

**NEW** *model*

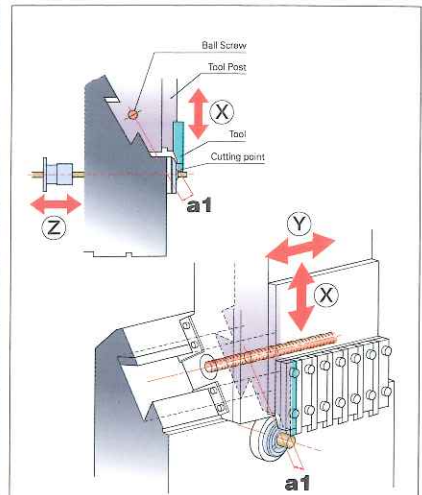
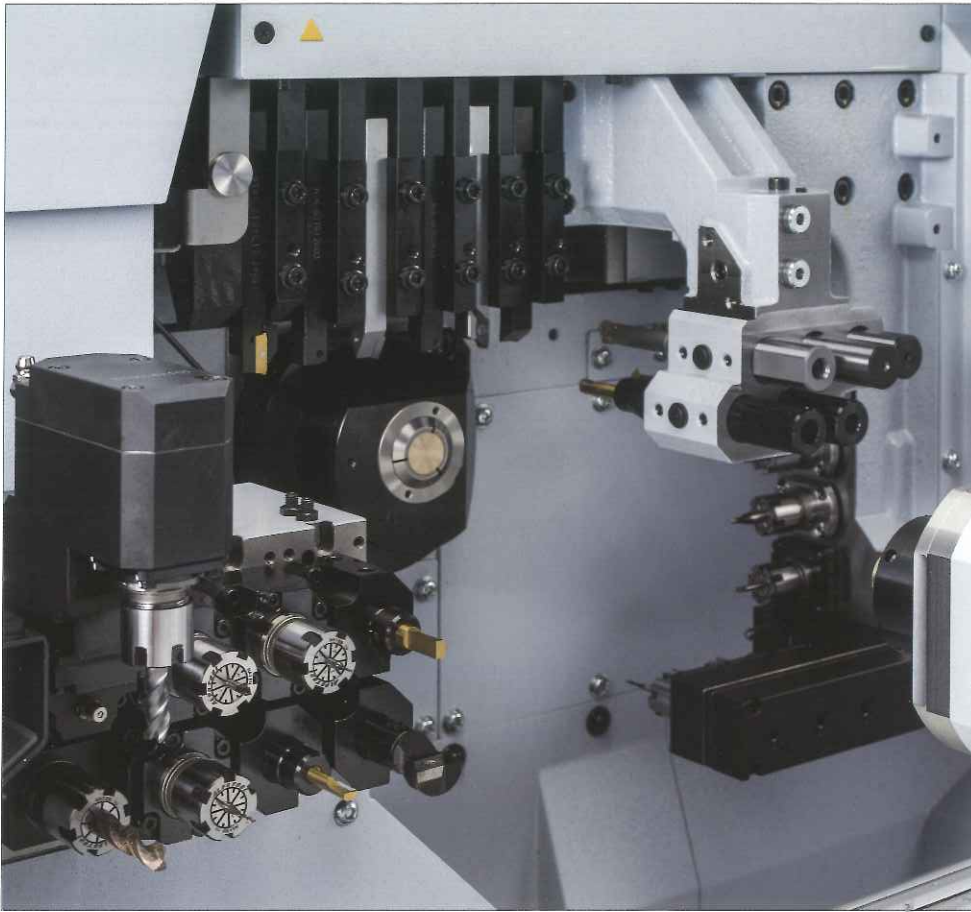
**star** 

CNC SWISS TYPE AUTOMATIC LATHE 

**SR-20JII**



# Ever-Evolving SR-20JII with Versatile Features to Respond to Varied Needs



## Slanted slide guideway structure

### High rigidity tool post

The Y-axis slideway of the tool post incorporates a slanted dovetail structure.

The X and Y-axis slideways are positioned close to the cutting point, which improves machine rigidity and stability. In addition, a straight line, passing through the ball screw center which is parallel to the Y-axis slideway and the cutting point are close to each other (a1), reducing the moment load caused by cutting resistance and thereby improving rigidity.

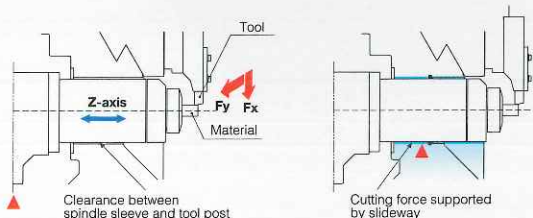
## High Rigidity and High Accuracy

- A rigid gang-type tool post with a slant-type slide guideway structure is mounted for front working. A slanted dovetail guideway is introduced for both the Y1 and X1 axes.
- A highly rigid spindle sleeve slideway structure is used in N.G.B. type to further increase rigidity.

### High rigidity head stock for non-guide bush type

● Original non-guide bush type

● Spindle Sleeve Slideway Structure



- A slanted dovetail structure is incorporated in the type B Y2 slideway to further improve rigidity of the backworking tool post.
- The main and sub spindles employ a built-in structure to enhance spindle indexing accuracy.

## High Function and Machining Ability

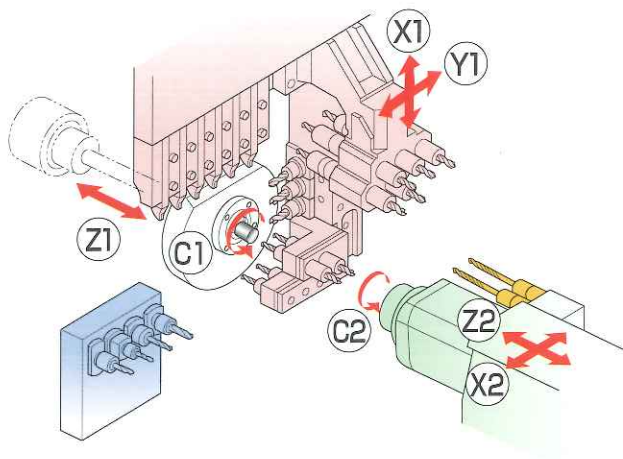
- The G.B. and N.G.B. change-over mechanism is introduced.
- The sub spindle motor and power tool motor have higher output power (when compared with SR-20J).  
(Sub spindle) 1.5/2.2kW → 2.2/3.7kW  
(Power tool) For cross: 1.2kW → 2.2kW, For back working: 0.5kW → 1.0kW
- The 5-spindle cross drilling unit includes two types.
  - ① Three tools especially for cross drilling (ER16) + 2-position cartridge
  - ② Three tools especially for cross drilling (ER20x1, ER16x2) + 2-position cartridge
- Type A is equipped with a 4-spindle type and Type B is equipped with a Y-axis control/8-spindle type back working tool post. A power tool unit can be accommodated at all positions for both type A and B.
- The backworking tool post now features increased pitch centers for  $\phi 20\text{mm-OD}$  turning without interference with the other tool stations.
- Materials of up to  $\phi 23\text{mm}$  can be optionally supplied.

## Operability and Workability

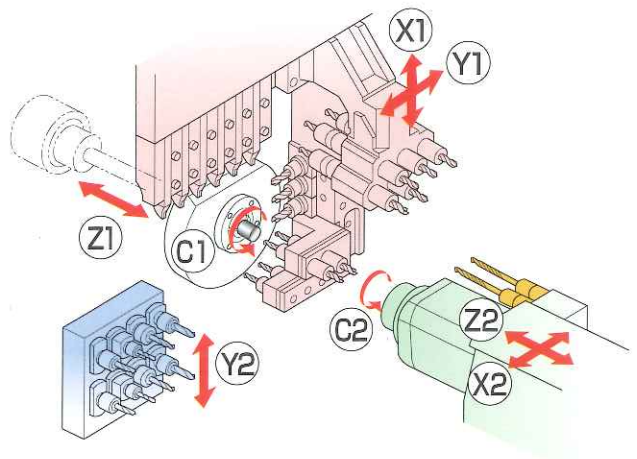
- Design features combining a large up and over door, reduced distance from the machine front to the guide bush, and a lowered threshold height into the working area further enhances the operator's accessibility.
- The movable operation panel enable operation at the best position suited to the operator.



## type A

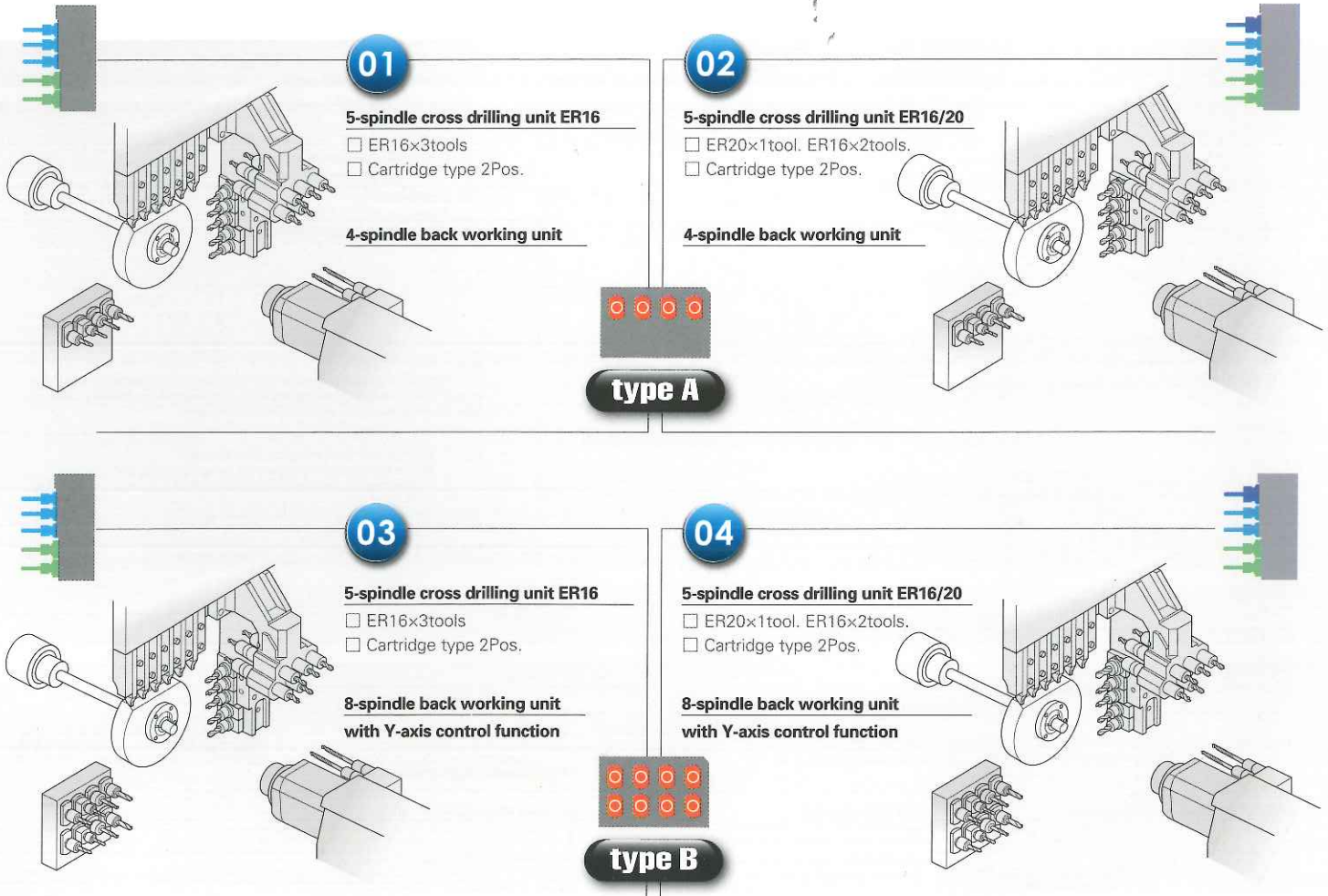


## type B



Model variations are available to achieve a single ideal machine with selected optimum functions.

The latest model SR-20JII has two types A and B to respond to customers requirements for increased flexibility. By flexibly combining required functions and selecting a single ideal machine, the optimum machine configuration is achieved to contribute to the manufacturing at each user plant.



## □ Standard Machine Specifications

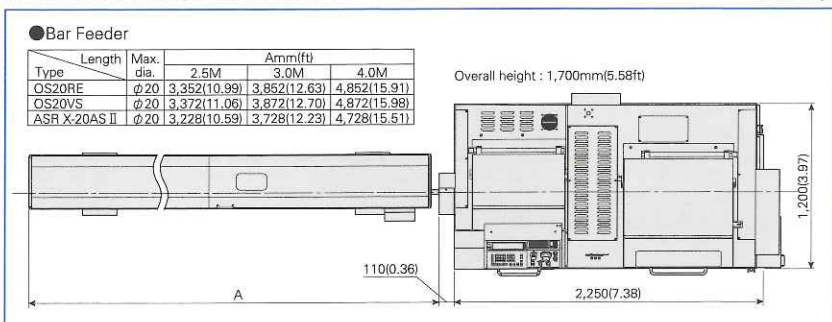
Item		Specifications
Max. machining diameter		φ20mm(25/32in) OP : φ23mm(29/32in)
Max. headstock stroke	Standard	205mm(8in)
	R.M.G.B. type	160mm(6-19/64in)
	N.G.B.type	Bar diameter×2.5(Max.50mm) (Max.1-31/32in)
Tool	Number of tools	6 tools
	Tool shank	□12mm
5-spindle sleeve holder	Number of tools	Front 5 tools
		Rear 5 tools
	Max. drilling capability	φ12mm(1/2in)
	Max. tapping capability	M10×P1.5
2-spindle front sleeve holder	Number of tools(sleeve)	2 tools
	Max. drilling capability	φ10mm(25/64in)
	Max. depth of hole	100mm(3-15/16in)
	Number of tools	Cross milling 3 tools(ER16)+Cartridge type 2Pos. Cross milling 3 tools(ER20×1, ER16×2)+Cartridge type 2Pos.
Power driven attachment	Max. drilling capability	φ10mm(25/64in)
	Max. tapping capability	M8×P1.25
	Spindle speed	Max.8,000min <sup>-1</sup>
	Drive motor	2.2kW
Rapid feed rate		35m/min(X1, X2, Y1, Z1, Z2), 24m/min(Y2) : type B only
Main spindle indexing angle		C-axis control
Main spindle speed		Max.10,000min <sup>-1</sup>
Main spindle motor		2.2kW(continuous) / 3.7kW(10min./25%ED)
Coolant tank capacity		202ℓ
Dimensions (W×D×H)		2,250×1,200×1,700mm
Weight		2,750kg
Power consumption		4.8kVA
A-weighted sound pressure : note-1		Max.74.0dB

## □ Backworking Attachment Specifications

Item		Specifications
Max. chucking diameter		φ20mm(25/32in) OP : φ23mm(29/32in)
Max. length for front ejection		100mm(3-15/16in)
Max. parts projection length		30mm(1-3/16in)
Unit especially for backworking	Number of tools	4 tools(type A) 8 tools(type B)
	Max. drilling capability	Stationary tool φ12mm(1/2in) Power driven tool φ6mm(15/64in)
	Max. tapping capability	Stationary tool M10×P1.5 Power driven tool M5×P0.8
	Power-driven att. spindle speed	Max.8,000min <sup>-1</sup>
Power-driven att. drive motor		1.0kW
Sub spindle indexing angle		C-axis control
Sub spindle speed		Max.10,000min <sup>-1</sup>
Sub spindle motor		2.2kW(continuous) / 3.7kW(10min./25%ED)

## □ External Dimensions and Floor Space

unit : mm(ft)



\*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.

## □ Standard Accessories and Functions

1. CNC unit FANUC 32i-B
2. Operation panel 10.4-inch color LCD display
3. Pneumatic unit
4. Coolant level detector
5. Automatic centralized lubrication unit
6. Door interlock system
7. Cs contouring control (Main/Sub)
8. Spindle clamp unit (Main / Sub)
9. Revolving guide bush unit
10. Drive unit for revolving guide bush
11. Air purge for revolving guide bush
12. Main / Sub collet
13. 6-station tool holder □12mm
14. Cross drilling unit (Gang type tool post)
15. 5-spindle sleeve holder
16. Broken cutoff tool detector
17. Backworking attachment
18. Back 4-spindle unit ※Type A
19. 8-spindle backworking unit with Y axis control function ※Type B
20. Parts conveyor
21. Sub spindle air purge unit
22. Sub spindle air blow unit
23. Drive unit for power-driven attachment B (4-spindle backworking unit) ※Type A
24. Drive unit for power-driven attachment (8-spindle backworking unit) ※Type B
25. Work light
26. Leakage breaker

## □ Optional Accessories and Functions

1. Coolant flow detector
2. Water removal unit
3. Oil mist filter
4. Beacon
5. Main spindle inner tube
6. Feed arrow steady rest
7. Rotary magic guide bush unit
8. Non-guide bush type
9. Parts ejector (Spring type)
10. Parts ejector (Air cylinder type)
11. Parts ejector with guide tube
12. Parts stopper unit
13. Coolant unit (6.9MPa/2.5MPa/0.7MPa)
14. Coolant unit signal cable
15. Coolant unit power cable
16. Coolant valve
17. Coolant pipings
18. Automatic bar feeder interface
19. LAN/RS232C interface
20. Transformer
21. Transformer CE marking version
22. CE marking specifications

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.

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**9001 ISO 14001**  
CERTIFIED

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