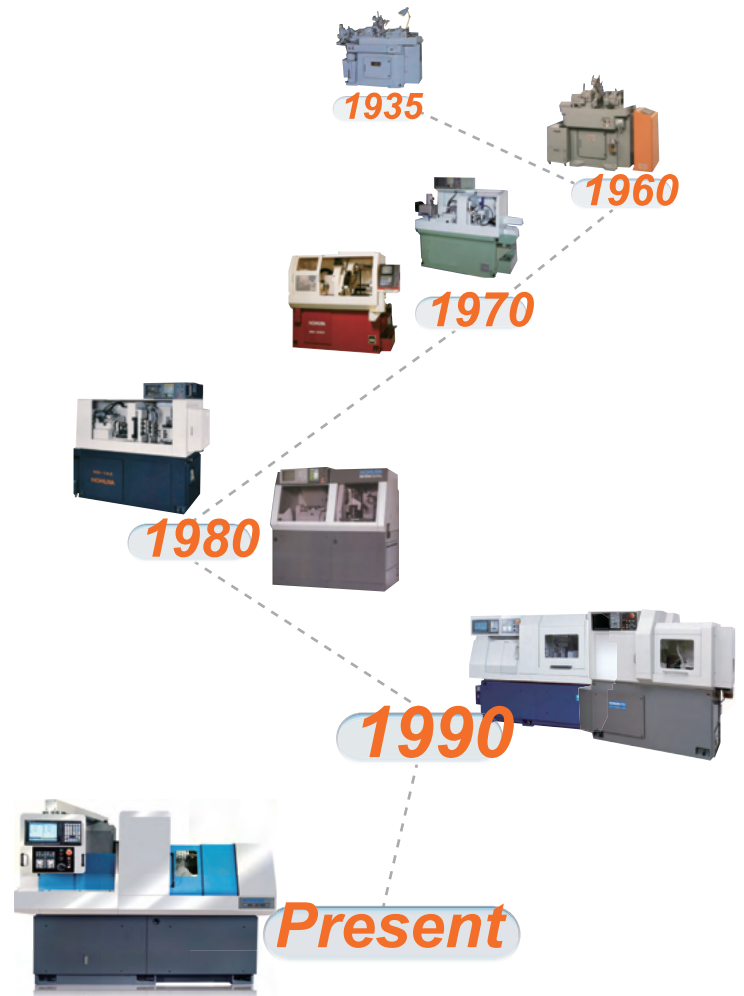
- Developed CNC M-LO 160V
- Developed CNC M-300 KF
- Developed CNC M-500 16R, U2

1990

- Established
NOMURA Auto Lathe Co., Ltd.
- 15,000 sets of cam-type lathe sold

Present

- 14,000 sets of CNC lathe sold
- Developed 3X, 10EX2, 38UB8
- Developed NOMURA Tapping Center
- Developed FANUC NC equipped lathe

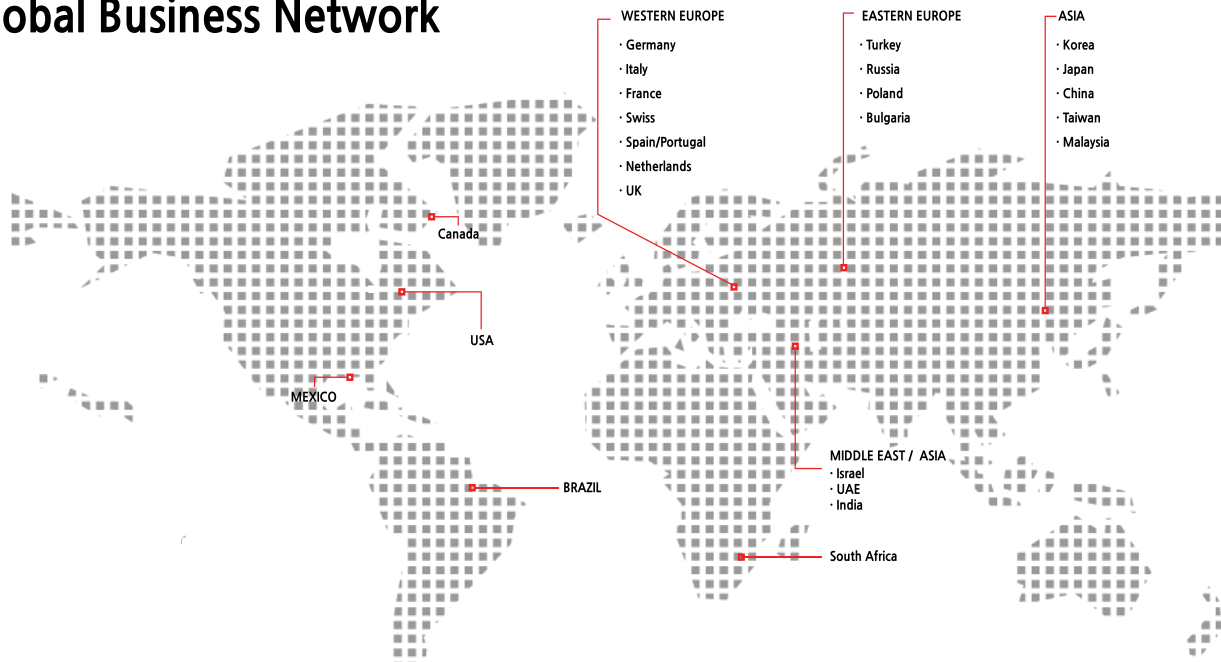


NOMURASWISS

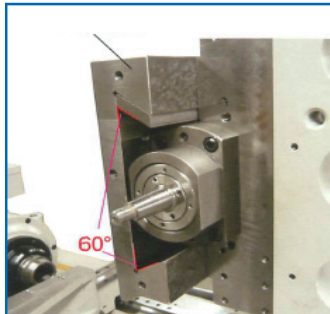
has been manufacturing swiss type CNC auto lathe for the last 70 years. When you choose NOMURASWISS, you will have high precision, durability and innovation for your production



Global Business Network



Dovetail structure



The rigidity of NOMURASWISS machine is enhanced as its structure contacts the surface of both sides.

Hand scraping



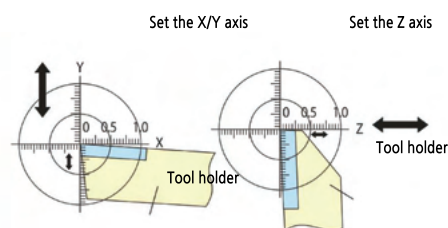
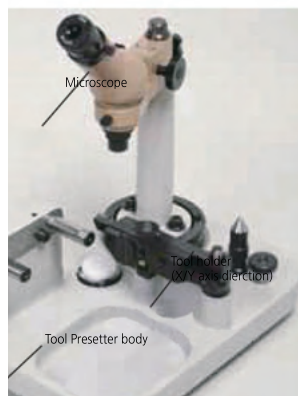
The weighty tool post is glided smoothly by our master artisans and high precision is enhanced as the result.

Integrated casting bed



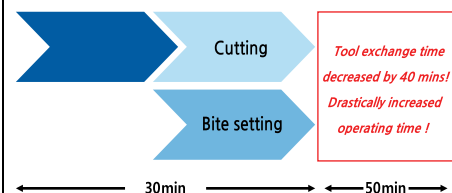
Machine vibrations is absorbed and machining tolerance affected by the temperature change of cutting oil can be minimized as temperature turning is enacted with coolant tank located in the casting bed.

Tool presetter - Option



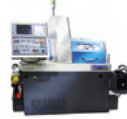
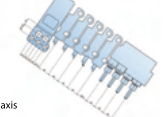
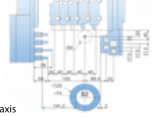
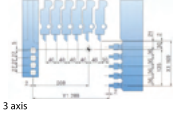
- Set the X/Y axis direction
- Set the Z axis direction. This is all you need to do.

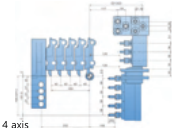
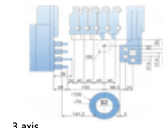
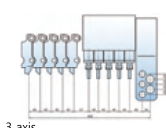
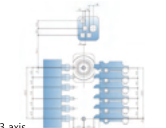
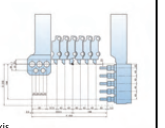
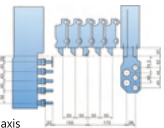
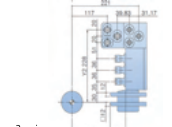
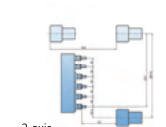
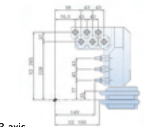
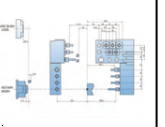
NOMURASWISS Tool Holder Type



Competitors' direct mounted (fixed bite) type



Content			NAME	NN-3X	NN-10EX2	NN-20SB	NN-20/25UB8	NN-10/20J3
			TYPE	S	S		S/N	S
			NC	Fanuc 0i-TF Plus	Mitsubishi M80 TypeA / Fanuc 0i-TF Plus	Mitsubishi M80 TypeA / Fanuc 0i-TF Plus	Mitsubishi M80 TypeA / Fanuc 0i-TF Plus	Mitsubishi M80 TypeA / Fanuc 0i-TF Plus
	Photo							
	\$1 Tool Lay-out [MAIN]							
	\$2 Tool Lay-out [SUB]							
	Max. Machining capacity (Ø)	Ø3	Ø10	Ø20	Ø20 / Ø25	Ø10 / Ø20		
\$1	Max. rpm	16,000rpm	15,000rpm	10,000rpm	10,000rpm	15,000rpm / 10,000rpm		
	Power	1.1/0.75kW	3.7/1.5kW (Mitsubishi) 3.7/2.2kW (Fanuc)	3.7/1.5kW	3.7/2.2kW	3.7/1.5kW		
\$2	Max. rpm	16,000rpm	15,000rpm	10,000rpm	8,000rpm	15,000rpm / 10,000rpm		
	Power	1.1/0.75kW	1.1/0.75kW	3.7/1.5kW	1.5/0.55kW (Mitsubishi) 2.2/1.5kW (Fanuc)	3.7/1.5kW		
Max. Number of tools			16 tools (OP : 17)	22 tools	24 tools	STD/K: 21 tools K2: 23 tools	30 tools	
\$1	O.D.	Number of tools	8 tools	6 tools	5 tools	5 tools	6 tools	
		Bite size	□8	□10	□12.7	20UB8: □12.7 25UB8: □12.7x3+□16x2	□12.7	
	I.D.	Number of tools	3(ER8)(OP:Rear 3)	4 (ER11) (OP : Rear 4)	5 (ER11x3 +ER16x2) (OP : Rear 5)	4 (ER16) (OP: Rear 4)	4 (ER16) (OP : Rear 4)	
	Cross	Max. rpm	9,000rpm	10,000rpm	6,000rpm	6,000rpm	6,000rpm	
		Power	0.35kW	0.4/0.15kW (Mitsubishi) 0.5kW (Fanuc)	0.9kW (Mitsubishi) 1.0kW (Fanuc)	0.75kW (Mitsubishi) 1.0kW (Fanuc)	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	
		Number of tools	2 (ER11)(OP: 3)	4 (ER11)	4 (ER16)	4 (ER16)	5 (ER16)	
\$2	O.D.	Number of tools	—	—	—	STD: 1 tool K/K2: -	2 tools	
		Bite size	—	—	—	□10	□12.7	
	I.D.	Number of tools	—	STD: 4 (ER11) K: 2 (ER11)	3 (ER16)	K: 2(ER16) STD/K2: 3(ER16)	3 (ER16)	
	ECC	Number of tools	—	STD: - K: 2 (ER11)	2 (ER16)	K: 2 (ER16) K2: 3 (ER16) STD: -	3 (ER11)	
	Cross	Number of tools	—	—	—	—	3 (ER16)	
	Rotary	Max. rpm	—	—	6,000rpm	6,000rpm	6,000rpm	
		Power	—	—	0.9kW (Mitsubishi) 1.0kW (Fanuc)	0.4kW (Mitsubishi) 0.5kW (Fanuc)	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	
No. of Axis (C1, C2 excluded)			4	5	5	5	6	
Stroke (mm)	Z1	123	110	200	200	205		
	X1	30	60	65	130	169		
	Y1	151.5	155	387	240	288		
	Z2	—	—	—	262	—		
	X2	—	STD: 200 K: 195	291	219	225		
	Y2	—	—	—	—	232		
Dimension	Size (LxWxH)	1,501 x 962 x 1,643	1,713 x 825 x 1,650	2,150 x 1,170 x 1,725	20UB8: 2,162 x 1,090 x 1,676 25UB8: 2,300 x 1,090 x 1,676	2,430 x 1,644 x 1,855		
	Weight	1,000kg	1,650kg	1,950kg	2,135kg	2,700kg		
Remark								
· O.D tool			Wedge	Holder	Holder	Holder	Holder	
				Wedge	Wedge	Wedge	Wedge	
· Application			· Small precision combined turning	· Small precision combined turning	· Shortened cycle time	· Diffusion model for combined turning	· Multi-functional combined turning	
			· Best spec in its class	· Best spec in its class			· Best spec in its class	
							· Shortened cycle time	

Content			NAME	NN-20J3XB	NN-32UB8	NN-32/38KM	NN-32YB3	NN-32J	NN-38UB8
			TYPE	S	S	S	S/N	S	S/N
			NC	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus	Mitsubishi M80 TypeA / Fanuc Oi-TF Plus
Specification	Photo								
	\$1 Tool Lay-out [MAIN]	 4 axis	 3 axis	 3 axis	 3 axis	 3 axis	 3 axis		
	\$2 Tool Lay-out [SUB]	 3 axis	 2 axis	 2 axis	 3 axis	 3 axis	 2 axis		
	Max. Machining capacity (Ø)	Ø20	Ø32	Ø38	Ø32	Ø32	Φ38mm (OP : Φ42mm)		
	\$1	Max. rpm	10,000rpm	8,000rpm	8,000rpm	8,000rpm	8,000rpm	8,000rpm	
	Power	3.7/1.5kW	5.5/3.7kW (Mitsubishi) 7.5/5.5kW (Fanuc)	7.5/5.5kW (Mitsubishi) 11.0/7.5kW (Fanuc)	5.5/3.7kW (Mitsubishi) 7.5/5.5kW (Fanuc)	7.5/3.7kW (Mitsubishi) 9.0/5.5kW (Fanuc)	7.5/5.5kW (Mitsubishi) 11.0/7.5kW (Fanuc)		
\$2	Max. rpm	10,000rpm	6,000rpm	8,000rpm	8,000rpm	8,000rpm	8,000rpm		
	Power	3.7/1.5kW	3.7/1.5kW (Mitsubishi) 2.2/1.5kW (Fanuc)	7.5/3.7kW (Mitsubishi) 7.5/5.5kW (Fanuc)	3.7/1.5kW (Mitsubishi) 5.5/2.2kW (Fanuc)	7.5/3.7kW (Mitsubishi) 9.0/5.5kW (Fanuc)	5.5/3.7kW		
Max. Number of tools			Type A: 29 tools Type B: 28 tools Type C: 27 tools	STD/K: 21 tools K2: 23 tools	5 axis: 26 tools 6 axis: 28 tools	31 tools	32 tools	K: 24 tools K2: 26 tools	
\$1	O.D.	Number of tools	Type A/C: 5 tools Type B: 6 tools	5 tools	5 tools	6 tools	6 tools	5 tools	
		Bite size	□12.7	□12.7x3, □16x2	□16	□16	□16	□20	
	I.D.	Number of tools	4 (ER16)	4 (ER16X3+ER20X1) (OP : Rear 4)	5 (ER16X3+ER20X2) (OP : Rear 5)	4 (ER16X3+ER20X1) (OP : Rear 4)	5 (ER16X2, ER20x3)	5 (ER16X3+ER20X2) (OP : Rear 5)	
		Max. rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	
		Power	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	1.5kW (Mitsubishi) 1.0kW (Fanuc)	1.5kW (Mitsubishi) 2.2kW (Fanuc)	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	1.5kW (Mitsubishi) 2.2kW (Fanuc)	1.5kW (Mitsubishi) 2.2kW (Fanuc)	
		Number of tools	Type A/C: 5 (ER16)(B axis) Type B: 5 (ER16)	4 (ER16)	5 (ER16)	6 (ER20)	5 (ER20)	5 (ER20)	
\$2	O.D.	Number of tools	2 tools	STD: 1 tool K/K2: -	-	2 tools	2 tools	-	
		Bite size	□12.7	□10	-	□16	□16	-	
	I.D.	Number of tools	3 (ER16)	K: 2 (ER16) STD/K2: 3 (ER16)	5 axis: 2 (ER16) 6 axis: 4 (ER16)	3 (ER16)	5 (ER16x4, ER20x1)	K: 2 (ER20) STD/K2: 3 (ER16X1 + ER20X2)	
		ECC	Number of tools	Type A: 3 (ER11) Type B/C: -	K: 2 (ER16) K2: 3 (ER16) STD: -	5 axis: 2 (ER16) 6 axis: 4 (ER16)	3 (ER16)	5 (ER16x4, ER20x1))	K: 2 (ER20) K2: 3 (ER16X1 + ER20X2))
	Cross	Number of tools	Type A: 3 (ER16) Type B/C: 4 (ER16)(B axis)	-	-	3 (ER16)	4 (ER16x3, ER20x1)	-	
	Rotary	Max. rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	6,000rpm	
		Power	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	0.9kW (Mitsubishi) 1.0kW (Fanuc)	0.9kW (Mitsubishi) 1.0kW (Fanuc)	1.5/0.55kW (Mitsubishi) 1.0kW (Fanuc)	1.5kW (Mitsubishi) 2.2kW (Fanuc)	0.9kW (Mitsubishi) 1.0kW (Fanuc)	
	No. of Axis (C1, C2 excluded)			Type A/B: 7 Type C: 8	5	5 / 6	6	6	6
Stroke (mm)	Z1	205	192	260	190	300	273		
	X1	308	135	80	96	228	230		
	Y1	165.5	275	468	223	416	416		
	Z2	350	302	305	316.4	168	316.5		
	X2	Type A: 232 Type B/C: 236	219	386	184	234	399.2		
	Y2	Type A: 232 Type B/C: 236	-	5 axis: 45	265	290.4			
Dimension	Size (LxWxH)	2,411 x 1,478 x 2,005	2,386 x 1,109 x 1,676	2,896 x 1,460 x 1,755	2,483 x 1,425 x 1,825	3,097 x 1,514 x 2,163	2,749 x 1,528 x 1,925		
	Weight	2,800kg	2,450kg	3,800kg	3,030kg	3,800kg	3,600kg		
Remark									
· O.D tool				Holder	Holder	Holder	Holder	Holder	
				Wedge	Wedge	Wedge	Wedge	Wedge	
· Application			· Multi-functional combined turning	· Diffusion model for combined turning	· Multi-functional combined turning	· Multi-functional combined turning	· Multi-functional combined turning	· Multi-functional combined turning	
			· Best spec in its class		· Best spec in its class	· Best spec in its class	· Best spec in its class	· Best spec in its class	
			· Shortened cycle time		· Shortened cycle time	· Shortened cycle time	· Shortened cycle time	· Shortened cycle time	

NN-3X

Specialized for miniature and high-precision parts

- Horizontal tool post

The best tool layout among equivalent models

- The largest number of tools: 17EA

- Drastically shortened cycle time

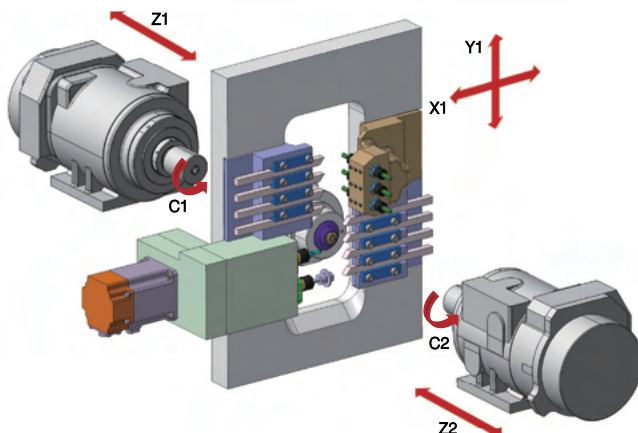
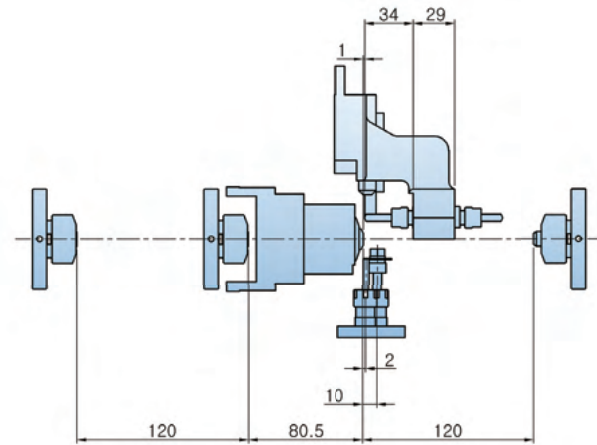
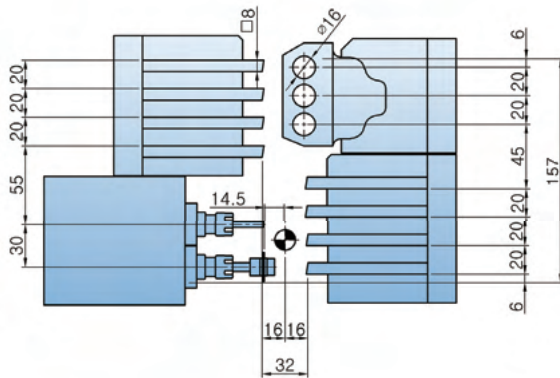
Various special tools covered

Improved machining capacity with high-precision parts and difficult-to-machine material

- Horizontal tool post



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2
Feed distance	mm	123	30	151.5	129
Rapid feed rate	m/min	20	20	20	20

Tools			Unit	NN-3X	Remarks
Max. number of tools			EA	16	
Main	O.D. tool		EA	8	□8
	I.D. tool	Front	EA	3	ER8
		Rear(op)	EA	3	ER8
	Cross drill		EA	2	ER11

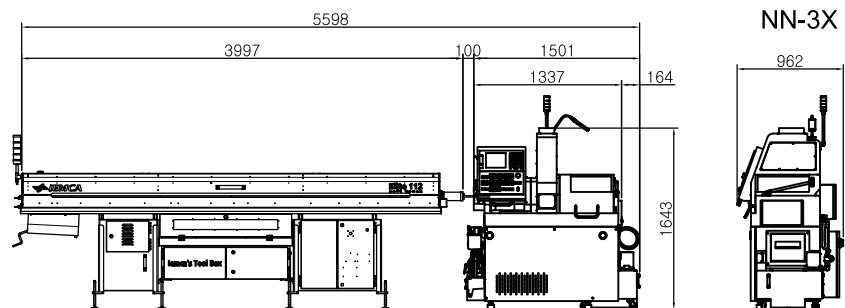
NN-3X Specifications

Content		Specification	Specification Value
			NN-3X
Machining capacity		Max. machining diameter	Φ3mm
		Max. machining length	30mm / 1 chuck
		Max. parts unloading length	30mm
Spindle		Main spindle through-hole diameter	Φ4mm
		Spindle RPM (Main/Sub)	16,000rpm
		Sub spindle chucking diameter	Φ3mm
Tool	Type	Max. number of tools	16(OP: 17)
		Max. machining drill	Φ2mm
		Max. machining tap	M1
	Main	O.D. tool	8 (□8X100mm max)
		I.D. tool	3(ER8)(OP:Rear 3)
		Cross drill	2 (ER11)(OP: 3)
	SUB	Cross drill RPM	9,000rpm
		O.D. tool	-
		I.D. fixed tool	-
		I.D. rotary tool	-
Feed		Rapid feed rate	20m/min
		Min. command unit	0.0001mm
		C-axis min. command unit (Main/Sub)	0.0001°
Motor		Main spindle motor	1.1/0.75kW
		Cross drill motor	0.35kW
		Sub spindle motor	1.1/0.75kW
		Sub rotary motor	-
		Coolant pump (Main/Sub)	0.25kW
		Lubricant pump	0.003kW
Dimensions and etc.		Main spindle center height	950mm
		Input power capacity	10KVA
		Air pressure/Flow rate	0.6MPa.30L/min
		Coolant tank	65L
		WxDxH	1,501 x 962 x 1,643 mm
		Weight (Standard accessories included)	1,000kg
NC		NC UNIT	0i-TF Plus (Fanuc)
		NC display	10.4 Color TFT LCD
		Memory capacity	2MB
		No. of tool offset	128sets

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Drill holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Overload detection function
Working light(LED)
Parts catcher
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
Oil mist collector
Custom colors
Tooling
Door interlock switch
Barfeeder
Cross drill X 3
Cross drill X 1

FLOOR Layout

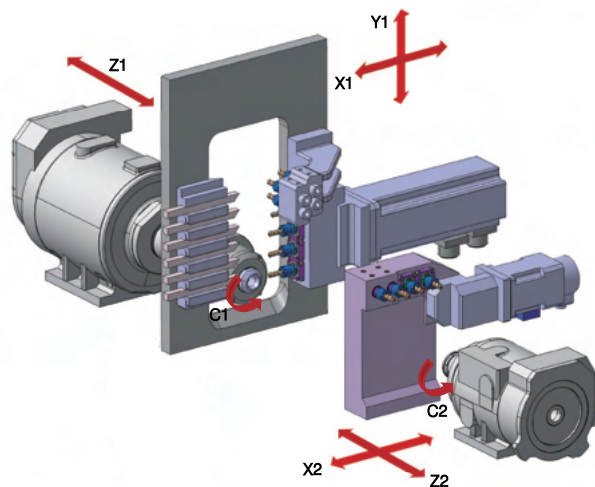
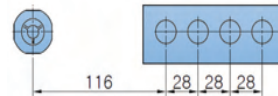
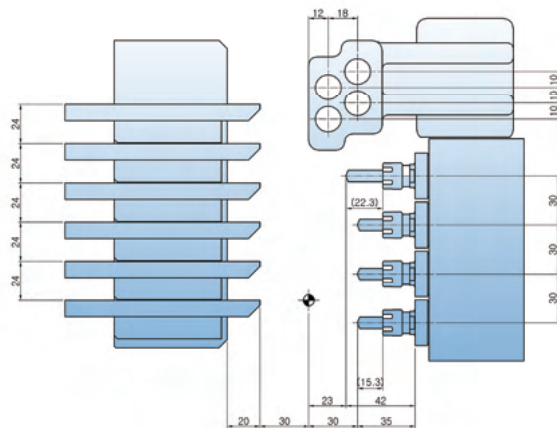


NN-10EX2

-  Appropriate for high precision machining under $\Phi 10$
-  Increased productivity (shortened C.T.)
 - Built-in motor on main & sub spindle
 - Feed rate 36m/min
-  The latest NC equipped
 - MITSUBISHI M80



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2
Feed distance	mm	110	60	155	205	200 (K: 195)
Rapid feed rate	m/min	30	20	30	30	30

Tools		Unit	NN-10EX2		Remarks
			Standard	K	
Max. number of tools		EA	22		
Main	O.D. tool	EA	6		$\square 10$
	I.D. tool	front	EA	4	ER11
		Rear(op)	EA	4	ER11
	Cross drill	EA	4		ER11
SUB	I.D. tool	EA	4	2	ER11
	Eccentric tool	EA	-	2	ER11

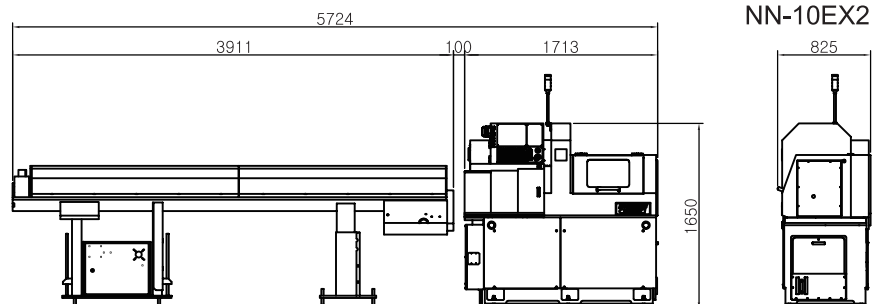
NN-10EX2 Specifications

Content		Specification	Specification Value	
			10EX2	
Machining capacity		Max. machining diameter	Φ10mm	
		Max. machining length	110mm / 1 chuck	
		Max. parts unloading length	50mm	
Spindle		Main spindle through-hole diameter	Φ13mm	
		Spindle RPM (Main/Sub)	15,000rpm	
		Sub spindle chucking diameter	Φ10mm	
Tool	Type	Type	Standard	K
		Max. number of tools	22	
		Max. machining drill	Φ7mm	
		Max. machining tap	M6	
	Main	O.D. tool	6 (□10X100mm)	
		I.D. tool	4 (ER11) (OP : Rear 4)	
		Cross drill	4 (ER11)	
		Cross drill RPM	10,000rpm	
	SUB	I.D. fixed tool	4 (ER11)	2 (ER11)
		I.D. rotary tool	-	2 (ER11)
Feed		Rapid feed rate	30m/min X1: 20m/min	
		Min. command unit	0.0001mm	
		C-axis min. command unit (Main/Sub)	0.0001°	
Motor		Main spindle motor	3.7/1.5kW (Mitsubishi) 3.7/2.2kW (Fanuc)	
		Cross drill motor	0.4/0.15kW (Mitsubishi) 0.5kW (Fanuc)	
		Sub spindle motor	1.1/0.75kW	
		Sub rotary motor	0.4kW (Mitsubishi) 0.5kW (Fanuc)	
		Coolant pump	0.25kW	
		Lubricant pump	0.003kW	
Dimensions and etc.		Main spindle center height	1,000mm	
		Input power capacity	6.8KVA	
		Air pressure/Flow rate	0.6MPa.30L/min	
		Coolant tank	110L	
		WxDxH	1,713 x 825 x 1,650mm	
		Weight (Standard accessories included)	1,650kg	
NC		NC UNIT	M80 Type A (Mitsubishi) 0i-TF Plus (Fanuc)	
		NC display	8.4 Color TFT LCD (Mitsubishi) 10.4 Color TFT LCD (Fanuc)	
		Memory capacity	500KB (Mitsubishi) 2MB (Fanuc)	
		No. of tool offset	256 Sets (Mitsubishi) 128 Sets (Fanuc)	

Standard Accessories
I.D. tool device
Tool holder
Rotary guide bush
Rotary guide bush drive unit
Drill holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts catcher
Tool set
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)
Manual pulse generator(MPG)

Optional Accessories
E1 UNIT
Long drill holder
Fixed guide bush
Tap breakage detector
Tool air blow
Rear ejection unit (less than Φ7mm)
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout

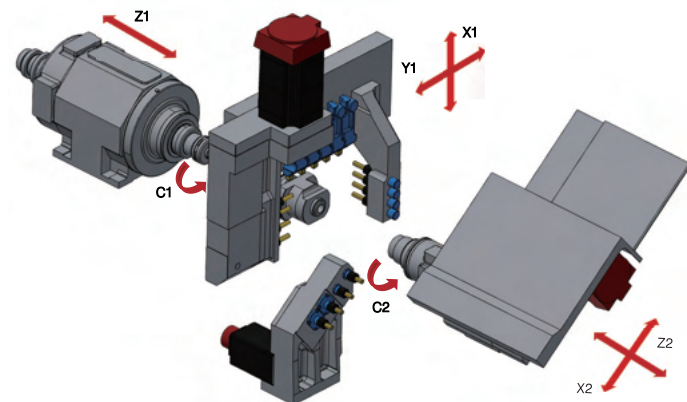
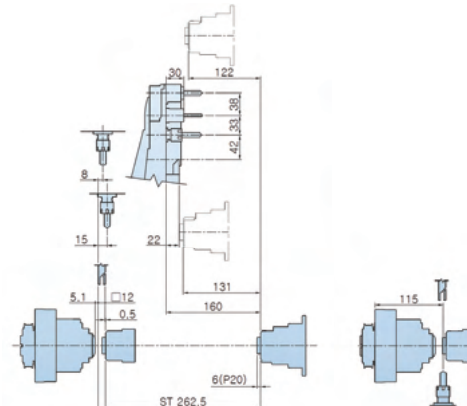
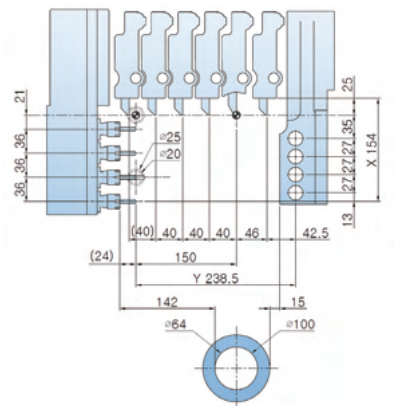


NN-20/25UB8

-  **NC controller selectable**
- MITSUBISHI, FANUC
-  **Expanded tool options**
- Eccentric turning operation on sub tool
-  **Guide / Non-guide bush type**
- Minimized remaining material (Non-guide bush type)
-  **Specialized for high-precision parts**
-  **High efficiency, reasonable price**



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2
Feed distance	mm	200	130	240	262	219
Rapid feed rate	m/min	30	30	30	30	30

Tools		Unit	NN-20/25UB8			Remarks
			Standard	K	K2	
Max. number of tools		EA	21	23		
Main	O.D. tool	EA	5			□12.7 / □12.7X3, □16X2
	I.D. tool	Front	EA	4		ER16
		Rear(op)	EA	4		ER16
	Cross drill	EA	4			ER16
SUB	O.D. tool	EA	1	-	-	□10
	I.D. tool	EA	3	2	3	ER16
	Eccentric tool	EA	-	2	3	ER16

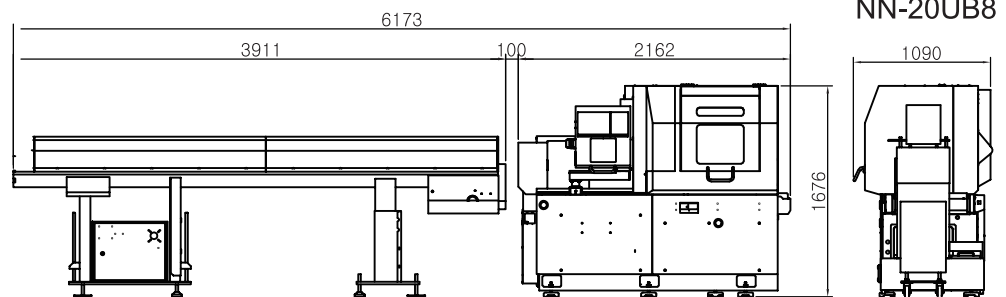
NN-20/25UB8 Specifications

Content		Specification	Specification Value		
			NN-20/25UB8		
Machining capacity		Max. machining diameter	Φ20mm/Φ25mm		
		Max. machining length	200mm / 1 chuck		
		Max. parts unloading length	105mm		
Spindle		Main spindle through-hole diameter	Φ24mm/Φ27mm		
		Spindle RPM (Main/Sub)	10,000rpm / 8,000rpm		
		Sub spindle chucking diameter	Φ20mm/Φ25mm		
Tool	Type	Type	Standard	K	K2
		Max. number of tools	21		
		Max. machining drill	Φ10mm		
		Max. machining tap	M8		
	Main	O.D. tool	5 (□12.7x150) / 5 (□12.7x3+□16x2x150)		
		I.D. tool	4 (ER16) (OP: Rear 4)		
		Cross drill	4 (ER16)		
		Cross drill RPM	6,000rpm		
	SUB	O.D. tool	1 (□10x80)	—	—
		I.D. fixed tool	3(ER16)	2(ER16)	3(ER16)
		I.D. rotary tool	—	2(ER16)	3(ER16)
FEED		Rapid feed rate	30m/min		
		Min. command unit	0.0001mm		
		C-axis min. command unit (Main/Sub)	0.0001°		
Motor		Main spindle motor	3.7/2.2kW		
		Cross drill motor	0.75kW(Mitsubishi)/1.0kW(Fanuc)		
		Sub spindle motor	1.5/0.55kW(Mitsubishi)/2.2/1.5kW(Fanuc)		
		Sub rotary motor	0.4kW(Mitsubishi)/0.5kW(Fanuc)		
		Coolant pump (Main/Sub)	0.25kW		
		Lubricant pump	0.003kW		
Dimensions and etc.		Main spindle center height	1,000mm		
		Input power capacity	12KVA		
		Air pressure/Flow rate	0.6MPa.35L/min		
		Coolant tank	110L		
		WxDxH	2,162x1,090x1,676mm		
		Weight (Standard accessories included)	2,135kg		
NC		NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)		
		NC display	8.4 Color TFT LCD(Mitsubishi) 10.4 Color TFT LCD(Fanuc)		
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)		
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)		

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)
Cut-off detector

Optional Accessories
Cross drill X 5
E3 UNIT
Long drill holder
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout



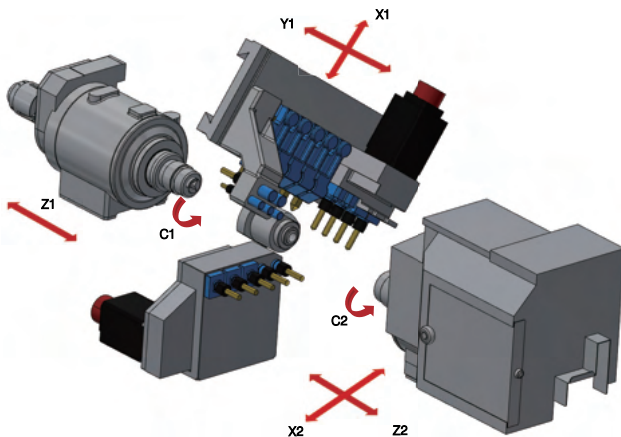
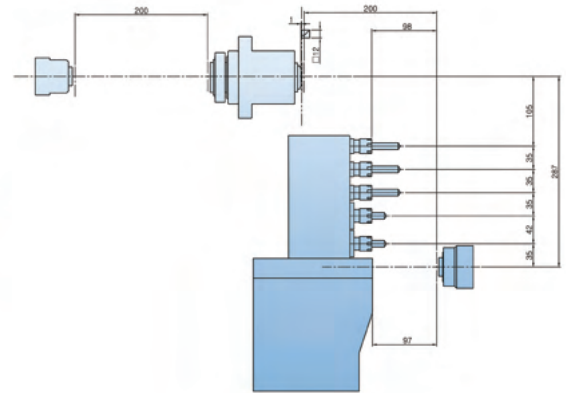
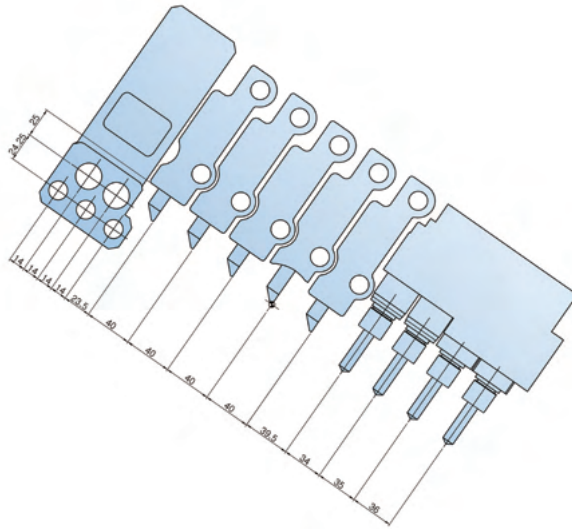


 **SLANT type tool post**
- Easier chip disposal, secured safety for operators

Efficient tool layout
- C/T shortened with expanded sub tool layout

 **Built-in structure for main/sub / Dovetail structure**
- Advantage for processing medical parts with high rigidity and precision

TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2
Feed distance	mm	200	65	387	200	291
Rapid feed rate	m/min	30	20	30	30	30

Tools			Unit	NN-20SB	Remarks
Max. number of tools			EA	24	
Main	O.D. tool		EA	5	□12.7
	I.D. tool	Front	EA	5	ER16x2+ER11x3
		Rear(OP)	EA	5	ER16x2+ER11x3
	Cross drill		EA	4	ER16
SUB	I.D. tool		EA	3	ER16
	Eccentric tool		EA	2	ER16

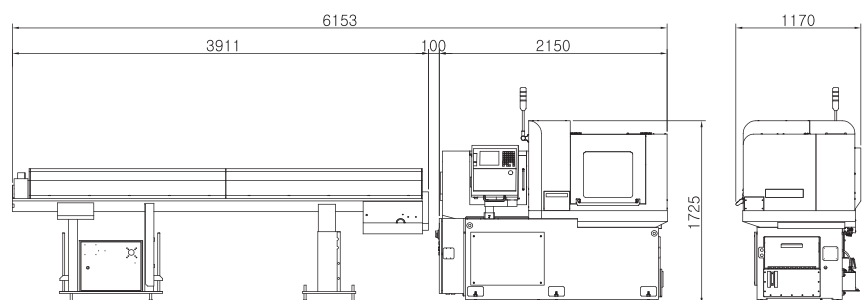
NN-20SB Specifications

Content		Specification	Specification Value	
			NN-20SB	
Machining capacity		Max. machining diameter	Φ20mm	
		Max. machining length	200mm / 1 chuck	
		Max. parts unloading length	120mm	
Spindle		Main spindle through-hole diameter	Φ23mm	
		Spindle RPM (Main/Sub)	10,000rpm	
		Sub spindle chucking diameter	Φ20mm	
Tool	Type	Max. number of tools	24	
		Max. machining drill	Φ10mm	
		Max. machining tap	M10	
	Main	O.D. tool	5 (□12.7X150mm max)	
		I.D. tool	5 (ER11x3 +ER16x2) (OP : Rear 5)	
		Cross drill	4 (ER16)	
	SUB	Cross drill RPM	6,000rpm	
		I.D. fixed tool	3 (ER16)	
		I.D. rotary tool	2 (ER16)	
Feed		Rapid feed rate	30m/min X1: 20m/min	
		Min. command unit	0.0001mm	
		C-axis min. command unit (Main/Sub)	0.0001°	
Motor		Main spindle motor	3.7/1.5kW	
		Cross drill motor	0.9kW (Mitsubishi)	1.0kW (Fanuc)
		Sub spindle motor	3.7/1.5kW	
		Sub rotary motor	0.9kW (Mitsubishi)	1.0kW (Fanuc)
		Coolant pump (Main/Sub)	0.25kW	
		Lubricant pump	0.003kW	
Dimensions and etc.		Main spindle center height	1,050mm	
		Input power capacity	18KVA	
		Air pressure/Flow rate	0.6MPa. 35L/min	
		Coolant tank	120L	
		WxDxH	2,150x1,170x1,725 mm	
NC		Weight (Standard accessories included)	1,950kg	
		NC UNIT	M80 Type A (Mitsubishi)	0i TF Plus (Fanuc)
		NC display	8.4 Color TFT LCD (Mitsubishi)	10.4 Color TFT LCD(Fanuc)
		Memory capacity	500KB (Mitsubishi)	2MB (Fanuc)
		No. of tool offset	256sets (Mitsubishi)	128sets (Fanuc)

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector(Main/Sub)
Overload detection function
Working light(LED)
Door interlock switch
Parts catcher
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)
Optional Accessories
Long drill holder
E3 UNIT
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit (less than Φ17mm)
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling
Parts conveyor
Cut-off detector

FLOOR Layout

NN-20SB

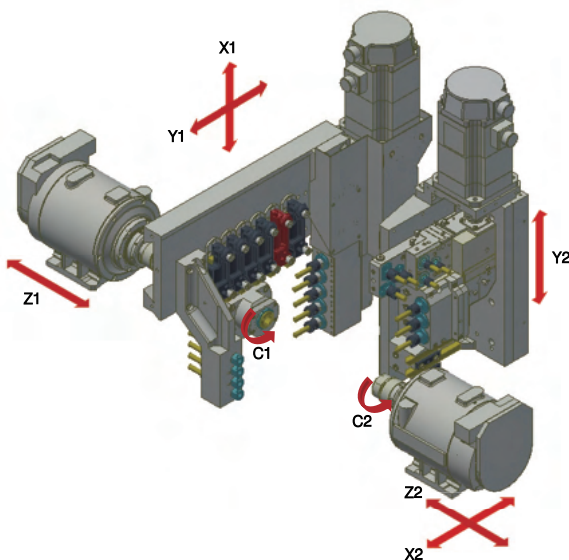
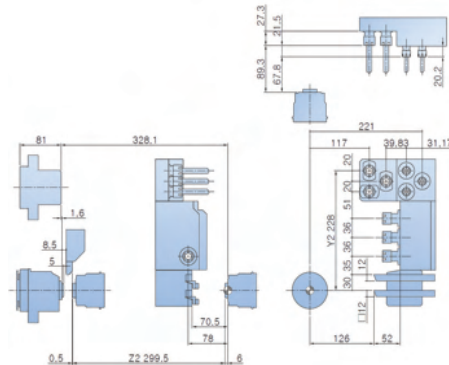
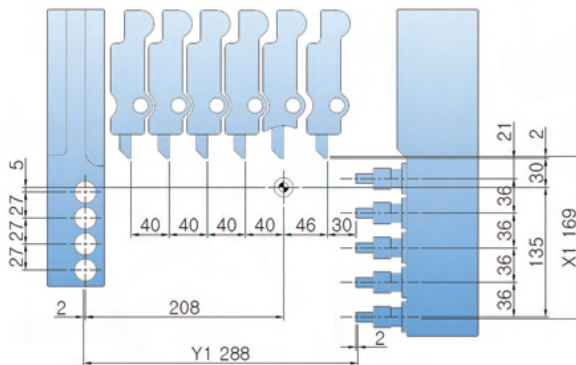


NN-10/20J3

-  **NC controller selectable**
- MITSUBISHI, FANUC
-  **The best tool layout among equivalent models**
- For complicated shape parts
- Shortened cycle time
-  **Expanded tool options**
-  **Specialized for high-precision parts**
- Horizontal tool post
- Dovetail structure



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2	Y2
Feed distance	mm	205	169	288	302	225	232
Rapid feed rate	m/min	30	30	30	30	30	30

Tools			Unit	NN-10/20J3	Remarks
Max. number of tools			EA	30	
Main	O.D. tool		EA	6	□12.7
	I.D. tool	Front	EA	4	ER16
		Rear(OP)	EA	4	ER16
	Cross drill		EA	5	ER16
SUB	O.D. tool		EA	2	□12.7
	I.D. tool		EA	3	ER16
	Eccentric tool		EA	3	ER11
	Cross drill		EA	3	ER16

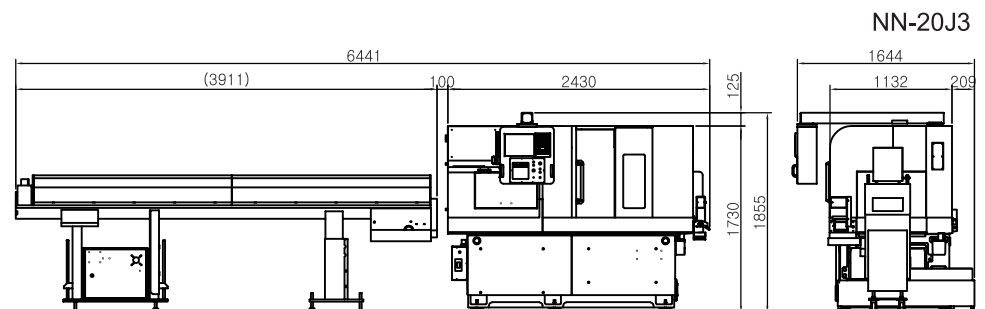
NN-10/20J3 Specifications

Content		Specification	Specification Value	
			NN-10J	NN-20J3
Machining capacity		Max. machining diameter	Φ10mm	Φ20mm
		Max. machining length	200mm / 1 chuck	
		Max. parts unloading length	93mm	
Spindle		Main spindle through-hole diameter	Φ11.5mm	Φ23mm
		Spindle RPM (Main/Sub)	15,000rpm	10,000rpm
		Sub spindle chucking diameter	Φ10mm	Φ20mm
Tool	Type	Max. number of tools	30	
		Max. machining drill	Φ7mm	Φ10mm
		Max. machining tap	M6	M10
	Main	O.D. tool	6 (□12.7X150mm max)	
		I.D. tool	4 (ER16) (OP : Rear 4)	
		Cross drill	5 (ER16)	
		Cross drill RPM	6,000rpm	
	SUB	O.D. tool	2 (□12.7X150mm max)	
		I.D. fixed tool	3 (ER16)	
		I.D. rotary tool	3 (ER11)	
		Cross drill	3 (ER16)	
		Cross drill RPM	6,000rpm	
Feed		Rapid feed rate	30m/min	
		Min. command unit	0.0001mm	
		C-axis min. command unit (Main/Sub)	0.0001°	
Motor		Main spindle motor	3.7/1.5kW	
		Cross drill motor	1.5/0.55kW(Mitsubishi) / 1.0kW(Fanuc)	
		Sub spindle motor	3.7/1.5kW	
		Sub rotary motor	1.5/0.55kW(Mitsubishi) / 1.0kW(Fanuc)	
		Coolant pump (Main/Sub)	0.25kW X 2	
		Lubricant pump	0.003kW	
Dimensions and etc.		Main spindle center height	1,010mm	
		Input power capacity	18KVA	
		Air pressure/Flow rate	0.6MPa. 30L/min	0.6MPa. 35L/min
		Coolant tank	160L	
		WxDxH	2,430x1,644x1,855 mm	
		Weight (Standard accessories included)	2,700kg	
NC		NC UNIT	M80 Type A(Mitsubishi) / 0i-TF Plus(Fanuc)	
		NC display	10.4 Color TFT LCD	
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)	
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)	

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector(Main/Sub)
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Parts catcher
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
Long drill holder
E3 UNIT
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit (less than Φ17mm)
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout

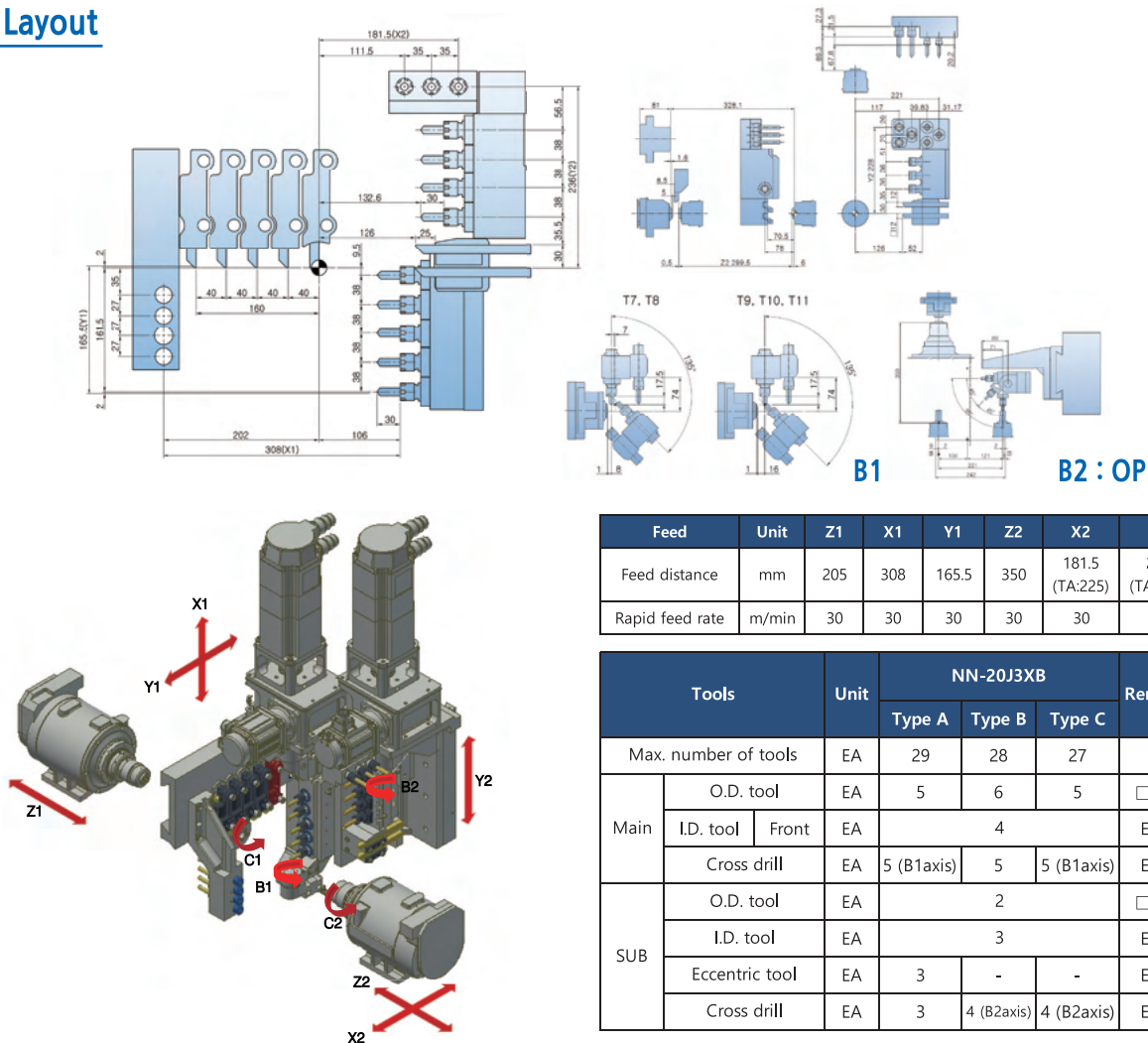


NN-20J3XB

-  **Multi angle machining by B axis control**
 - Drilling, tapping, end-mill
-  **Best tool layout among equivalent models**
 - For complicated shape parts
 - Minimizing cycle time
-  **Expanded special tool options**
-  **Increased machining capability for high precision parts that are difficult to cut**
 - Horizontal tool post



TOOL Layout



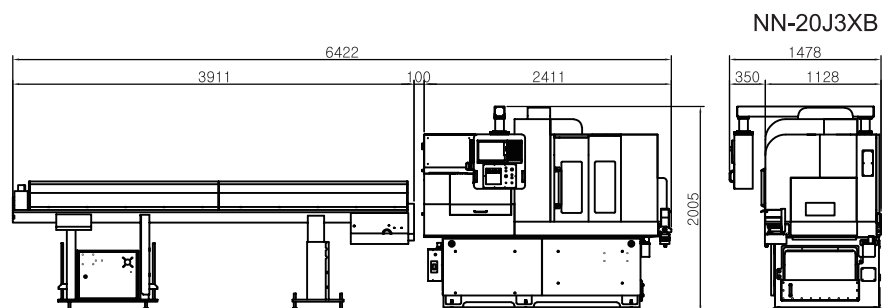
NN-20J3XB Specifications

Content		Specification	Specification Value		
			NN-20J3XB		
Machining capacity		Max. machining diameter	Φ20mm		
		Max. machining length	200mm / 1 chuck		
		Max. parts unloading length	93mm		
Spindle		Main spindle through-hole diameter	Φ23mm		
		Spindle RPM (Main/Sub)	10,000rpm		
		Sub spindle chucking diameter	Φ20mm		
Tool	Type	Type	Type A	Type B	Type C
		Max. number of tools	29	28	27
		Max. machining drill	Φ10mm		
		Max. machining tap	M10		
	Main	O.D. tool	5 (□12.7X150mm)	6 (□12.7X150mm)	5 (□12.7X150mm)
		I.D. tool	4 (ER16)		
		Cross drill	5 (ER16)(B1 axis)	5 (ER16)	5 (ER16)(B1 axis)
		Cross drill RPM	6,000rpm		
	SUB	O.D. tool	2 (□12.7X150mm)		
		I.D. fixed tool	3 (ER16)		
		I.D. rotary tool	3 (ER11)	—	
		Cross drill	3 (ER16)	4 (ER16)(B2 axis)	4 (ER16)(B2 axis)
		Cross drill RPM	6,000rpm		
Feed		Rapid feed rate	30m/min		
		Min. command unit	0.0001mm		
		C-axis min. command unit (Main/Sub)	0.0001°		
Motor		Main spindle motor	3.7/1.5kW		
		Cross drill motor	1.5/0.55kW (Mitsubishi), 1.0kW (Fanuc)		
		Sub spindle motor	3.7/1.5kW		
		Sub rotary motor	1.5/0.55kW (Mitsubishi), 1.0kW (Fanuc)		
		Coolant pump (Main/Sub)	0.25kW X 2		
		Lubricant pump	0.003kW		
Dimensions and etc.		Main spindle center height	1,010mm		
		Input power capacity	18KVA		
		Air pressure/Flow rate	0.6MPa. 35L/min		
		Coolant tank	160L		
		WxDxH	2,411x1,478x2,005 mm		
		Weight (Standard accessories included)	2,800kg		
NC		NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)		
		NC display	10.4 Color TFT LCD		
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)		
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)		

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector(Main/Sub)
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Parts catcher
Levelling pad
Three-color warning light
Cut-off detector
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
Long drill holder
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit (less than Φ17mm)
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout



NN-32UB8



The best selling model

- Horizontal tool post
- Dovetail structure



Efficient tool layout

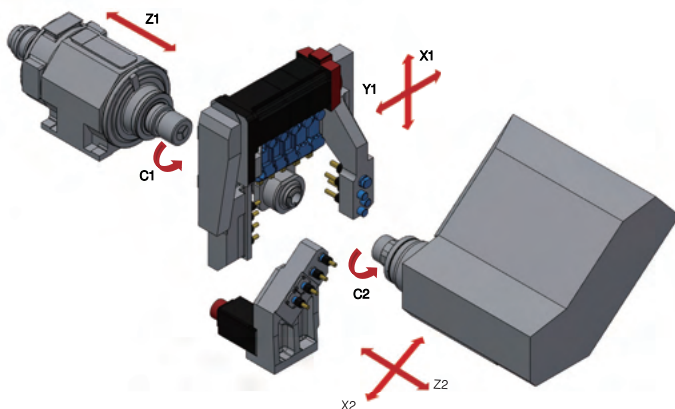
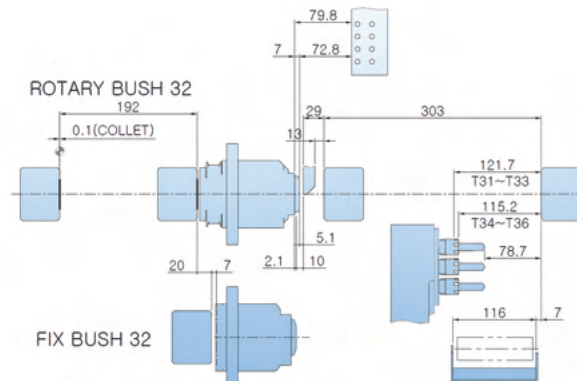
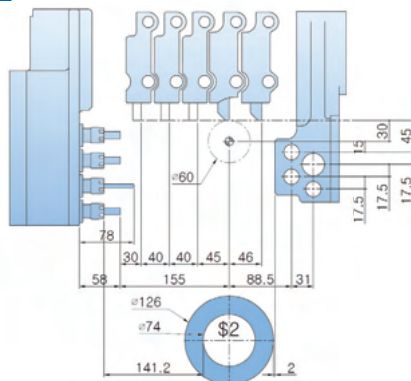
- Shortened cycle time



High efficiency, reasonable price



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2
Feed distance	mm	192	135	275	302	219
Rapid feed rate	m/min	30	30	30	30	30

Tools		Unit	NN-32UB8			Remarks
			Standards	K	K2	
Max. number of tools		EA	21	23		
Main	O.D. tool	EA	5			□12.7X3, □16X2
	I.D. tool	Front	EA	4		ER20X1,ER16X3
		Rear(OP)	EA	4		ER20X1,ER16X3
	Cross drill	EA	4			ER16
SUB	O.D. tool	EA	1	-	-	□10
	I.D. tool	EA	3	2	3	ER16
	Eccentric tool	EA	-	2	3	ER16

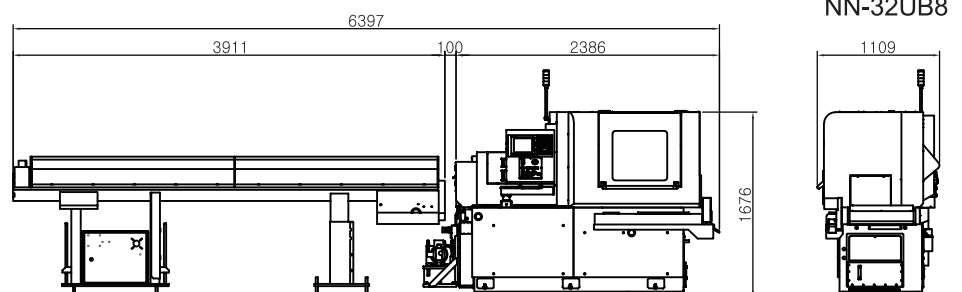
NN-32UB8 Specifications

Content		Specification	Specification Value		
			32UB8		
Machining capacity		Max. machining diameter	Φ32mm		
		Max. machining length	190mm / 1 chuck		
		Max. parts unloading length	93mm		
Spindle		Main spindle through-hole diameter	Φ34mm		
		Spindle RPM (Main/Sub)	8,000rpm/6,000rpm		
		Sub spindle chucking diameter	Φ32mm		
Tool	Type	Type	Standard	K	K2
		Max. number of tools	21(OP : 22)		23(OP : 24)
		Max. machining drill	Φ10mm		
		Max. machining tap	M8		
	Main	O.D. tool	5 (□12.7x3+□16X2X150mm)		
		I.D. tool	4 (ER16X3+ER20X1) (OP : Rear 4)		
		Cross drill	4 (ER16) (OP : 5)		
		Cross drill RPM	6,000rpm		
	SUB	O.D. tool	1 (□10)	—	—
		I.D. fixed tool	3 (ER16)	2 (ER16)	3 (ER16)
		I.D. rotary tool	—	2 (ER16)	3 (ER16)
Feed		Rapid feed rate	30m/min		
		Min. command unit	0.0001mm		
		C-axis min. command unit (Main/Sub)	0.0001°		
Motor		Main spindle motor	5.5/3.7kW(Mitsubishi) / 7.5/5.5kW(Fanuc)		
		Cross drill motor	1.5kW(Mitsubishi) / 1.0kW(Fanuc)		
		Sub spindle motor	3.7/1.5kW(Mitsubishi) / 2.2/1.5kW(Fanuc)		
		Sub rotary motor	0.9kW(Mitsubishi) / 1.0kW(Fanuc)		
		Coolant pump (Main/Sub)	0.25kW		
		Lubricant pump	0.003kW		
Dimensions and etc.		Main spindle center height	1,000mm		
		Input power capacity	17KVA		
		Air pressure/Flow rate	0.6MPa.45L/min		
		Coolant tank	125L		
		WxDxH	2,386 x 1,109 x 1,676mm		
		Weight (Standard accessories included)	2,450kg		
NC		NC UNIT	M80 Type A(Mitsubishi) / 0i-TF Plus(Fanuc)		
		NC display	8.4 Color TFT LCD(Mitsubishi) / 10.4 Color TFT LCD(Fanuc)		
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)		
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)		

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)
Cut-off detector

Optional Accessories
Cross drill X 5
E3 UNIT
Long drill holder
Fixed guide bush
Tap breakage detector
Tool presetter
Tool air blow
Rear ejection unit
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout

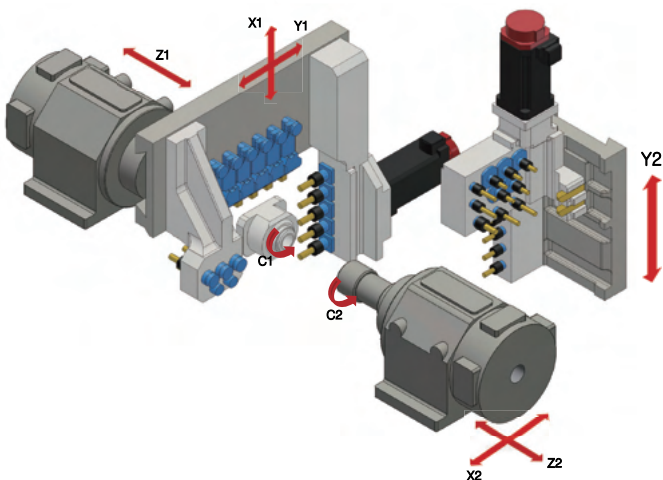
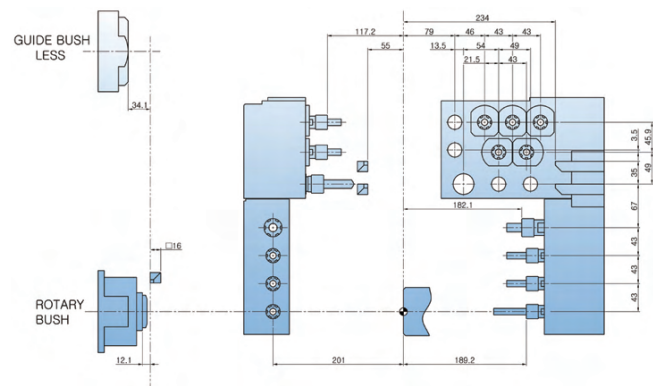
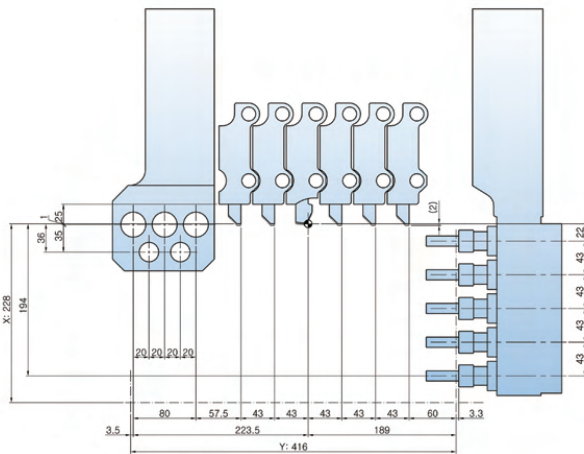


NN-32J

-  **The latest NC, Mitsubishi M80**
-  **Best tool layout among equivalent models**
 - High productivity by minimizing C/T
-  **Switching type spindle**
 - GUIDE BUSH or NON GUIDE BUSH selectable
-  **Improved machining capability**
 - Equivalent motors for main/sub
 - Integrated casting bed



TOOL Layout



Feed	Unit	Z1	X1	Y1	X2	Y2
Feed distance	mm	300	228	416	234	290.4
Rapid feed rate	m/min	30	30	30	30	30

Tools		Unit	NN-32J	Remarks
Max. number of tools		EA	32	
Main	O.D. tool	EA	6	□16
	I.D. tool	EA	5	ER20x3, ER16x2
	Cross drill	EA	5	ER20
SUB	O.D. tool	EA	2	□16
	I.D. tool	EA	5	ER20x1, ER16x4
	Eccentric tool	EA	5	ER16
	Cross drill	EA	4	ER20x1, ER16x3

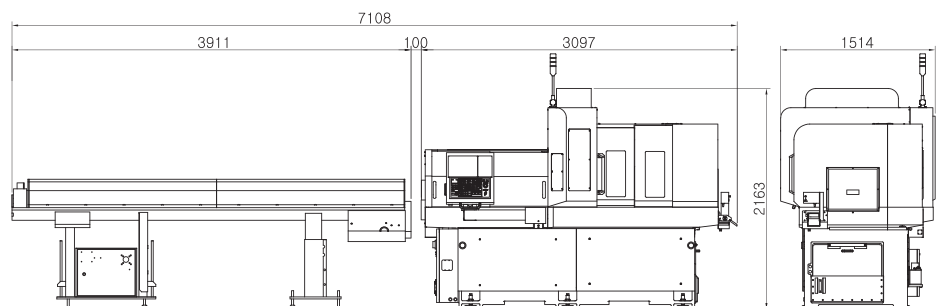
NN-32J Specifications

Content		Specification	Specification Value
			NN-32J
Machining capacity		Max. machining diameter	Φ32mm
		Max. machining length	300mm / 1 chuck
		Max. parts unloading length	100mm
Spindle		Main spindle through-hole diameter	Φ34mm
		Spindle RPM (Main/Sub)	8,000rpm
		Sub spindle chucking diameter	Φ32mm
Tool	Type	Type	Standard
		Max. number of tools	32(OP : 33)
		Max. machining drill	Φ10mm
		Max. machining tap	M8
	Main	O.D. tool	6 (□16x150mm max)
		I.D. tool	5 (ER16X2, ER20x3)
		Cross drill	5 (ER20)
		Cross drill RPM	6,000rpm
	SUB	O.D. tool	2 (□16) (OP : 3)
		I.D. fixed tool	5 (ER16x4, ER20x1)
		I.D. rotary tool	5 (ER16)
		Cross drill	4 (ER16x3, ER20x1)
		Cross drill RPM	6,000rpm
Feed		Rapid feed rate	30m/min
		Min. command unit	0.0001mm
Motor		C-axis min. command unit (Main/Sub)	0.0001°
		Main spindle motor	7.5/3.7kW (Mitsubishi) / 9.0/5.5kW (Fanuc)
		Cross drill motor	1.5kW (Mitsubishi) / 2.2kW (Fanuc)
		Sub spindle motor	7.5/3.7kW (Mitsubishi) / 9.0/5.5kW (Fanuc)
		Sub rotary motor	1.5kW (Mitsubishi) / 2.2kW (Fanuc)
		Coolant pump (Main/Sub)	0.4kW
Dimensions and etc.		Lubricant pump	0.003kW
		Main spindle center height	1,100mm
		Input power capacity	23KVA
		Air pressure/Flow rate	0.6MPa. 45L/min
		Coolant tank	200L
		WxDxH	3,097x1,514x2,163mm
NC		Weight (Standard accessories included)	3,800kg
		NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)
		NC display	10.4" Color LCD
		Memory capacity	500KB (Mitsubishi) / 2MB (Fanuc)
		No. of tool offset	256 Sets (Mitsubishi)/ 128Sets (Fanuc)

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector(Main/Sub)
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Parts catcher
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
E3 UNIT
Cross drill X 6 (ER16)
Wedge type O.D. tool X3 (□16)
Fixed guide bush
Tap breakage detector
Tool presetter
Tool air blow
Rear ejection unit
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium/High pressure coolant
Oil mist collector
Custom colors
Tooling

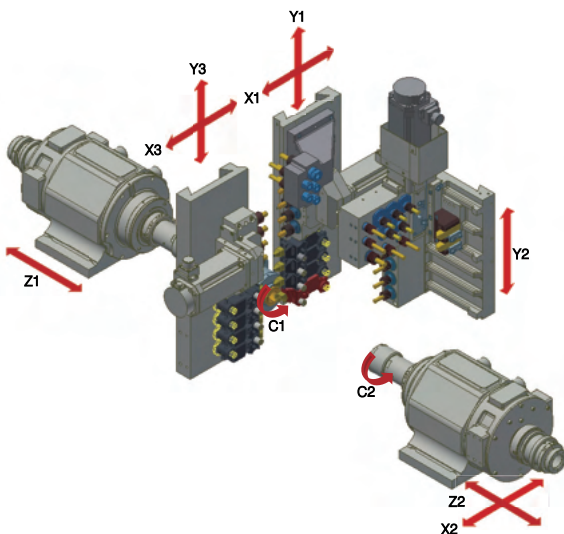
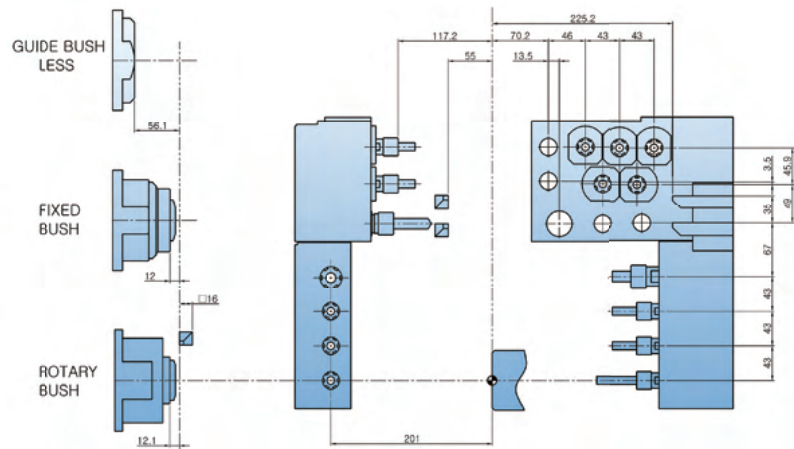
FLOOR Layout



-Balance O.D cutting

-Minimized C/T

-Dovetail structure

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Feed	Unit	Z1	X1	Y1	Z2	X2	Y2	X3	Y3
Feed distance	mm	300	54	451	369	227	293	54	451
Rapid feed rate	m/min	28	20	28	28	28	28	20	28

Tools		Unit	NN-32DB	Remarks
			Standard	
Max. number of tools		EA	36	
Main	O.D. tool	EA	8	□16
	I.D. tool	EA	5	(ER20x1)+(ER16X4)
	Cross drill	EA	8	ER20
SUB	O.D. tool	EA	2	□16
	I.D. tool	EA	4	(ER20x1)+(ER16x3)
	Eccentric tool	EA	5	ER16
	Cross drill	EA	4	(ER20x1+ER16x3)

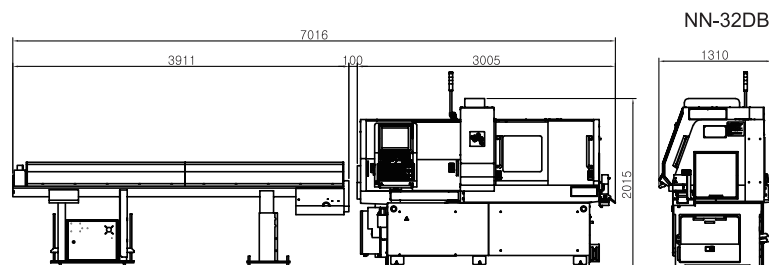
NN-32DB Specifications

Content		Specification	Specification Value
			NN-32DB
Machining capacity		Max. machining diameter	Φ32mm
		Max. machining length	300mm / 1 chuck
		Max. parts unloading length	100mm
Spindle		Main spindle through-hole diameter	Φ34mm
		Spindle RPM (Main/Sub)	8,000rpm
		Sub spindle chucking diameter	Φ32mm
Tool	Type	Type	Standard
		Max. number of tools	36 (OP : 38)
		Max. machining drill	Φ10mm
		Max. machining tap	M8
	Main	O.D. tool	8 (□16x4)x2
		I.D. tool	5 (ER20x1)+(ER16x4)
		Cross drill	8 (ER20x4)x2
		Cross drill RPM	6,000rpm
	SUB	O.D. tool	2 (□16x2) (OP : 3)
		I.D. fixed tool	4(ER16x3)+(ER20x1) (OP : 5(ER16x4)+(ER20x1))
		I.D. rotary tool	5 (ER16)
		Cross drill	4 (ER20x1+ER16x3)
		Cross drill RPM	6,000rpm
Feed		Rapid feed rate	Z1,Y1,Y3,Z2,X2,Y2 : 28m/min X1,X3 : 20m/min
		Min. command unit	0.0001mm
		C-axis min. command unit (Main/Sub)	0.0001°
Motor		Main spindle motor	7.5/3.7kW (Mitsubishi), 9.0/5.5kW (Fanuc)
		Cross drill motor	1.5kW (Mitsubishi), 2.2kW (Fanuc)
		Sub spindle motor	7.5/3.7kW (Mitsubishi), 9.0/5.5kW (Fanuc)
		Sub rotary motor	1.5kW (Mitsubishi), 2.2kW (Fanuc)
		Coolant pump (Main/Sub)	0.25kW
		Lubricant pump	0.003kW
Dimensions and etc.		Main spindle center height	1,060mm
		Input power capacity	17KVA
		Air pressure/Flow rate	0.6MPa.45L/min
		Coolant tank	205L
		WxDxH	3,005X1,310X2,015mm
		Weight (Standard accessories included)	3,850kg
NC		NC UNIT	M830 (Mitsubishi) / 31iB(Fanuc)
		NC display	15.0 Color TFT LCD
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)
		No. of tool offset	400sets(Mitsubishi) / 128sets(Fanuc)

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
Long drill holder
Fixed guide bush
Tool presetter
Tool air blow
Rear ejection unit
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Custom colors
Tooling

FLOOR Layout



NN-32DB

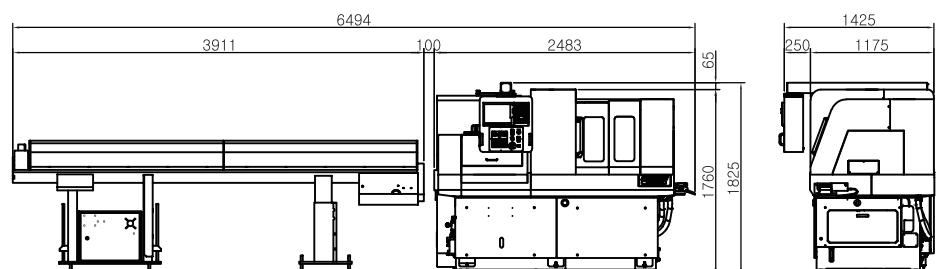
NN-32YB3 Specifications

Content		Specification	Specification Value
			NN - 32YB3
Machining capacity		Max. machining diameter	Φ32mm
		Max. machining length	190mm / 1 chuck
		Max. parts unloading length	93mm
Spindle		Main spindle through-hole diameter	Φ37mm
		Spindle RPM (Main/Sub)	8,000rpm
		Sub spindle chucking diameter	Φ32mm
Tool	Type	Max. number of tools	31
		Max. machining drill	Φ13mm
		Max. machining tap	M10
	Main	O.D. tool	6 (□16X150mm max)
		I.D. tool	4 (ER16X3+ER20X1) (OP : Rear 4)
		Cross drill	6 (ER20)
	SUB	Cross drill RPM	6,000rpm
		O.D. tool	2 (□16X150mm max)
		I.D. fixed tool	3 (ER16)
		I.D. rotary tool	3 (ER16)
		Cross drill	3 (ER16)
		Cross drill RPM	6,000rpm
Feed		Rapid feed rate	30m/min
		Min. command unit	0.0001mm
		C-axis min. command unit (Main/Sub)	0.0001°
Motor		Main spindle motor	5.5/3.7kW(Mitsubishi) / 7.5/5.5kW(Fanuc)
		Cross drill motor	1.5/0.55kW(Mitsubishi) / 1.0kW(Fanuc)
		Sub spindle motor	3.7/1.5kW(Mitsubishi)/ 5.5/2.2kW(Fanuc)
		Sub rotary motor	1.5/0.55kW(Mitsubishi) / 1.0kW(Fanuc)
		Coolant pump (Main/Sub)	0.25kW x 2
		Lubricant pump	0.003kW
Dimensions and etc.		Main spindle center height	1,000mm
		Input power capacity	25KVA
		Air pressure/Flow rate	0.6MPa. 45L/min
		Coolant tank	100L
		WxDxH	2,483 x 1,425 x 1,825 mm
		Weight (Standard accessories included)	3,030kg
NC		NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)
		NC display	10.4 Color TFT LCD
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
E3 UNIT
Cross drill X 7
Long drill holder
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit (less than Φ27mm)
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium pressure coolant
Oil mist collector
Custom colors
Tooling

FLOOR Layout

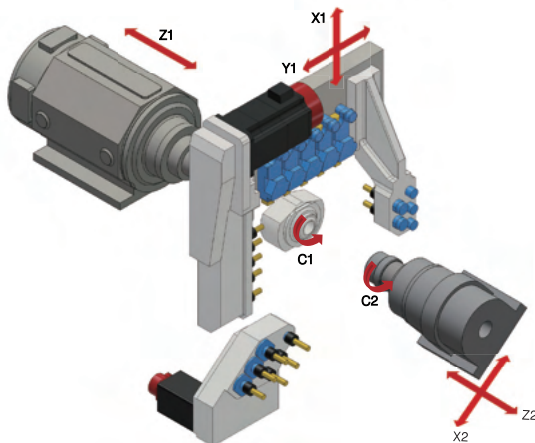
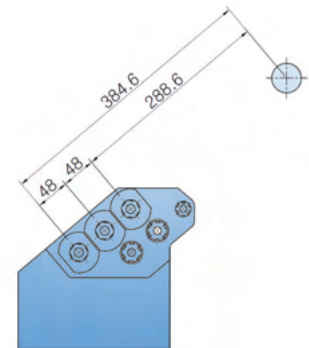
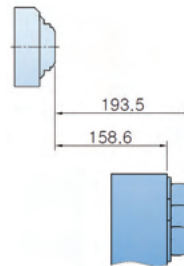
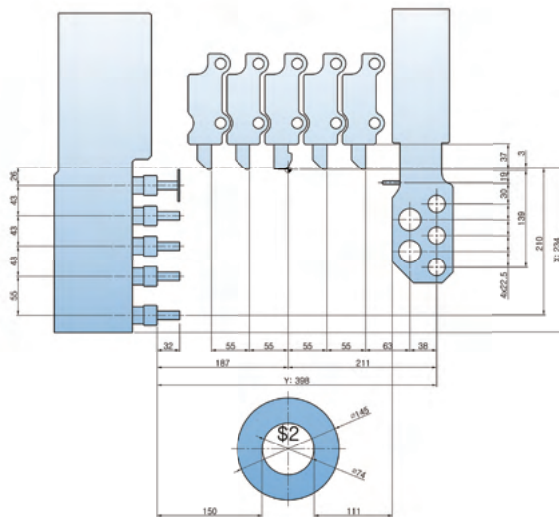


NN-38UB8

-  **The latest NC "MITSUBISHI M80"**
-  **The best tool layout among equivalent models**
 - For complex shape machining
 - Drastically shortened cycle time
-  **Improved machining capability**
 - Long drill
-  **Improved machining capacity with high-precision parts & difficult to cut material**
 - Horizontal tool post
 - Dovetail structure



TOOL Layout



Feed	Unit	Z1	X1	Y1	Z2	X2
Feed distance	mm	273	230	416	316.5	399.2
Rapid feed rate	m/min	30	30	30	30	30

Tools			Unit	NN-38UB8		Remarks
				K	K2	
Max. number of tools			EA	24	26	
Main	O.D. tool		EA	5		□20
	I.D. tool	Front	EA	5		ER20X2,ER16X3
		REAR(OP)	EA	5		ER20X2,ER16X3
	Cross drill		EA	5		ER20
SUB	I.D. tool		EA	2	3	K: ER20 K2: ER16x1+ER20x2
	Eccentric tool		EA	2	3	ER20

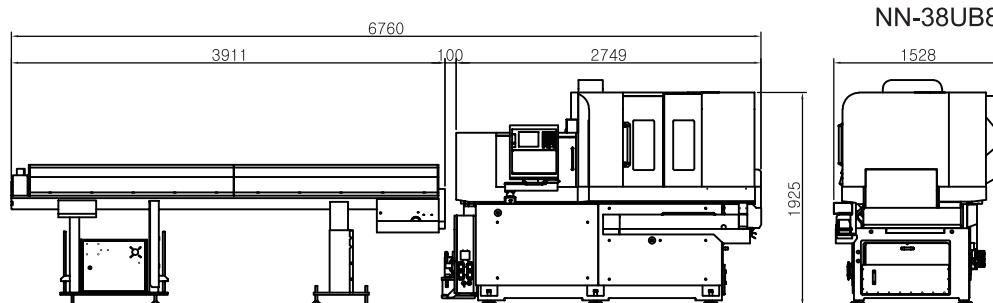
NN-38UB8 Specifications

Content		Specification	Specification Value	
			NN - 38UB8	
Machining capacity		Max. machining diameter	Φ38mm (OP : Φ42mm)	
		Max. machining length	260mm / 1 chuck	
		Max. parts unloading length	115mm	
Spindle		Main spindle through-hole diameter	Φ43mm	
		Spindle RPM (Main/Sub)	8,000rpm	
		Sub spindle chucking diameter	Φ38mm	
Tool	Type	Type	K	K2
		Max. number of tools	24	26
		Max. machining drill	Φ13mm	
		Max. machining tap	M8	
	Main	O.D. tool	5 (□20X150mm)	
		I.D. tool	5 (ER16X3+ER20X2) (OP : Rear 5)	
		Cross drill	5 (ER20)	
		Cross drill RPM	6,000rpm	
	SUB	I.D. fixed tool	2 (ER20)	3 (ER16x1+ER20x2)
		I.D. rotary tool	2 (ER20)	3 (ER20)
Feed		Rapid feed rate	30m/min	
		Min. command unit	0.0001mm	
		C-axis min. command unit (Main/Sub)	0.0001°	
Motor		Main spindle motor	7.5/5.5kW (Mitsubishi) 11.0/7.5kW (Fanuc)	
		Cross drill motor	1.5kW (Mitsubishi) 2.2kW (Fanuc)	
		Sub spindle motor	5.5/3.7kW	
		Sub rotary motor	0.9kW (Mitsubishi) 1.0kW (Fanuc)	
		Coolant pump (Main/Sub)	0.9kW	
		Lubricant pump	0.003kW	
		Main spindle center height	1,160mm	
Dimensions and etc.		Input power capacity	40KVA	
		Air pressure/Flow rate	0.6MPa. 45L/min	
		Coolant tank	370L(Additional tank included)	
		WxDxH	2,749x1,528x1925 mm	
		Weight (Standard accessories included)	3,600kg	
		NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)	
NC		NC display	8.4 Color TFT LCD(Mitsubishi) 10.4 Color TFT LCD(Fanuc)	
		Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)	
		No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)	

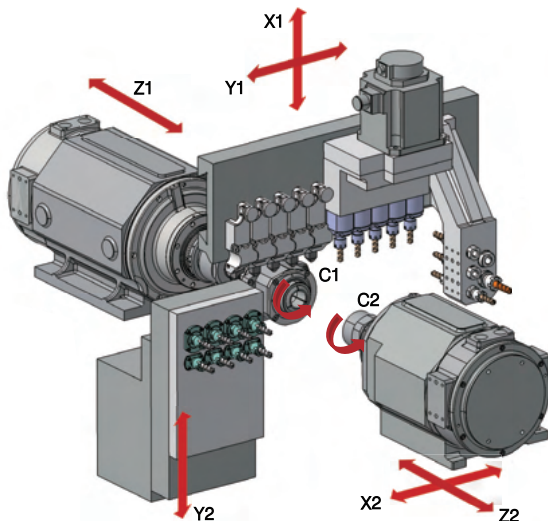
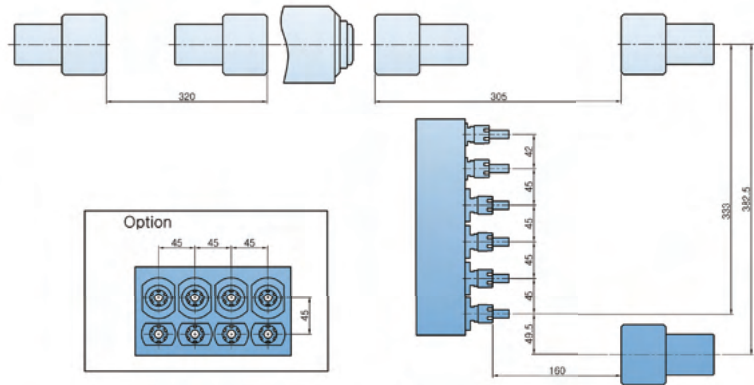
Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Parts catcher
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)
Chip conveyor & Chip box

Optional Accessories
E3 UNIT
Fixed guide bush
Tap breakage detector (Main/sub)
Tool presetter
Tool air blow
Rear ejection unit (less than Φ36mm)
Spindle tube liner for small parts
Medium pressure coolant
Oil mist collector
Custom colors
Tooling
Long drill

FLOOR Layout



-

[illegible]

Tools			Unit	NN-38KM		Remarks
				Standard	Option	
Max. number of tools			EA	26	28	
Main	O.D. tool		EA	5	5	□16
	I.D. tool	Front	EA	5	5	ER20X2, ER16X3
		Rear(OP)	EA	5	5	ER20X2, ER16X3
	Cross drill		EA	5	5	ER16
	SUB	I.D. tool		EA	2	4
Eccentric tool		EA	4	4	ER16	

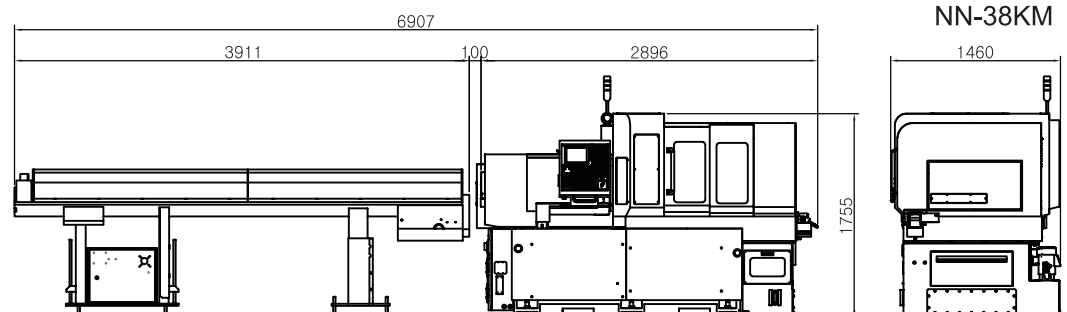
NN-32/38KM Specifications

Content		Specification Value	
		NN-32KM	NN-38KM
Machining Capacity	Max. machining diameter	Φ32mm	Φ38mm
	Max. machining length	320mm / 1 chuck	
	Max. parts unloading length	125mm	
Spindle	Main spindle through-hole diameter	Φ43mm	
	Spindle RPM (Main/Sub)	8,000rpm	
	Sub spindle chucking diameter	Φ32mm	Φ38mm
Tool	Type	26 (5 axis) / 28 (6 axis)	
	Max. machining drill	Φ13	
	Max. machining tap	M12	
	O.D. tool	5 (□16X150mm max)	
	I.D. tool	5 (ER16X3+ER20X2) (OP : Rear 5)	
	Cross drill	5 (ER16)	
	Cross drill RPM	6,000rpm	
	I.D. fixed tool	2 (ER16) (5 axis) / 4 (ER16) (6 axis)	
	I.D. rotary tool	4 (ER16) (5 axis) / 4(ER16) (6 axis)	
Feed	Sub drill RPM	6,000rpm	
	Rapid feed rate	30m/min	
	Min. command unit	0.0001mm	
Motor	C-axis min. command unit (Main/Sub)	0.0001°	
	Main spindle motor	7.5/5.5kW (Mitsubishi)	7.5/5.5kW (Mitsubishi) 11.0/7.5kW (Fanuc)
	Cross drill motor	1.5kW (Mitsubishi)	1.5kW (Mitsubishi) 2.2kW (Fanuc)
	Sub spindle motor	5.5/3.7kW (Mitsubishi)	7.5/3.7kW (Mitsubishi) 7.5/5.5kW (Fanuc)
	Sub rotary motor	0.9kW (Mitsubishi)	0.9kW (Mitsubishi) 1.0kW (Fanuc)
	Coolant pump	1.1kW	
Dimensions and etc.	Lubricant pump	0.003kW	
	Main spindle center height	1,025mm	
	Input power capacity	24kVA	
	Air pressure/Flow rate	0.6MPa. 45L/min	
	Coolant tank	250L	
	WxDxH	2,896x1,460x1,755 mm	
NC	Weight (Standard accessories included)	3,800kg	
	NC UNIT	M80 Type A(Mitsubishi) / Oi-TF Plus(Fanuc)	
	NC display	8.4 Color TFT LCD(Mitsubishi) / 10.4 Color TFT LCD(Fanuc)	
	Memory capacity	500KB(Mitsubishi) / 2MB(Fanuc)	
NC	No. of tool offset	256sets(Mitsubishi) / 128sets(Fanuc)	

Standard Accessories
I.D. tool device
Cross drill unit
Manual pulse generator(MPG)
Coolant unit
Rotary guide bush
Drill holder
Tool holder
Main : Chuck sleeve/Spring/Spindle cap(1set)
Sub : Chuck sleeve/Spring/Spindle cap(1set)
Automatic power turn-off device
Automatic oiling device
Coolant pump (Main/Sub)
Coolant flow detector
Overload detection function
Door interlock switch
Working light(LED)
Parts conveyor
Levelling pad
Three-color warning light
Display language (ENG/CHN/KOR/ETC)

Optional Accessories
Fixed guide bush
Tool presetter
Tool air blow
Rear ejection unit
Spindle tube liner for small parts
Chip conveyor & Chip box
Medium/High pressure coolant
Oil mist collector
Custom colors
Tooling
Wedge type O.D. tool X6 (□16X150mm)
Cross drill X 5 (ER20)

FLOOR Layout





GOSIGER
HIGH VOLUME

108 McDonough Street, Dayton, OH 45402
937.228.5174 • WWW.NOMURASWISS.COM



DAESUNG HI-TECH CO.,LTD

10, Techno-daero 2-gil, Hyeonpung-myeon, Dalseong-gun, Daegu 43020, Korea

Tel +82-53-608-3634 Fax +82-53-592-6577

URL www.topdsht.com

E-mail info@topdsht.com

