

star

# SB-16 type D

CNC SWISS TYPE AUTOMATIC LATHE

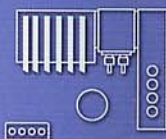
**New**

A Tool Post Exclusively Designed for Back End Working to Dramatically Minimize Machining Time



*Optimum performance capability at the most cost effective price. This is STAR MICRONICS plan for realising a dynamic price/performance ratio for the next generation of machines.*

□ TOOL POST



□ WORK SIZE (MAX.)

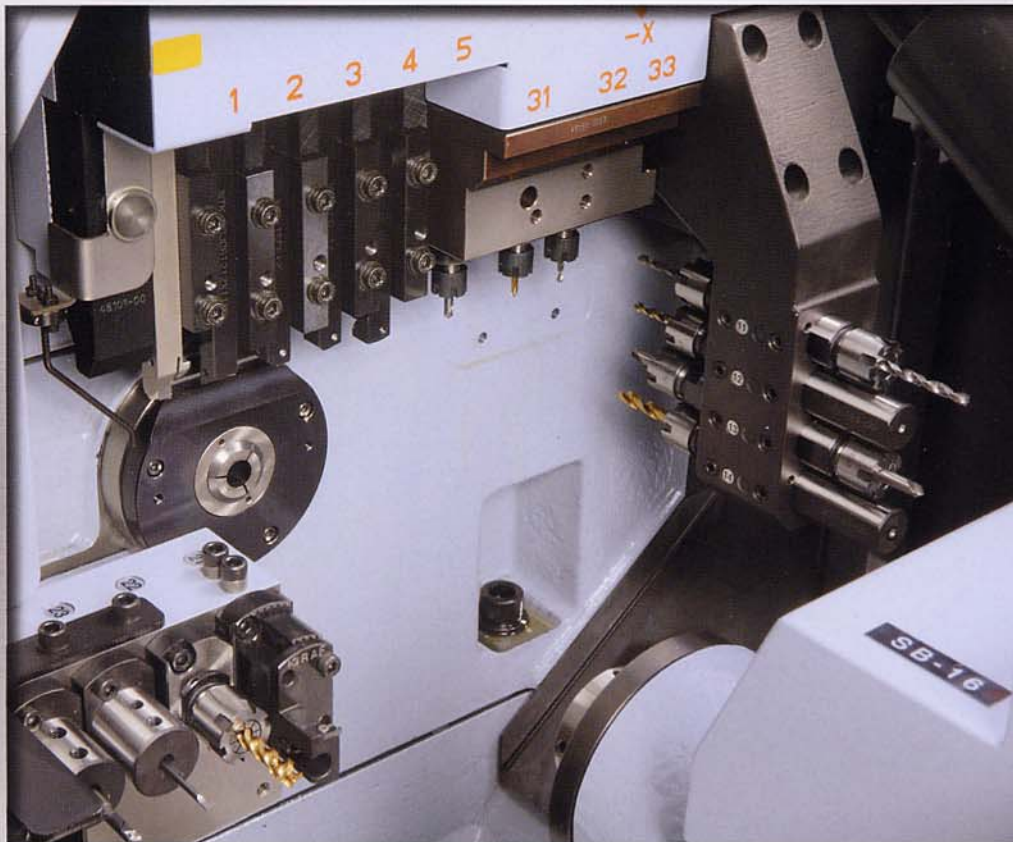


□ CONTROL SYSTEM



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## Gang Tool Post

### Standard model

- Turning tool · · · · · 6 tools
- Power-driven tool · · · · 2 tools
- Front-end working stationary tool · 4 tools
- Rear-end working stationary tool · 2 tools\*

### Special specification

- Turning tool · · · · · 5 tools
- Power-driven tool · · · · 3 tools
- Front-end working stationary tool · 4 tools
- Rear-end working stationary tool · 2 tools\*

\* Depending of condition, maximum 4 rear-end working stationary tools can be attached.

## Back 4-Spindle Unit

- Rear-end working stationary tool · 4 tools

*SB-16 Type D to Contribute to Major Cost Reduction for Production*

## Combining both Cost Effective Price and Competitive Base Specification

### FEATURE of SB-16 typeD CNC SWISS TYPE AUTOMATIC LATHE

#### Contributing to a major reduction in production cost

##### Amazing cost competitive price only SB can offer :

- By achieving efficient volume production, the overwhelming low price is achieved to outclass other producers.

##### Base design concept to improve durability

- By employing a centralized lubrication method for all ball screw axes and a sealed belt head stock, high durability is ensured.

##### User-friendly design for easy maintenance

- The machine is designed for ease of maintenance and serviceability.

#### Minimized machining time

- The tool post exclusively designed for back end working enables overlap machining of both the front and rear faces.
- High-speed rapid feed (35m/min) reduces the idle time.

#### Sufficient capabilities required for machining

##### High rigidity suited to heavy duty cutting and hard material cutting

- The tool post with a dovetail grooved guideway ensures a rigid structure.
- Suited for heavy duty cutting through the 12mm tool shanks and high output motor.

##### A wide range of machining

- The spindle C-axis control is optionally available.
- Power tools and back attachments have higher capabilities.

##### Head stock stroke for machining bar materials

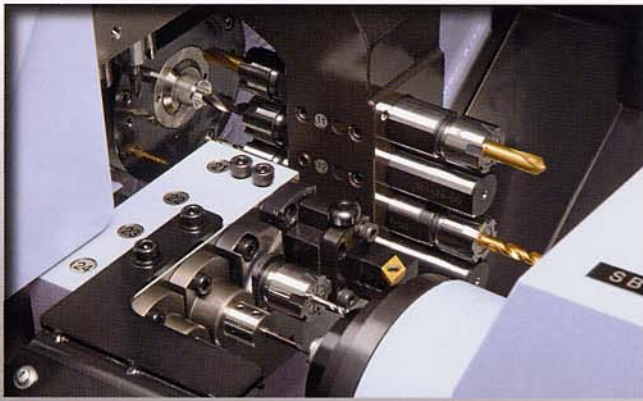
- The head stock stroke of 205mm (fixed G.B) chucks bar materials at one time for easy machining.

##### The Design responds to the needs of long term continuous operation

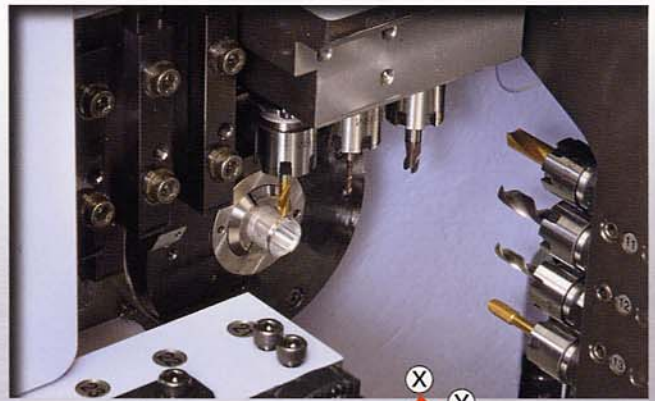
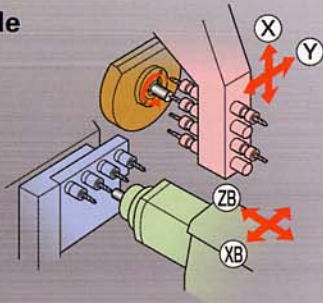
- A large volume swarf area and a large volume coolant tank together with a high power coolant pump are included to achieve a continuous operation for long periods.

##### Enhanced standard attachments for "customer satisfaction"

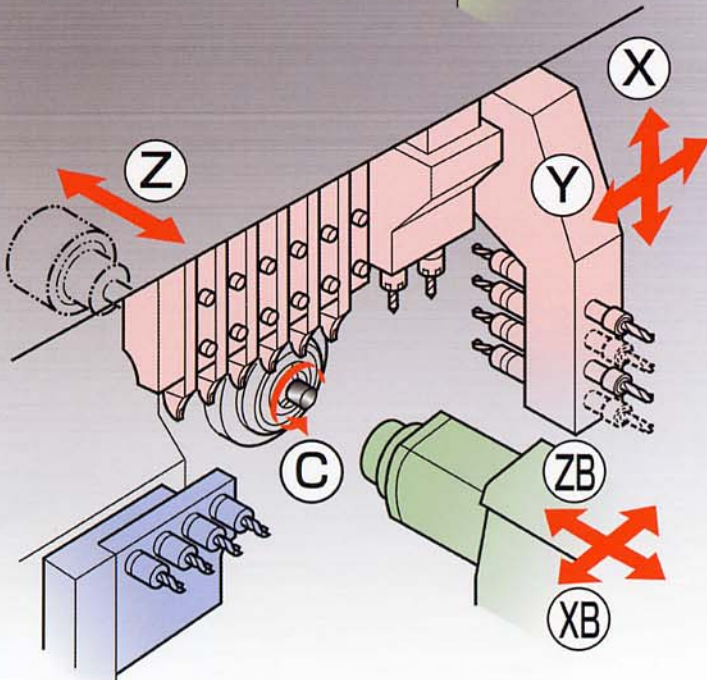
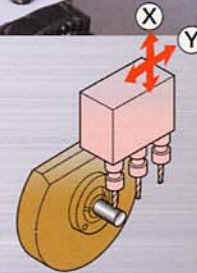
- A safety device to prevent a cut-off tool breakage, a product separator and other periphery devices are attached as standard to meet increased needs.



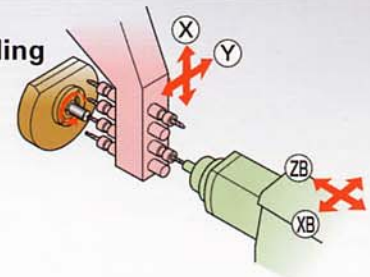
**Main/sub spindle rigid tapping**



**Cross milling**



**Main/sub spindle simultaneous drilling**

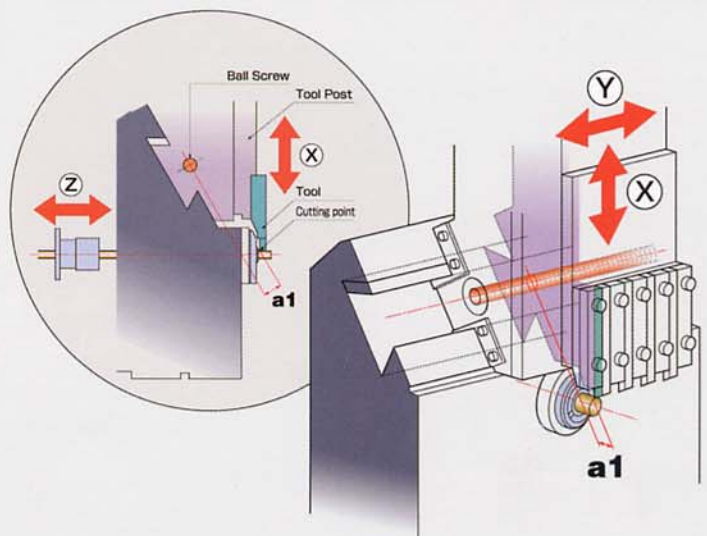


**HIGH PRECISION DESIGN**

**Star original rigid "slanted dovetail slideway structure" for improved dimensional accuracy and tool life.**

The Y-axis slideway of the tool post incorporates a slanted dovetail structure. Because of this, the X- and Y-axis slideways can be arranged in a radial pattern close to the cutting point, increasing machine rigidity. In addition, a straight line, passing through the ball screw center, in parallel with the Y-axis slideway and the cutting point are close to each other (a1), reducing the moment load caused by cutting resistance and improving rigidity.

This enhanced rigidity leads to dynamic stability during cutting, improves dimensional accuracy during long continuous operation, and contributes to the productivity increases.



# CNC SWISS TYPE AUTOMATIC LATHE **SB-16 type D**

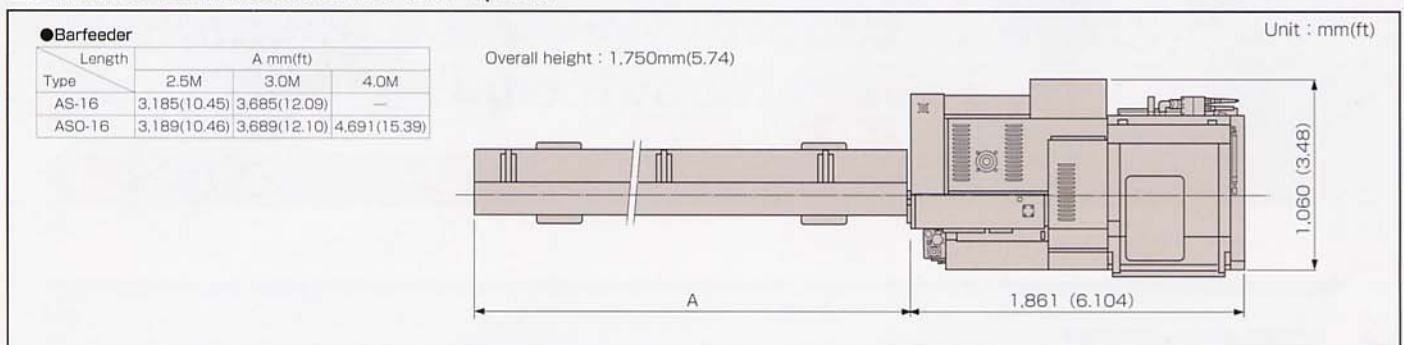
## Standard Machine Specifications

Item	Specifications
Max. machining diameter	φ 16mm (5/8in)
Max. headstock stroke	Stationary GB 205mm (8in) Revolving GB 155mm (6-3/32in)
Tool	6tools (□12mm) *
4-spindle sleeve holder	Number of tools
	Max. drilling capacity
	Max. tapping capacity
Power-driven attachment	Number of tools
	Max. drilling capacity
	Max. tapping capacity
Main spindle speed	Max. 10,000min <sup>-1</sup>
Main spindle motor	2.2kw(continuous)/3.7kw(15min.)
Rapid feed rate	35m/min (X, Y, Z, XB, ZB)
Index angle	15° / 1° :OP/C axis: OP
Power-driven att. spindle speed	Max. 7,500min <sup>-1</sup>
Power-driven att. drive motor	0.4kw
Coolant tank capacity	152 l
Dimensions (W×D×H)	1,861 × 1,060 × 1,750mm
Center height	1,060mm (3.48ft)
Weight	1,700kg
Power consumption	3.0KVA
A-weighted sound pressure	note-1 Max. 70dB (A)

## Backworking Attachment Specifications

Item	Specifications
Max. chucking diameter	φ 16mm (5/8in)
Max. length for front ejection	80mm (3-5/32in)
Max. parts projection length	30mm (1-3/16in)
4-spindle sleeve holder	Number of tools
	Max. tapping capacity
Sub spindle speed	Max. 8,000min <sup>-1</sup>
Sub spindle motor	1.0kw

## External Dimensions and Floor Space



※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

1. Pneumatic unit
2. Stand alone type coolant tank
3. Coolant level detector
4. Automatic centralized lubrication unit (with level detector)
5. Door interlock unit
6. Broken cut-off tool detector
7. Back 4-spindle unit
8. 6-station tool holder
9. 4-spindle sleeve holder
10. 2-spindle cross drilling unit
11. Main spindle 15° indexing unit
12. Sub spindle air blow unit
13. Sub spindle air purge unit
14. Parts ejection detector
15. Main collet
16. Sub collet
17. Work light
18. Short circuit breaker

## Optional Accessories and Functions

1. Stationary guide bush unit
2. Drive unit for revolving guide bush
3. Revolving guide bush unit
4. Rotary magic guide bush unit
5. Parts conveyor
6. Long parts ejector with guide tube
7. Barstock gripping unit
8. Automatic barfeeder interface
9. 5-station tool holder
10. Coolant flow detector
11. 3-spindle cross drilling unit
12. Main spindle C-axis control unit
13. Main spindle 1° indexing unit
14. Air purge
15. Water remover
16. Parts separator type A
17. Sub spindle clamp unit
18. Parts ejector (Air cylinder type)
19. Transformer 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 in conforming to EN standard.

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

\*5 turning tools + 3 power-driven tools (option)