

SW-II SERIES

MULTI-TASKING SWISS TURNING CENTERS



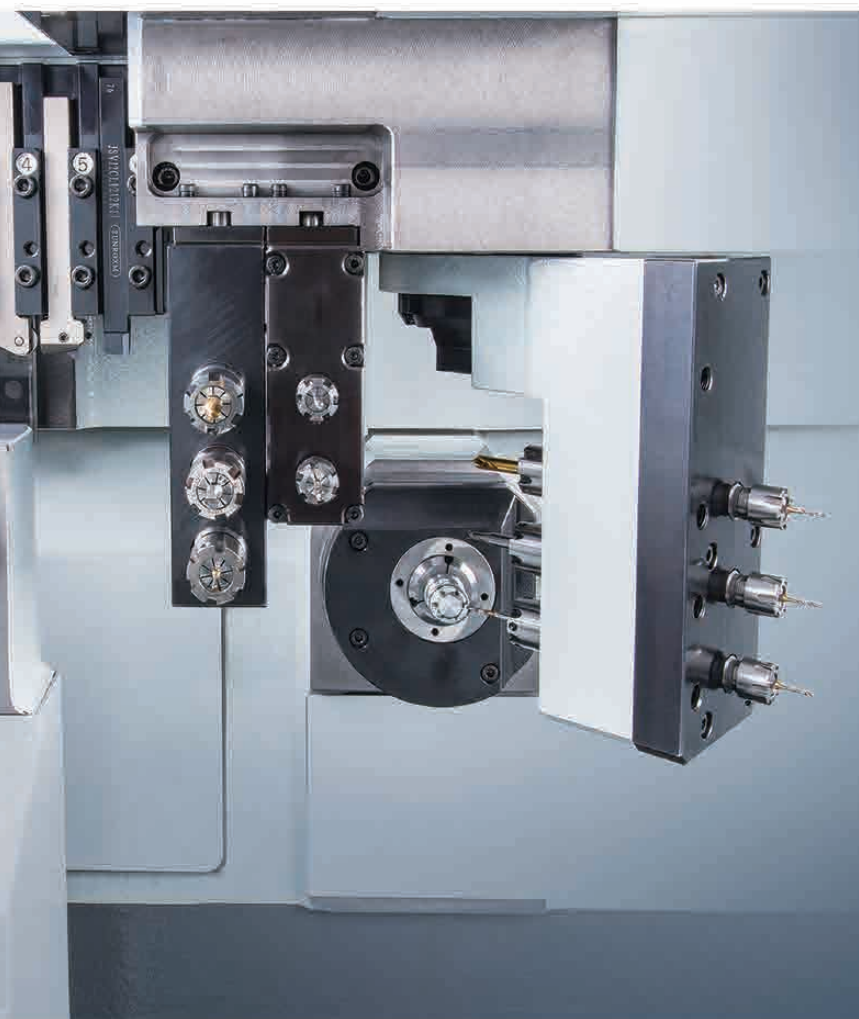
THE ULTIMATE MACHINING POWER
WOODWAY

MULTI-TASKING SWISS TURNING CENTERS

On the basis of innovative mechanical structure, plentiful tooling system and flexible hybrid guide bush design, SW-II serial can achieve unprecedented rigidity and productivity. SW-II with 6-axis (X / Y / Z / XB / ZB / Y₂) control ability. Not only complicated work piece can be overcome but also with short cycle time that can satisfy your different processing requirement nowadays and future.

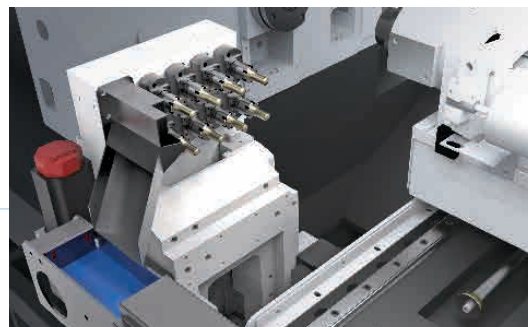
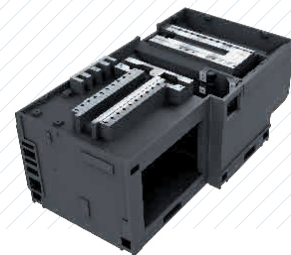


(SW-20II model shown with optional
G.LINC intelligent control system)</

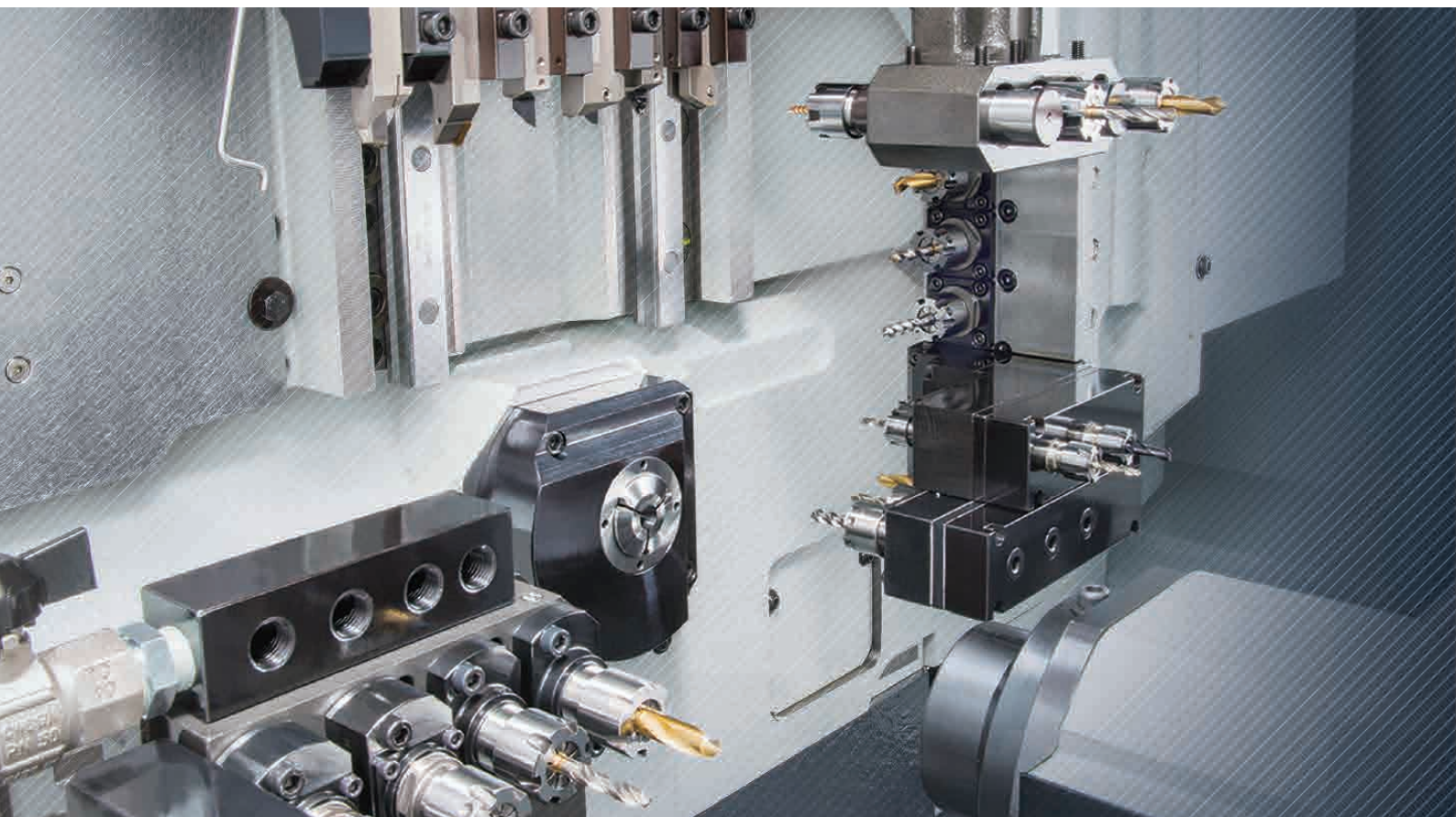


Evolution Structure Rigidity

- ▶ High rigidity one-piece bed structure, MEEHANITE casting with high tension and thermal hydraulics design is able to decrease thermal deforming, this can keep stable processing accuracy even machine keep working for long time.
- ▶ Compare to last generation design, SW-II machine base is more solid, structure rigid increase 30%.
- ▶ To enhance back processing cutting rigidity, SW-II series we design the rear-end tool holder component fixed on the base (scrapping procedure on contact facing); machine base would absorb the vibration during processing to avoid resonance when main and sub spindle cutting at the same time, to make sure perfect processing accuracy.



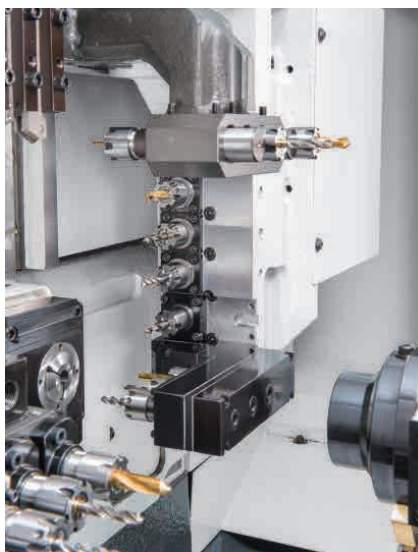
FLEXIBLE TOOLING SYSTEM



Flexible Live Tooling System



Standard Cross live tool × 5



Sufficient tooling post and flexible tooling system which maximum 41 tools*1 (include 23 live tools) is available. All multiple tasks, such as the front surface of workpiece, rear eccentric drilling, tapping and milling operations can be completed in one machine.

*1 6-axis tooling system with Y2-axis

Axis system

Feed axis	5-axis	6-axis		7-axis
X、Y、Z、XB、ZB axes	S	S	S	S
Y2-axis	—	—	S	S

S : Standard — : Not Available

ULTIMATE MACHINING POWER

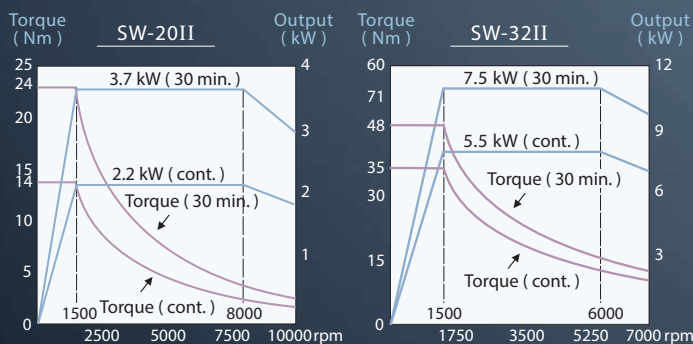
High Performance Spindle System

- ▶ High precision built-in motor design can greatly reduce the spindle vibration to ensure the super high machining accuracy and extend spindle life time.
- ▶ Servo motor drive spindle head and hydraulic brake system design can speed up acceleration and deceleration movement and positioning precisely.
- ▶ With large-span linear guide way design of Z-axis for headstock, motion Z-axis is stable and no hysteresis.



Rotary hydraulic cylinder can provide greater clamping force (option)

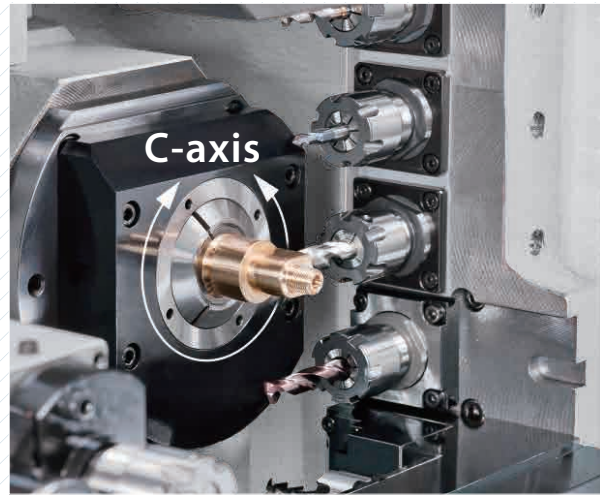
Spindle output





Back-end Machining Capability

High speed and low vibration design built-in sub-spindle (option for SW-20II) can meet high accuracy machining requirement. Besides, with the built-in air blow and parts ejector system, parts can be auto unloading without manpower.



C-axis Machining Capability

Both main and sub-spindle are equipped with C-axis function include 0.001° resolution. SW-II also possess turning-milling complex machining ability include with cylindrical and contour machining of polar coordinate interpolation.

Front off-center drilling & tapping

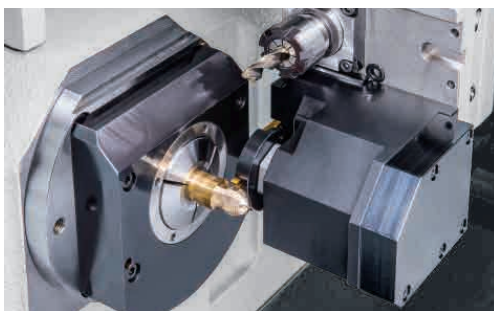
MACHINING VARIATIONS

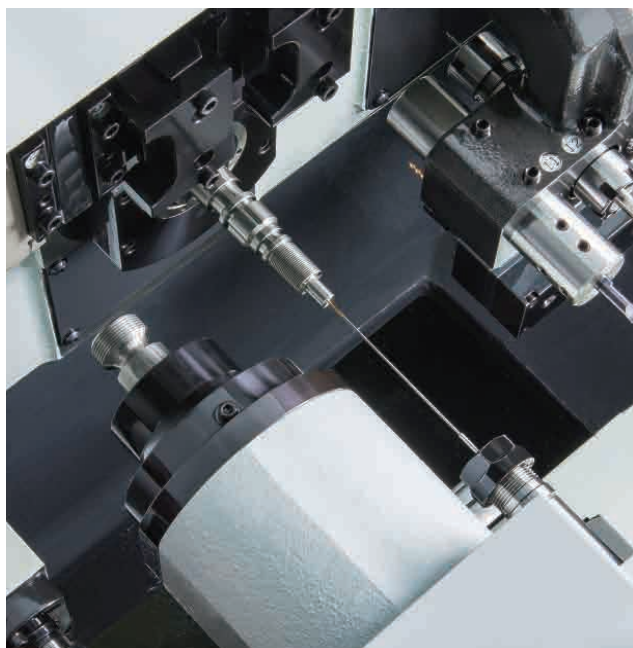
To confront increasingly complex workpiece and mass production with high speed requirement, the traditional machining might be very time consuming and it cannot overcome the requirement. To select GOODWAY high performance live tooling holder can solve above mentioned difficulty.



Thread whirling

By the multi-blade structure on the Thread Whirling Unit and the pneumatic chip cooling technology, the efficiency of thread whirling and the accuracy on the surface can be increased dramatically. It is particular suitable for machining requirement of bone screw and miniature ballscrew.





Deep hole drilling

The sub spindle on SW-II model can equip with 2 pcs of deep hole drill. When machine with guide bush and deep-hole drill work together with high pressure coolant system, it can provide the best drilling performance. The maximum drilling depth for SW-20II and SW-32II will be 184 mm and 280 mm^{*1}.

^{*1} This drilling depth is only for bush type machine and the drilling depth will be different according to the machining requirement. Please contact GOODWAY for further information.

Tool diameter : Ø 1.32 mm

Tool length : 150 mm

High-pressure coolant system : 140 Bar

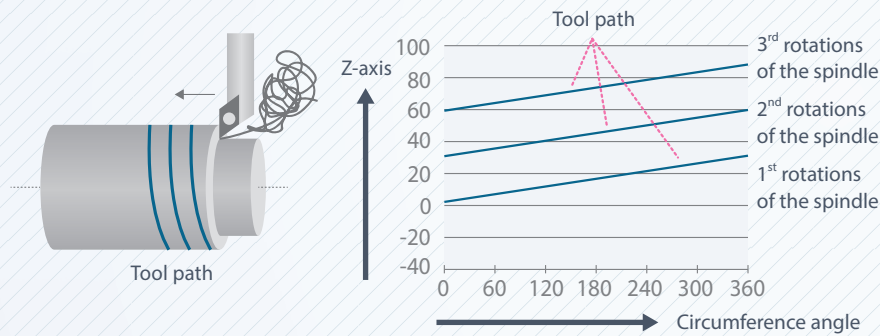
Material : SUS303

OCR OSCILLATING CHIP REMOVAL (opt.)

- OCR oscillating cutting is the turning technology by using the oscillating function to cut fine chips.
- Cutting chips breaks with Air-cut oscillating function.

No mechanical failure occurred due to entangled chips which enhances machine effectiveness.

General Turning



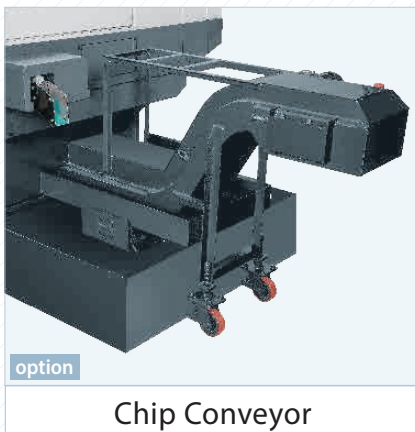
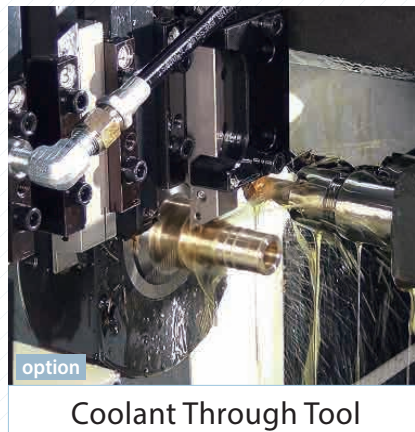
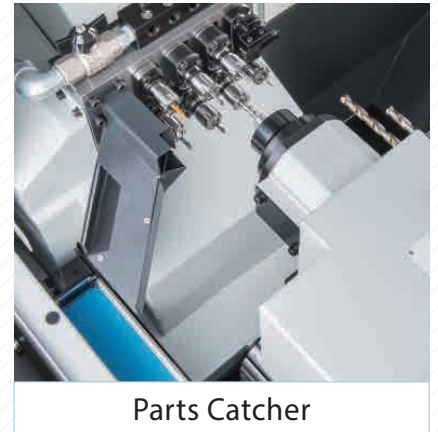
GLINC INTELLIGENT OPERATING SYSTEM (Opt.)

Make Your Machine Smarter

- Multi-touch screen
- Excellent operability
- Multiple adjuvant tool
- Utilization rate checking and analysis
- Workpiece counter checking and analysis
- Integrative machining operating interface
- Visible date interface
- Maintenance notification



STANDARD & OPTIONAL FEATURES



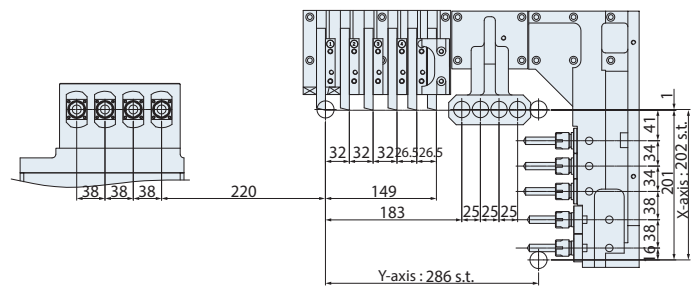
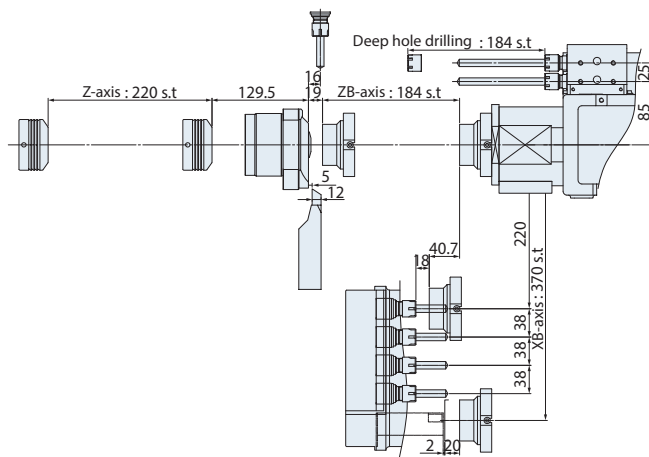
S : Standard O : Option
 – : Not Available C : Contact Goodway

		SW-201I	SW-321I
SPINDLE			
Main spindle motor configuration		S	S
Rigid tapping		S	S
C-axis		S	S
Spindle brake		S	S
WORK HOLDING			
Spindle hardness collect		O	O
Spindle tungsten collect		O	O
Sub-spindle hardness			

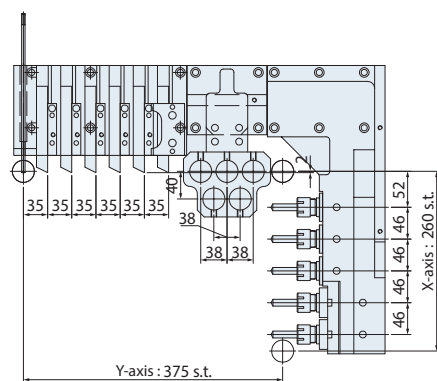
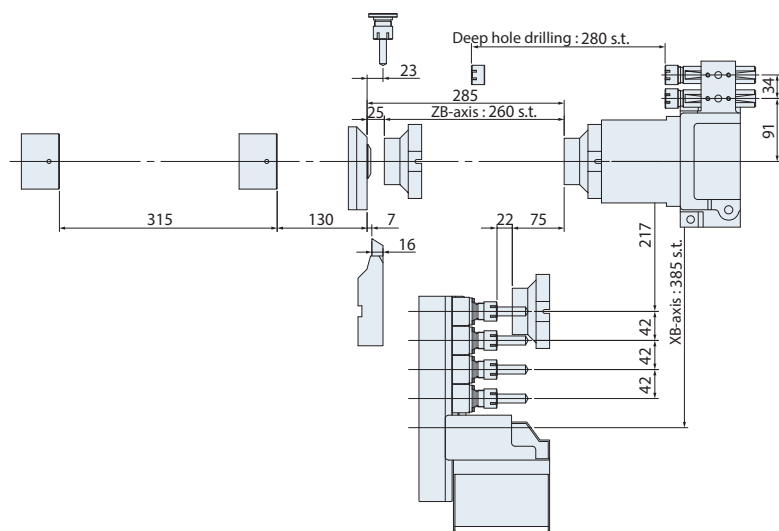
DIMENSIONS

SW-20II 5-axis tooling system

Bush



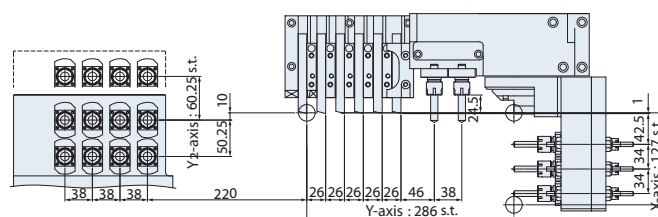
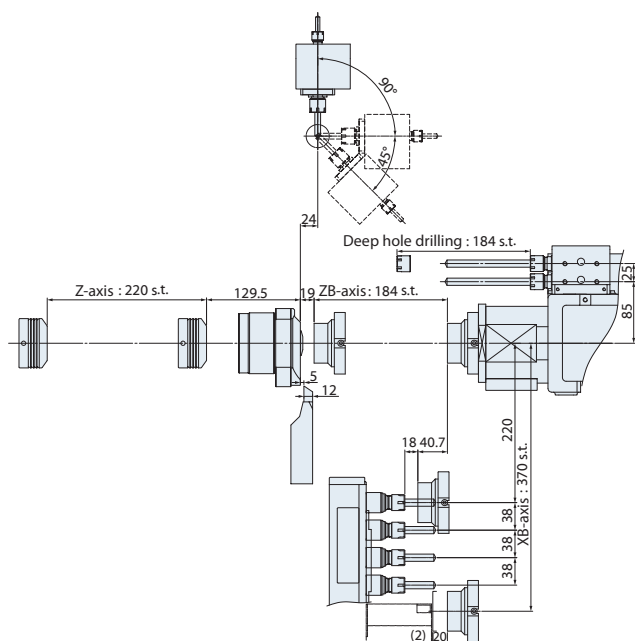
Bush



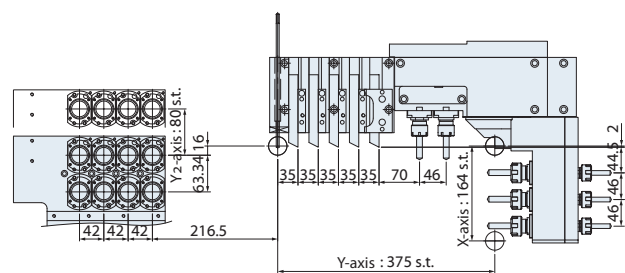
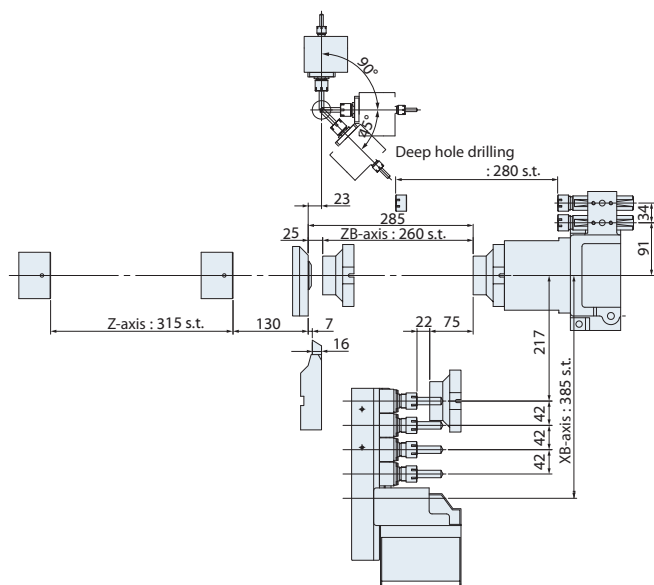
DIMENSIONS

SW-20II 7-axis tooling system

Bush



Bush



MACHINE SPECIFICATIONS

■ : Metric ■ : Inch

CAPACITY		SW-20II	SW-32II
Max. machining diameter		Ø 20 mm 0.78"	Ø 32 mm 1.25"
Max. turning length per chuck	bush	220 mm 8.66"	315 mm 12.4"
	bushless	50 mm 1.96"	85 mm 3.34"
SPINDLE			
Max. spindle speed		10,000 rpm	7,000 rpm
Motor output (cont. / 15 min.)		2.2 / 3.7 kW 3 / 5 HP	5.5 / 7.5 kW 7.3 / 10 HP

■ : Metric ■ : Inch

BACKWORKING TOOLING SYSTEM		SW-20II	SW-32II
Rear-end machining capability	Max. chucking diameter	Ø 20 mm 0.78"	Ø 32 mm 1.25"
	Max. length for front ejection	80 mm 3.14"	130 mm 5.11"
	Max. parts projection length	30 mm 1.18"	50 mm 1.96"
Rear-end tools	Number of tools	4	4
	Max. live tooling speed	8,000 rpm	5,000 rpm
	Tooling drive motor	0.4 kW 0.53 HP	0.75 kW 1 HP
	Sleeve size	ER16	ER20
	Max. drilling capacity (I.D. tools)	Ø 8 mm 0.31"	Ø 13 mm 0.51"



GOODWAYCNC.com

GOODWAY MACHINE CORP.

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