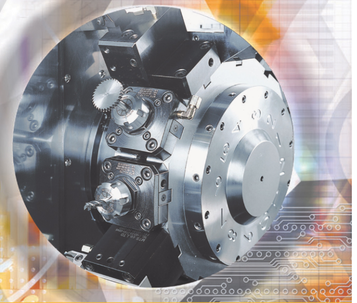
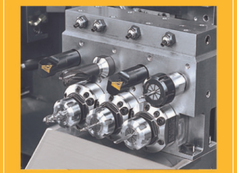
3 PATH CONTROLS COMPLETE TOTAL MACHINING SOLUTION WITH 12 STATION TURRET, GANGTYPE TOOL POST, AND SUB SPINDLE

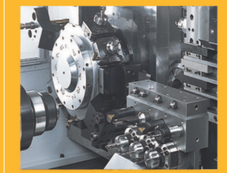


Independent drive
- Low noise / low power consumption
- Optimized precision machining without heat deformation on Turret
- Maximized machining capability with live tooling application for all 12 station.

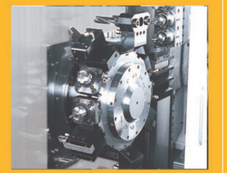
More powerful spindle structure
- Improved cutting performance with powerful main spindle built-in motor (11/15kW)
- Powerful hydraulic disc brake
- Improved precision and machining quality with low heat factor by oil cooling system
- Minimized remnant bar (less than 80mm) for economic production



Powerful Back working tool station
- Easier application with identical modular spindles for cross and back working tools
- Various optional tooling application for optimum production
- High speed, High precision off-center drilling and tapping
- 7 tools (modular 3, fixed 4)



Short Indexing time
- Quick tool change time by servo motor indexing structure
- Non lifting type turret indexing reduces mechanical shocks.
- Minimize non cutting time



High Rigidity, High Precision live Tools
- Increase drive shaft and bearing size to improve 20% machining efficiency.
- Turret bore diameter 45mm
- 3 - axis control Turret station enable simultaneous cross milling and cross off-center machining

CNC System
- Fanuc 31i-B controller
- Conversational software for Network
- A Large Capacity PMC with High speed for reducing cycle time
- Conversational and self-diagnostic function display

Easy Operation System
- Arm type positioning operation panel (Free positioning)
- Structure for Easy Tooling and Tool change (center Height 1,100mm)
- Easy setting support with centralized panel and MPG program check

MACHINE SPECIFICATION

	Description		NST45	NST56	NST67
Machining Capacity	Max.Turning Bar Dia.		ø45mm	ø56mm	ø67mm
	Max.Turning Bar Length		340mm	150mm	150mm
	Max. Drilling / Tapping		ø16mm / M12	ø20mm / M16	ø20mm / M16
	Max. Sub Spindle Chucking Dia.		ø45	ø56	ø67
	Max. Back-end Face Drilling & Tapping		ø13mm / M10	ø13mm / M10	ø13mm / M10
	Max. Cross Disc-mill Dia.		ø50mm	ø50mm	ø50mm
Machine Capability	Max. Main Spindle Speed		6,000rpm	5,000rpm	5,000rpm
	Max. Sub Spindle Speed		6,000rpm	5,000rpm	5,000rpm
	Front Tools	OD / Cross Live Tool	4 / 4	4 / 4	4 / 4
		Max. Cross Spindle Speed	6,000rpm	6,000rpm	6,000rpm
		Max. Drilling / Tapping	ø16mm / M12	ø16mm / M12	ø16mm / M12
		Bite Shank	□ 20 × 125mm	□ 20 × 125mm	□ 20 × 125mm
	Turret	No. of Station	12	12	12
		Max. Live Tool speed	6,000rpm	6,000rpm	6,000rpm
		Max. Live Tool Drilling/Tapping	ø16mm / M12	ø16mm / M12	ø16mm / M12
		Bite Shank	□ 20×125mm	□ 20×125mm	□ 20×125mm
	Back-end Face Tools		7(Fixed 4, Live 3)	7(Fixed 4, Live 3)	7(Fixed 4, Live 3)
	Rapid Traverse (Y1,Y2,Y3)		24 M/min	24 M/min	24 M/min
	Main Spindle Positioning		Cs + 1/1,000°	Cs + 1/1,000°	Cs + 1/1,000°
	Sub Spindle Positioning		Cs + 1/1,000°	Cs + 1/1,000°	Cs + 1/1,000°
Motor	Main Spindle		7.5/11 kW	11/15 kW	11/15 kW
	Sub Spindle		2.2 /5.5 kW	3.7 /5.5 kW	3.7 /5.5 kW
	Cross / Back Tools Unit		2.2 kW / 1.0 kW	2.2 kW / 1.0 kW	2.2 kW / 1.0 kW
	Servo		2.5 kW	2.5 kW	2.5 kW
	Coolant Pump		0.9 + 0.9 kW	0.9 + 0.9 kW	0.9 + 0.9 kW
	Lubrication Pump		0.04 kW	0.04 kW	0.04 kW
Dimension	Coolant Capacity		450 ℓ	450 ℓ	450 ℓ
	Lubrication Capacity		2 ℓ	2 ℓ	2 ℓ
	Cooling Oil Capacity		12 ℓ	12 ℓ	12 ℓ
	Power Consumption		45 KVA	45 KVA	45 KVA
	Center Height		1,100 mm	1,100 mm	1,100 mm
	Length × Width × Height		2,850×1,750×1,950	2,850×1,750×1,950	2,850×1,750×1,950
	Net Weight		6,000kg	6,400kg	6,400kg

NC SPECIFICATION

Description	NST45/56/67
NC Controller	FANUC 31i-B
No. Of Controllable Axis	11
Axis Designation	X1, Z1, Y1, X2, Z2, Y2, X3, Z3, Y3, C1, C3
Min. Input Increment	0.001mm
Min. Command Increment	0.001(X axis 0.0005mm)
Max. Programmable Value	±8 digits
InterPolation Function	Linear / Circular
Feedrate	1~6,000mm/min
Feedrate Override	0~150%, 10% step
Dwell	G04 0.001~99999.999
ABS / INC Command	X, Z, Y, C : Absolute U, V, W, H : Incremental
Tool Offset	±6 digits
No. of Tool Offset	128 sets
CRT /MDI	10.4" COLOR
Display Language	English, Others
Tape Memory	1Mbyte
No. of Registerable Program	1,000 sets
Miscellaneous Function	M5 / M3 digits
Main Spindle Function	S4 digits
Tool Function	T6 digits

※ Above Specification may be changed without prior notice.

NEXTURN
SWISS TURN LEADER

ISO 9001 / 14001 Registered Firm

■ 35, Giheungdanji-ro, 121beon-gil, Giheung-gu, Yongin-si, Gyunggi-do, Korea
■ Tel : 82-31-288-2092 Fax : 82-31-288-2094
■ E-mail : overseas@nexturn.co.kr
■ Homepage : http://www.nexturn.co.kr

www.nexturn.co.kr

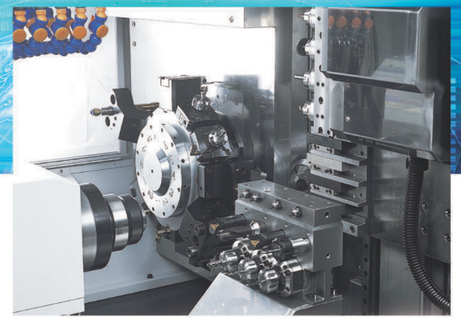
HIGH SPEED PRECISION CNC AUTOMATIC LATHE

NST45/56/67

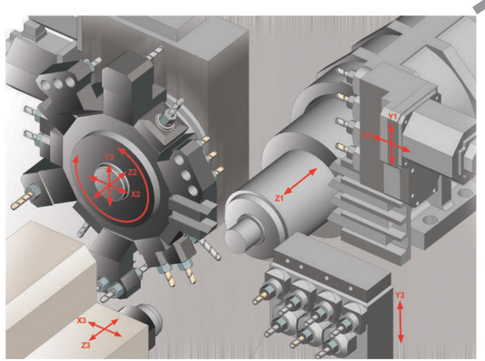
MULTI AXIS TURNING CENTER

NEXTURN
SWISS TURN LEADER

NST45/56/67



New Winner of Multi Axis Multi Channel Complex Machining



Maximized Machining capacity for complex parts with varipus bar materials.

- 12 station turret with independent drive mechanism.
- Minimized cycle time with 3 path control
- Complete machining by mounting maximum 39 tools.
- More powerful motors for main spindle and sub spindle.
- Equipped many Optional NC functions as standard features.
- Optimized tooling system for high precision maching capability

Various NC Optional functions supplied as standard accessories

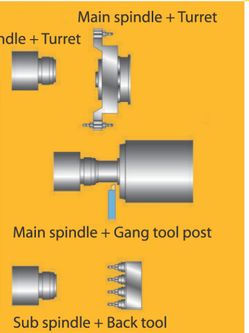
- Chasing Function
- Manual pulse generator
- Memory card I/O interface
- RS232C I/O interface (optional)
- Background editing
- Run time / parts number display
- Custom macro
- Constant surface speed control
- Spindle synchronous control
- Tool geometry / wear offset
- Programmable data input
- Chamfering and corner R
- Multiple repetitive cycle
- Expended program editing
- Polar coordinate interpolation (optional)
- Cylindrical interpolation (optional)
- Direct drawing dimension input
- Inch / metric conversion
- Canned cycle for drilling
- Rigid tap (main spindle, back spindle
- Rotary tool rigid tap (for tool on the turret) (optional)
- Rotary tool rigid tap (for croos drill on the tool post) (optional)
- Cut off detection (differential)
- Spindle speed fluctuation detection

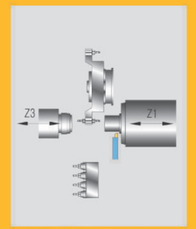
Optional accessories

- Chip conveyor
- Automatic fire extinguisher
- High pressure pump (750W)
- Drilling head
- 2 spindle cross drilling head
- Angular drilling head
- Helical hopping head
- Milling head

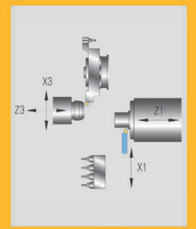
Reduced cycle time with 3 path control

Various simultaneous machining

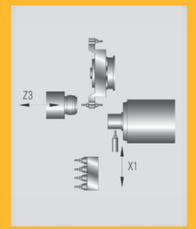




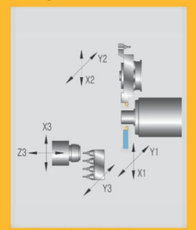
front, back simultaneous drilling (Z1,Z3)



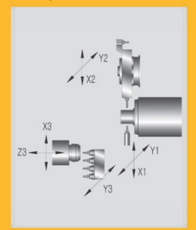
front, back simultaneous turning (Z1+X1, Z3+X3)



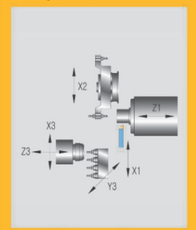
cross, back simultaneous drilling (X1,Z3)



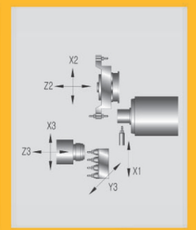
Balance turning + Back tool machining (X1+Y1+X2+Y2, Z3+X3+Y3)



Simultaneous cross drilling milling+Back tool machining (X1+Y1+X2+Y2, Z3+X3+Y3)

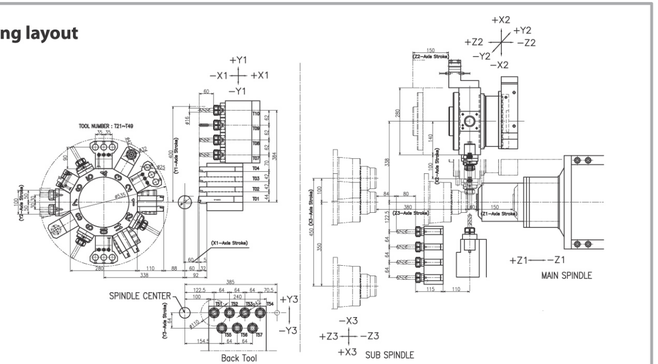
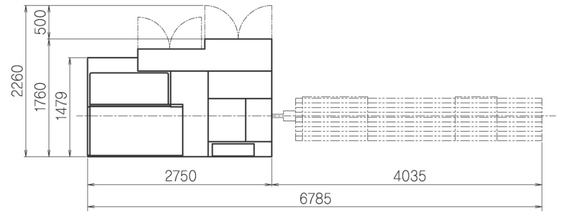


Simultaneous turning, milling + Back tool machining (Z1+X1+X2, Z3+X3+Y3)



Front center drilling + Cross drilling + Back tool machining (X1+Z2+X2, Z3+X3+Y3)

Tooling layout



Lay-out