

EX-2000 Series

EX-2000MT / EX-2000MS / EX-2000YT / EX-2000YS

CNC Turning Center

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EX-2000 series

EX-2000 series is TAIWAN TAKISAWA new generation of high rigidity and high precision turning center capable of handling varieties of parts.

The space-saving design, and faster traverse rate to achieving high productivity. The box-type flat bed with oil cooling maintains accuracy stability.

All models equipped with milling turret. Y axis, tailstock or sub-spindle are available. A variety of high precision accessories and parts loader/unloader for automation.



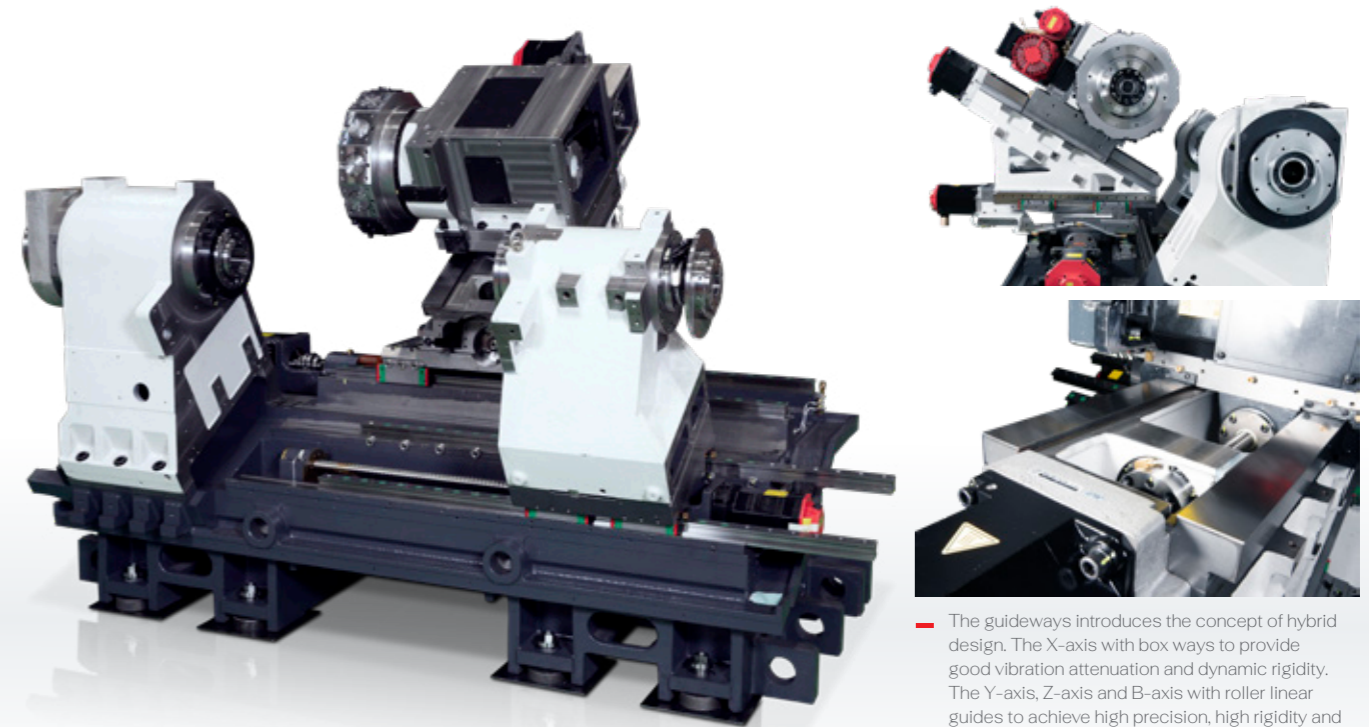
01 Specification Options

	EX-2000MT	EX-2000MS	EX-2000YT	EX-2000YS
Built-In Motor Spindle	●	●	●	●
Left C Axis	●	●	●	●
Right C Axis	-	●	-	●
T12 Milling Turret	●	●	●	●
Y-Axis	-	-	●	●
Servo Tailstock	●	-	●	-
Hydraulic Tailstock	○	-	○	-

● Standard ○ Optional - Nope

02 Workpiece Size

	EX-2000MT	EX-2000MS	EX-2000YT	EX-2000YS	
Max. Turning Diameter	390	390	390	390	mm
Max. Turning Length	510.5	510.5	510.5	510.5	mm
Max. Bar Work Capacity Diameter	65	65	65	65	mm



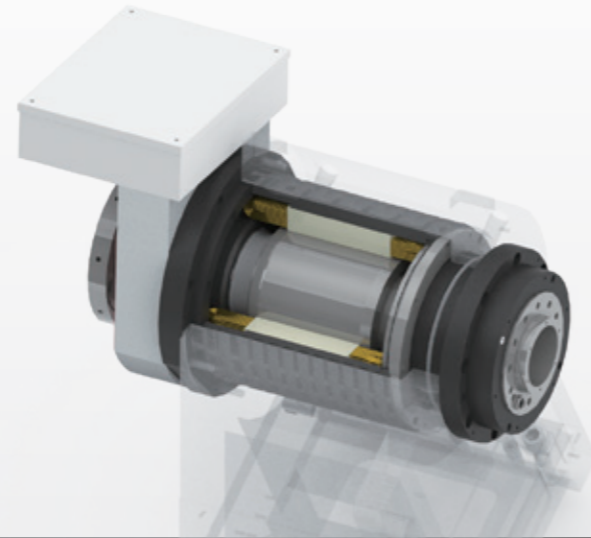
The guideways introduces the concept of hybrid design. The X-axis with box ways to provide good vibration attenuation and dynamic rigidity. The Y-axis, Z-axis and B-axis with roller linear guides to achieve high precision, high rigidity and high speed.

03 Travel & Rapid Traverse

	EX-2000MT	EX-2000MS	EX-2000YT	EX-2000YS	
X-Axis Travel	250	250	250	250	mm
X-Axis Rapid Traverse	30	30	30	30	m / min
Z-Axis Travel	590	590	590	590	mm
Z-Axis Rapid Traverse	36	36	36	36	m / min
Y-Axis Travel	-	-	± 50	± 50	mm
Y-Axis Rapid Traverse	-	-	10	10	m / min
B-Axis Travel	570	570	570	570	mm
B-Axis Rapid Traverse	36	36	36	36	m / min

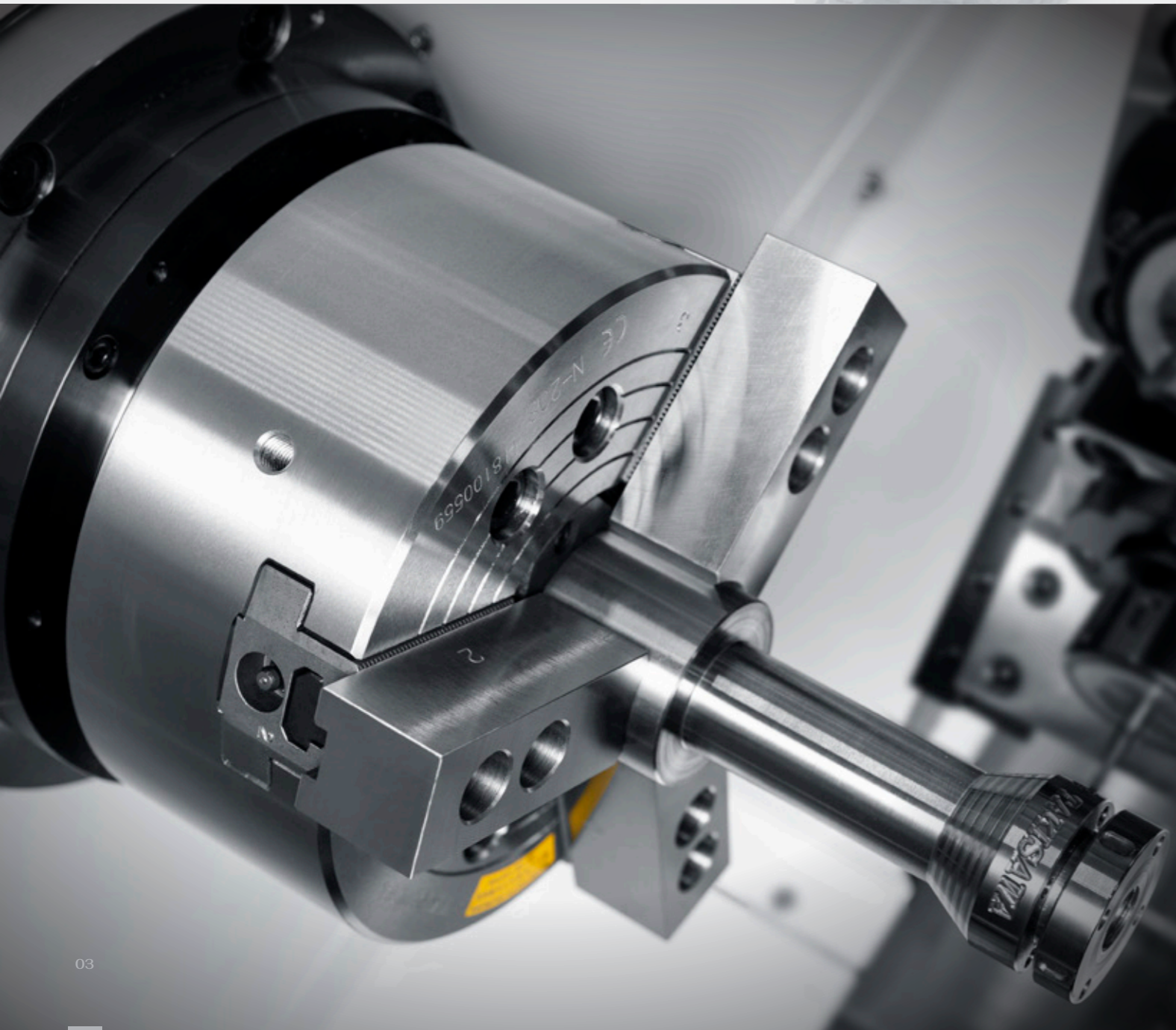
Spindle

The left and right spindles are equipped with built-in motors for high precision, low vibration and low noise, which provide better surface roughness of the workpiece.

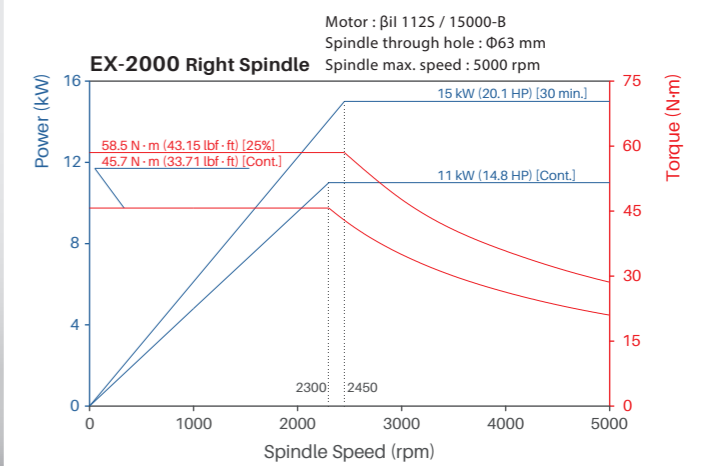
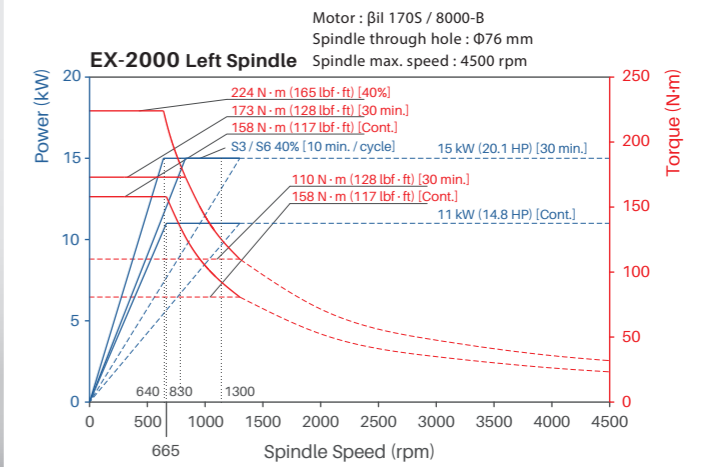
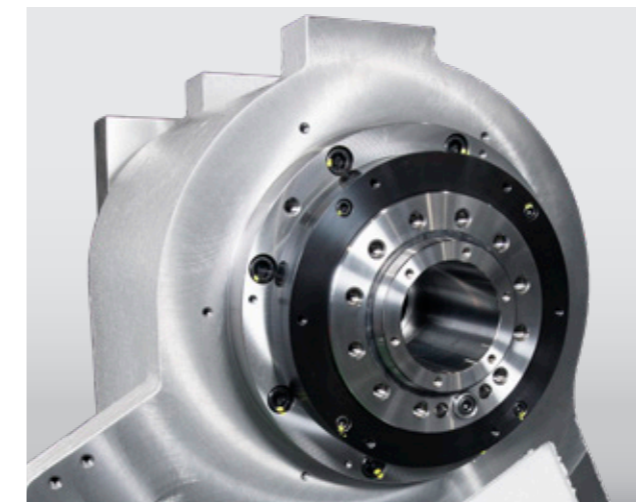


	Left Spindle	Right Spindle*	
Spindle Nose	A2-6	A2-5	
Spindle Speed	4500	5000	rpm
Through Hole Diameter	76	61	mm
Bearing Inside Diameter	110	80	mm
Motor Output	15 / 11	15 / 11	kW
Max. Torque	224	58.5	N·m
Standard Chuck Size	8	6	inch

*For EX-2000MS / EX-2000YS Only

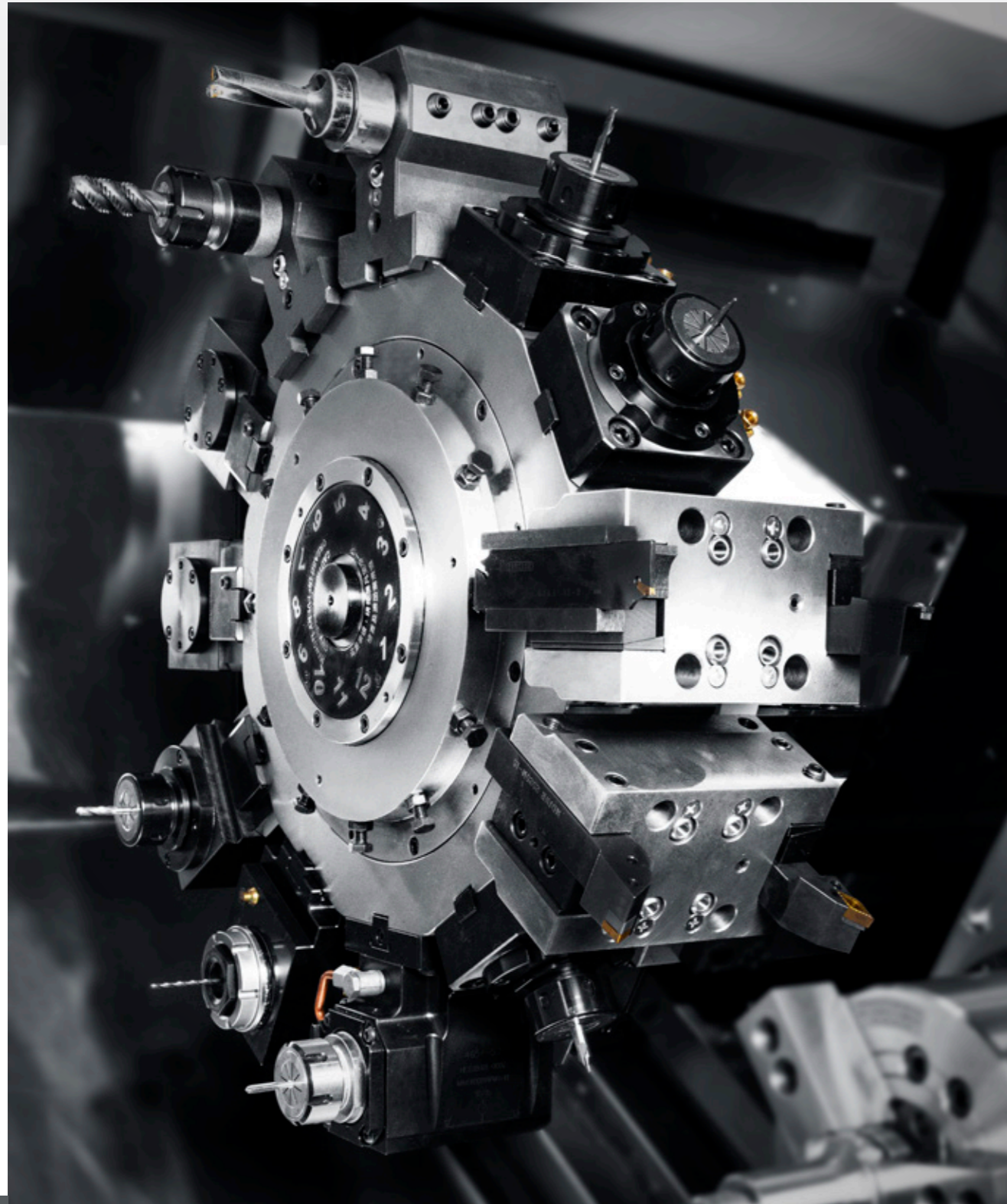


Spindle Output Diagram



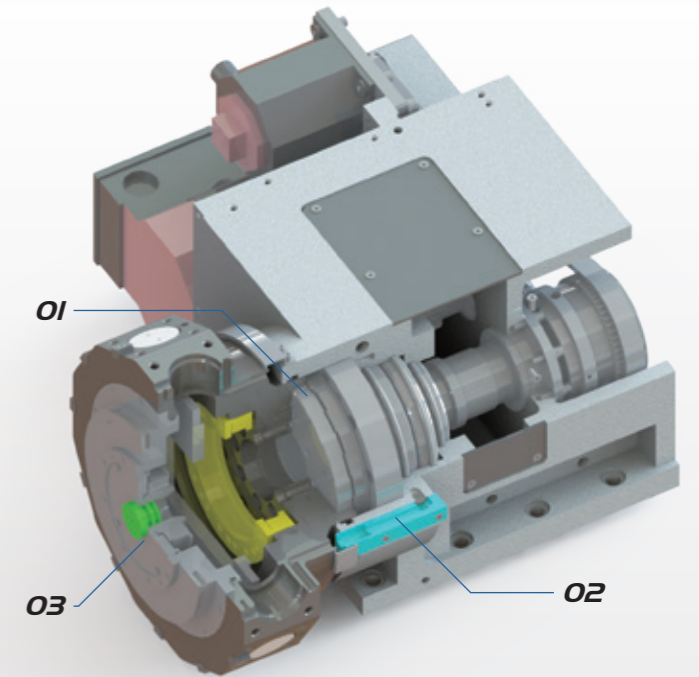
Turret

Equipped with a T12 power turret. It can handle combined machining such as milling, drilling and tapping. Inside the turret, the large diameter of coupling gear set with curvic tooth profile provides high rigidity and high accuracy.



Turret Structure

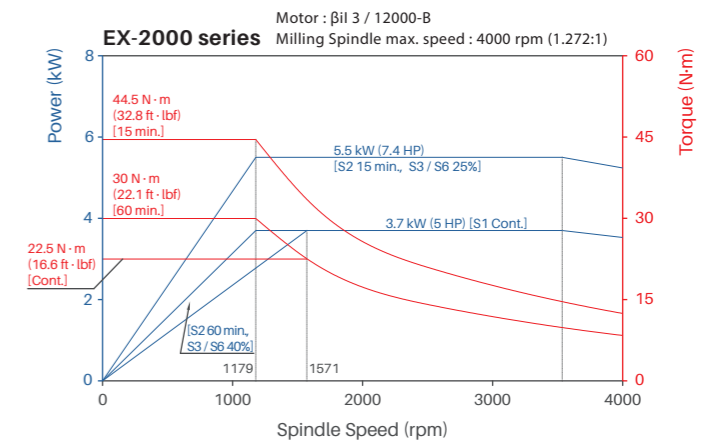
- 01** Curvic coupling O.D. 280 mm performs high rigidity and accuracy
- 02** Ready for 70 bar hi-pressure coolant
- 03** Easy to grease up



T12 Turret

Number of Tools	12
OD Tool Shank Dimension	25 mm
ID Tool Shank Diameter	40 mm
Milling Shank Diameter	20 mm
Milling Spindle Speed	4000 rpm
Motor Output	5.5 / 3.7 Kw
Max. Torque	44.5 N.m

Spindle Output Diagram



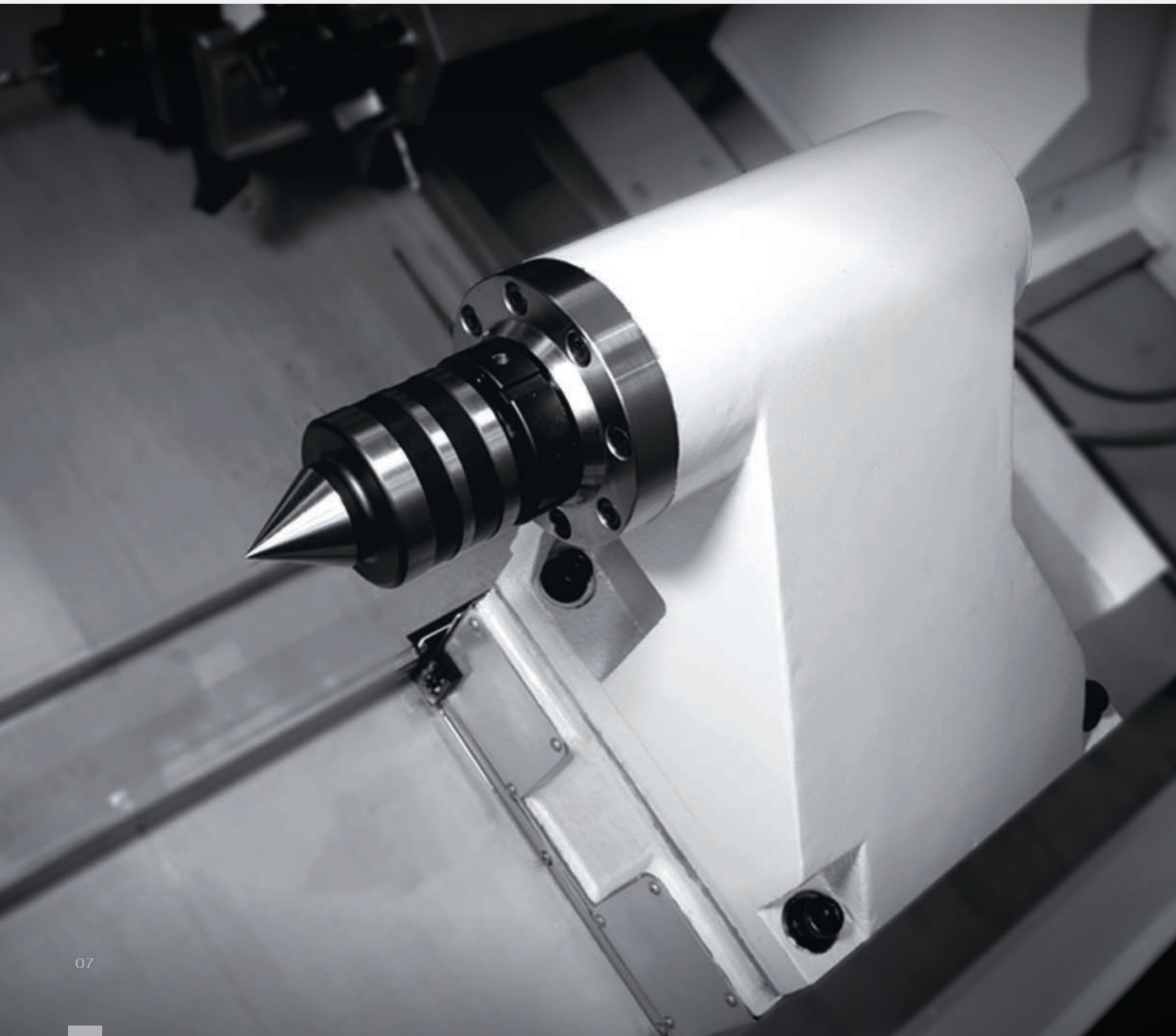
Special Tool Holders

- 01** Gear Hobbing
- 02** Broaching
- 03** Power Skiving
- 04** Adjustable Angle Milling



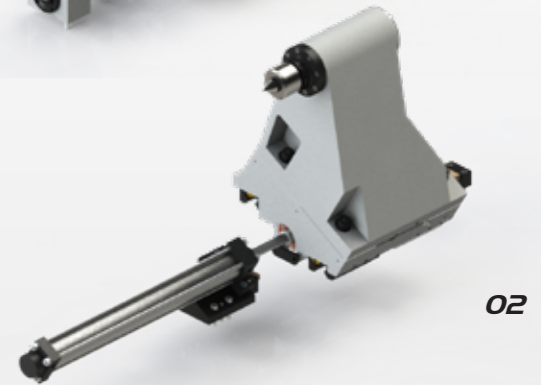
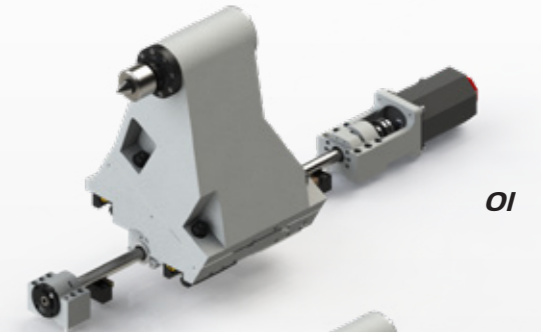
Tailstock

The EX-2000MT and EX-2000YT are equipped with a servo tailstock. The tailstock is driven by a servo motor, which has the advantages of easy operation and fast movement. The movement speed is up to 36 meters per minute. Under heavy load conditions, the rotary spindle tailstock with a fixed centre can be selected.



01 Servo Tailstock (Standard)

Tapered Bore Type	MT.5	
Tailstock Thrust	1 ~ 4	kN
Travel	570	mm
Rapid Traverse	36	m / mm
Approach	8 ~ 20	m / mm
Retract	36	m / mm



02 Hydraulic Tailstock (Option)

Tapered Bore Type	MT.5	
Tailstock Thrust	1 ~ 7.8	kN
Travel	570	mm

01 Tailstock with Rotary Spindle

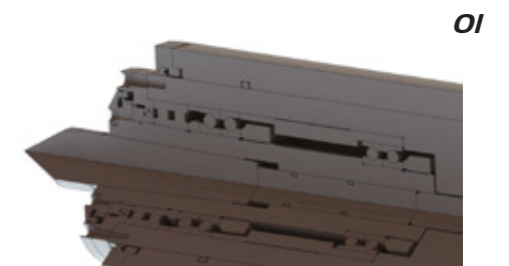
Recommended for heavy-duty use.

02 Chip Conveyor Type

Depending on the part material and chip size, the hinge type or scraper type can be selected.

03 Chip Conveyor Configuration

Optional right disposal type or rear disposal type .



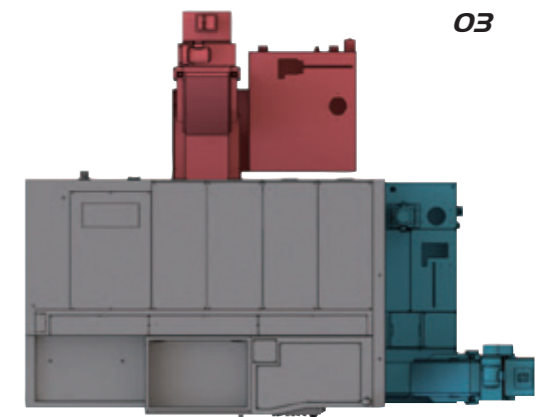
Hinge Type
Chip Conveyor

Scraper Type
Chip Conveyor

02

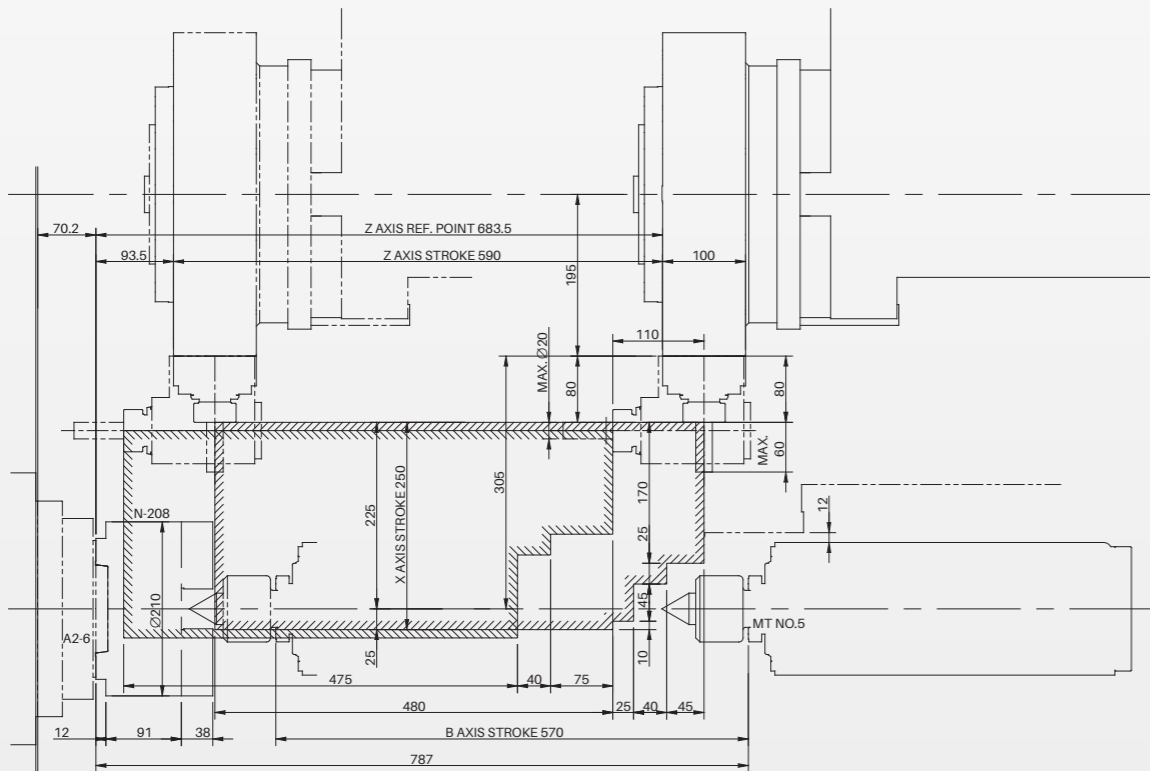
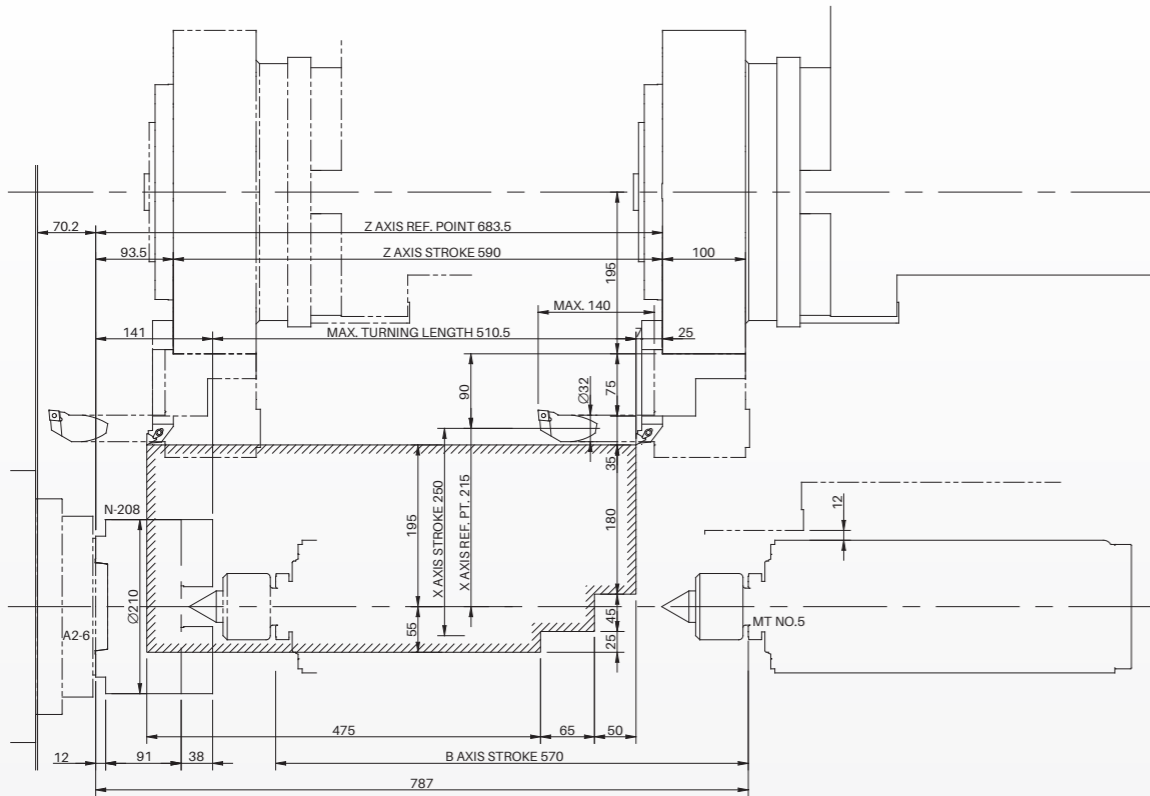


Chip Type	Curly Metallic Chip Steel / Aluminum	Power Metallic Chip Foundry / Aluminum / Brass	Non-Metallic
Hinge Type	○	×	○
Scraper Type	×	○	×

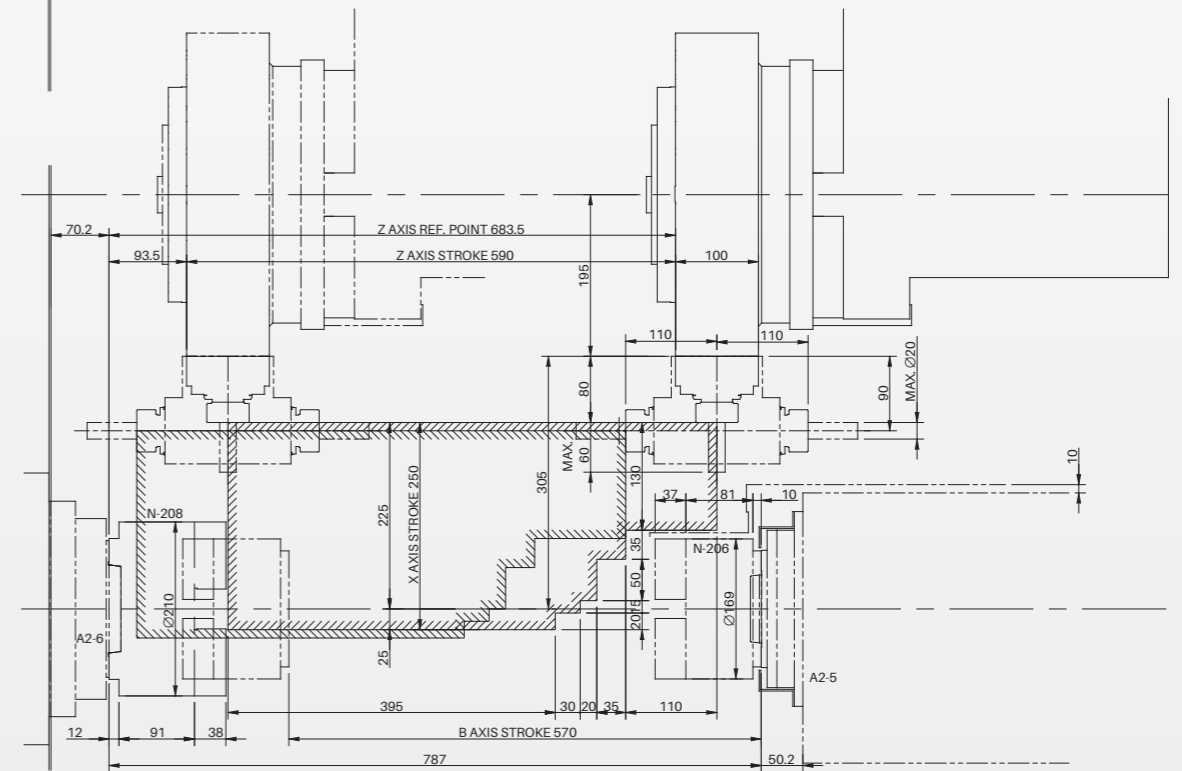
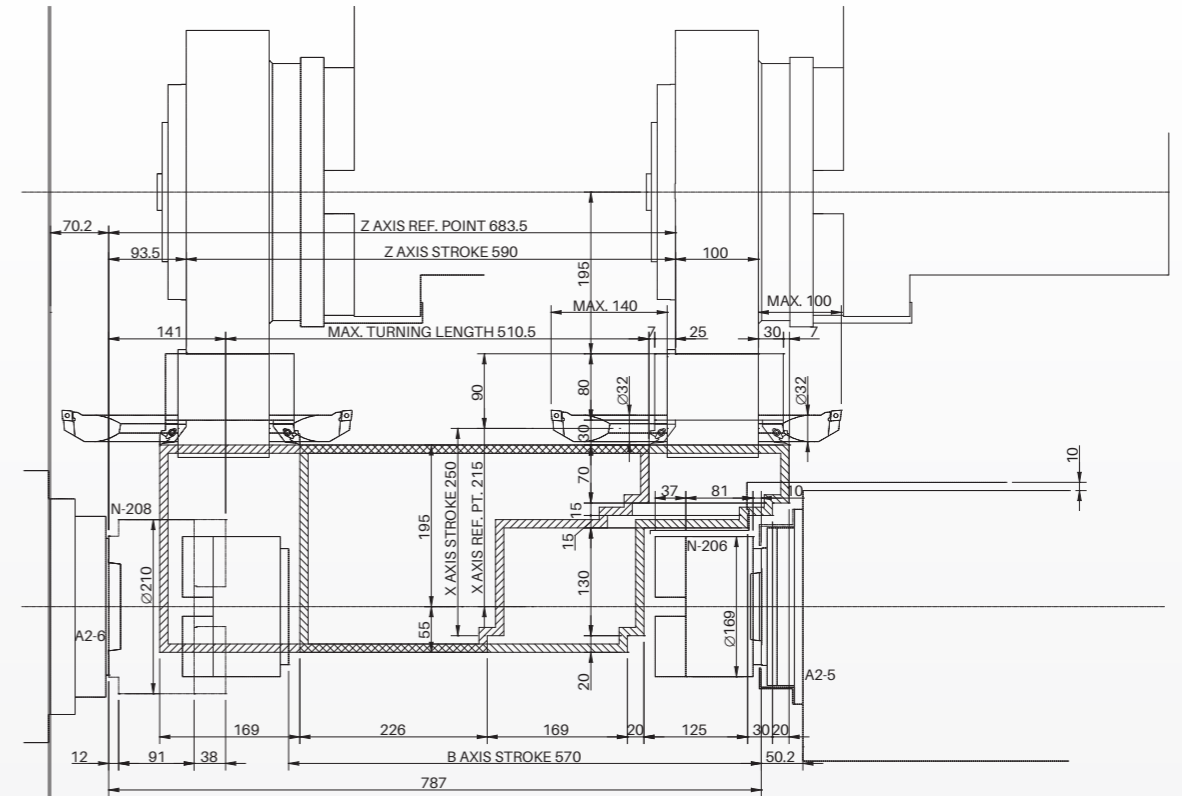


Travel Range

EX-2000MT / EX-2000YT

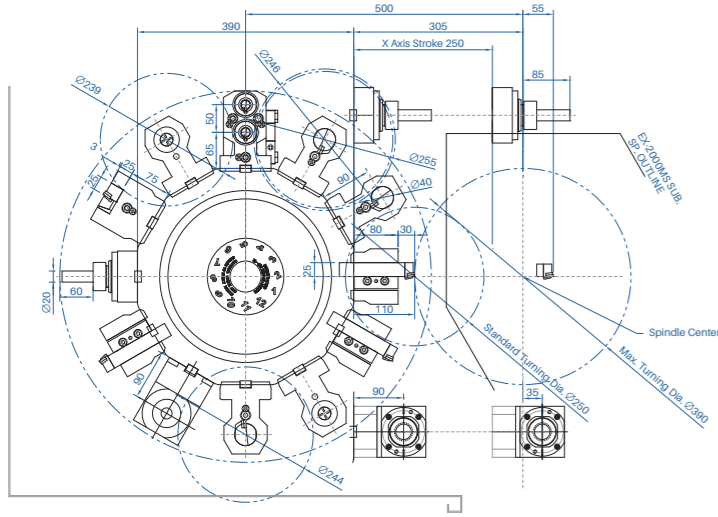


EX-2000MS / EX-2000YS

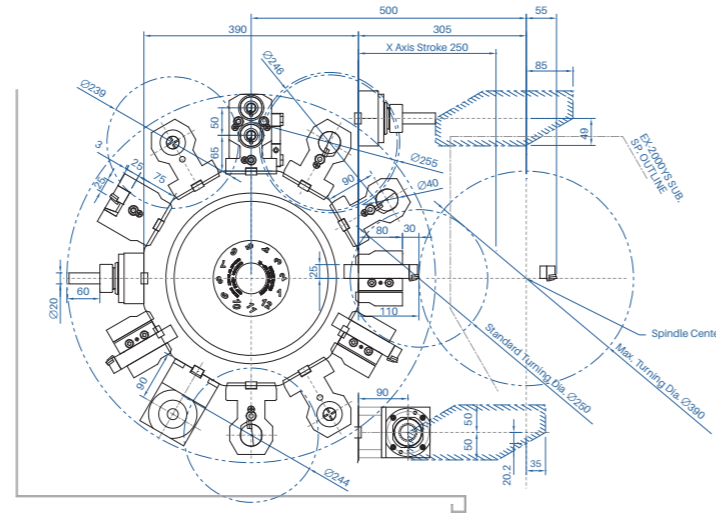


Interference

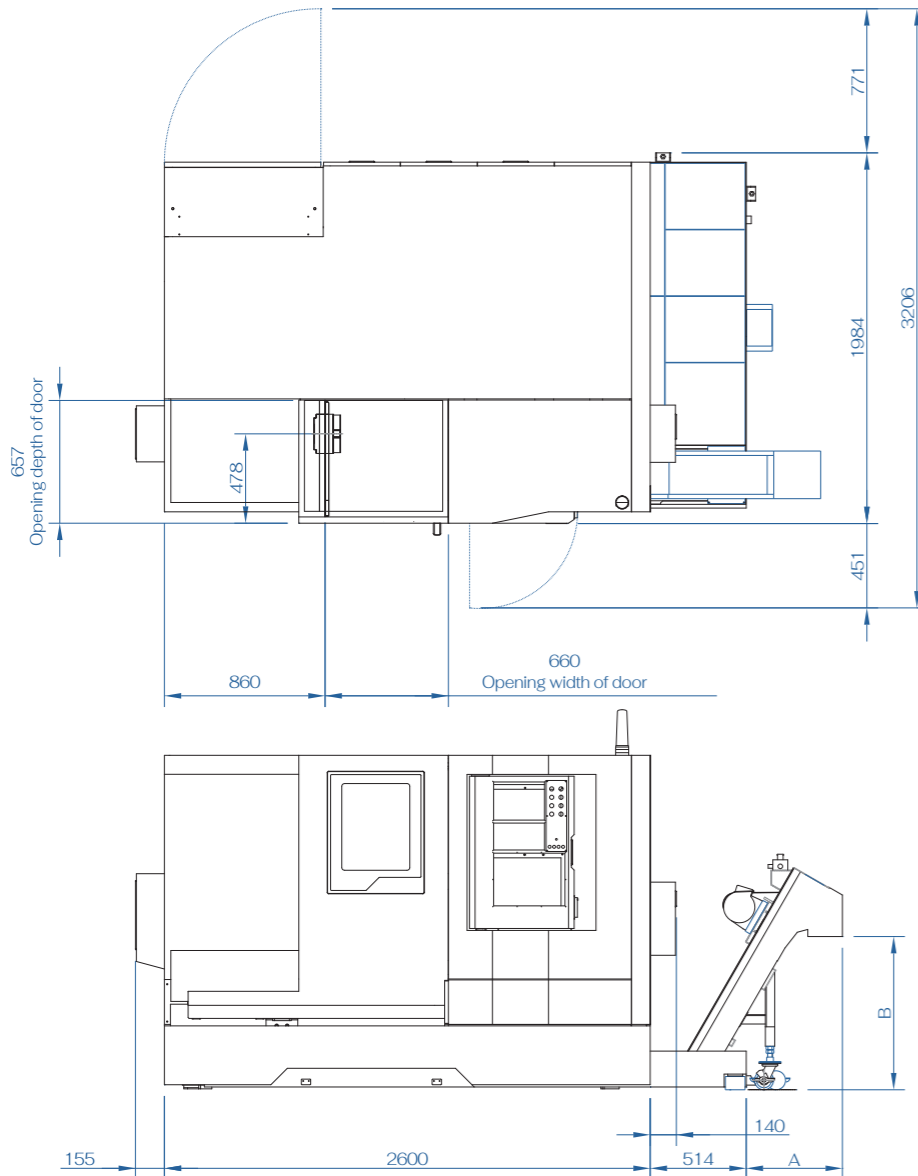
EX-2000MT / EX-2000MS



EX-2000YT / EX-2000YS

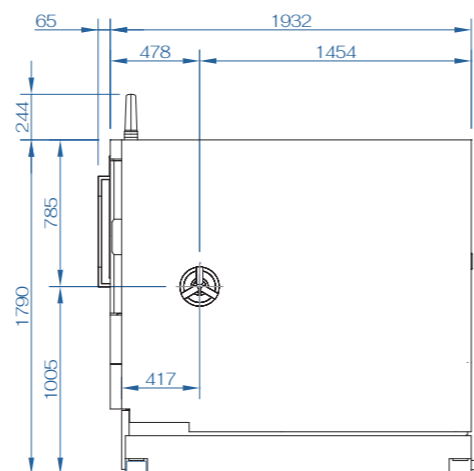


Machine Dimensions



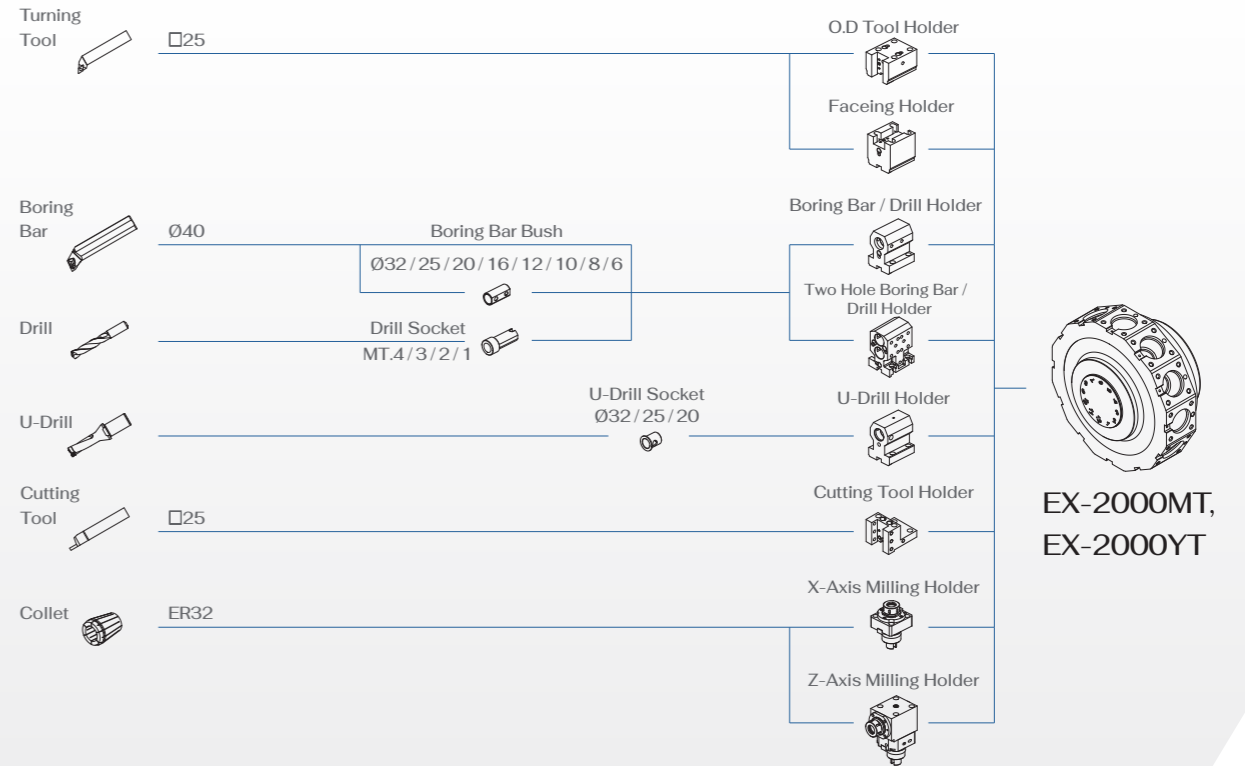
Chip Conveyor Dimension

	A	B
Standard	553	820
CE	553	820
Italy	578	1043
Switzerland	578	1123



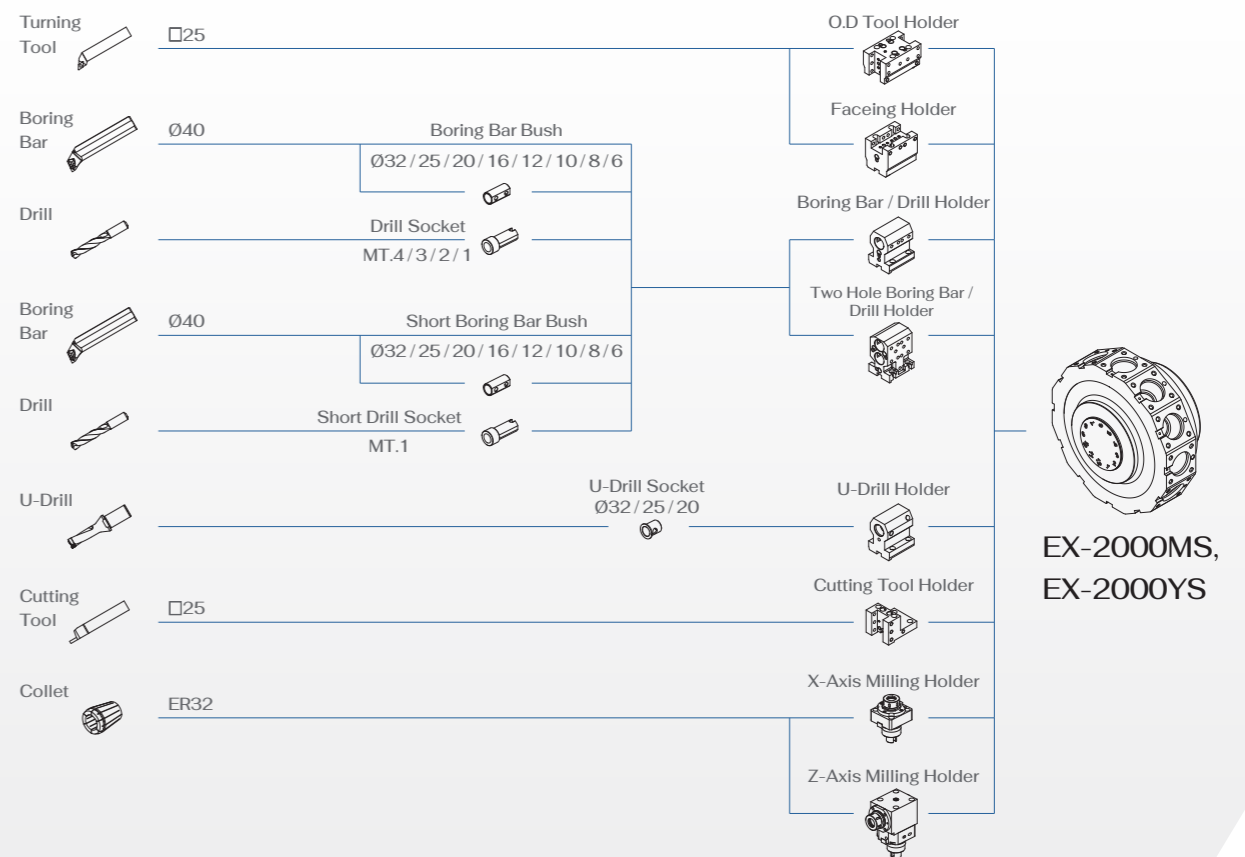
Tooling System

EX-2000MT / EX-2000YT



EX-2000MT,
EX-2000YT

EX-2000MS / EX-2000YS



EX-2000MS,
EX-2000YS

Machine Specifications

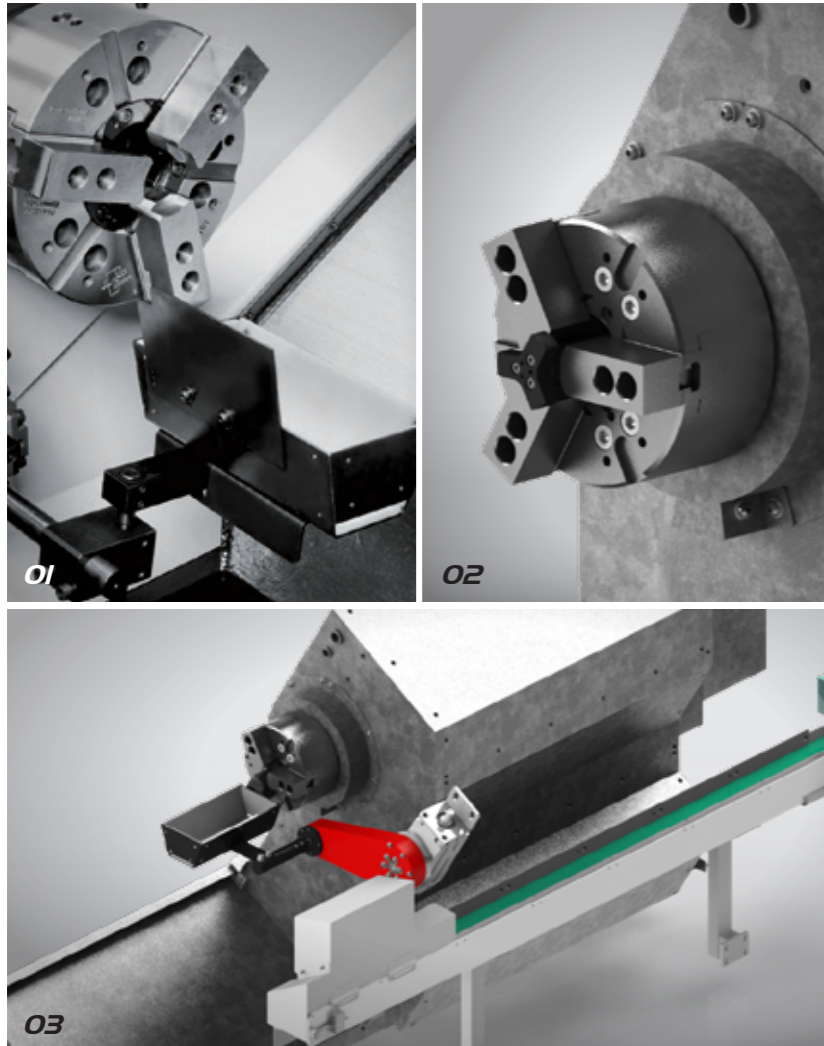
Item		EX-2000				
		MT	MS	YT	YS	
Capacity	Max. Swing	mm	800	800	800	800
	Standard Turning Diameter	mm	250	250	250	250
	Max. Turning Diameter	mm	390	390	390	390
	Max. Turning Length	mm	510.5	510.5	510.5	510.5
	Max. Bar Work Capacity	mm	65	65 / 52	65	65 / 52
	Dist. Between Centers	mm	-	787	-	787
Travel	X-Axis Travel	mm	250	250	250	250
	Z-Axis Travel	mm	590	590	590	590
	Y-Axis Travel	mm	-	-	± 50	± 50
	B-Axis Travel	mm	570	570	570	570
Left Spindle	Spindle Speed	rpm	4500	4500	4500	4500
	Spindle Nose		A2-6	A2-6	A2-6	A2-6
	Through Hole Dia.	mm	76	76	76	76
	Bearing Diameter	mm	110	110	110	110
Right Spindle	Spindle Speed	rpm	-	5000	-	5000
	Spindle Nose		-	A2-5	-	A2-5
	Through Hole Dia.	mm	-	61	-	61
	Bearing Diameter	mm	-	80	-	80
Turret	Number of Tools		T12	T12	T12	T12
	OD Tool Shank Dim.		25	25	25	25
	ID Tool Shank Dia.	mm	40	40	40	40
	Milling Shank Dia.	mm	20	20	20	20
	Spindle Speed		4000	4000	4000	4000
Tailstock	Tailstock Type		Regular Ctr.	-	Regular Ctr.	-
			Rolling Ctr.	-	Rolling Ctr.	-
Feedrate	Tapered Bore Type		MT.5	-	MT.5	-
	X-Axis Rapid Traverse	m/min	30	30	30	30
	Z-Axis Rapid Traverse	m/min	36	36	36	36
	Y-Axis Rapid Traverse	m/min	-	-	10	10
Motor	B-Axis Rapid Traverse	m/min	36	36	36	36
	Left Spindle Motor	kW	15 / 11	15 / 11	15 / 11	15 / 11
	Right Spindle Motor	kW	-	15 / 11	-	15 / 11
	Milling Spindle Motor	kW	5.5 / 3.7	5.5 / 3.7	5.5 / 3.7	5.5 / 3.7
	Index Motor	kW	1.2	1.2	1.2	1.2
	X-Axis Servo Motor	kW	3	3	3	3
	Z-Axis Servo Motor	kW	3	3	3	3
	Y-Axis Servo Motor	kW	-	-	1.4	1.4
B-Axis Servo Motor	kW	1.8	1.8	1.8	1.8	
Machine Size	Height	mm	1795	1790	1790	1790
	Width	mm	2600	2600	2600	2600
	Depth	mm	1932	1932	1932	1932
	Weight	kg	4000	4200	4400	4600

Standard and Optional Accessories

Accessories	EX-2000			
	MT	MS	YT	YS
Built-In Motor Left Spindle	●	●	●	●
Built-In Motor Right Spindle	-	●	-	●
Servo Tailstock with Regular Center	●	-	●	-
Servo Tailstock with Rolling Center	◎	-	◎	-
Hydraulic Tailstock with Regular Center	◎	-	◎	-
Hydraulic Tailstock with Rolling Center	◎	-	◎	-
O.D Tool Holder	●	●	●	●
Face Tool Holder	●	●	●	●
U-Drill Tool Holder	●	●	●	●
Boring Bar Tool Holder	●	●	●	●
Boring Bar Bush (Ø6 / Ø8 / Ø10 / Ø12)	●	●	●	●
Boring Bar Bush (Ø16 / Ø20 / Ø25 / Ø32)	●	●	●	●
Boring Bar Bush (Ø40)	●	●	●	●
U-Drill Bush (Ø16 / Ø20 / Ø25 / Ø32)	●	●	●	●
Drill Bush (MT.1 / MT.2 / MT.3 / MT.4)	◎	◎	◎	◎
X-Axis Milling Holder	●	●	●	●
Z-Axis Milling Holder	●	●	●	●
Automatic Tool Setter	◎	◎	◎	◎
Manual Tool Setter	◎	◎	◎	◎
Linear Scales	◎	◎	◎	◎
Coolant Pump (450W)	●	●	●	●
Coolant Pump (715W / 750W / 900W / 1400W)	◎	◎	◎	◎
Coolant Chiller	◎	◎	◎	◎
Nut Cooling Ball Screw	◎	◎	◎	◎
Hydraulic System	●	●	●	●
Hydraulic Oil Cooling	◎	◎	◎	◎
Hydraulic Pressure Sensor	●	●	●	●
Lubrication System	●	●	●	●
Hydraulic Chuck	●	●	●	●
Collet Chuck	◎	◎	◎	◎
Foot Switch	●	●	●	●
LED Interior Light	●	●	●	●
LED TAKISAWA Light	●	●	●	●
LED Signal Tower	●	●	●	●
Chip Cart	●	●	●	●
Right Side Chip Conveyor	◎	◎	◎	◎
Rear Side Chip Conveyor	◎	◎	◎	◎
Parts Catcher	◎	◎	◎	◎
Parts Conveyor	◎	◎	◎	◎
Automatic Bar Feeder and Interface	◎	◎	◎	◎
Auto Door	◎	◎	◎	◎
Safety Door Switch	◎	◎	◎	◎
Safety Light Curtain	◎	◎	◎	◎
Air Blow	◎	◎	◎	◎
Oil Skimmer	◎	◎	◎	◎
Oil Mist Collector	◎	◎	◎	◎
Parts Counter	◎	◎	◎	◎
Automatic Power-Off	◎	◎	◎	◎

● Standard ◎ Optional - Nope

Special Specification Example



01 Left Spindle Parts Catcher

Max. Parts Dia.	65	mm
Max. Parts Length	200	mm
Max. Parts Weight	3	kg

02 Parts Pusher

Pusher Stroke	95	mm
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03 Right Spindle Parts Catcher

Max. Parts Dia.	65	mm
Max. Parts Length	200	mm
Max. Parts Weight	3	kg

Highly Accurate Optional Equipment

There are special requirements for precise machining accuracy and it is necessary to use approved high-precision optional equipment.

Please contact us for advice on these options.

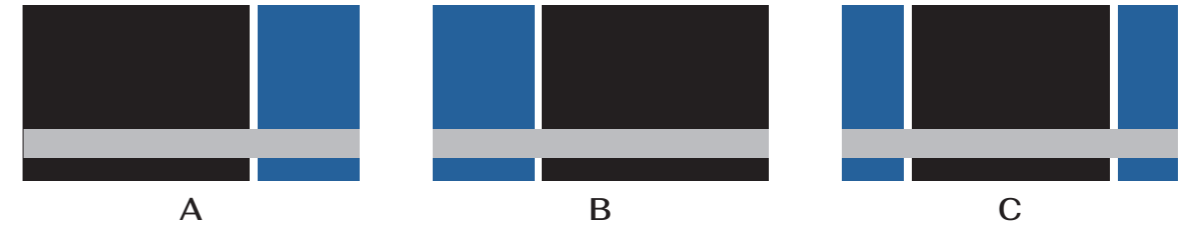
- 01 Linear Scales
- 02 Automatic I Manual Tool Setter
- 03 Nut Cooling Ball Screw
- 04 Cutting Fluid Cooling
- 05 High Pressure Coolant
- 06 Hydraulic Oil Cooling



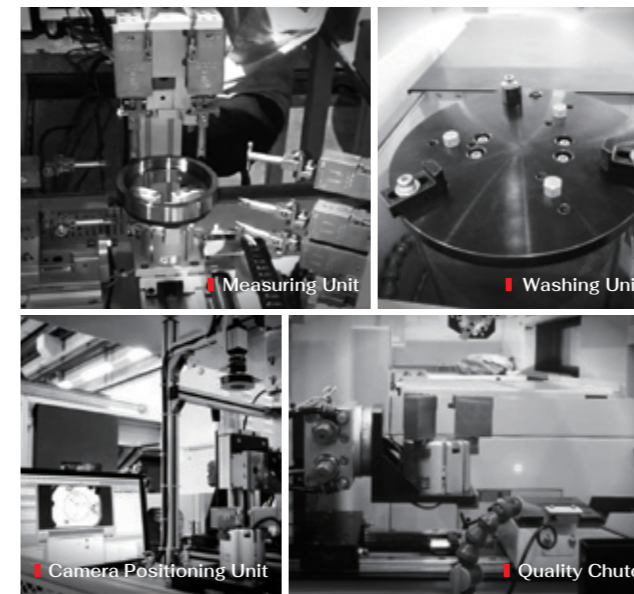
Gantry Loader

High Speed Gantry Loader

- Lathe
- Gantry Loader
- Workpiece Feeder



Peripheral Equipment



Gantry Loader Specifications

Gantry Loader Specifications		
X-Axis	180	m / min
Z-Axis	150	m / min
Working Size		
O.D	160	mm
Length	100	mm
Weight	3 (x2)	kg

Work Feeder Specifications

Pallet	16	pcs
Loading Weight	40	kg
Max. Height	450	mm
Worker Feeder Width	610	mm

Turn-Key Solution



