

CNC SWISS TYPE AUTOMATIC LATHE

SB-12R type G

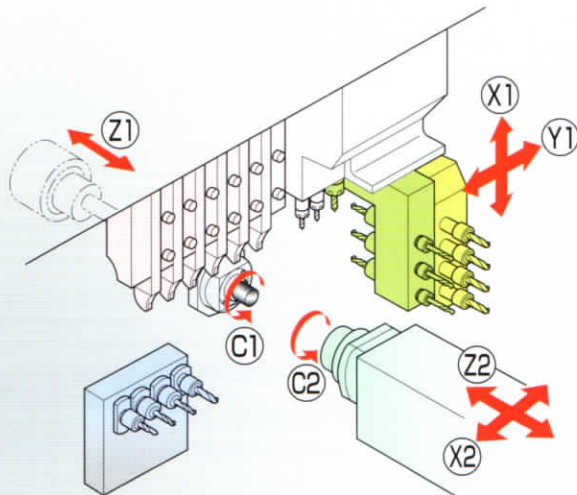


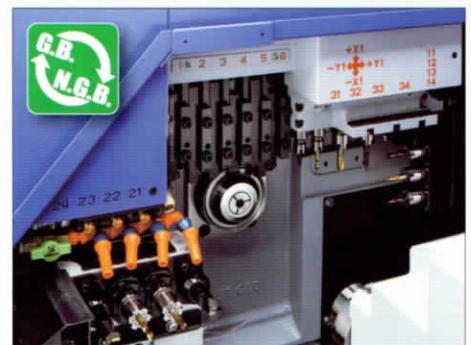
Illustration of tool post :
Cartridge-type 5-spindle cross drilling unit (with Guide Bush)

SB-12R series now has the added benefit of G.B./N.G.B. to give the SB-12R series even greater flexibility.

Now with the choice of guide bush type and the numerous tooling layouts available the SB-12R series creates a versatile machining platform for the manufacture of small diameter components.



- A build-in motor (max. 15,000min⁻¹) is employed in the main spindle and the sub spindle benefits from a 1.1Kw motor (max 12,000min⁻¹)
- The main spindle/sub spindle both have C-axis control as standard.
- For long parts, the G.B. type can be used which ensures a stable position for turning diameters and therefore enables accurate tolerances to be achieved. For short parts, the N.G.B. type can be used to minimize the remnant length thus improving manufacturing output and reducing material waste.
- The 5-spindle cross drill unit (max. 10,000min⁻¹) allows numerous driven tool holders to be fitted including Thread whirling, Slotting and Polygon units. This variety further enhances the manufacture of medium complex components manufactured from small diameter materials.
- The independent 4-spindle backworking unit especially designed for rear-end working can also accommodate a power tool drive unit (OPT). This further improves machining performance on the rear end and increases overlapped operations.

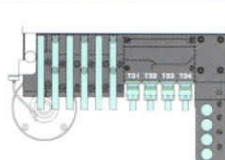


The photo shows a non-guide bush type.

G.B. : Guide bush / N.G.B Non-guide bush

Four types of tool posts are available to allow for a tooling layout most suited to the required machining applications.

● 4-spindle cross drilling unit



Tool holder

6 pcs. / 7 pcs.

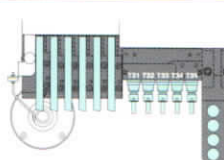
Cross drill unit

4 spindles(ER16)

Sleeve holder

4 pcs.

● 5-spindle cross drilling unit



Tool holder

6 pcs. / 7 pcs.

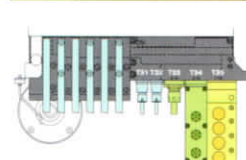
Cross drill unit

5 spindles(ER11)

Sleeve holder

4 pcs.

● Cartridge-type cross drilling unit ● 5-spindle type ● 5-spindle high-speed type



Tool holder

6 pcs. / 7 pcs.

Cross drill unit

2 spindles(ER11)

Cartridge type

3 pcs.

Standard Machine Specifications

Item	4-spindle cross drilling unit		5-spindle cross drilling unit		Cartridge-type cross drilling unit		
					5-spindle	5-spindle high-speed	
Max. machining diameter	φ 13mm(33/64in)						
Max. headstock stroke	G.B. type	205mm(8in)					
	N.G.B. type	Bar diameter×2.5(Max.30mm) (Max.1-11/64in)					
Tool	6 tools(□12mm) / 7 tools(□10mm)						
4-Spindle sleeve holder	Number of tools	Front 4 tools					
		Rear 4 tools					
	Max. drilling capability	φ 10mm(25/64in)					
	Max. tapping capability	M10×P1.5					
Power driven att.	Number of tools	Cross power driven att.		Cross power driven att. 2 tools(ER11)			
		4 tools(ER16)		5 tools(ER11)		Cartridge type: 3Pos	
	Max. drilling capability	ER16	φ7mm(9/32in)	—	φ7mm(9/32in)		
		ER11	—	φ5mm(3/16in)	φ6mm(15/64in)	φ5mm(3/16in)	
	Max. tapping capability	ER16	M6×P1.0		—		
		ER11	—		M5×P0.8		
	Spindle speed	ER16	Max.6,000min ⁻¹		—		
	ER11	—		Max.10,000min ⁻¹	Max.8,000min ⁻¹	Max.10,000min ⁻¹	
Drive motor	1.0kw(continuous) / 1.2kw(5min./30%ED)						
Rapid feed rate	35m/min(X1,Y1,Z1,X2,Z2)						
Main spindle indexing angle	C-axis control						
Main spindle speed	Max.15,000min ⁻¹						
Main spindle motor	2.2kw(continuous) / 3.7kw(10min./25%ED)						
Coolant tank capability	180ℓ						
Dimensions (W×D×H)	2,070×1,177×1,760mm						
Center height	1,060mm						
Weight	1,750kg						
Power consumption	4.5KVA						
A-weighted sound pressure : note-1	78dB						

Backworking Attachment Specifications

OP : Option

Item	Specifications
Max. chucking diameter	φ 13mm(33/64in)
Max. length for front ejection	80mm (3-5/32in)
Max. parts projection length	30mm (1-11/64in)
Number of tools	4 tools
Back Max. drilling capability	Stationary tool φ8mm(5/16in)
	Power driven tool φ6mm(15/64in) : OP
4-Spindle unit Max. tapping capability	Stationary tool M6×P1.0
	Power driven tool M5×P0.8 : OP
Power-driven att. spindle speed	Max.8,000min ⁻¹ : OP
Power-driven att. drive motor	0.75kw : OP
Sub spindle indexing angle	C-axis control
Sub spindle speed	Max.12,000min ⁻¹
Sub spindle speed control	AC spindle drive
Sub spindle motor	0.55kw(continuous) / 1.1kw(15min./40%ED)

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.

note-1 : ● Measures conforming to ISO standard.

● A-weighted sound pressure is a general assessment standard characteristic that corrected the sound level to human acoustic sense.

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

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Standard Accessories and Functions

- CNC unit FANUC Oi-TD
- Operation panel 8.4-inch color LCD display
- Pneumatic unit
- Automatic centralized lubrication unit
- Coolant level detector
- Door interlock system
- Broken cutoff tool detector
- Parts ejection detector
- Drive unit for revolving guide bush
- Revolving guide bush unit
- Main/Sub collet
- C-axis control (Main/Sub)
- Spindle clamp unit (Main/Sub)
- Tool holder
- 4-spindle cross drilling unit
- 4-spindle sleeve holder
- Back 4-Spindle unit
- Air purge for revolving guide bush
- Sub spindle air purge unit
- Sub spindle air blow unit
- Work light
- Leakage breaker

Optional Accessories and Functions

- Coolant flow detector
- Water removal unit
- Beacon
- Parts conveyor
- Parts receptacle in the machine
- Parts separator unit A
- Main spindle inner tube
- 5-spindle cross drilling unit
- Cartridge-type 5-spindle cross drilling unit
- Cartridge-type 5-spindle high-speed cross drilling unit
- Drive unit for power-driven attachment B
- Parts ejector (Air cylinder type)
- Parts ejector (Spring type)
- Parts ejector with guide tube
- Parts stopper unit
- Coolant unit (6.9MPa/2.5MPa)
- Coolant unit signal cable
- Coolant unit power cable
- Coolant valve
- Coolant pipings
- Automatic bar feeder interface
- Compliant with the RS-232C interface
- Transformer
- Safety relay module version
- Transformer CE marking version
- Cable for CE marking version
- CE marking version

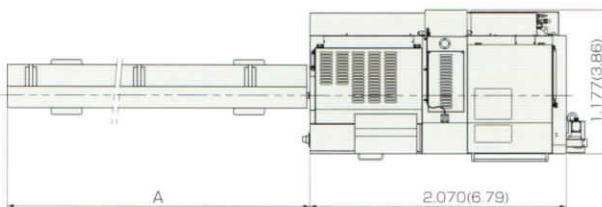
External Dimensions and Floor Space

unit : mm(ft)

Barfeeder

Type	Length	Max.dia	A (mm)		
			2.5M	3.0M	4.0M
ASRX-16AS II	φ13	3,247(10.65)	3,747(12.29)	4,747(15.57)	
OS12VS	φ13	3,380(11.09)	3,880(12.73)	4,880(16.01)	
OS12RE	φ13	3,100(10.17)	3,600(11.81)	4,600(15.09)	

Overall height : 1,760mm(5.77)



<http://www.star-m.jp/eng/>

9001 ISO 14001
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