AUTOMATIC LATHE

SB-16

CNC SWISS TYPE AUTOMATIC LATHE

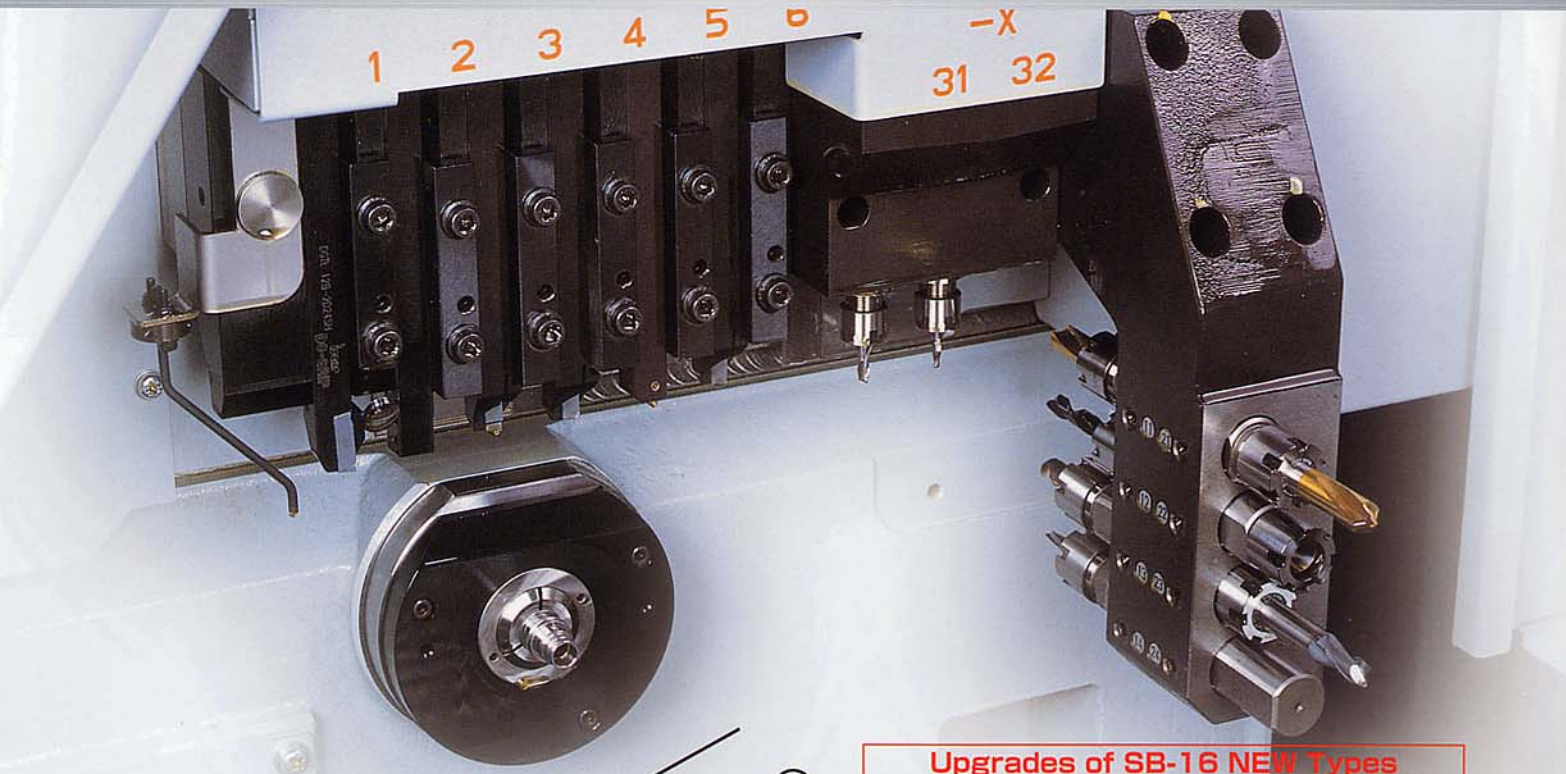
New A New High Speed Star is born, achieving 35m/min rapids

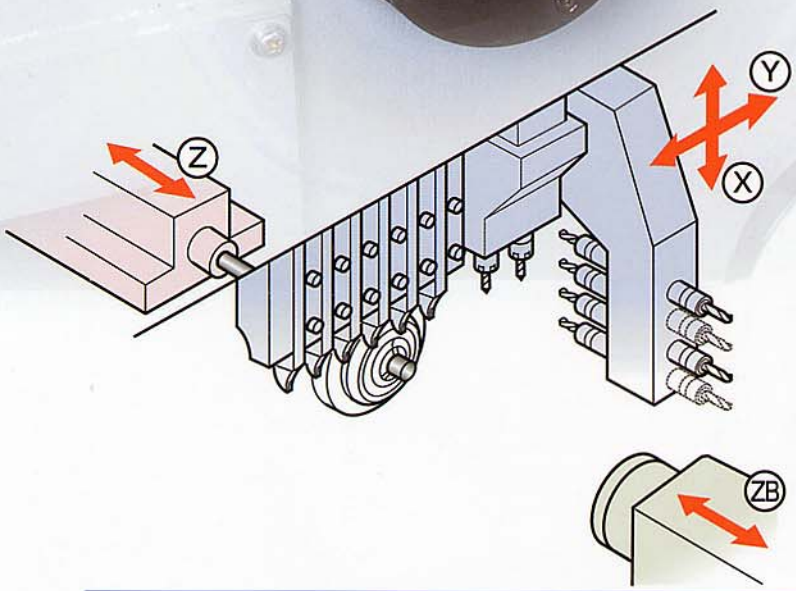
Optimum performance capability at the most cost effective price. This is STAR MICRONICS plan for realising a dynamic price/performance ratio for the next generation of machines.

- TOOL POST
- WORK SIZE (MAX.) 16 mm 205mm
- CONTROL SYSTEM CNC SYSTEM

The powerful SB-16 launched by STAR will greatly contribute towards a reduction in

Necessary and cost effective machine functions are com





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.

STRONG POINT

roduction costs.

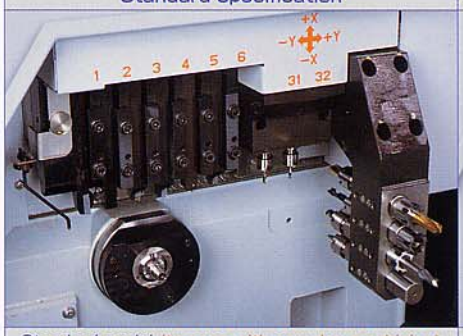
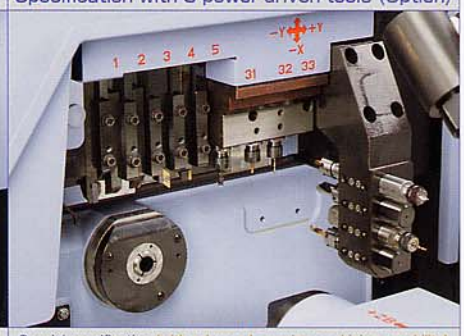
bined with cost effective pricing.

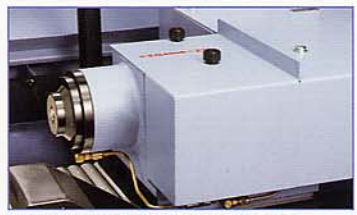
CNC SWISS TYPE AUTOMATIC LATHE

SB-16

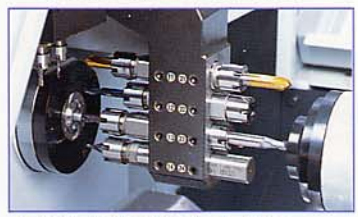
There are two types of model in the SB range. The choice rests with you to select your favoured specification.

▼ 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 ✻



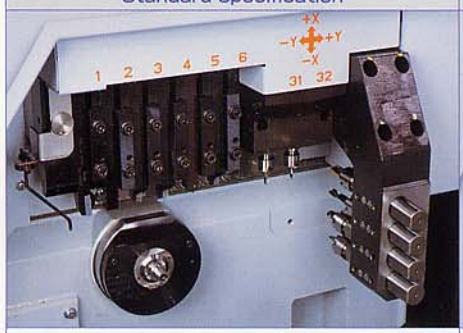
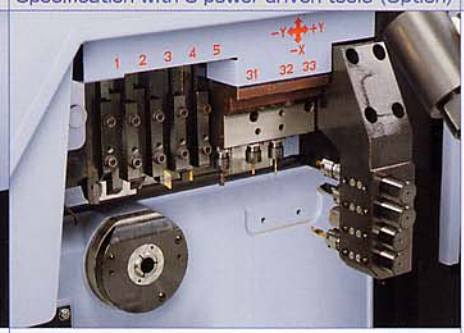
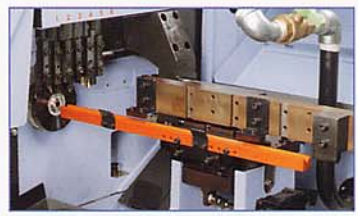
▲ Backworking attachment



▲ 4-Spindle sleeve holder

✻ Depending of condition, maximum 4 rear-end working stationary tolls can be attached.

▼ SB-16 type A Specification without back attachment

Standard specification	Specification with 3 power-driven tools (Option)	Long part support unit (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	■Outer diameter of object parts φ4～φ16mm(φ5/32～φ5/8in) ■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)

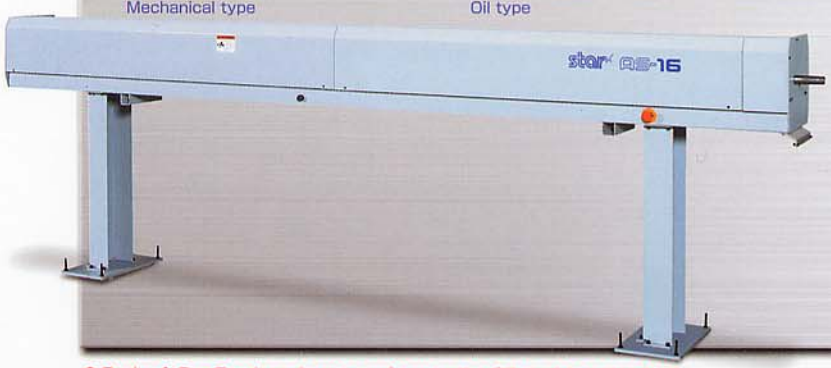
● Machine Type "A" does not conform to the CE marking standard.

※ 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	φ4～φ16mm(φ5/32～φ5/8in)	
■Bar storage capacity	φ4→45本	φ16→11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/mim(ANR)	0.5Mpa 50L/mim(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.

CNC SWISS TYPE AUTOMATIC LATHE SB-16

■Standard Machine Specifications

Item		SB-16 typeC	SB-16 typeA
Max. machining diameter		φ16mm (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	φ10mm (25/64in)	
	Max. tapping capacity	M8×P1.25	
Power-driven attachment	Number of tools	2tools *	
	Max. drilling capacity	φ6mm (15/64in)	φ4mm (5/32in)
	Max. tapping capacity	M5×P0.8	M3×P0.5
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°:0P/C axis: 0P	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		φ16mm (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	φ8mm (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
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. Parts separator
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. Long parts support unit (type A only)
13. Main spindle C-axis control unit ※
14. Main spindle 1° indexing unit ※
15. Sub spindle clamp unit ※
16. Parts ejector (Air cylinder type) ※
17. Transformer CE marking specifications

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.

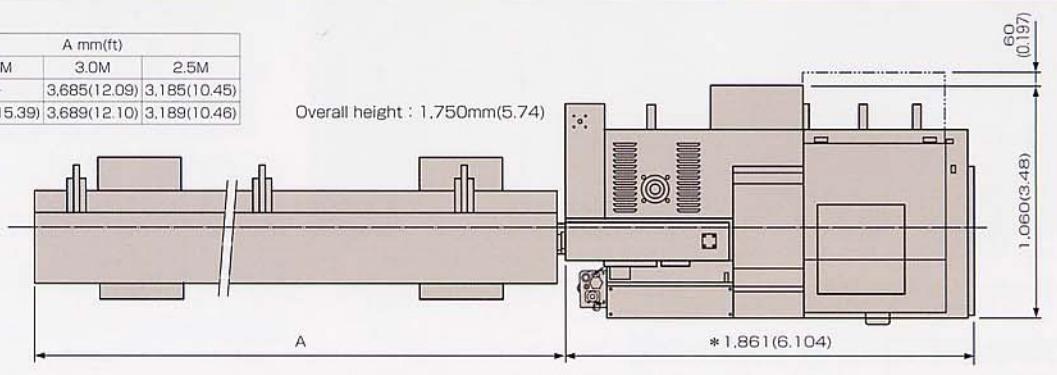
※Those functions are not equipped with type A models.

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

■External Dimensions and Floor Space

●Barfeeder

Type \ Length	A mm(ft)		
	4.0M	3.0M	2.5M
AS-16	—	3,685(12.09)	3,185(10.45)
ASO-16	4,691(15.39)	3,689(12.10)	3,189(10.46)



*Became 6mm(15/64in) larger than original machine.

※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 CO., LTD.

Machine Tools Division http://www.star-m.jp/eng/
1500-34 Kitanoya, Misawa, Kikugawa, Shizuoka, 439-0023 Japan

America, Europe Sales Sec. TEL.+81-537-36-5594 FAX.+81-537-36-5607
Asia Sales Sec. TEL.+81-537-36-5574 FAX.+81-537-36-5607

Star CNC Machine Tool Corporation
123 Powerhouse Road, Roslyn Heights,NY11577,U.S.A.
TEL.+1-516-484-0500 FAX.+1-516-484-5820

Star Micronics GB Limited
Chapel Street,Melbourne,Derbyshire DE74 8JF,U.K.
TEL.+44-1332-86-44-55 FAX.+44-1332-86-40-05

Star Micronics GmbH
Untere Reute 44,D-75305 Neuenbürg,Germany
TEL.+49-7082-79200 FAX.+49-7082-792020

Star Micronics AG
Lauetstrasse3,CH-8112 Otelfingen,Switzerland
TEL.+41-43-411-60-60 FAX.+41-43-411-60-66

Star Machine Tool France SAS
55 Avenue du Mont Blanc,F-74950 Scionzier,France
TEL.+33-450-96-05-97 FAX.+33-450-96-91-54

Shanghai Xingang Machinery Co.,Ltd.
229 Fute Road(N) Waigaoqiao F. T .Z,Shanghai200131,P.R.China
TEL.+86-21-5868-2100 FAX.+86-21-5868-2101

Star Micronics (Thailand) Co.,Ltd.
49/30 M.4 Soi Kingkaew 30,Kingkaew RD.,T.Rachathewa A.Bangplee,Samutprakarn10540,Thailand
TEL.+66(0)2-750-4083 FAX.+66(0)2-750-4085

ISO 14001 UKAS ENVIRONMENTAL MANAGEMENT
ISO 9001 UKAS QUALITY MANAGEMENT

2005.08-3-5000