

AUTOMATIC LATHE

star^x

SB-16

CNC SWISS TYPE AUTOMATIC LATHE

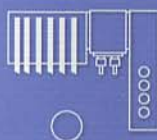
New

A New High Speed Star is born,
achieving 35m/min rapids



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



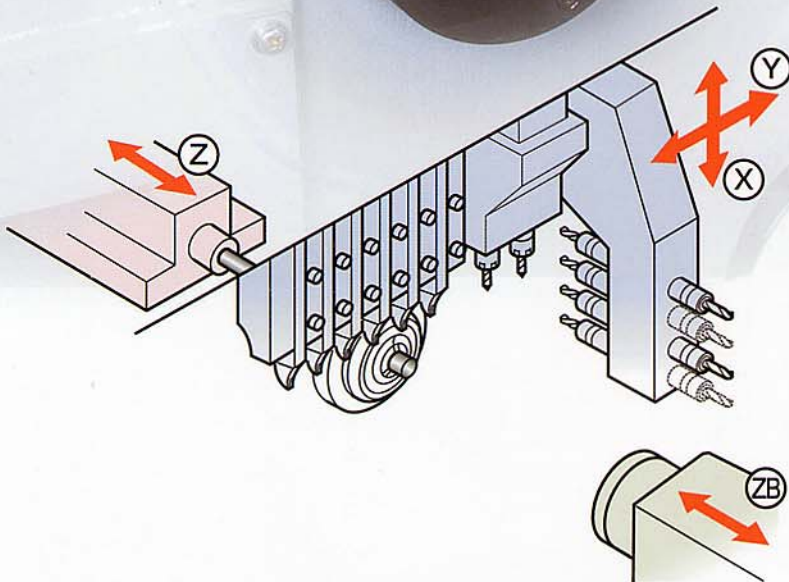
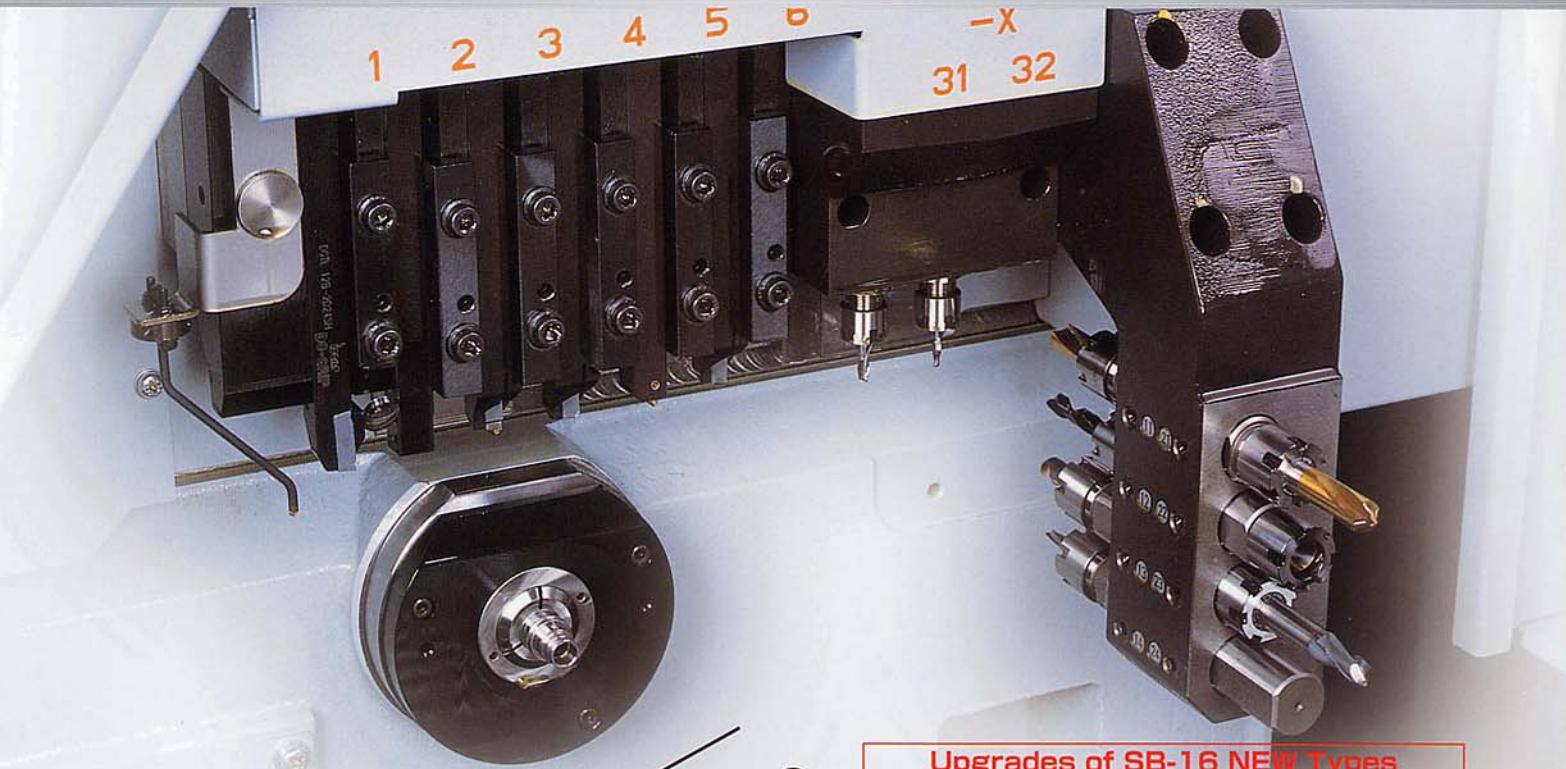
□ WORK SIZE (MAX.)



□ CONTROL SYSTEM



The powerful SB-16 launched by STAR will greatly contribute towards a reduction in p
Necessary and cost effective machine functions are comb



Upgrades of SB-16 NEW Types

For [Type C / Type A]:

- Improved rapid feed rate
Processing time is remarkably shortened thanks to maximum 230% increase of conventional rapid feed rate

For [Type C]:

- The C axis controls belonging to the main axis can now be optionally set up.
- Reinforcing the machining ability for rotating tools and back ATT

For [Type A]:

- Includes Rotating tools as standard equipment

The SB-16 provides a "Real sense" of contribution to the saving in production costs.

- Only the SB-16 can demonstrate its true value when its capabilities are compared to with similar machines.
- The SB-16 design concept dramatically improves machine durability. Adoption of centralised lubrication on all the ball screws and sealed belts around the headstock illustrate the point.
- The SB-16 design significantly improves the ease of maintenance and the replacement of wear parts is now much simpler.
- High rigidity is guaranteed thus improving the cutting conditions on all difficult materials. The introduction of a slant type and dovetail guide face allows 12mm cutting tools to be used in conjunction with a high output drive motor.
- The headstock stroke of 205mm (with a stationary guide bush) facilitates production of long components with relative ease.
- The design includes a large swarf tray area, large capacity coolant tank to allow for long periods of continuous running.
- The option of additional power driven tools allows for a wide variety of components to be considered.
- The standard specification has been enhanced to include many desirable options as standard such as cut off tool detector and parts separator.

roduction costs.

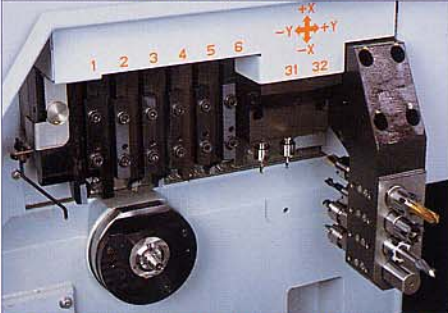
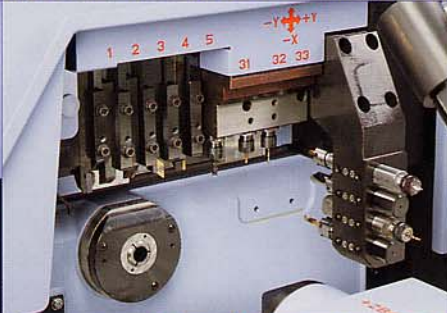
Combined with cost effective pricing.

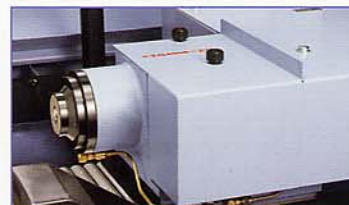
CNC SWISS TYPE AUTOMATIC LATHE

SB-16

There are two types of model in the SB range. The choice rests with you to select your favoured specification.

▼ SB-16 type C

Standard specification	Specification with 3 power-driven tools (Option)
	
Standard model (to cope with complex machining)	Special specification (with enhanced complex machining capability)
■ Gang Tool Post Turning tool 6tools Power-driven tool 2tools ■ 4-Spindle sleeve holder Front-end working stationary tool 4tools Rear-end working stationary tool 4tools*	■ Gang Tool Post Turning tool 5tools Power-driven tool 3tools ■ 4-Spindle sleeve holder Front-end working stationary tool 4tools Rear-end working stationary tool 4tools*



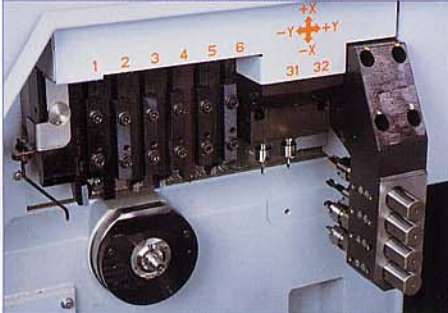
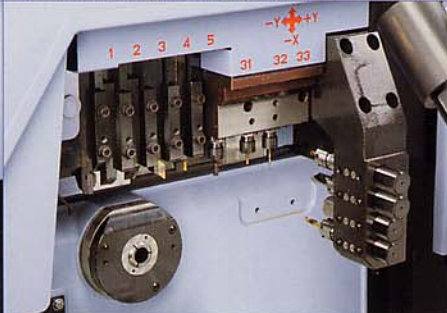
▲ Backworking attachment



▲ 4-Spindle sleeve holder

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

▼ SB-16 type A Specification without back attachment

Standard specification	Specification with 3 power-driven tools (Option)
	
■ Gang Tool Post Turning tool 6tools Power-driven tool 2tools ■ 4-Spindle sleeve holder Front-end working stationary tool 4tools	■ Gang Tool Post Turning tool 5tools Power-driven tool 3tools ■ 4-Spindle sleeve holder Front-end working stationary tool 4tools

Long part support unit (Option)



■ Outer diameter of object parts $\phi 4 \sim \phi 16\text{mm} (\phi 5/32 \sim \phi 5/8\text{in})$
■ Length of object parts 100~440mm(3-15/16~17-21/64in)
■ Floor space Same as the standard specification machine
■ Parts stocker W470×D120×H150mm(W18.50×D4.72×H5.91in)

● Machine Type "A" does not conform to the CE marking standard.

※ Parts separator and Long part support unit cannot be used in parallel.

Exclusive Automatic Bar Feeder

AS-16 / ASO-16

Mechanical type

Oil type



	AS-16	ASO-16
■ Bar diameter	$\phi 4 \sim \phi 16\text{mm} (\phi 5/32 \sim \phi 5/8\text{in})$	
■ Bar storage capacity	$\phi 4 \rightarrow 45\text{本}$	$\phi 16 \rightarrow 11\text{本}$
■ Bar length	2.5 · 3.0m	2.5 · 3.0 · 4.0m
■ Power source	200 / 220 VAC, 50/60Hz	
■ Air source	0.5Mpa 20L/min(ANR)	0.5Mpa 50L/min(ANR)
■ Machine dimensions		
[2.5m]	W3,164×D450mm (W10.38×D1.48ft)	W3,172×D450mm (W10.40×D1.48ft)
[3.0m]	W3,664×D450mm (W12.02×D1.48ft)	W3,672×D450mm (W12.04×D1.48ft)
[4.0m]	—	W4,672×D450mm (W15.32×D1.48ft)
■ Machine weight		
[2.5m]	230kg	270kg
[3.0m]	250kg	300kg
[4.0m]	—	380kg

● Both of Bar Feeders do not conform to the CE marking standard.

Standard Machine Specifications

Item	SB-16 typeC	SB-16 typeA
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	4tools
	Max. drilling capacity	φ 10mm (25/64in)
	Max. tapping capacity	M8×P1.25
Power-driven attachment	Number of tools	2tools *
	Max. drilling capacity	φ 6mm (15/64in)
	Max. tapping capacity	M5×P0.8
Main spindle speed	Max. 10,000min ⁻¹	
Main spindle motor	2.2kw/3.7kw	
Rapid feed rate	35m/min (X, Y, Z, ZB)	
Index angle	15°/1°:OP/C axis: OP	15°
Power-driven att. spindle speed	Max. 5,000min ⁻¹	Max. 7,500min ⁻¹
Power-driven att. drive motor	0.4kw	
Coolant tank capacity	152ℓ	
Dimensions (W×D×H)	1,861×1,060×1,750mm	
Center height	1,060mm (3.48ft)	
Weight	1,650kg	1,530kg
Power consumption	3.0KVA	2.5KVA

Backworking Attachment Specifications ※

Item	SB-16 typeC	
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. 4tools
	Max. drilling capacity	φ 8mm (5/16in)
	Max. tapping capacity	M6×P1.0
Sub spindle speed	Max. 8,000min ⁻¹	
Sub spindle motor	1.0kw	

★The specifications written in blue characters are reinforced from SB-16 New Types

Standard Accessories and Functions

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

Optional Accessories and Functions

- | | |
|---|---|
| 1. Stationary guide bush unit | 11. 3-spindle cross drilling unit |
| 2. Drive unit for revolving guide bush | 12. Long parts support unit (type A only) |
| 3. Revolving guide bush unit | 13. Main spindle C-axis control unit ※ |
| 4. Rotary magic guide bush unit | 14. Main spindle 1° indexing unit ※ |
| 5. Parts conveyor | 15. Sub spindle clamp unit ※ |
| 6. Long parts ejector with guide tube ※ | 16. Parts ejector (Air cylinder type) ※ |
| 7. Barstock gripping unit | 17. Transformer CE marking specifications |
| 8. Automatic barfeeder interface | |
| 9. 5-station tool holder | |
| 10. Coolant flow detector | |

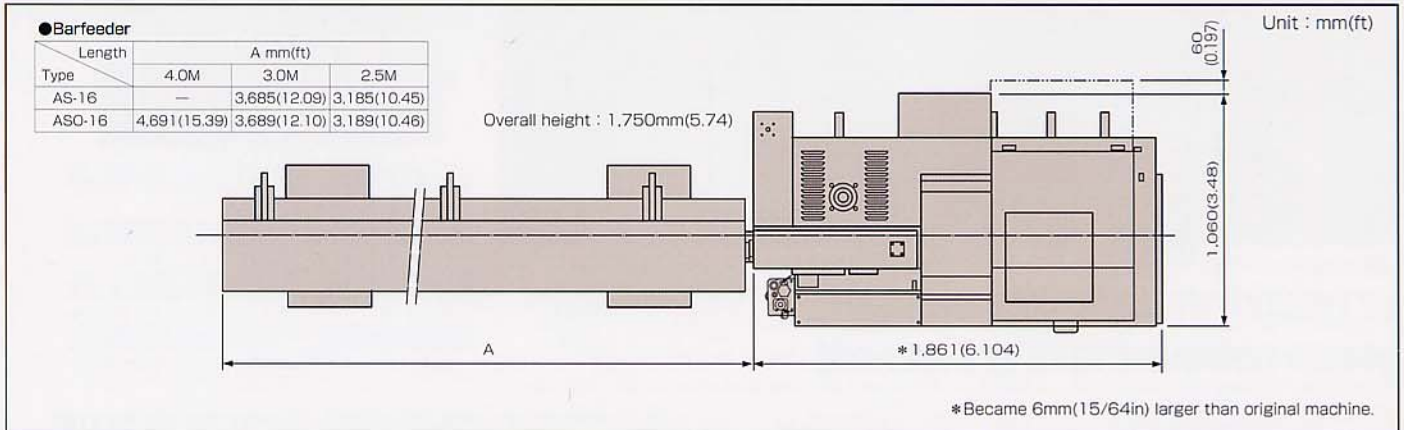
Note)

The machining capacities apply to S45C (AISI 1045, DIN C45) 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.

※ Those functions are not equipped with type A models.

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

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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