

A Balance-Cut Function by X₁/X₃ Axis Simultaneous Control for High Accuracy and High Efficiency

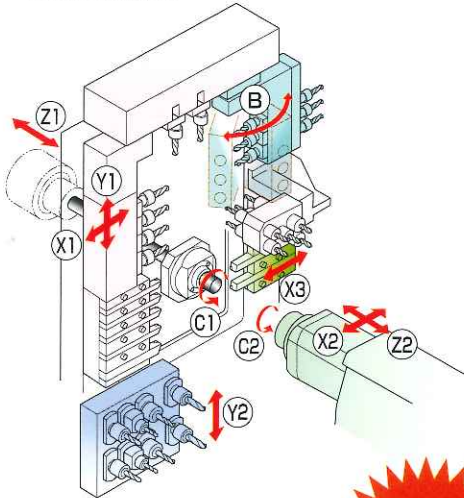
Improved Complex Machining by Using the B-axis Controlled Power Tool Unit (*)

CNC SWISS TYPE AUTOMATIC LATHE [type A]

SWISS TYPE AUTOMATIC LATHE equipped with star motion control system [type B]

SR-38

*Functions of Type B



Illustrated tool post (Type B)



Complex Machines for Large-Diameter Workpieces Now Aim for Higher Functionality, Productivity and Accuracy

1 Improved Functionality and Machining Capability

- The rear tool holder of the portal-type tool post has an additional X₃ control axis.
- Type A employs an angle adjustable power-driven tool unit, while Type B employs a power-driven tool unit with B axis control function.
- Each cartridge position can accommodate a variety of power tool units including a tool unit for slotting, polygon machining, etc. to enable diverse tooling layouts of suitable parts to machine.
- Main collet open/close operation is done by hydraulic rotation cylinder.

2 Pursuit of High Productivity

- Machining time is reduced by the balance-cut function through simultaneously controlled X₁ and X₃ axes.
- The eight-spindle back working unit with a Y axis control function is mounted for efficient process split between the front and rear sides as well as flexible overlap machining.
- The Star Motion Control System (Type B) is attached to reduce non-cutting type.

3 Realization of High Accuracy and High Rigidity

- The portal-type tool post employs a uniform load cross guide structure to ensure high rigidity of the tool post.
- Both the main and sub spindles are build-in type for improved spindle indexing accuracy.

4 Enhanced Operability and Workability

- The movable operation panel enables operation at the best position suited to the operator.
- The spindle head stock chamber and the cutting chamber use a trap door to ensure a wide opening and work space.

	Motion control	X ₃ axis control	B axis control
Type A	—	●	—
Type B	●	●	●

A highly functional model, which employs a machine composition including a balance-cut mechanism, two cartridge positions, angle adjustable power-driven tool unit, eight-spindle back working unit, etc., for advanced complex machining

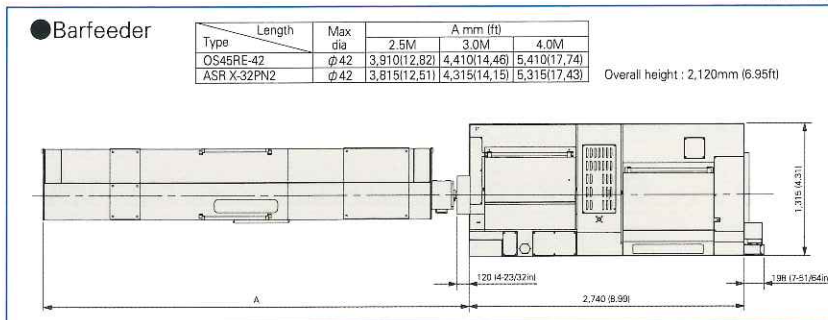
□ Standard Machine Specifications

Item		Specifications
Max. machining diameter		φ38mm(1-1/2in)
Max. headstock stroke	With R.G.B. unit	320mm(12-19/32in)
	With R.M.G.B. unit	288mm(11/32in) : OP
Tool		5 tools on the front(stationary type)+2 tools on the rear(X3 axis control)
5-Spindle sleeve holder	Number of tools	Front 5 tools Rear 5 tools
	Max. drilling capability	φ23mm(29/32in)
	Max. tapping capability	M16×P2.0
Power driven attachment	Number of tools	Cross milling : 4 tools Cartridge type : At 2 position
	Number of tools (type A)	Angle adjustable power-driven tool : At 1 position (Front 3 tools+Rear 3 tools)
	Number of tools (type B)	B-axis controlled power-driven tool unit : At 1 position (Front 3 tools+Rear 3 tools)
	Max. drilling capability	φ10mm(25/64in)
	Max. tapping capability	M8×P1.25
	Spindle speed	Max.6,000min ⁻¹
Drive motor		2.2kw
Rapid feed rate		36m/min(X1,Y1,Z1,X2,Z2), 24m/min(Y2,X3)
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		253 ℓ
Dimensions (W×D×H)		2,740×1,315×2,120mm
Weight		4,300kg
Power consumption		15.9 KVA

□ 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		70mm(2-3/4in)
Number of tools		8 tools
Back 8-Spindle unit	Max. drilling capability Stationary tool	φ14mm(35/64in)
	Power driven tool	8 tools
Max. tapping capability	Stationary tool	M12×P1.75
	Power driven tool	M6×P1.0
Power-driven att. spindle speed		Max.6,000min ⁻¹
Power-driven att. drive motor		1.0kw
Sub spindle indexing angle		C-axis control
Sub spindle speed		Max.7,000min ⁻¹
Sub spindle motor		3.7kw(continuous)/5.5kw(10min./40%ED)

□ External Dimensions



※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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□ Standard Accessories and Functions

- CNC unit FANUC 31i-B (typeA)
CNC unit FANUC 31i-B5 (typeB)
- Operation panel 10.4-inch color LCD display
- Pneumatic unit
- Hydraulic unit
- Automatic centralized lubrication unit
- Coolant level detector
- Door interlock system
- Broken cutoff tool detector
- Drive unit for revolving guide bush
- Revolving guide bush unit
- Main/Sub collet
- C-axis control (Main/Sub)
- Spindle clamp unit (main/sub)
- 5-station tool holder □16/20mm
- 2 tool holder □16mm
- 5-spindle sleeve holder
- Main tool post tool rotation drive unit
- Cross milling tool unit (4-tool type)
- Angle adjustable three spindle opposing unit (Type A)
- 3-spindle opposing unit with B axis control (Type B)
- Back working attachment
- 8-spindle back working unit with Y axis control function
- 8-spindle back working unit power tool drive
- Parts conveyor
- Air purge for revolving guide bush
- Air purge for sub spindle
- Work light
- Leakage breaker

□ Optional Accessories and Functions

- Coolant flow detector
- Parts ejection detector
- Water removal unit
- Beacon
- Chip conveyor
- Rotary magic guide bush unit
- For pneumatic unit rotary magic guide bush
- Main spindle inner tube
- Parts ejector (Air cylinder type)
- Parts ejector (Spring type)
- Parts ejector with guide tube
- Parts stopper unit
- Coolant unit (6.9MPa / 2.5MPa / 0.7MPa)
- Coolant unit signal cable
- Coolant unit power cable
- Coolant valve (6.9MPa / 2.5MPa)
- Coolant pipings
- Automatic bar feeder interface
- Compliant with the RS-232C interface
- LAN interface
- Transformer CE marking version
- Transformer CE marking cable
- CE marking version

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.

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