AUTOMATIC

SR-32J

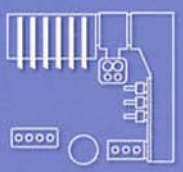
CNC SWISS TYPE AUTOMATIC LATHE

New

A New High Speed Star is born, achieving 24m/min rapids and driven tool capability for the sub spindle

Power with maximum rigidity and high output drives are engaged for large diameter components

□ TOOL POST



□ WORK SIZE (MAX.)

□ CONTROL SYSTEM

HIGH POWER

Power with maximum rigidity and high output drives are engaged for large diameter components.

The tool post configuration, slant mounting and dovetail guide face provides excellent cutting rigidity. Heavy cuts on large diameter material can be performed with excellent effect due to 16mm section cutting tools and high main drive motor output (main spindle 5.5/7.5 kw. sub spindle 2.2/3.7 kw)

EXTENSION

Versatile machine providing comprehensive capability.

The comprehensive machining capability has been improved by adding drilling tools and end working driven tools★ and mounting dynamic driven tool motors. The machine is equipped with sufficient functions to suit a 32mm compact machine including the facility to overlap the main and sub spindle.

★The machine can be mounted with up to 2 counter-face type drill sleeves (up to 4 can be mounted subject to the geometric conditions) and up to 9 cross front end and rear end driven tools

LOW COST

Competitively priced to pursue the cost reduction of turned parts.

Reasonable pricing is realized by appropriately selecting functions for complex machining. In addition, the running cost is minimized due to electric power saving in non-hydraulic system.

SR-32J has been accomplished at low cost and it has high rigidity, high output drive and complex machining capability.

Now, high performance machining of large diameter parts can be done at a reasonable cost.

TOOLING SYSTEM

Tool post & Tooling

Gang Tool Post

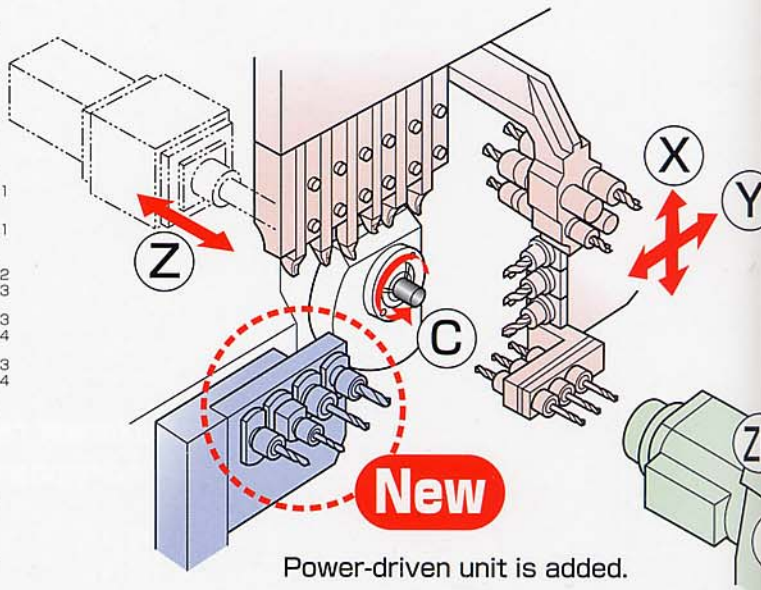
Tool holder	Turning tool	● 6 tools	
Sleeve holder	Front-end Working Stationary tool	● 4 tools	※1
	Rear-end Working Stationary tool	● 4 tools	※1
Power-driven tool	Cross Working Driven tool	● 4 tools(Max.)	※2 ※3
	Front-end Working Driven tool	● 3 tools(Max.)	※3 ※4
	Rear-end Working Driven tool	● 3 tools(Max.)	※3 ※4

※1 Sleeve is optional equipment. Up to 4 rear-end working stationary tool can be mounted depending on the condition.
※2 Upper 3 positions are a fixed body unit.
※3 The units of lower 1 positions are changeable. (OP).
※4 In case that 3-spindle counter face type front drill unit is mounted.

Back 4-Spindle Unit ※5

Stationary tool	●	4 tools (Max.)
Power-driven tool	●	

※5 Power-driven units as option.



Power-driven unit is added.

Tool post structure separates main and sub spindle machining therefore overlapping opportunities increase and cycle times can be reduced.

The versatile specification extends the machining capability.

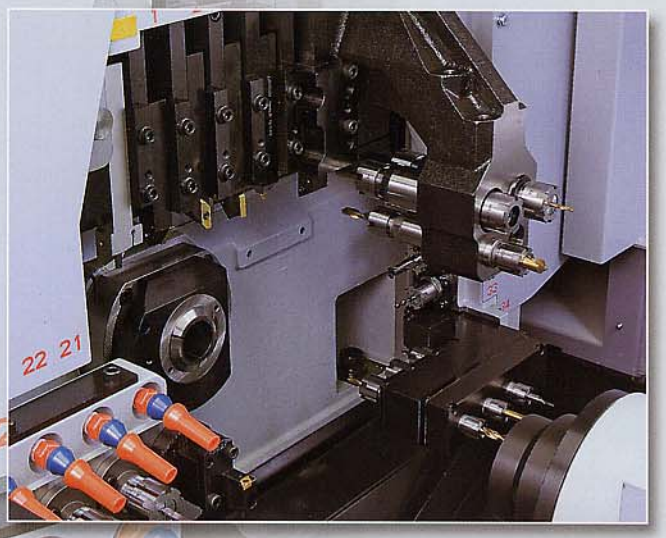


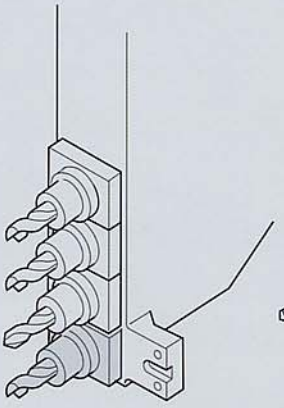
Photo 1 ● Example of additional installation

The drive unit consists of 4 available positions with the upper 3 positions as a fixed unit for drilling and milling tools and the lower 1 position that allows variations to be fitted. Mounting a front drilling unit★ on the lower 1 position makes it possible to increase the available power tools to a maximum of 9 (3 cross working driven tools, 3 front-end working driven tools, 3 rear-end working driven tools) that realizes many machining possibilities including off centre drilling and tapping.

TOOLING PATTERN

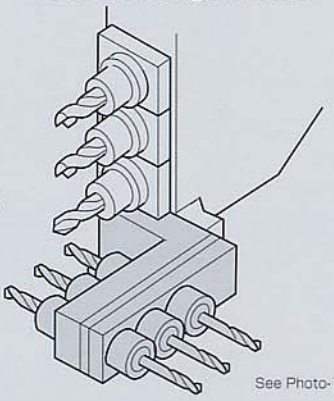
1 PATTERN

4 Cross Working Driven Tools



2 PATTERN

3 Cross Working Driven tools
3 Front-end Working Driven tools
3 Rear-end Working Driven tools



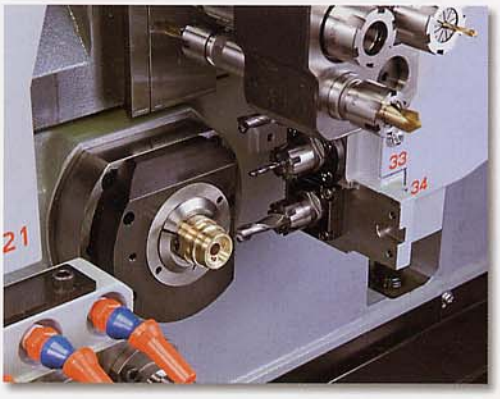
See Photo-1

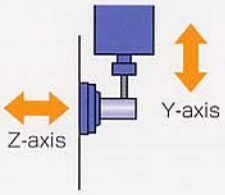
EXTENSION OF

Variation

variation ①

Cross milling

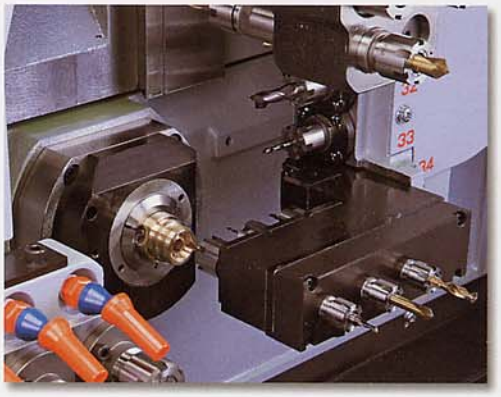


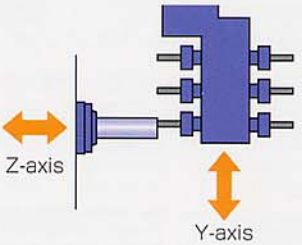


Cross rigid tapping using a cross milling unit is possible.

variation ②

Front off-center drilling





Front rigid tapping is possible.

va

Main/sub sp

Simultaneous machining on the main and sub spindles is possible.

Secondary machining by command

Photo | variation-①②⑤

Up to 9 power-driven tool units can be mounted on the tool holder. Cross milling unit★, front drilling unit★ (2-spindle type, 2-spindle counter face drilling unit, 3-spindle type, 3-spindle counter face drilling unit) and the various options are provided to satisfy the demands of complex machining.

Front off-center drilling

Photo | variation-②

Front off-center drilling and off-center tapping (rigid tapping) can be done to completed by mounting a front drilling unit on the tool holder.

Rigid tapping

Photo | variation-③

The main spindle, sub spindle and the working driven tool of the tool holder have rigid tapping function as standard specification.

Indexing function

C-axis control★ is mounted on the main spindle.
In addition to the indexing function the 2 axis control of the tool post enables a wide range of secondary machining.
The sub spindle has C-axis or 15° indexing as options.

Back off-center drilling

Photo | variation-⑤

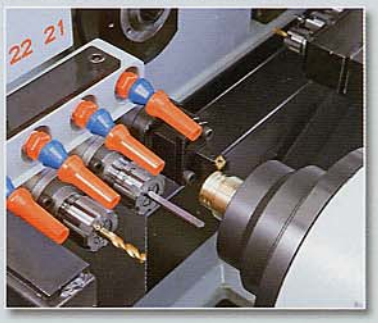
Back off-center drilling and off-center tapping (rigid tapping) can be done by mounting a counter-face drilling unit (2-spindle/3-spindle type) on the tool holder.

Those marked★ are option specifications.

Enhancement of back-face inner / outer diameter machining performance

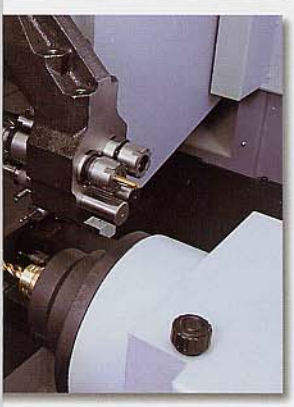
Back 4-spindle machining

The photograph shows a German made tool, which is available for inner/outer diameter machining on the back side.

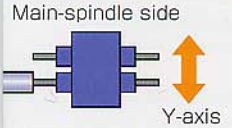


iation ③

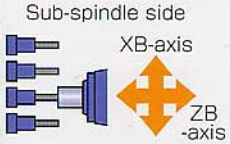
indle rigid tapping



Main-spindle side

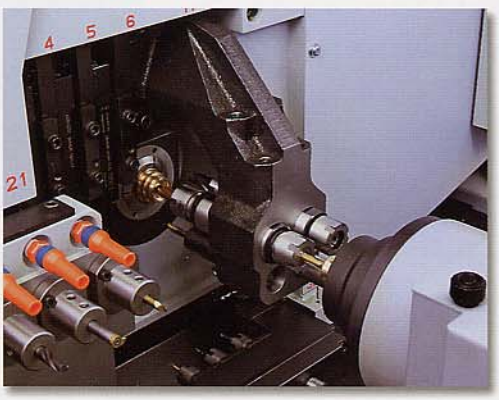


Sub-spindle side

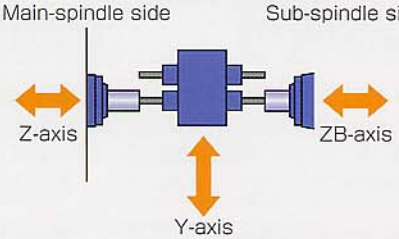


variation ④

Main/sub spindle simultaneous drilling



Main-spindle side　Sub-spindle side



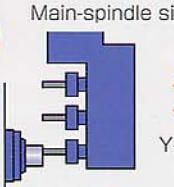
Use of counter-face type tool unit makes this machining possible.

variation ⑤

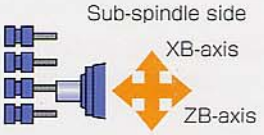
Back off-center drilling

New

Main-spindle side



Sub-spindle side



Back rigid tapping by a milling unit is possible.

Upgrades of SR-32J NEW Type

- Added Rear-end Working Driven Tool to Back 4-Spindle Unit (Optional).
- Improved rapid feed rate • • • Process time is remarkably shortened thanks to maximum 160% increase of conventional rapid feed rate

Excellent balance in operability, productivity and economical efficiency.
The new generation design equipped with the environmental-preservation performance.

High productivity

☐ Advanced CNC unit for faster processing

High speed-program processing by the latest CNC unit.

☐ Servo motor for tool selection

Quick tool selection using the servomotor also greatly contributes to reducing idle time.

☐ New mechanism for collet open/close

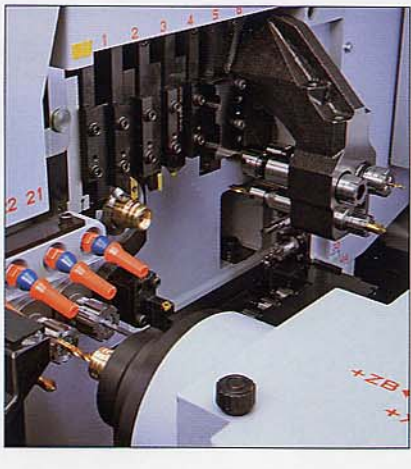
Collet opening / closing is possible during main spindle rotation at high speed.

☐ 400W coolant pump

The coolant pump reinforced to 400W that increases coolant discharge amount.

☐ Free overlap machining

Machining of HEAD1 and HEAD2 are completely independent. Therefore, overlap machining is possible without being influenced by each other. This also realizes an optimal machining process for reducing cycle time.



Safety · Comfort · Environment

☐ Absolute position detection

Absolute position detection is standard giving instant zero return when power is turned on.

☐ CE marking specifications

CE marking specifications, machine directive, EMC and low voltage directives are standard in Europe.

☐ Considering global environments and operational environments

Electric power consumption and waste oil level can be reduced thanks to non-hydraulic system.

Economic and Efficient

☐ Basic design improves durability

Oil circulation via a centralized system to all ball screws spindles vastly improves durability.

☐ Standard specification including

Broken cut-off tool detection. Sub spindle air blow and rotary guide bush enhance the appeal of the machine.

CNC SWISS TYPE AUTOMATIC LATHE **SR-32J**

■ Standard Machine Specifications

OP : Option

Item		Specifications
Max. machining diameter		φ32mm(1-1/4in)
Max. headstock stroke	Standard	310mm(12-13/64in)
	With RMGB unit	280mm(11-1/32in)
Tool	Number of tools	6 tools
	Tool shank	□16mm×95~155mm, □5/8inch×95~155mm
4-Spindle sleeve holder	Number of tools	Front 4 tools : OP
		Rear 2 tools : OP
	Max. drilling capacity	φ13mm(1/2in)
	Max. tapping capacity	M12×P1.75
	Max. die cutting capacity	M10×P1.5
Power driven att.	Number of tools	4~9 tools : including OP
	Max. drilling capacity	φ8mm(5/16in)
	Max. tapping capacity	M6×P1.0
	Max. milling capacity	φ10mm(25/64in)
Main spindle min. indexing degree		15° (C-axis control : OP)
Main spindle speed		Max.7,000min^{-1}
Main spindle motor		5.5kw(continuous)/7.5kw(30min)
Rapid feed rate		24m/min (X, Y, Z, ZB, XB)
Power-driven att. spindle speed		Max.5,000min^{-1}
Power-driven att. drive motor		1.0kw
Coolant tank capacity		174ℓ
Dimension (W×D×H)		2,711×1,275×1,705mm
Weight		3,100kg
Power consumption		6.0KVA
A-weighted sound pressure : note-1		Max. 71dB (A)

■ Backworking Attachment Specifications

OP : Option

Item			Specifications
Max. chucking diameter			φ32mm(1-1/4in)
Max. length for front ejection			125mm(4-59/64in)
Max. parts projection length			45mm(1-49/64in)
4-Spindle unit for backworking note-2	Number of tools		4 tools : OP
	Max. drilling capacity	Stationary tool	φ13mm(1/2in)
		Power-driven tool	φ 6mm(15/64in)
	Max. tapping capacity	Stationary tool	M10×P1.5
		Power-driven tool	M 5×P0.8
Sub spindle min. indexing angle			15° : OP/C-axis control : OP
Sub spindle speed			Max.7,000min^{-1}
Sub spindle motor			2.2kw(continuous)/3.7kw(15min)

Note)
The above 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.

★The specifications written in blue characters are reinforced from SR-32J New Types

note-1 : ● Measurs in comforting to EN standard.
● A-weighted sound pressure is a general assessment standard characteristic that corrected the sound level to human acoustic sense.

note-2 : ● In order to use the rotary tool, the driven system for power driven attachment B is needed.

■ Standard Accessories and Functions

1. Pneumatic unit
2. Coolant level detector (lower limit)
3. Automatic centralized lubrication unit
4. Door interlock unit
5. 6-station tool holder
6. 4-spindle sleeve holder
7. 4-spindle cross drilling unit
8. Main spindle clamp unit
9. Parts conveyor
10. Back 4-spindle unit
11. Main spindle 15° indexing unit
12. Rotary guide bush drive unit
13. Sub spindle air purge
14. Sub spindle air blower
15. Main spindle sub chuck sleeve
16. Guide bush air purge
17. Short circuit breaker
18. Work light
19. Broken cut-off tool detector

■ Optional Accessories and Functions

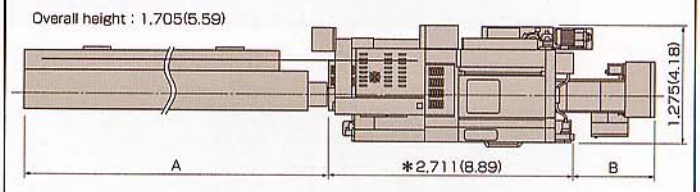
1. Rotary magic guide bush unit (RMGB unit)
2. Parts ejector A (Air cylinder type)
3. Parts ejector B (Spring type)
4. Parts separator unit A
5. Main spindle 1° indexing unit
6. Main spindle 15° indexing unit (Sub spindle)
7. Drive unit for power-driven tool type B
8. Coolant flow detector
9. Water removal unit
10. Sub spindle clamp unit
11. Parts stopper
12. Long parts ejector with guide tube
13. Coolant unit 1.5MPa
14. Automatic bar-feeder interface

■ External Dimensions and Floor Space

●Bar feeder

unit : mm(ft)

Type \ length	Amm (ft)		
	2.5M	3.0M	4.0M
OS325E	3,575 (11.73)	4,075 (13.37)	5,075 (16.64)
ASR X-32P	3,600 (11.81)	4,100 (13.45)	5,100 (16.73)
PF-V3S	3,400 (11.15)	3,900 (12.79)	4,900 (16.07)



*Became 20mm(25/32in) 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 oversees, contact your STAR MICRONICS dealer.

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