SB-16R/20R type G

CNC SWISS TYPE AUTOMATIC LATHE

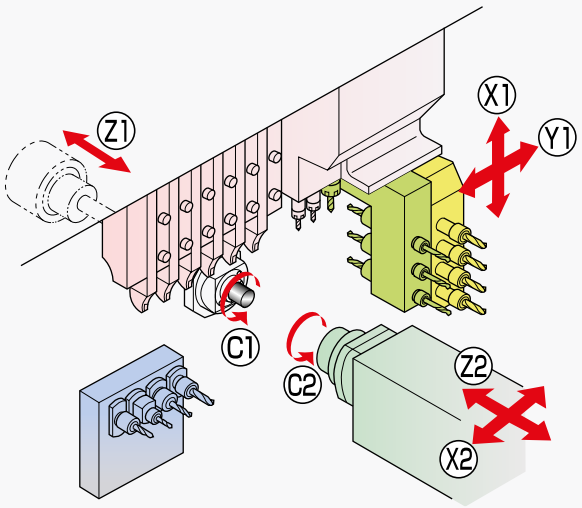


Illustration of tool layout: Cartridge-type 5-spindle cross drill unit (guide bush type)

A Wide Range of Options for Optimum Performance

A selection of tool posts and cartridge units are available to meet your machining needs in order to achieve maximum tooling variation for a wide range of machining operations.

» Various types of cartridge power tool units (*1) and the 4-spindle sleeve holder may be attached to the 5-spindle cross drill unit (optional) matching to workpieces to machining requirements. Flexible tooling layouts allow variations of complex machining.

» The 4-spindle backworking unit can accommodate a power drive unit to dramatically improve rear-end working.

» The main spindle employs a built-in motor for enhanced indexing accuracy.

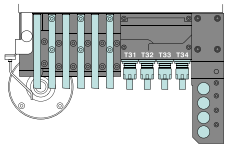
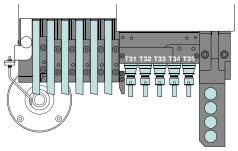
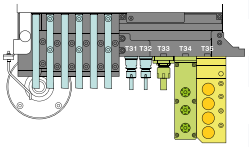
» The main spindle/sub spindle C-axis control is supplied as standard equipment.

» A movable operation panel and variable help functions ensure greater operability and workability.

» The guide bush type and non-guide bush type are interchangeable according to the total length of the workpiece.

* type B

Four types of tool posts are available to allow for a tooling layout 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).

ECO

STAR Environmental Standards Conformity models :

"Flexibility of the SB-16R/20R yields performance that meets genuine manufacturing needs"

SB-16R/20R type G

SWISS TYPE AUTOMATIC LATHE
equipped with Star motion control system

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		φ16mm(5/8in)／φ20mm(25/32in)			
Max. headstock stroke	Standard	205mm(8in)			
	N.G.B type	Bar diameter×2.5(Max.50mm)(Max.1-31/32in)			
Tool		6 tools(□12mm)／7 tools(□10mm)			
4-Spindle sleeve holder	Number of tools	Front 4 tools			
		Rear 4 tools			
	Max. drilling capability	φ12mm(1/2in)			
	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)			
	Max. drilling capability ER11	φ6mm(15/64in)			
	Max. tapping capability ER16	M6×P1.0			
	Max. tapping capability ER11	M5×P0.8			
	Spindle speed ER16	Max.6,000min⁻¹	—	Max.6,000min⁻¹	Max.6,000min⁻¹
	Spindle speed ER11	—	Max.10,000min⁻¹	Max.8,000min⁻¹	Max.10,000min⁻¹
	Drive motor	1.0kw(continuous)／1.2kw(5min./30%ED)		1.0kw	
Rapid feed rate		35m/min(X1,Y1,Z1,X2,Z2)			
Main spindle indexing angle		C-axis control			
Main spindle speed		Max.10,000min⁻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		3.7KVA			
A-weighted sound pressure : note-1		74dB			

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. Non-guide bush type
9. 5-spindle cross drilling unit
10. Cartridge-type 5-spindle cross drilling unit
11. Cartridge-type 5-spindle high-speed cross drill unit
12. Drive unit for power-driven attachment B
13. Parts ejector (Air cylinder type)
14. Parts ejector (Spring type)
15. Parts ejector with guide tube
16. Parts stopper unit
17. Coolant unit 2.5MPa
18. Coolant unit signal cable
19. Coolant unit power cable
20. Coolant valve 2.5MPa
21. Coolant pipings
22. Automatic bar feeder interface
23. Compliant with the RS-232C interface
24. Transformer
25. Safety relay module version
26. Transformer CE marking version
27. Transformer CE marking specifications

Backworking Attachment Specifications

OP: Options

Item			Specifications
Max. chucking diameter			φ16mm(5/8in)／φ20mm(25/32in)
Max. length for front ejection			80mm (3-5/32in)
Max. parts projection length			30mm (1-11/64in)
Back 4-Spindle unit	Number of tools		4 tools
	Max. drilling capability	Stationary tool	φ8mm(5/16in)
		Power driven tool	φ6mm(15/64in)
	Max. tapping capability	Stationary tool	M6×P1.0
		Power driven tool	M5×P0.8
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.9,000min⁻¹
Sub spindle speed control			AC spindle drive
Sub spindle motor			0.55kw(continuous)／1.5kw(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.

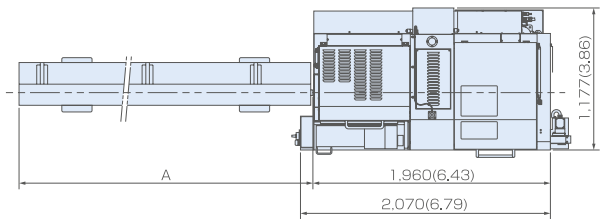
External Dimensions

unit: mm(ft)

● **Barfeeder**

Type \ Length	A (mm)		
	2.5M	3.0M	4.0M
Z-16	3,386(11.11)	3,886(12.75)	4,886(16.02)
ASRX-20AS	3,386(11.11)	3,886(12.75)	4,886(16.02)
OS20S	3,560(11.68)	4,060(13.32)	—
OS203E	3,644(11.95)	4,094(13.43)	4,949(16.23)

Overall height : 1,760mm(5.77)



※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.

Star Micronics GB Limited

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