

SB-12R type G

CNC SWISS TYPE AUTOMATIC LATHE

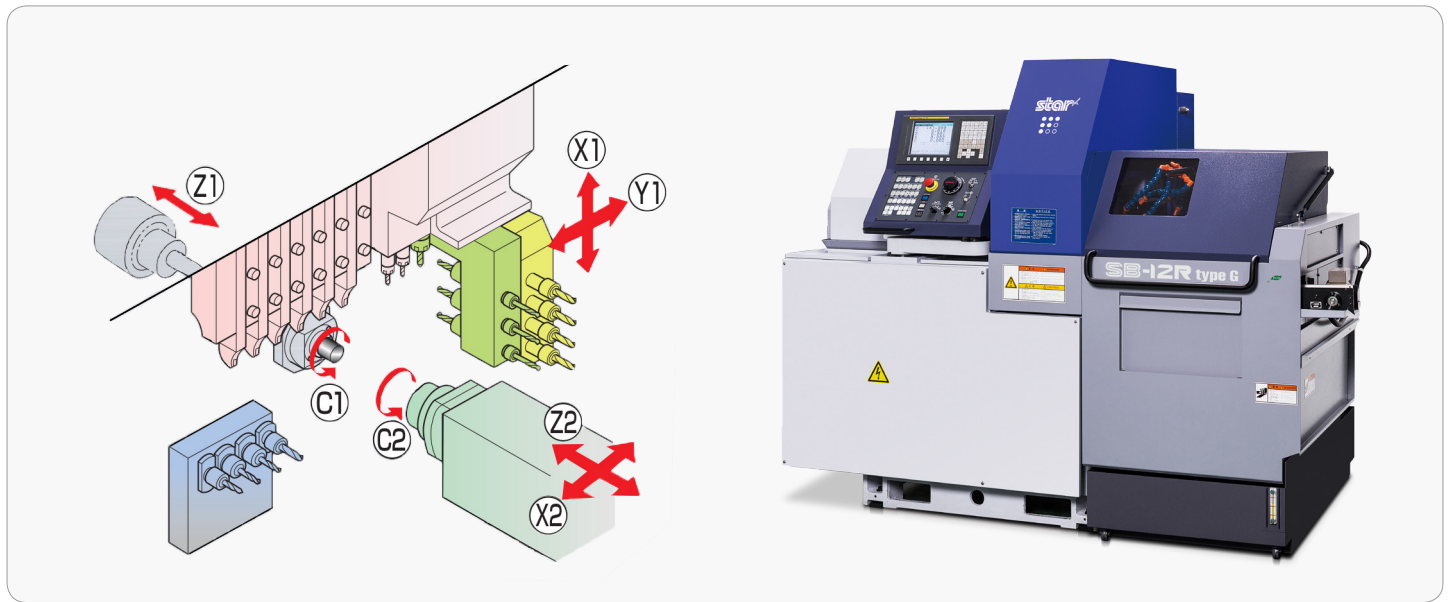


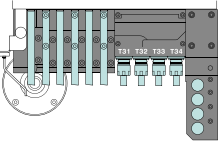
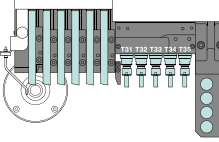
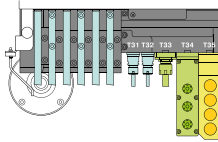
Illustration of tool post: Cartridge-type 5-spindle cross drilling unit (with Guide Bush)

The SB-12R series now has the added benefit of G.B./N.G.B. to achieve 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 built-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, therefore enabling accurate tolerances to be achieved. For short parts, the N.G.B. type can be used to minimise 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 Threa 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 is specially designed for rear-end working and can also accommodate a power tool drive unit (OP). This further improves machining performance on the rear end and increases overlapped operations.

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	5-spindle cross drilling unit	Cartridge-type cross drilling unit 5-spindle type / 5-spindle high-speed type
		
Tool holder 6 pcs. / 7 pcs.	Tool holder 6 pcs. / 7 pcs.	Tool holder 6 pcs. / 7 pcs.
Cross drill unit 4 spindles(ER16)	Cross drill unit 5 spindles(ER11)	Cross drill unit 2 spindles(ER11)
Sleeve holder 4 pcs.	Sleeve holder 4 pcs.	Cartridge type 3 pos.

*1: The power tool unit is optional (cross drill unit, opposing 3-spindle face drill unit, slotting unit, thread whirling unit and polygon turning unit).





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)	—	φ 7mm (9/32in)	
	ER11	—	φ5mm(3/16in)	φ6mm(15/64in) φ5mm(3/16in)	
	Max.tapping capability ER16	M6×P1.0	—	M6×P1.0	
	ER11	—	M5×P0.8		
	Spindle speed ER16	Max.6,000min ⁻¹	—	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		180 ℓ			
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

Item	Specifications
Max. chucking diameter	$\phi 13\text{mm}$ (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 Stationary tool	$\phi 8\text{mm}$ (5/16in)
4-Spindle capability Power driven tool	$\phi 6\text{mm}$ (15/64in) : OP
unit Max. tapping Stationary tool	M6 \times P1.0
capability Power driven tool	M5 \times 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 SU5303 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.

- Measures conforming to ISO standard.
- A-weighted sound pressure is a general assessment standard characteristic that corrects the sound level to human acoustic sense.

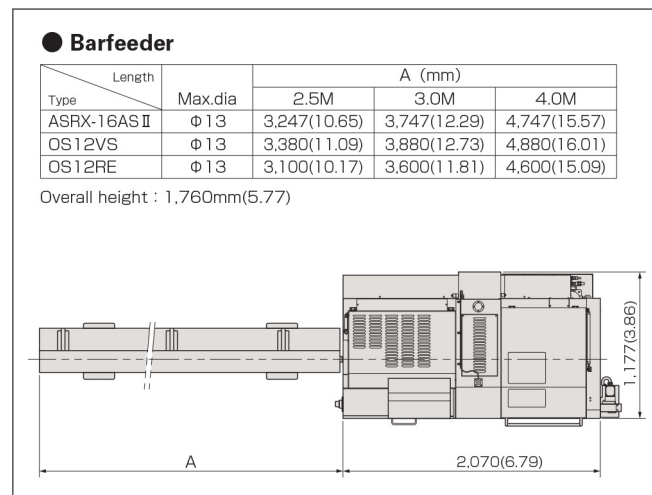
Standard Accessories and Functions

1. CNC unit FANUC Oi-TD
2. Operation panel 8.4-inch color LCD display
3. Pneumatic unit
4. Automatic centralized lubrication unit
5. Coolant level detector
6. Door interlock system
7. Broken cutoff tool detector
8. Parts ejection detector
9. Drive unit for revolving guide bush
10. Revolving guide bush unit
11. Main/Sub collet
12. C-axis control (Main/Sub)
13. Spindle clamp unit (Main/Sub)
14. Tool holder
15. 4-spindle cross drilling unit
16. 4-spindle sleeve holder
17. Back 4-Spindle unit
18. Air purge for revolving guide bush
19. Sub spindle air purge unit
20. Sub spindle air blow unit
21. Work light
22. Leakage breaker

Optional Accessories and Functions

1. Coolant flow detector
2. Water removal unit
3. Beacon
4. Parts conveyor
5. Parts receptacle in the machine
6. Parts separator unit A
7. Main spindle inner tube
8. 5-spindle cross drilling unit
9. Cartridge-type 5-spindle cross drilling unit
10. Cartridge-type 5-spindle high-speed cross drilling unit
11. Drive unit for power-driven attachment B
12. Parts ejector (Air cylinder type)
13. Parts ejector (Spring type)
14. Parts ejector with guide tube
15. Parts stopper unit
16. Coolant unit (6.9MPa/2.5MPa)
17. Coolant unit signal cable
18. Coolant unit power cable
19. Coolant valve
20. Coolant pipings
21. Automatic bar feeder interface
22. Compliant with the RS-232C interface
23. Transformer
24. Safety relay module version
25. Transformer CE marking version
26. Cable for CE marking version
27. CE marking version

External Dimensions



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

Star Micronics GB Limited

