

NEW model

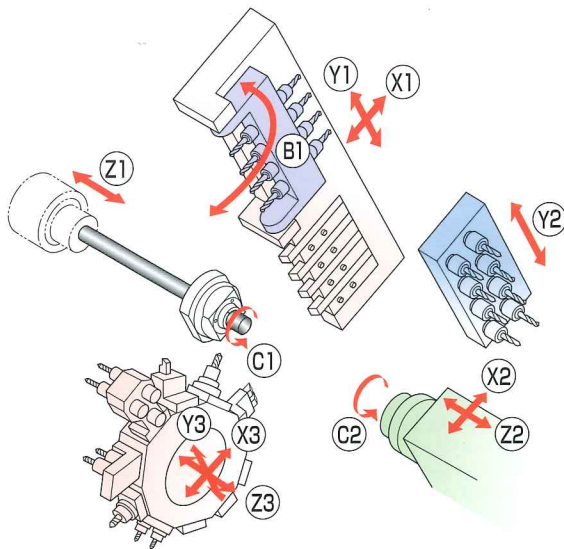


type B:
Turret-type tool post which employs the one-position tool drive mechanism

type A:
Quick-changeable turret-type tool post which enables use of the existing tool units

SWISS TYPE AUTOMATIC LATHE
equipped with star motion control system

SX-38 type A/B



The latest model is of the highest quality in all aspects of the 38-dia. class.

The new design concept was introduced for all of functionality, rigidity, and workability to meet the needs of machining large-diameter and complex-shaped workpieces.

① Enhanced functionality

- The gang-type tool post is equipped with the 4-spindle counter face milling unit with B-axis control function *1. Control of turning angles at the range from 0 deg. to 90 deg. and from 0 deg. to -45 deg. is possible.
*1: ER20 (front side) / ER16 (rear side)
- In addition to type A, quick-changeable turret-type tool post enabling use of the existing tool units, type B, turret-type tool post with one-position tool drive mechanism is lined up.
- The sub spindle motor which has the same power as the main spindle motor (7.5/11kW) enhances machining capability on the rear side.
- Power tool units can be mounted on all positions of the 8-spindle back working unit with Y-axis control function.

② Improved workability and operability

- The layout of the tool post with slanted bed frame greatly improved setup and maintenance workability.
- Operation assistance software has a variety of functions such as "Tool Unit No. Input Screen" for checking tool unit dimensions and "Alarm Help Function" for checking alarm contents on the screen.

③ Higher rigidity and accuracy

- The 4-spindle counter face milling unit employs the structure for holding the upper and lower ends. Furthermore, the clamp mechanism is additionally employed to improve the unit's holding rigidity.
- The dovetail groove guideway is employed on the sliding surfaces of the X3-axis of the turret-type tool post and the Y2-axis of the 8-spindle back working unit to improve rigidity of the tool post.
- Type B turret-type tool post employs the one-position tool drive mechanism which suppresses vibration and prevents heating of the tool unit.
- The "Spindle sleeve slide guideway structure" in non-guide bush mode holds cutting force on the slideways configured close to the cutting point so as to suppress deflection of the spindle and achieve highly accurate machining.
- A hydraulic rotary cylinder installed in the main chucking mechanism secures stable gripping force regardless of variation of workpiece diameters.
- The thermal sensors installed on various positions of the machine achieve highly accurate and flexible thermal displacement correction.

Selection of turret-type tool post type	type A	type B
	Quick-changeable type	One-position tool drive type



□ Standard Machine Specifications

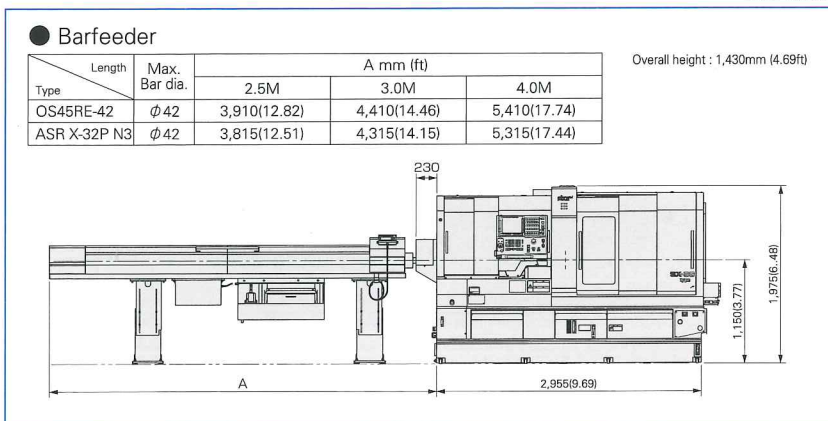
Item		Specifications	
Max. machining diameter		φ38mm(1-1/2in)	
Max. headstock stroke	Standard	320mm(13-19/32in)	
	R.M.G.B. type	289mm(11-3/8in) : OP	
	N.G.B. type	95mm(3-47/64in)	
Tool post configuration	Gang type	Turning tool + Power-driven tool	
	Turret type	10 stations	
Tool	Number of tools	4 tools	
	Gang type	Max.2tools / station	
	Turret type	Max.3tools / station	
Sleeve	Number of tools	Max.3tools / station	
	Max. drilling capability	φ23mm(29/32in)	
	Max. tapping capability	M16xP2.0	
Power driven attachment	Number of tools	Gang type	B-axis controlled power-driven tool unit (Front : 4 tools, rear : 4 tools)
		Turret type	Max.2tools / station
	Max. drilling capability	Gang type	φ10mm(25/64in)
		Turret type	φ10mm(25/64in)
	Max. tapping capability	Gang type	M8xP1.25
		Turret type	M8xP1.25
	Spindle speed	Gang type	Max.6,000min ⁻¹
		Turret type	Max.5,700min ⁻¹
	Drive motor	Gang type	2.2kW(continuous) / 3.0kW(5min. / 30% ED)
Turret type		2.7kW(continuous) / 4.0kW(5min. / 30% ED)	
Rapid feed rate		30m/min(X1, X2, X3, Y1, Z1, Z2, Z3) 24m/min(Y2), 15m/min(Y3)	
Main spindle indexing angle		C-axis control	
Main spindle speed		Max.7,000min ⁻¹	
Main spindle motor		7.5kW(continuous) / 11kW(10min. / 25% ED)	
Coolant tank capability		284 ℓ	
Dimensions (WxDxH)		2,955x1,430x1,975mm	
Power consumption		14.4kVA	

□ Backworking Attachment Specifications

Item		Specifications	
Max. chucking diameter		φ38mm(1-1/2in)	
Max. length for front ejection		150mm(5-7/8in)	
Max. parts projection length		75mm(2-61/64in)	
Back 8-Spindle unit	Number of tools	Stationary tool	Max.8 tools
		Power driven tool	Max.8 tools
	Max. drilling capability	Stationary tool	φ23mm(29/32in)
		Power driven tool	φ10mm(25/64in)
Max. tapping capability	Stationary tool	M16xP2.0	
	Power driven tool	M8xP1.25	
Power-driven att. spindle speed		Max.5,000min-1	
Power-driven att. drive motor		1.2kW(continuous) / 2.2kW(5min./30% ED)	
Sub spindle indexing angle		C-axis control	
Sub spindle speed		Max.7,000min-1	
Sub spindle motor		7.5kw(continuous) / 11kw(10min. / 25% ED)	

□ External Dimensions

Unit : mm(ft)



□ Standard Accessories and Functions

- CNC unit FANUC 31i-B5
- Operation panel 10.4-inch color LCD display
- Manual pulse generator
- Hydraulic unit
- Pneumatic unit
- Automatic lubrication unit
- Coolant level detector
- Door interlock system
- Broken cutoff tool detector
- Drive unit for revolving guide bush
- Revolving guide bush unit
- Air purge for revolving guide bush
- Main / Sub collet
- C-axis control (Main / Sub)
- Spindle clamp unit
- Gang-type tool holder for fixed 4 tools (□ 20 mm : 1 tool, □ 16 mm : 3 tools)
- 4-spindle counter face milling unit with B-axis control function
- B-axis clamp unit
- 10-position turret-type tool post
- Turret-type tool post tool drive unit (type B: one-position tool drive mechanism)
- Sub spindle air purge unit
- Drive system for power-driven attachment (8-spindle back working unit)
- 8-spindle back working unit tool drive unit
- spindle cooling unit
- Parts conveyor
- Automatic bar feeder interface
- LAN/RS-232C interface
- Work light

□ Optional Accessories and Functions

- Coolant flow detector
- Parts ejection detector
- Water removal unit
- Beacon
- Non-guide bush type
- Rotary magic guide bush unit
- For pneumatic unit rotary magic guide bush
- Parts receptacle in the machine
- Parts ejector (Spring type rotary ver.)
- Parts ejector (Air cylinder type)
- Parts ejector with guide tube
- Parts catcher
- Product separator
- Parts receptacle
- Chip conveyor, hinge-type
- Coolant tank, large-capacity type
- Coolant unit (6.9MPa / 2.5MPa / 0.7MPa)
- Coolant unit signal cable
- Coolant unit power cable
- Coolant valve(6.9MPa / 2.5MPa)
- Coolant pipings
- Relocation detection device
- I / O module extension unit
- Transformer CE marking version
- CE marking
- Tool Presetter

Note)

The machining capacities apply to SUS303 material. The machining capacities may differ from listed values depending on the machining conditions, such as the material to be machined or the tools to be used.

※Design features, specifications and technical execution are subject to change without prior notice.

※This product is an export control item subject to the foreign exchange and foreign trade laws. Thus, before exporting this product, or taking it overseas, contact your STAR MICRONICS dealer.

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