

SK-38

SERIES

Multi-tasking SWISS Turning Centers

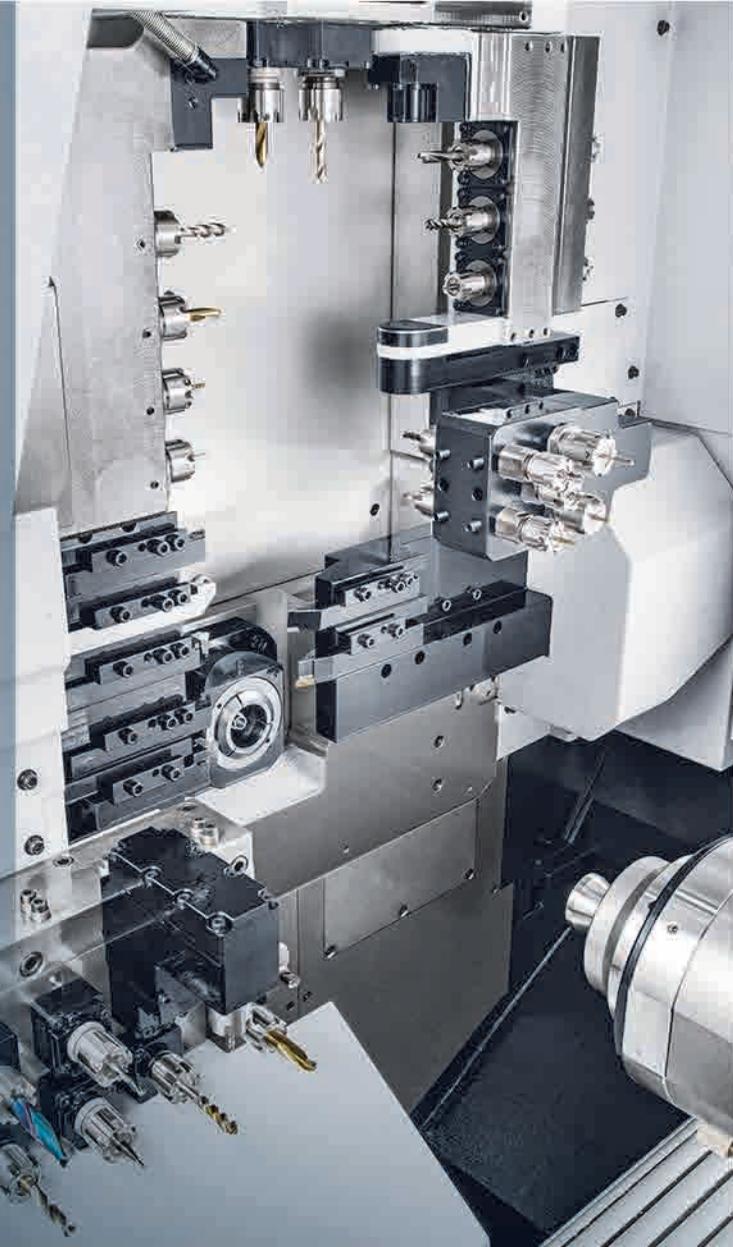


THE ULTIMATE MACHINING POWER
WOODWAY®

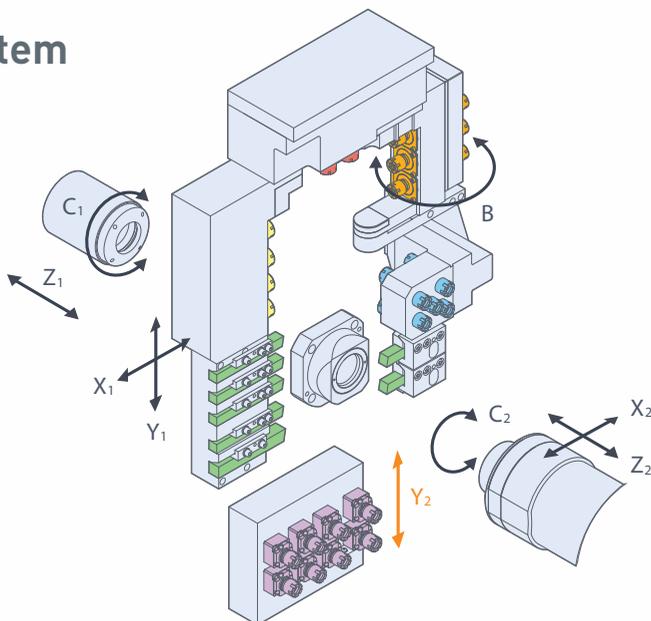
MULTI-TASKING SWISS TURNING CENTERS

Packed with a high-rigidity gantry type tool system structure and powerful composite functionalities, Goodway SK-38 series offers unprecedented machining capabilities, assisting you in overcoming any mass production demands for large diameters and intricate workpiece patterns.

- Featuring up to 9-axis control, enabling simultaneous 4-axis machining.
- Maximum machining diameter : $\varnothing 38$ mm (bush) / $\varnothing 42$ mm (bushless).
- Gantry type tool system structure is advantageous for evenly bearing the torque load of cutting, maximizing the structural rigidity of the tool system.
- The B-axis live tool holder can execute four-axis simultaneous contour milling, meeting the machining requirements of complex-shaped workpieces.
- The back working tool holder equipped with the Y₂-axis allows for greater flexibility in tool system scheduling, thereby enhancing production efficiency through overlapping machining processes.



Axis System

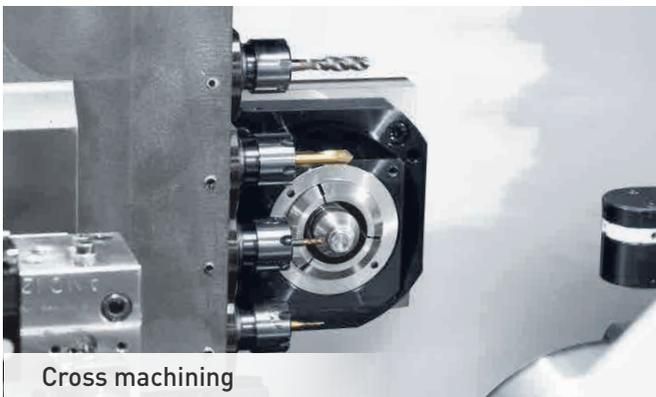
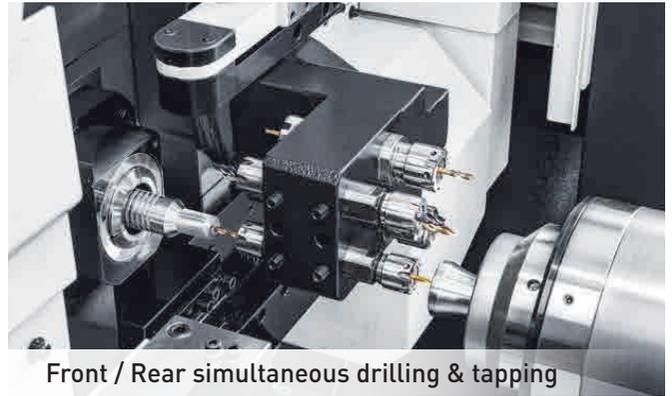
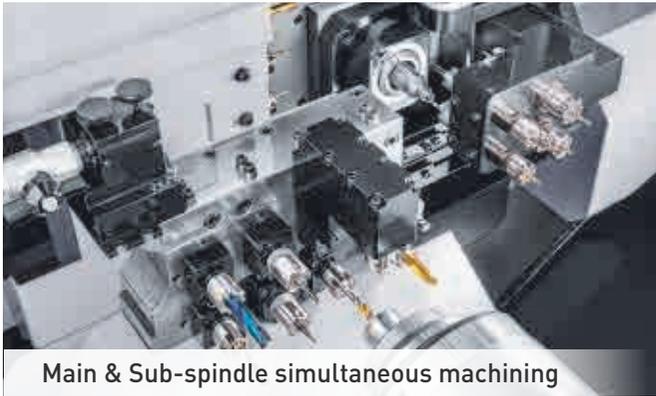


Tooling System	Number
■ O.D. tool	7
■ I.D. tool	10 ^{*1}
■ Cross live tool	4
■ Replaceable tools	2
■ B-axis live tools	6 ^{*2}
Backworking Tooling System	
■ Rear-end live tools	8

*1 : 5 (Front) + 5 (Rear)

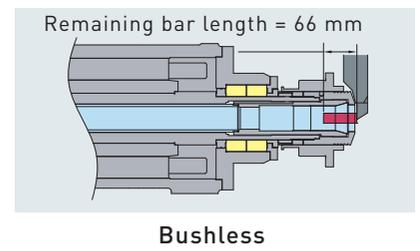
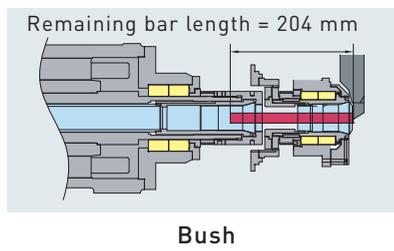
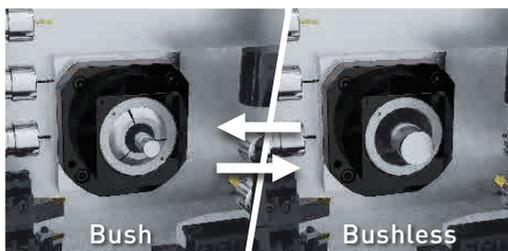
*2 : 3 (Front) + 3 (Rear)

MACHINING VARIATIONS



Hybrid Guide Bush

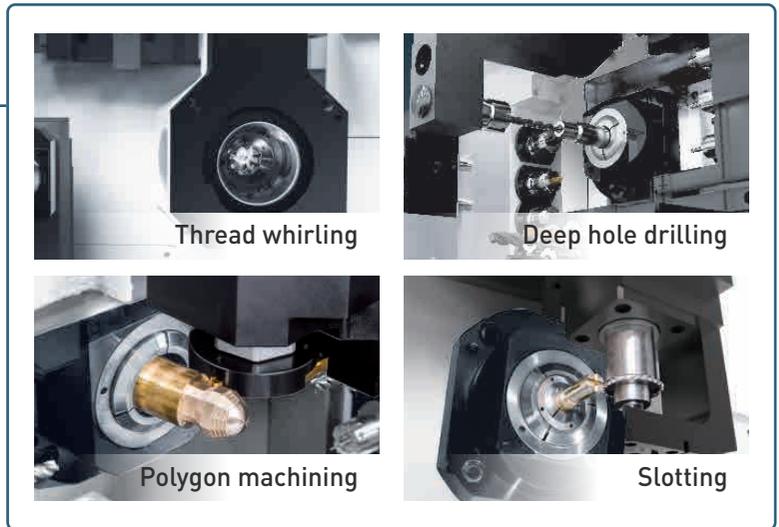
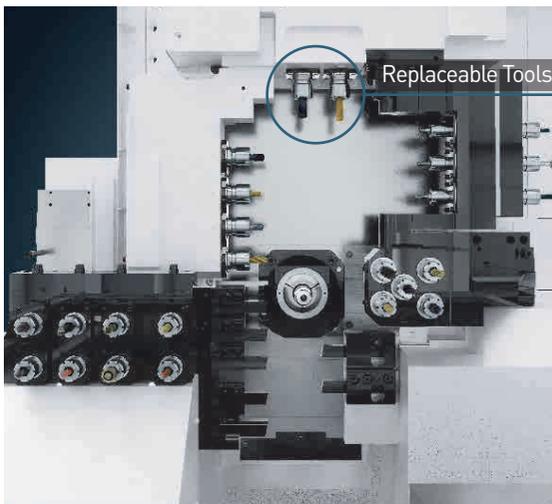
The specially designed interface mechanism allows the SK-38 series to instantly disassemble or install bush as needed. Utilizing the bush machining mode provides stable support for workpieces, making it suitable for processing slender workpieces. Conversely, employing the bushless machining mode can significantly reduce remnants, maximizing the utilization of the bar material.



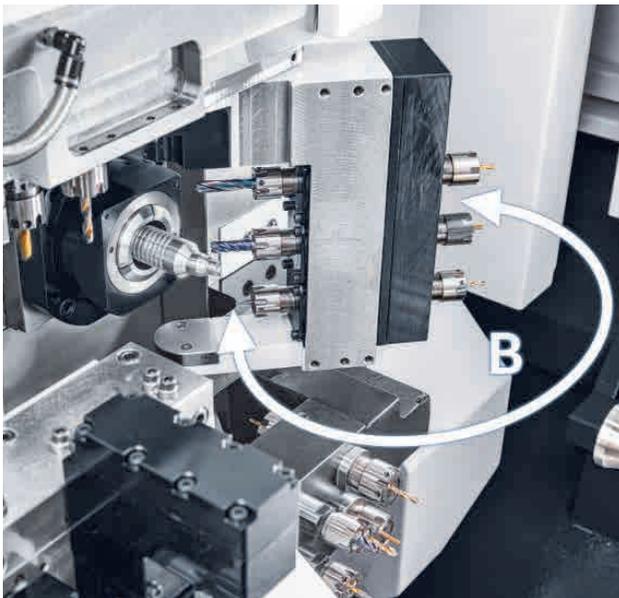
Suitable for long bar work-piece.

Suitable for cold working bar or high price raw material.

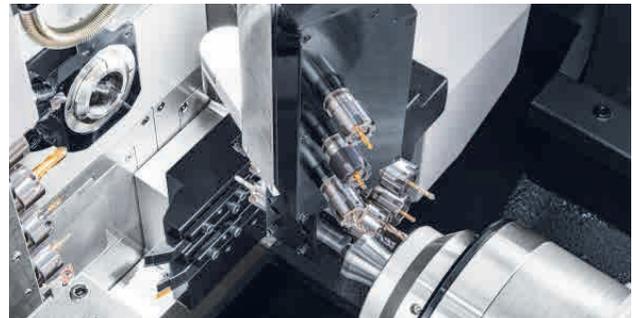
Flexible Tool System



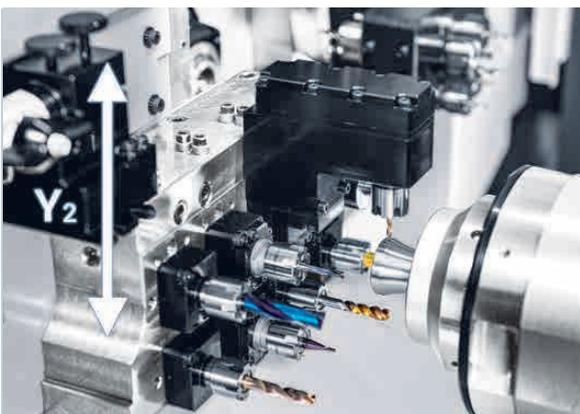
Ultimate B-axis Control Function



- B-axis control capability enables the tool holder to perform milling, drilling, and tapping at inclined angles, as well as execute four-axis simultaneous contour milling.
- The high-resolution angle encoder ensures precise indexing of the B-axis within a range of 135° (min. indexing increment: 0.001°).



Y₂-axis Machining Capability



- Y₂-axis control function enables off-center drilling, tapping, and milling on the rear-end of workpieces, meeting the machining requirements of various complex-shaped workpieces.
- 69 mm Y₂-axis travel design, the back working tool holder can accommodate up to 8 ER16 living tools or be equipped with a 90° live tool holder as needed.
- The live tools are driven by AC servo motor, capable of delivering ample power output with high torque.

MACHINE SPECIFICATIONS

MODEL		SK-38
Max. machining diameter	bush	Ø 38 mm
	bushless	Ø 42 mm
Max. turning length per chuck	bush	320 mm
	bushless	95 mm
O.D. tools	Number of tools	7
	Shank size	□ 16 mm / 20mm
I.D. tools	Number of tools	5
Cross live tools	Number of tools	4
	Max. live tooling speed	6,000 rpm
	Tooling drive motor	2.2 kW
	Sleeve size	ER20
	Max. drilling capacity	Ø 10 mm
	Max. tapping capacity	M8 × P1.25
X ₁ / Y ₁ / Z ₁ / X ₂ / Z ₂ axes rapids		36 m/min.
Spindle center height		1,150 mm

SPINDLE (BUILT-IN)

Max. live tooling speed	7,000 rpm
Motor output (cont. / 10 min.)	7.5 / 11 kW
Min. indexing increment	0.001°

SUB-SPINDLE (BUILT-IN)

Max. live tooling speed	7,000 rpm
Motor output (cont. / 10 min.)	3.7 / 5.5 kW
Min. indexing increment	0.001°

B-AXIS TOOLING SYSTEM

Cross live tools	Number of tools	2
	Sleeve size	ER20
B-axis live tools	Number of tools	3 (Front) / 3 (Rear)
	Sleeve size	ER16 (Front) / ER16 (Rear)
	Tooling drive motor	2.2 kW
	Max. live tooling speed	6,000 rpm

BACK WORKING TOOLING SYSTEM		SK-38
Rear-end machining capability	Max. chucking diameter	Ø 38 mm
	Max. length for front ejection	150 mm
	Max. parts projection length	70 mm
Rear-end tools	Number of tools	8
	Max. live tooling speed	6,000 rpm
	Tooling drive motor	1 kW
	Sleeve size	ER20
	Max. drilling capacity (I.D. tools)	Ø 14 mm
	Max. drilling capacity (live tools)	Ø 8 mm
Max. tapping capacity (I.D. tools)		M12 × P1.75
	Max. tapping capacity (live tools)	M6 × P1.0

Y2-AXIS BACKWORKING TOOLING SYSTEM

Number of tools	8
Y ₂ -axis travel	69 mm
Y ₂ -axis rapid	24 m/min.

GENERAL

NC controller	FANUC 31i-B Plus
Coolant tank capacity	250 L
Machine dimensions (L × W × H)	3,365 x 1,430 x 2,140 mm
Machine weight	4,500 kg

Specifications are subject to change without notice.



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