

## GENERAL CATALOG

- ● ● SWISS TYPE AUTOMATIC LATHE equipped with star motion control system
- ● ○ CNC SWISS TYPE AUTOMATIC LATHE
- ○ ○ CNC AUTOMATIC LATHE

## STAR MICRONICS CO., LTD.

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

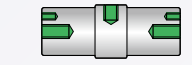

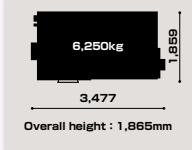

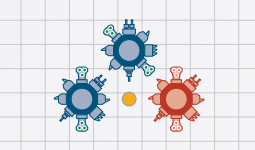






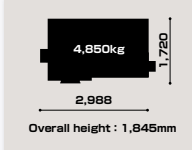

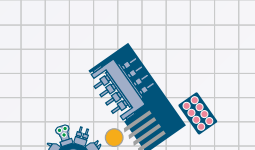




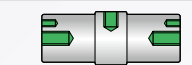


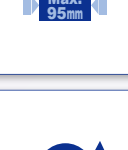
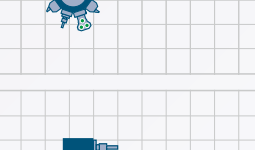






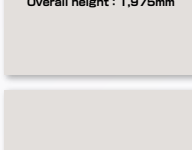
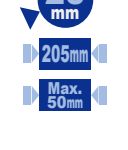
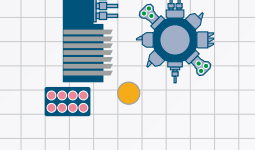






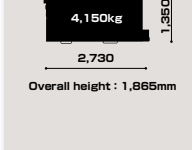

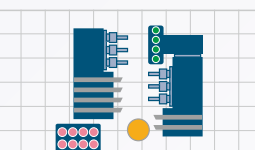






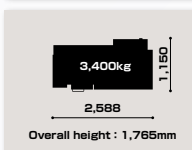

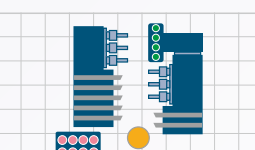






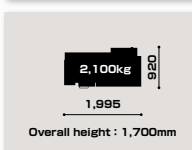

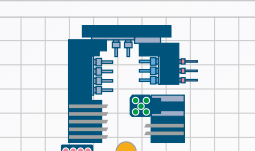






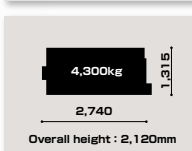

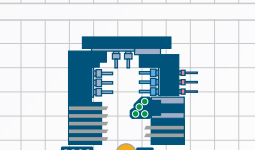






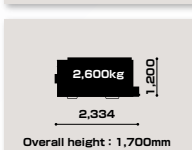
Note)  
The machining capacities apply to SUS303 (SV series : S45C) material.  
The machining capacities may differ from listed values depending on the machining conditions, such as the material to be machined or the tools to be used.


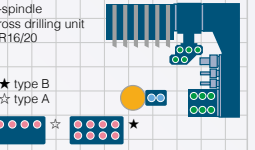




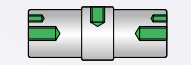



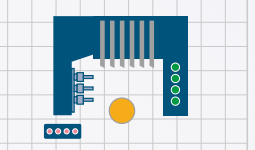








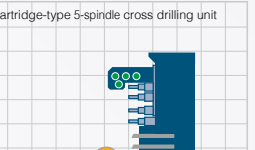















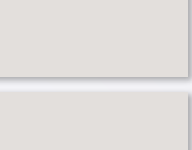

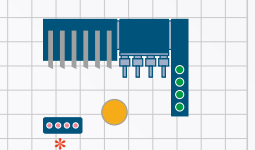






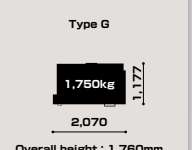

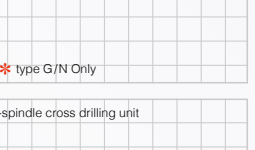






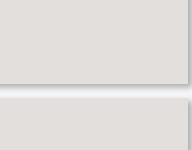

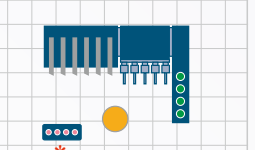








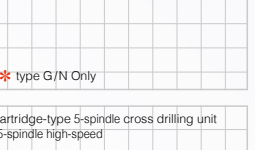






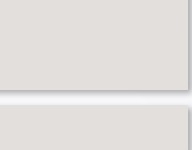

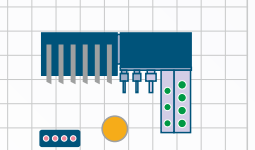






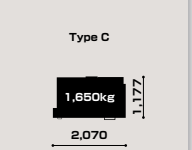








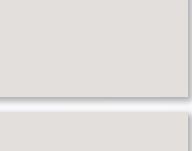
※ Design features, specifications and technical execution are subject to change without prior notice.  
※ This product is an export control item subject to the foreign exchange and foreign trade laws.  
Thus, before exporting this product, or taking it overseas, contact your STAR MICRONICS dealer.

**9001 ISO 14001**  
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INDEX

● Sub spindle ● Front-end working tool ● Front/Rear-end working tool ● Rear-end working tool

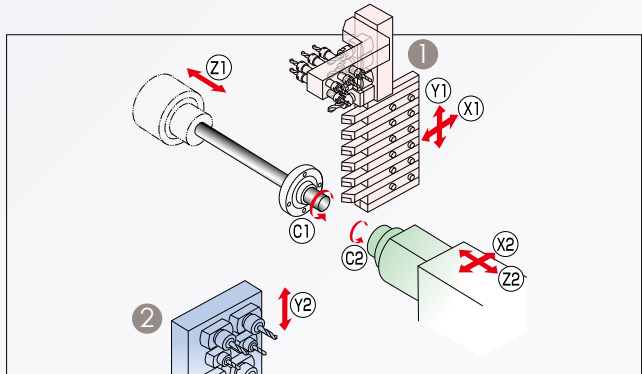
ST	38			   				6,250kg 3,477 Overall height : 1,865mm	PAGE 05
	20			   				4,850kg 2,988 Overall height : 1,845mm	PAGE 06
SX	38			   				5,800kg 2,955 Overall height : 1,975mm	PAGE 07
	20R			   				4,150kg 2,730 Overall height : 1,865mm	PAGE 08
SV	20			   				3,400kg 2,588 Overall height : 1,765mm	PAGE 09
	12RII			   				2,100kg 1,995 Overall height : 1,700mm	PAGE 10
SW	38 type B			   				4,300kg 2,740 Overall height : 2,120mm	PAGE 11
	20RIV type A type B			   				2,600kg 2,334 Overall height : 1,700mm	PAGE 12
	32JIII type A type B NEW			   				4,100kg 2,690 Overall height : 1,780mm	PAGE 04

SR	20JII type A type B			   				PAGE 13
	10J type C			   				PAGE 14
SL	7 10 NEW			   				PAGE 03
	SB	20R type G			   			
16R type G				   				PAGE 15 16
12R type G				   				PAGE 15 16
20R type N				   				PAGE 15 16
20R type C				   				PAGE 15 16
16R type C			   				PAGE 15 16	
SK	51 type A			   				PAGE 17

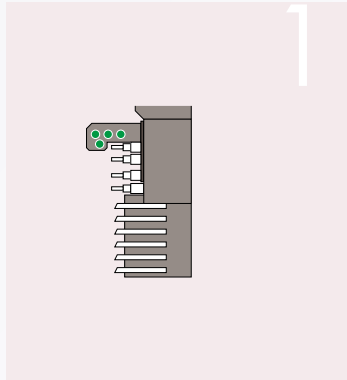


High-spec and Compactness

A New Generation Machine Specialized in Small Diameter Processing from Star Micronics

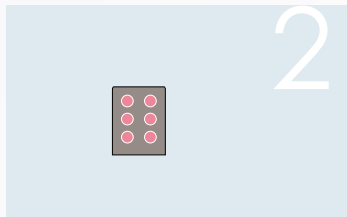


▼ Tool Post



▼ Tooling

Turning tool	6 tools
Front-end working tool	4 or 6 tools
Rear-end working tool	4 or 6 tools
Power-driven tool (ER11)	1 tools
Cartridge type	4 Pos



Rear-end working tool	6 tools
(Stationary tool	max.6 tools)
(Power-driven tool	max.4 tools)

■ Specifications

Item	Specifications
Max. machining diameter	φ 10mm(25/64in)
Max. headstock stroke	Stationary G.B. type 135mm(5-5/16in) R.G.B. type 105mm(4-9/64in) R.M.G.B. type 75mm(2-61/64in)
Number of turning tools	6 tools
Tool shank	□8mm / □10mm
4-spindle	φ 16mm(5/8in) × 4 tools φ 16mm(5/8in) × 4 tools
Sleeve holder	6-spindle φ 22mm(55/64in) × 2 tools
Max. drilling capability	φ 6mm(15/64in)
Max. tapping capability	M5 × P0.8
Number of tools	Cross milling 1 tools(ER11) + Cartridge type 4 positions
Max. drilling capability	φ 5mm(3/16in)
Max. tapping capability	M4 × P0.7
Spindle speed	Max. 12,000min <sup>-1</sup>
Drive motor	1.0kW(continuous) / 1.2kW(5min./30%ED)
Main spindle indexing angle	C-axis control
Main spindle speed	with Stationary G.B. Max. 18,000min <sup>-1</sup> with Revolving G.B. unit Max. 15,000min <sup>-1</sup>
Main spindle motor	3.7kW(continuous) / 5.5kW(10min./25%ED)
Coolant tank capacity	109ℓ
Dimensions (W×D×H)	1,865 × 795 × 1,815mm
Weight	1,600kg

■ Backworking Attachment

Item	Specifications
Max. chucking diameter	φ 10mm(25/64in)
Max. length for front ejection	70mm(2-3/4in)*
Max. parts projection length	20mm(25/32in)*
Number of tools	6 tools
Max. drilling	Stationary tool φ 6mm(15/64in) Power driven tool φ 5mm(3/16in)
Max. tapping	Stationary tool M5 × P0.8 Power driven tool M4 × P0.7
Spindle speed	Max. 12,000min <sup>-1</sup>
Drive motor	1.0kW(continuous) / 1.2kW(5min./30%ED)
Sub spindle indexing angle	C-axis control
Sub spindle speed	Max. 12,000min <sup>-1</sup>
Sub spindle motor	0.55kW(continuous) / 1.1kW(15min./40%ED)

\* The specification value depending on the type of sub-spindle chuck. Please confirm the details with the sales manager.

Increased flexibility in response to Market demands for greater capability for large diameter machining

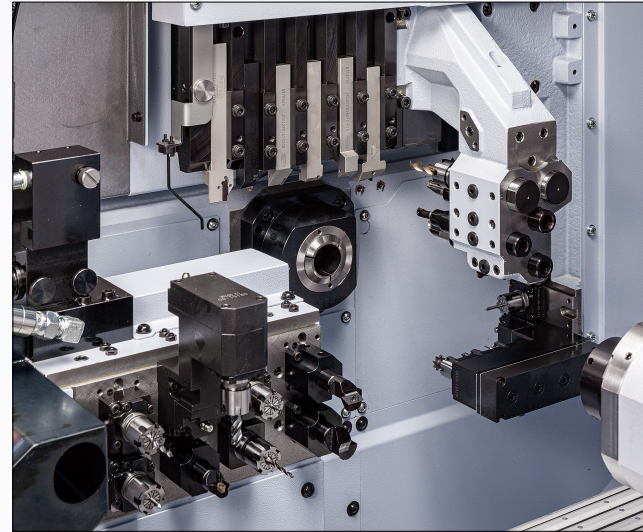
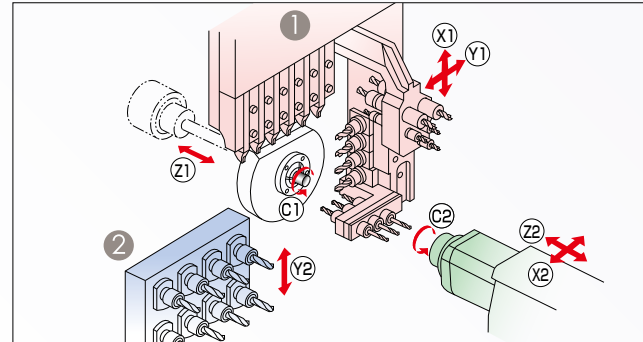


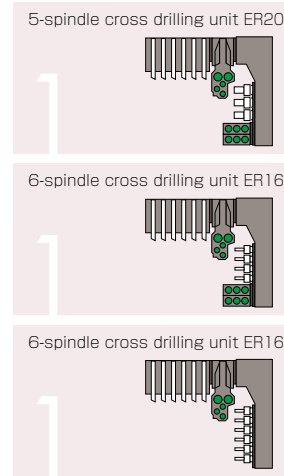
Photo: SR-32JIII type B



Illustration: 5-spindle cross drilling unit / type B



▼ Tool Post



▼ Tooling

5-spindle cross drilling unit ER20	Turning tool 6 tools
	Front-end working tool 5 tools
	Rear-end working tool 5 tools
	Power-driven tool 3 tools
	Cartridge type 2 Pos
6-spindle cross drilling unit ER16	Turning tool 6 tools
	Front-end working tool 5 tools
	Rear-end working tool 5 tools
	Power-driven tool 4 tools
	Cartridge type 2 Pos
6-spindle cross drilling unit ER16	Turning tool 6 tools
	Front-end working tool 5 tools
	Rear-end working tool 5 tools
	Power-driven tool 6 tools

type B	Rear-end working tool(Stationary/Power-driven) 8 tools
type A	Rear-end working tool(Stationary/Power-driven) 6 tools

■ Specifications

Item	Specifications
Max. machining diameter	φ 32mm(1-1/4in) OP: φ 34mm(1-11/32in)
Max. headstock stroke	Standard 320mm(12-19/32in) R.M.G.B. type 286.5mm(11-9/32in) N.G.B. type Bar diameter × 2.5(Max.80mm)(Max.3-5/32in)
Number of turning tools	6 tools
Tool shank	□ 16mm
5-spindle sleeve holder	Number of tools Front 5 tools Rear 5 tools
Max. drilling capability	φ 13mm(33/64in)
Max. tapping capability	M12 × P1.75
Number of tools	Cross milling 3 tools(ER20)+Cartridge type 2 positions Cross milling 4 tools(ER16)+Cartridge type 2 positions Cross milling 6 tools(ER16)
Power driven attachment	Max. drilling capability φ 10mm(25/64in) Max. tapping capability M8 × P1.25
Spindle speed	Cross milling : Max.6,000min <sup>-1</sup> Cartridge-type tool : Max.8,000min <sup>-1</sup>
Drive motor	2.2kW(continuous) / 3.0kW(5min./30%ED)
Main spindle indexing angle	35m/min (X1, X2,Y1, Z1, Z2), 24m/min (Y2) ; type B only
Main spindle speed	C-axis control
Main spindle motor	Max.8,000min <sup>-1</sup>
Coolant tank capacity	275ℓ
Dimensions (W×D×H)	2,690 × 1,345 × 1,780mm
Weight	4,100kg

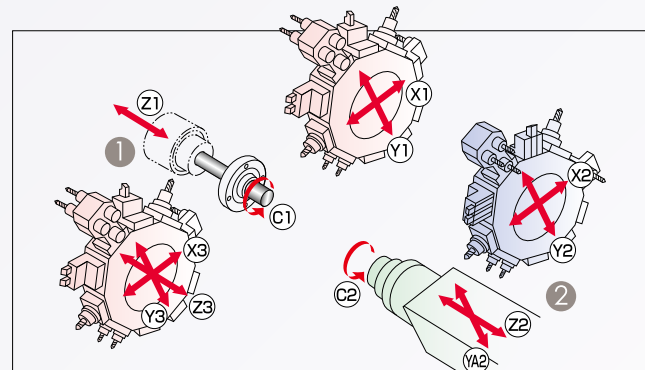
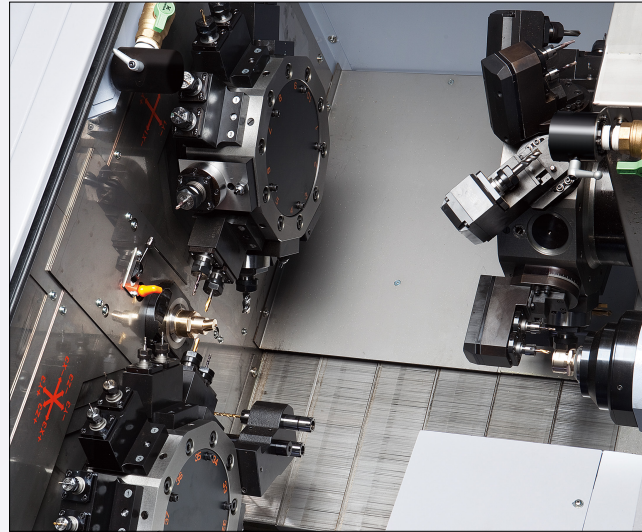
■ Backworking Attachment

Item	Specifications
Max. chucking diameter	φ 32mm(1-1/4in) OP: φ 34mm(1-11/32in)
Max. length for front ejection	125mm(4-59/64in)
Max. parts projection length	45mm(1-49/64in)
Number of tools	6 tools(type A) 8 tools(type B)
Max. drilling	Stationary tool φ 13mm(33/64in) Power driven tool φ 8mm(5/16in)
Max. tapping	Stationary tool M10 × P1.5 Power driven tool M6 × P1.0
Spindle speed	Max.6,000min <sup>-1</sup>
Drive motor	1.0kW(continuous) / 1.2kW(5min./30%ED)
Sub spindle indexing angle	C-axis control
Sub spindle speed	Max.8,000min <sup>-1</sup>
Sub spindle motor	3.7kW(continuous) / 5.5kW(10min./40%ED)



Max. machining diameter is 38mm !

Complex machining for extra large parts with high speed and universal control.



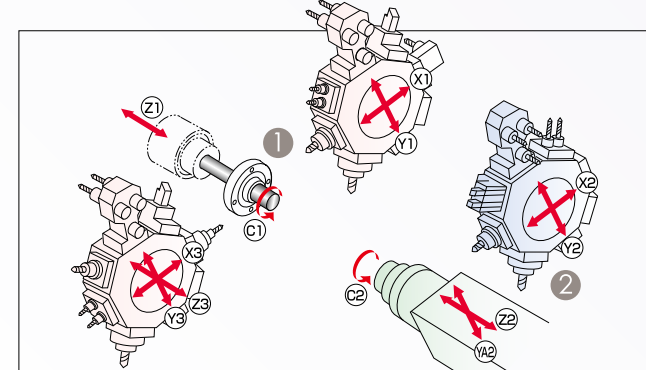
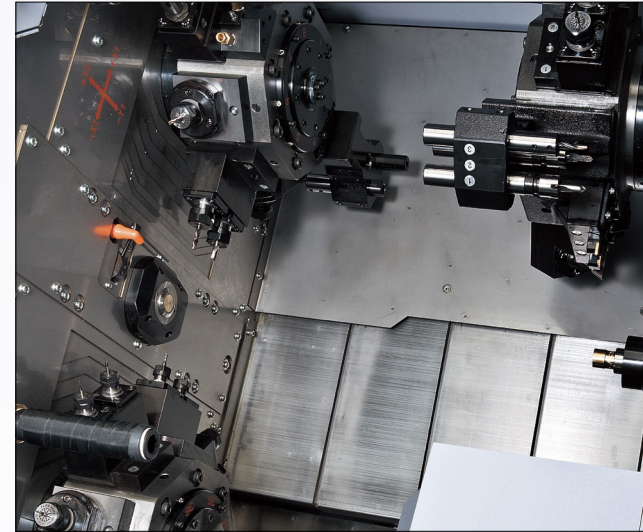
## ■ Specifications

Item		Specifications
Max. machining diameter		φ 38mm (1-1/2in)
Max. headstock stroke	Standard	350mm (13-25/32in)
	R.M.G.B. type	315mm (12-13/32in):OP
Front turret tool post	Near side turret	10 stations
	Far side turret	10 stations
Number of turning tools	Number of tools	1 tool/station (□20mm), max. 2 tools/station (□16mm)
	Tool shank	□20mm / □16mm
Sleeve holder	Number of tools	max. 3 tools/station
	Max. drilling capability	φ 23mm (29/32in)
	Max. tapping capability	M16×P2.0
Power driven attachment	Number of tools	max. 2 tools/station
	Max. drilling capability	φ 10mm (25/64in)
	Max. tapping capability	M8×P1.25
	Spindle speed	max.5,700min <sup>-1</sup>
	Drive motor	2.7kW(continuous)/4.0kW(5min./30%ED)
Main spindle indexing angle		C-axis control
Main spindle speed		max.7,000min <sup>-1</sup>
Main spindle motor		7.5kW(continuous)/11kW(10min./25%ED)
Dimensions (W×D×H)		3,477×1,859×1,865mm
Weight		6,250kg

## ■ Backworking Attachment

Item		Specifications
Max. chucking diameter		φ38mm (1-1/2in)
Max. part pick-up length		150mm (5-7/8in)
Max. parts projection length		75mm (2-61/64in)
Back turret tool post		10 station
Number of turning tools		1 tool/station (□20mm), max. 2 tools/station (□16mm)
Tool shank		□20mm / □16mm
Sleeve holder	Number of tools	max. 3 tools/station
	Max. drilling capability	φ23mm (29/32in)
	Max. tapping capability	M12×P1.75
Power driven attachment	Number of tools	max. 2 tools/station
	Max. drilling capability	φ10mm (25/64in)
	Max. tapping capability	M8×P1.25
	Spindle speed	max.5,700min <sup>-1</sup>
	Drive motor	2.7kW(continuous) / 4.0kW(5min./30%E0)
Sub spindle indexing angle		C-axis control
Sub spindle speed		max.7,000min <sup>-1</sup>
Sub spindle motor		5.5kW(continuous) / 7.5kW(10min./40%E0)

Three turrets allows ultra high speed and flexible machining of complicated components !



## ■ Specifications

Item	Specifications
Max. machining diameter	φ 20mm (25/32in)
Max. headstock stroke	Standard 350mm (13-25/32in)
R.M.G.B. type	317mm (12-31/64in):OP
Front working turret tool post	Front side turret 8 stations Back side turret 8 stations
Number of turning tools	Number of tools 1 tool/station (□ 16mm), max. 3 tools/station (□ 12mm) Tool shank □ 16mm/□ 12mm
Sleeve holder	Number of tools max. 3 tools/station Max. drilling capability φ 14mm (35/64in) Max. tapping capability M12×P1.75
Power driven attachment	Number of tools max. 2 tools/station Max. drilling capability φ 10mm (25/64in) Max. tapping capability M8×P1.25 Spindle speed max.5,750min <sup>-1</sup> Drive motor 2.5kW
Main spindle indexing angle	C-axis control
Main spindle speed	max. 10,000min <sup>-1</sup>
Main spindle motor	3.7kW(Continuous)/5.5kW(10min./60%ED)
Dimension (W×D×H)	2,988×1,720×1,845mm
Weight	4,850kg

## ■ Backworking Attachment

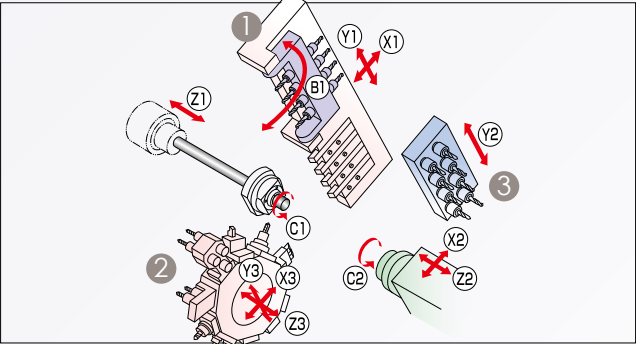
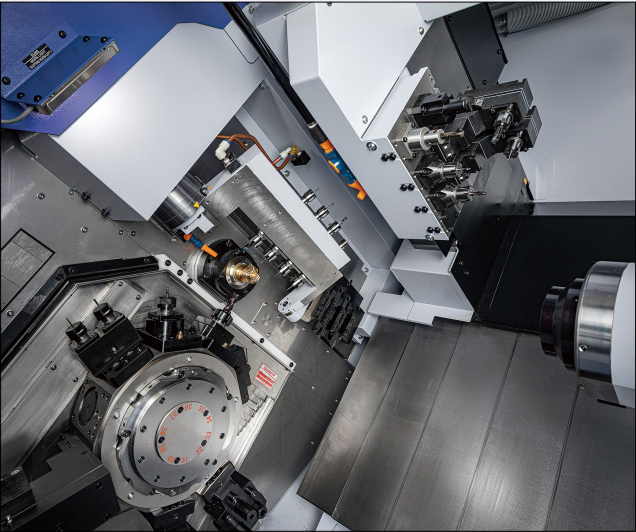
Item		Specifications
Max. chucking diameter		φ20mm (25/32in)
Max. part pick-up length		150mm (5-7/8in)
Max. parts projection length		75mm (2-61/64in)
Back turret tool post		8 stations
Number of turning tools		1 tool/station (□16mm), max. 3 tools/station (□12mm)
Tool shank		□16mm/□12mm
Sleeve holder	Number of tools	max. 3 tools/station
	Max. drilling capability	φ14mm (35/64in)
	Max. tapping capability	M12×P1.75
Power driven attachment	Number of tools	max. 2 tools/station
	Max. drilling capability	φ10mm (25/64in)
	Max. tapping capability	M8×P1.25
	Spindle speed	max.5,750min <sup>-1</sup>
	Drive motor	2.5kW
Sub spindle indexing angle		C-axis control
Sub spindle speed		max.10,000min <sup>-1</sup>
Sub spindle motor		3.7kW(Continuous)/5.5kW(10min./60%ED)



SX-38 type B

SX-38 type A

The latest model is of the highest quality in all aspects of the 38-dia. class.



▼ Tool Post	▼ Tooling
1	Turning tool(□16mm) 3 tools Turning tool(□20mm) 1 tools Front-end power-driven tool(ER20) 4 tools Rear-end power-driven tool(ER16) 4 tools
2	Turning tool(□20mm) 1 tool/station Turning tool(□16mm) max.2 tools/station Front-end working tool max.3 tools/station Rear-end working tool max.3 tools/station Power-driven tool max.2 tools/station
3	Rear-end working tool 8 tools (Stationary tool/Power-driven tool)

Specifications

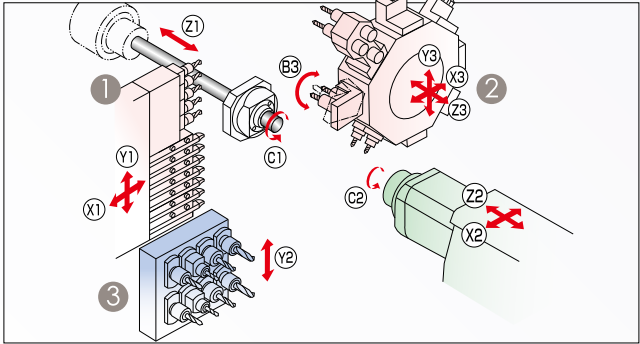
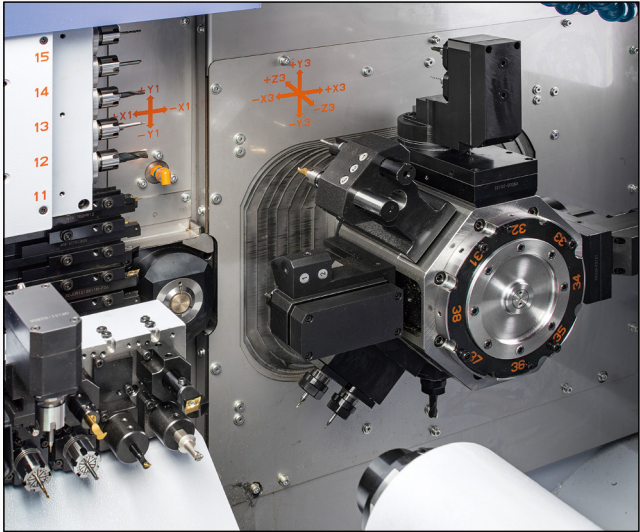
Item	Specifications
Max. machining diameter	φ38mm(1-1/2in)
Max. headstock stroke	Standard 320mm(12-19/32in) R.M.G.B. type 289mm(11-3/8in) : OP N.G.B. type 95mm(3-47/64in)
Tool post configuration	Gang type Turning tool + Power-driven tool Turret type 10 stations
Tool	Number of Gang type 4 tools Turret type Max.2tools / station
Sleeve	Number of tools Max.3tools / station Max. drilling capability φ23mm(29/32in) Max. tapping capability M16×P2.0
Power driven attachment	Number of Gang type B-axis controlled power-driven tool unit (Front : 4 tools, rear : 4 tools) Turret type Max.2tools / station Max. drilling Gang type φ10mm(25/64in) Turret type φ10mm(25/64in) Max. tapping Gang type M8×P1.25 Turret type M8×P1.25 Spindle Gang type Max.6,000min <sup>-1</sup> Turret type Max.5,700min <sup>-1</sup> Drive Gang type 2.2kW(continuous) / 3.0kW(5min. / 30%ED) Turret type 2.7kW(continuous) / 4.0kW(5min. / 30%ED)
Main spindle indexing angle	C-axis control
Main spindle speed	Max.7,000min <sup>-1</sup>
Main spindle motor	7.5kW(continuous) / 11kW(10min. / 25%ED)
Dimensions (W×D×H)	2,955×1,430×1,975mm

Backworking Attachment

Item	Specifications
Max. chucking diameter	φ38mm(1-1/2in)
Max. length for front ejection	150mm(5-7/8in)
Max. parts projection length	75mm(2-61/64in)
Number of tools	Stationary tool Max.8 tools Power driven tool Max.8 tools
Back 8-Spindle unit	Max. drilling Stationary tool φ23mm(29/32in) Power driven tool φ10mm(25/64in) Max. tapping Stationary tool M16×P2.0 Power driven tool M8×P1.25
Sub spindle indexing angle	C-axis control
Sub spindle speed	Max.7,000min <sup>-1</sup>
Sub spindle motor	7.5kW(continuous)/11kW(10min./25%ED)

SV-20R

Gang edge + 8-position turret + Backworking tool post  
The above composition of the tool post reassures enhanced scalability for complex machining with adequate number of tools.



▼ Tool Post	▼ Tooling
1	Turning tool(□16mm) 6 tools Turning tool(□12mm) 7 tools Power-driven tool 5 tools
2	Turning tool(□16mm) 1 tool/station Turning tool(□12mm) max.3 tools/station Front-end working tool max.3 tools/station Rear-end working tool max.3 tools/station Power-driven tool max.2 tools/station
3	Rear-end working tool 8 tools (Stationary tool/Power-driven tool)

Specifications

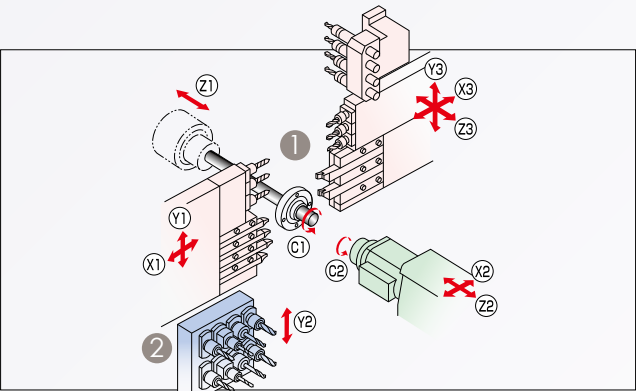
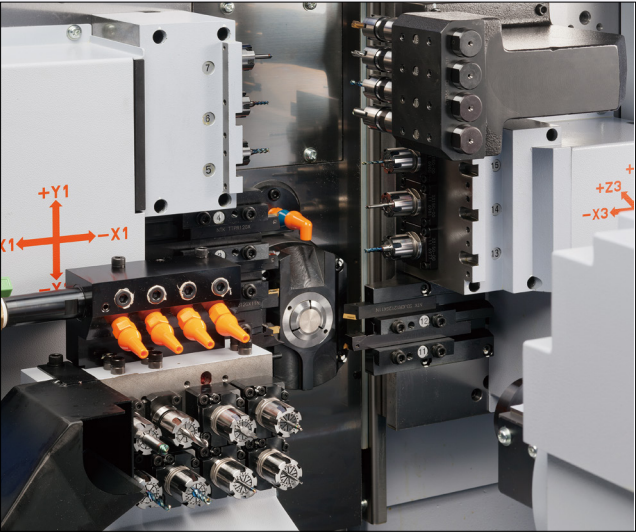
Item	Specifications
Max. machining diameter	φ20mm (25/32in)
Max. headstock stroke	Standard 205mm (8in) R.M.G.B. type 160mm (6-19/64in):OP N.G.B. type Bar diameter×2.5 (max.50mm) (max.1-31/32in)
Tool post configuration	Gang type Turning tool + Power-driven tool Turret type 8 stations
Turning tool	Number of Gang type 6 tools (□16mm), 7 tools (□12mm) Turret type 1 tool/station (□16mm), max. 3 tools/station (□12mm)
Sleeve holder	Number of tools max. 3 tools/station Max. drilling capability φ14mm (35/64in) Max. tapping capability M12×P1.75
Power driven attachment	Number of Gang type 5 tools Turret type max. 2 tools/station(mountable at each 8 positions) Max. drilling Gang type φ10mm (25/64in) Turret type φ10mm (25/64in) Max. tapping Gang type M8×P1.25 Turret type M8×P1.25 Spindle Gang type max.8,000min <sup>-1</sup> Turret type max.5,750min <sup>-1</sup> Drive Gang type 2.2kW Turret type 2.7kW(continuous)/4.0kW(5min./30%ED)
Main spindle indexing angle	C-axis control
Main spindle speed	max.10,000min <sup>-1</sup>
Main spindle motor	3.7kW(continuous)/5.5kW(10min./60%ED)
Dimension (W×D×H)	2,730×1,350×1,865mm
Weight	4,150kg

Backworking Attachment

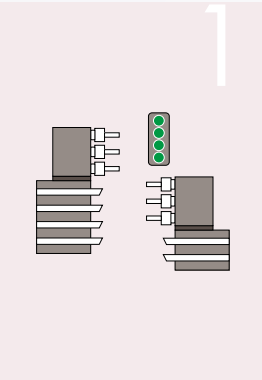
Item	Specifications
Max. chucking diameter	φ20mm (25/32in)
Max. length for front ejection	105mm (4-9/64in)
Max. parts projection length	75mm (2-61/64in)
Number of tools	8 tools
8-spindle backworking unit	Max. drilling Stationary tool φ12mm (1/2in) Power driven tool φ6mm (15/64in) Max. tapping Stationary tool M10×P1.5 Power driven tool M5×P0.8
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./40%ED)



The Pursuit of reduced idle times both mechanically and electrically through the latest software allow complex components to be manufactured in the fastest possible times to improve both production output & profitability.

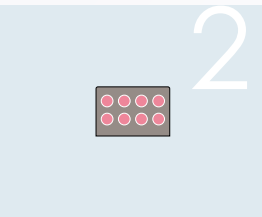


▼ Tool Post



▼ Tooling

Turning tool	6 tools
Front-end working tool	4 tools
Rear-end working tool	4 tools
Power-driven tool	6 tools



Rear-end working tool	8 tools
(Stationary tool	max. 8 tools)
(Power-driven tool	max. 6 tools)

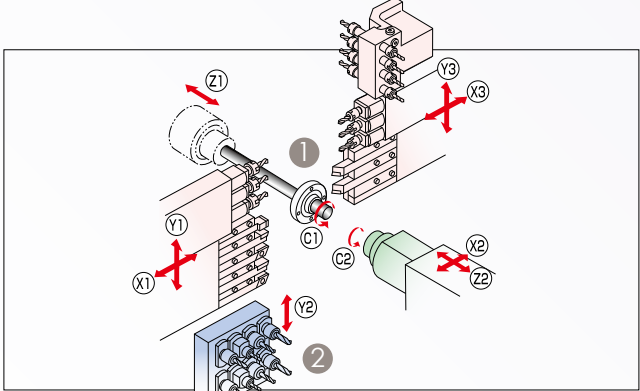
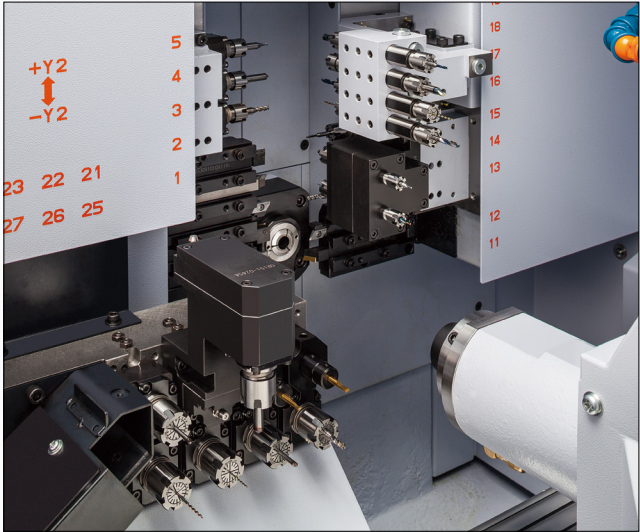
■ Specifications

Item	Specifications
Max. machining diameter	φ 20mm (25/32in)
Max. headstock stroke	Standard 205mm (8in) R.M.G.B. type 175mm (6-57/64in):OP
Tool post configuration	Front Turning tool + Power-driven tool Rear Turning tool+4-spindle sleeve holder+Power-driven tool
Turning tool	Number of tools Front 4 tools (□20mm/□16mm) Rear 2 tools(□12mm/□16mm)
4-spindle sleeve holder	Number of tools Front 4 tools Rear 4 tools
	Max. drilling capability φ 10mm (25/64in) Max. tapping capability M8×P1.25
Power driven attachment	Number of tools Front 3pos. Rear 3pos.
	Max. drilling capability φ 8mm (5/16in) Max. tapping capability M6×P1.0 Spindle speed max.8,000min <sup>-1</sup> Drive motor 1.0kW(continuous)/1.2kW(5min./30%ED)
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)
Dimension (W×D×H)	2,588×1,150×1,765mm
Weight	3,400kg

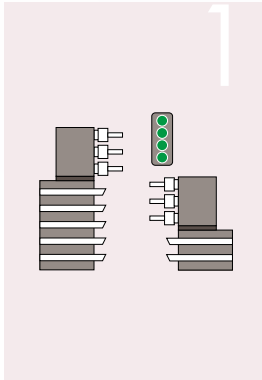
■ Backworking Attachment

Item	Specifications
Max. chucking diameter	φ 20mm (25/32in)
Max. length for front ejection	80mm (3-5/32in)
Max. parts projection length	30mm (1-3/16in)
8-spindle backworking unit	Number of tools 8 tools Max. drilling Stationary tool φ 10mm (25/64in) Power-driven tool φ 8mm (5/16in) Max. tapping Stationary tool M8×P1.25 Power-driven tool M6×P1.0
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)

The Latest SW Model Heading for the Highest capability in Machining of Small Diameter Workpieces.

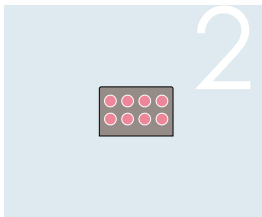


▼ Tool Post



▼ Tooling

Turning tool	7 tools
Front-end working tool	4 tools
Rear-end working tool	4 tools
Power-driven tool	6 tools



Rear-end working tool	8 tools
(Stationary tool / Power-driven tool)	

■ Specifications

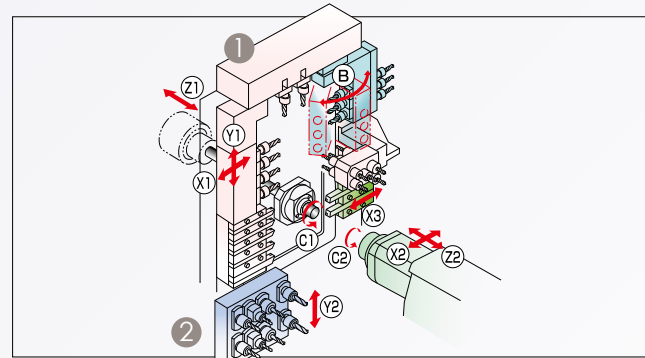
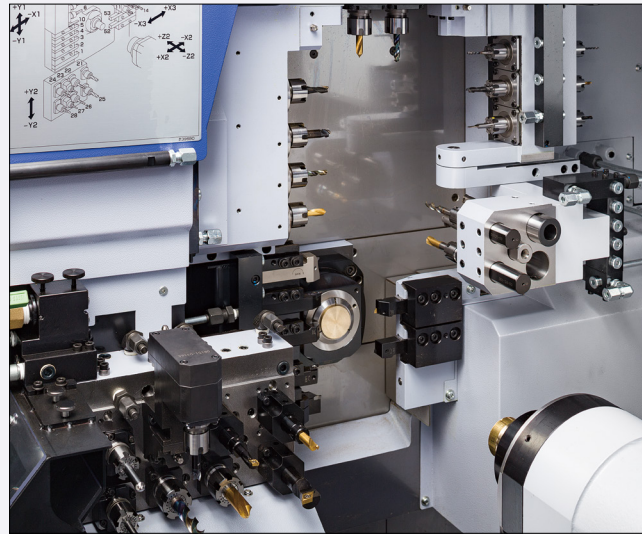
Item	Specifications
Max. machining diameter	φ 13mm (33/64in)
Max. headstock stroke	Standard 135mm (5-5/16in) R.M.G.B. type 95mm (3-47/64in):OP
Tool post configuration	Front Turning tool + Power-driven tool Rear Turning tool+4-spindle sleeve holder+Power-driven tool
Turning tool	Number of tools Front 5 tools (□10mm) Rear 2 tools (□10mm)
4-spindle sleeve holder	Number of tools Front 4 tools Rear 4 tools
	Max. drilling capability φ 8mm (5/16in) Max. tapping capability M8×P1.25
Power driven attachment	Number of tools Front 3pos. Rear 3pos.
	Max. drilling capability φ 5mm (3/16in) Max. tapping capability M4×P0.7 Spindle speed max.12,000min <sup>-1</sup> Drive motor 1.0kW(continuous)/1.2kW(5min./30%ED)
Main spindle indexing angle	C-axis control
Main spindle speed	max.15,000min <sup>-1</sup>
Main spindle motor	2.2kW(continuous)/3.7kW(10min./25%ED)
Dimension (W×D×H)	1,995×920×1,700mm
Weight	2,100kg

■ Backworking Attachment

Item	Specifications
Max. chucking diameter	φ 13mm (33/64in)
Max. length for front ejection	80mm (3-5/32in)
Max. parts projection length	20mm (25/32in)
8-spindle backworking unit	Number of tools 8 tools Max. drilling Stationary tool φ 8mm (5/16in) Power-driven tool φ 5mm (3/16in) Max. tapping Stationary tool M6×P1.0 Power-driven tool M4×P0.7
Sub spindle indexing angle	C-axis control
Sub spindle speed	max.15,000min <sup>-1</sup>
Sub spindle motor	2.2kW(continuous)/3.7kW(10min./40%ED)



## Complex Machines for Large-Diameter Workpieces Now Aim for Higher Functionality, Productivity and Accuracy



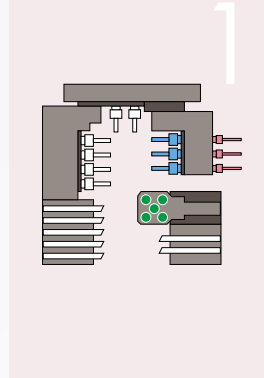
## ■ Specifications

Item	Specifications
Max. machining diameter	φ38mm(1-1/2in)
Max. headstock stroke	Standard 320mm(12-19/32in) R.M.G.B. type 288mm(1 1/32in) : 0P N.G.B. type Bar diameter×2.5(max.95mm)(max.3-47/64in)
Number of turning tools	Number of tools 5 tools on the front(stationary type)+2 tools on the rear(X3 axis control) Tool shank □20mm(T 100)/ □16mm
5-spindle sleeve holder	Number of tools Front 5 tools Rear 5 tools Max. drilling capability φ23mm(29/32in) Max. tapping capability M16×P2.0
Power driven attachment	Number of tools Cross milling : 4 tools Cartridge type : At 2 position B-axis controlled power-driven tool unit : At 1 position (Front 3 tools+Rear 3 tools) Max. drilling capability φ10mm(25/64in) Max. tapping capability M8×P1.25 Spindle speed max.6,000min <sup>-1</sup> Drive motor 2.2kW(continuous) / 3.0kW(5min./30%ED)
Main spindle indexing angle	C-axis control
Main spindle speed	max.7,000min <sup>-1</sup>
Main spindle motor	7.5kW(continuous) / 11kW(10min./25%ED)
Dimensions (W×D×H)	2,740×1,315×2,120mm
Weight	4,300kg

## ■ Backworking Attachment

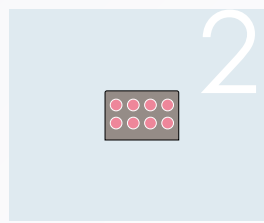
Item	Specifications
Max. chucking diameter	φ38mm(1-1/2in)
Max. length for front ejection	150mm(5-7/8in)
Max. parts projection length	70mm(2-3/4in)
	8 tools
8-spindle backworking unit	Max. drilling Stationary tool φ 14mm(35/64in)
	Max. tapping Stationary tool φ 8 mm(5/16in)
	Max. tapping Power driven tool M12×P1.75
	Max. tapping Power driven tool M6×P1.0
Sub spindle indexing angle	C-axis control
Sub spindle speed	max.7,000min <sup>-1</sup>
Sub spindle motor	3.7kW(continuous)/5.5kW(10min./40%ED)

▼ Tool Post



▼ Tooling

Turning tool	7 tools
Front-end working tool	5 tools
Rear-end working tool	5 tools
Power-driven tool	4 tools
Cartridge type	2Pos
B-axis controlled power-driven tool unit	1Pos
(Front 3 tools+Rear 3 tools)	



Rear-end working tool	8 tools
(Stationary tool/Power-driven tool)	

## CNC SWISS TYPE AUTOMATIC LATHE

Complex machining functions adaptable to multiple industries.

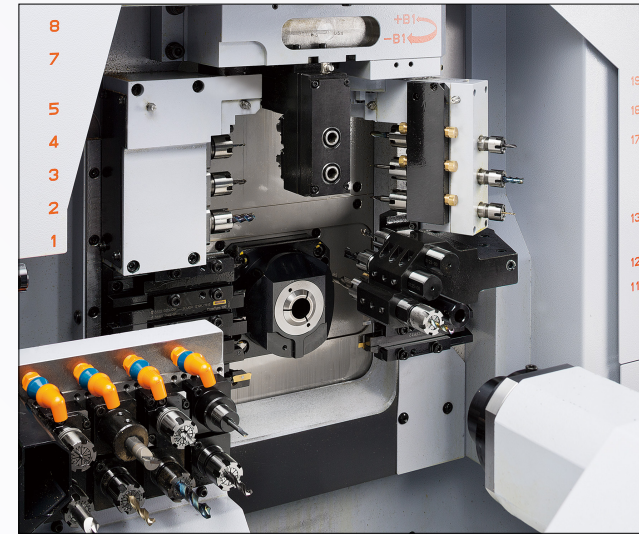
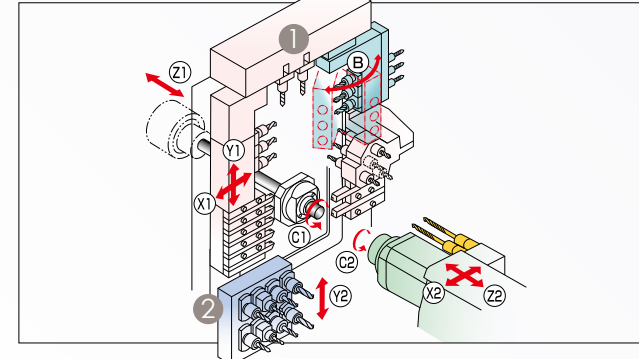


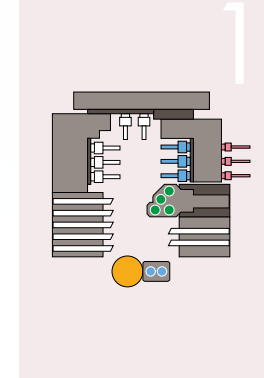
Photo : SR-20RV type B



Illustration: SR-20RV type B

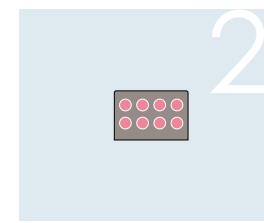


▼ Tool Post



▼ Tooling

Turning tool	7 tools
Front-end working tool	6 tools
Rear-end working tool	4 tools
Power-driven tool	3 tools
Cartridge type	2Pos
[type A]	
Angle adjustable power-driven tool	1Pos
(Front 3 tools+Rear 3 tools)	
[type B]	
B-axis controlled power-driven tool unit	1Pos
(Front 3 tools+Rear 3 tools)	



Rear-end working tool	8 tools
(Stationary tool/Power-driven tool)	



## ■ Specifications

Item	Specifications
Max. machining diameter	φ20mm (25/32in)
Standard	205mm (8in)
Max. headstock stroke	160mm (6-19/64in):OP
R.M.G.B. type	Bar diameter×2.5 (max.50mm) (max.1-31/32in)
N.G.B. type	
Number of turning tools	5 tools on the front + 2 tools on the rear
Tool shank	□12mm
4-spindle sleeve holder	Number of tools
	Front 4 tools
	Rear 4 tools
Max. drilling capability	φ12mm (1/2in)
Max. tapping capability	M10×P1.5
Number of tools(sleeve)	2 tools
2-spindle front sleeve holder	Max. drilling capability
	φ10mm (25/64in)
Max. depth of hole	100mm (3-15/16in)
Number of tools	Cross milling : 3 tools
	Cartridge type : At 2 position
Number of tools [ type A]	Angle adjustable power-driven tool : At 1 position (Front 3 tools+Rear 3 tools)
Number of tools [ type B]	B-axis controlled power-driven tool unit : At 1 position (Front 3 tools+Rear 3 tools)
Max. drilling capability	φ10mm (25/64in)
Max. tapping capability	MB×P1.25
Spindle speed	max.8,000min <sup>-1</sup>
Drive motor	2.2kW
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)
Dimensions (W×D×H)	2,334×1,200×1700mm
Weight	2,600kg

### ■ Backworking Attachment

Item			Specifications
Max. chucking diameter			φ20mm (25/32in)
Max. length for front ejection			80mm (3-5/32in)
Max. parts projection length			30mm (1-3/16in)
Number of tools			8 tools
8-spindle backworking unit	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
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)



A detailed close-up of a precision machine tool, possibly a lathe or mill. The image shows a complex assembly of metal components, including a tool holder, a cutting tool, and a workpiece. The machine is primarily grey and black, with a white cylindrical component on the right. The tool holder is a black block with several silver-colored inserts. The cutting tool is a small, sharp, silver-colored tool. The workpiece is a small, cylindrical metal part. The machine is mounted on a white base. The background is a plain, light-colored surface.



5-spindle cross drilling unit ER16

Turning tool	6 tools
Front-end working tool	7 tools
Rear-end working tool	5 tools
Power-driven tool (ER16)	3 tools
Cartridge type	2 Pos

A diagram illustrating a microarray chip. It features a large grey rectangular chip with a grid of small white squares. To the left of the chip is a yellow circle. Below the chip is a small grey rectangle containing two blue circles. To the right of the chip is a larger grey rectangle containing two green circles.

## type A

<b>type B</b>	
Rear-end working tool	8 tools
(Stationary tool/Power-driven tool)	
<b>type A</b>	
Rear-end working tool	4 tools
(Stationary tool/Power-driven tool)	

Item	Specifications
Max. machining diameter	φ20mm(25/32in)
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. 1-31/32)
Number of tools	Number of tools 6 tools Tool shank □12mm
5-spindle sleeve holder	Number of tools Front 5 tools Rear 5 tools Max. drilling capability φ 12mm(1/2in) Max. tapping capability M10×P1.5
2-spindle front sleeve holder	Number of tools 2 tools Max. drilling capability φ 10mm(25/64in) Max. depth of hole 100mm(3-15/16in)
Power driven attachment	Number of tools Cross milling : 3 tools (ER16) + Cartridge type 2 Pos Cross milling : 3 tools (ER20×1, ER16×2) + Cartridge type 2 Pos Max. drilling capability φ 10mm (25/64in) Max. tapping capability M8×P1.25 Spindle speed max.8,000min <sup>-1</sup> Drive motor 2.2kW
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)
Dimensions (W×D×H)	2,250×1,200×1,700mm
Weight	2,750kg

Item	SR-20JII type B	SR-20JII type A
Max. chucking diameter	φ20mm(25/32in)	
Max. length for front ejection	100mm(3-15/16in)	
Max. parts projection length	30mm(1-3/16in)	
Number of tools	8 tools	4 tools
Unit especially for backworking	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
Sub spindle indexing angle	C-axis control	
Sub spindle speed	max10,000min <sup>-1</sup>	
Sub spindle motor	2.2kW(continuous)/3.7kW(10min./25%ED)	

A detailed close-up of a CNC machine's tool head. The machine is primarily blue and white. A black tool holder is mounted on the end of a spindle, holding a cutting tool. A cylindrical metal workpiece is being machined. The tool holder has a label that reads "0001-1" and "TOOL CHANGING SYSTEM". The workpiece has a label that reads "0001-1" and "TOOL CHANGING SYSTEM". The machine's structure is robust, with various bolts and adjustment points visible. The lighting is bright, highlighting the metallic surfaces and the precision of the machinery.



Item	Specifications
Max. machining diameter	φ 10mm (25/64in)
Max. headstock stroke	Stationary G.B. type 135mm (5-5/16in) R.G.B. type 105mm (4-9/64in) R.M.G.B. type 75mm (2-61/64in):OP
Number of turning tools	Number of tools 6 tools Tool shank □8mm
4-spindle sleeve holder	Number of tools Front 4 tools Rear 4 tools Max. drilling capability φ 6mm (15/64in)
	Max. tapping capability M5×P0.8
Power driven attachment	Number of tools 3 tools Max. drilling capability φ 4mm (5/32in) Max. tapping capability M3×P0.5 Spindle speed max. 10,000min <sup>-1</sup> Drive motor 0.5kW
Main spindle indexing angle	C-axis control
Main spindle speed	max. 15,000min <sup>-1</sup>
Main spindle motor	2.2kW(Continuous)/3.7kW(15min./60%ED)
Dimension (W×D×H)	1,865×775×1,695mm
Weight	1,400kg

Turning tool	6 tools
Front-end working tool	4 tools
Rear-end working tool	4 tools
Power-driven tool	3 tools

Rear-end working tool	4 tools
(Stationary tool	max. 4 tools)
(Power-driven tool	max. 2 tools)

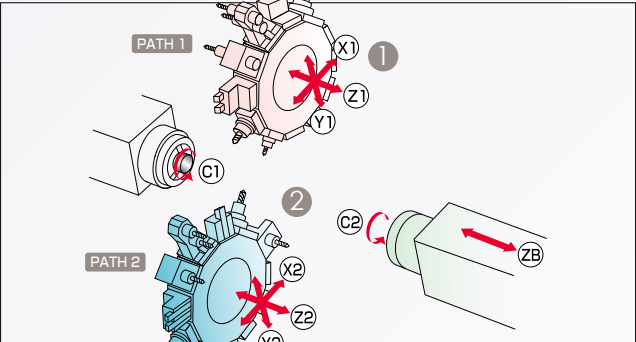
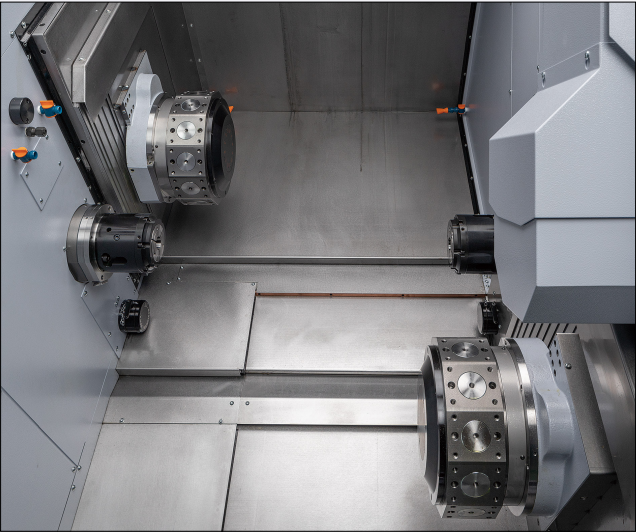
Item			Specifications
Max. chucking diameter			ϕ10mm (25/64in)
Max. length for front ejection			70mm (2-3/4in)
Max. parts projection length			20mm (25/32in)
Number of tools			4 tools
4-spindle backworking unit	Max. drilling	Stationary tool	ϕ4mm (5/32in)
	capability	Power-driven tool	ϕ4mm (5/32in)
	Max. tapping	Stationary tool	M3×P0.5
	capability	Power-driven tool	M3×P0.5
Sub spindle indexing angle			C-axis control
Sub spindle speed			max. 10,000min <sup>-1</sup>
Sub spindle motor			0.55kW(Continuous)/1.1kW(15min./50%E0)



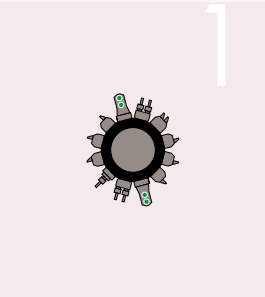




Star Micronics Enters Its New Territory With the Fixed-Headstock Lathes.

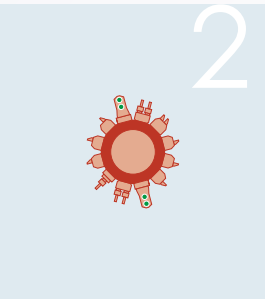


▼ Tool Post



▼ Tooling

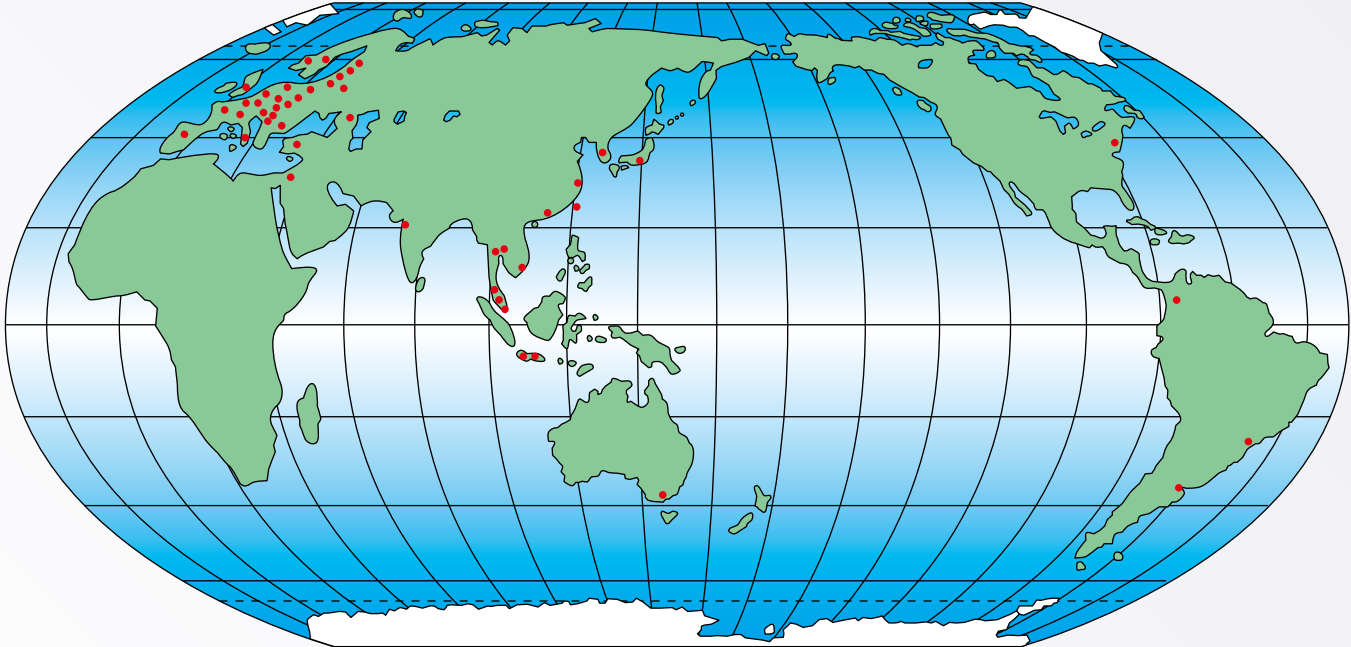
Turning tool(□20mm)	max.2 tools/station
Front-end working tool	max.2 tools/station
Rear-end working tool	max.2 tools/station
Power-driven tool	max.2 tools/station



Turning tool(□20mm)	max.2 tools/station
Front-end working tool	max.2 tools/station
Rear-end working tool	max.2 tools/station
Power-driven tool	max.2 tools/station

■ Specifications

Item		Specifications
Main spindle	Max. machining diameter	φ51mm(2in)
	Max. machining length	125mm(4-59/64in)
	Main spindle indexing angle	C-axis control
	Main spindle speed	max.5,000min <sup>-1</sup>
	Main spindle motor	7.5kW(continuous)/15kW(10min./15%ED)
	Through-spindle hole diameter	φ52.5mm(2-1/16in)
	Chucking type	Hydraulic rotary cylinder
Sub spindle	Max. machining diameter	φ51mm(2in)
	Max. length for front ejection	125mm(4-59/64in)
	Max. parts projection length	80mm(3-5/32in)
	Main spindle indexing angle	C-axis control
	Main spindle speed	max.5,000min <sup>-1</sup>
	Main spindle motor	7.5kW(continuous)/15kW(10min./15%ED)
	Through-spindle hole diameter	φ52.5mm(2-1/16in)
PATH 1 Tool post	Chucking type	Hydraulic rotary cylinder
	Type	12-stationed turret
	Number of tools	□20mm(25/32in) max. 2 tools/station
	Sleeve	max. 2 sleeves/station
	Power driven tool	max. 2 tools/station
	Spindle speed	max.6,000min <sup>-1</sup>
	Drive motor	4.5kW(continuous)/7.5kW(5min./30%ED)
PATH 2 Tool post	Max. drilling capability	φ 16mm(5/8in)
	Max. tapping capability	M12×P1.75
	Milling	φ 20mm(25/32in)
	Type	12-stationed turret
	Number of tools	□20mm(25/32in) max. 2 tools/station
	Sleeve	max. 2 sleeves/station
	Power driven tool	max. 2 tools/station
PATH 2 Tool post	Spindle speed	max.6,000min <sup>-1</sup>
	Drive motor	4.5kW(continuous)/7.5kW(5min./30%ED)
	Max. drilling capability	φ 16mm(5/8in)
	Max. tapping capability	M12×P1.75
	Milling	φ 20mm(25/32in)
	Dimensions (W×D×H)	2,800×2,070×2,130mm
	Weight	6,600kg



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