

SL 2000/2500SY Series

Y-AXIS BOX GUIDE TYPE
HORIZONTAL TURNING CENTER



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SL 2000/2500SY Series

- SL 2000Y
- SL 2000SY
- SL 2500Y
- SL 2500SY
- SL 2500LY
- SL 2500LSY



SL 2000SY Series

SL 2000Y/SY

SL 2500SY Series

SL 2500Y/SY/LY/LSY

Heavy duty, high productivity Y-axis Box Guide type turning center

- Super stable low-center of gravity 30o slant bed with maximized work area
- Significantly reduced non-cutting time for high efficiency machining
- Servo turret to enhance high-speed performance
- Low center of gravity design minimizing vibration and thermal growth for high precision turning

[] : Option

Category	SL 2000AY ASY	SL 2000BY BSY	SL 2500AY ASY	SL 2500BY BSY	SL 2500ALY ALSY	SL 2500BLY BLSY
Swing over bed	mm 650	650	650	650	650	650
Max turning length	mm 490	450	490	476	1,284	1,271
Chuck size (Main/Sub)	inch 6"/- 6"/6"	8"/- 8"/6"	8"/- 8"/6"	10"/- 10"/6[8]"	8"/- 8"/6"	10"/- 10"/6[8]"
Spindle bore (Main/Sub)	mm 61/-	76/-	78/- 78/45	86/- 86/45[61]	78/- 78/45	86/- 86/45[61]
Spindle speed (Main)	rpm 6,000	4,500	4,500	3,500	4,500	3,500
Spindle speed (Sub)	rpm - 6,000	- 6,000	- 6,000	- 6,000[4,000]	- 6,000	- 6,000[4,000]
Main Motor (cont./max)	kW 11/18.5	11/18.5	11/18.5	18.5/26	11/18.5	18.5/26
Sub-spindle Motor (cont./max)	kW - 5.5/7.5	- 5.5/7.5	- 5.5/7.5	- 5.5/7.5[11/15]	- 5.5/7.5	- 5.5/7.5[11/15]
Travels X	mm 235	235	235	235	235	235
Travels Y	mm 105(±52.5)	105(±52.5)	100(±50)	100(±50)	100(±50)	100(±50)
Travels Z	mm 580	580	580	580	1,375	1,375
Travels ZB	mm 580	580	580	580	1,388	1,346
No of tool positions	EA 12[24] (BMT55)	12[24] (BMT55)	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)

Extensive turning capacity lineup

- Extensive turning capacity lineup to meet customer needs
- Main chuck : 6~10", Sub chuck : 6~8" available
- Turning length : 450~1,280mm available

Wedge type Y-axis with
Superb Cutting Performance

- Side milling, off-center drilling
- Wider off-center work range
- Complex shape machining with a single setup

High rigidity, fast response
sub spindle and servo tailstock

- Servo tailstock or built-in type sub-spindle available
- Spindle oil cooling standard for sub-spindle
- NC controlled servo-tailstock allows for high speed, high precision machining

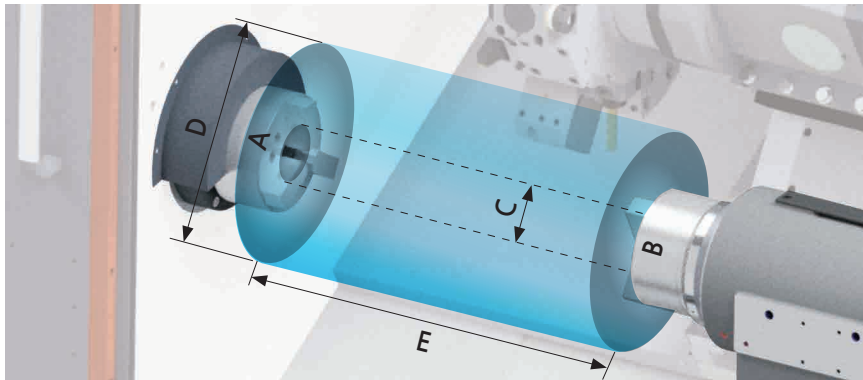
User-centric options
and convenience features

- 15" large-screen LCD standard
- SMEC HMI and Manual Guide i standard

SL 2000/2500SY Series
Y-AXIS HORIZONTAL TURNING CENTER

Extensive turning capacity lineup

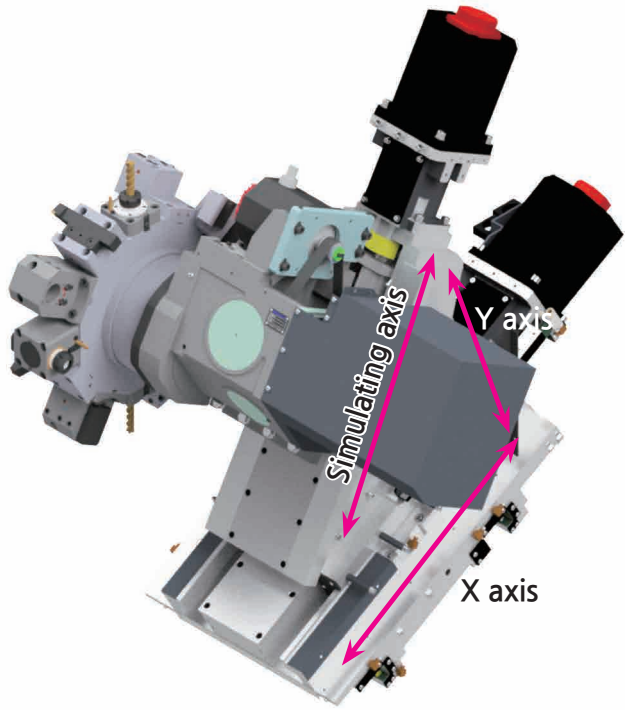
Offers an extensive turning capacity lineup with increased productivity and superb cost- effective performance for customer satisfaction



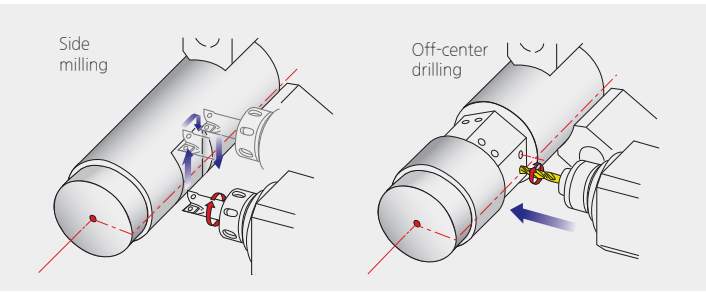
The SL 2000/2500 SY Series offers an **extensive lineup** with various **chuck sizes, turning lengths** and the addition of a **sub-spindle**.

- A(Main chuck size) : 6", 8", 10"
- B(Sub chuck size) : 6", 8"
- C(Working bar diameter) : $\varnothing 51 \sim \varnothing 76$ mm
- D(Max turning diameter) : $\varnothing 360 \sim \varnothing 395$ mm
- E(Max turning length) : 450~1,280mm

Wedge type Y-axis with superb cutting performance



- Side milling, off-center drilling
- Wider off-center work range
- Complex shape machining with a single setup



Category	Unit	SL 2000Y/SY	SL 2500Y/SY/LY/LSY
No. of tool positions	ea	12(24)	12(24)
Turret type		BMT55	BMT65
SHANK & BORING BAR SIZE	mm	$\square 25 \times 25, \varnothing 40$	$\square 25 \times 25, \varnothing 50$
Turret indexing time (1 station / full turn)	sec	0.15/1	0.15/1
Rotary tool speed	rpm	5,000	5,000
Rotary tool motor power (cont/max)	kW	3.7/5.5	3.7/5.5
Rotary tool torque (cont/max)	N.m	17.64/48.02	35.28/95.06

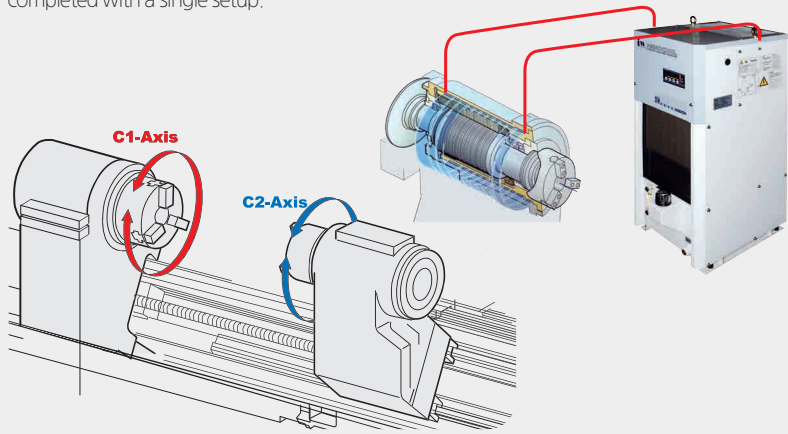
High precision, fast response sub-spindle and servo tailstock

Synchronized C1 and C2-axis indexing

Synchronization of the main spindle (C1) and sub-spindle (C2) indexing allows for machining of a variety of complex shapes. All processes from simple turning and milling to multi-axis simultaneous machining can be completed with a single setup.

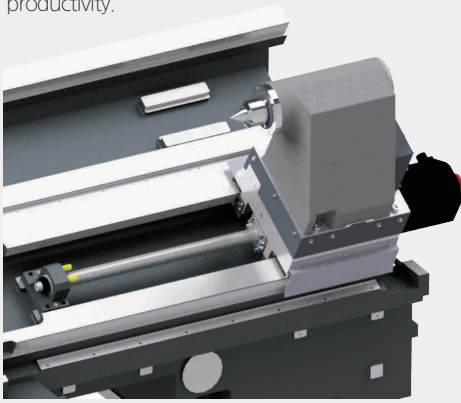
Sub-spindle oil cooling unit

The sub-spindle is wrapped by an oil jacket cooling system to minimize thermal growth and to ensure high speed, high-accuracy machining through various machining conditions.

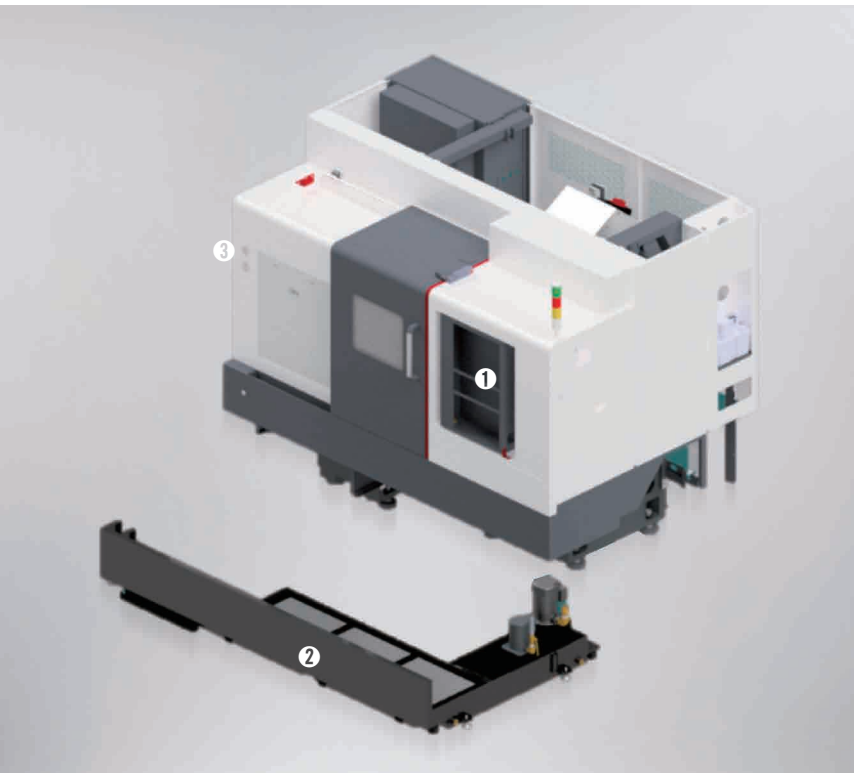


Servo (NC controlled) Tailstock

The servo tailstock supports high-speed, high precision machining where the thrust force is NC controlled. The quill thrust force may be adjusted in accord with the workpiece's length and diameter, reducing the cycle time and increasing the productivity.



User-centric options and convenience features



1 User-centric Large 15" OP Panel

The QWERTY-type keyboard and high visibility buttons and effective button placement enhances ease of use

2 Easy coolant tank maintenance

When cleaning the coolant tank, the coolant tank may be removed while leaving the chip conveyor attached to the machine, making it easier to clean and maintain

3 Easy hydraulic valve adjustment

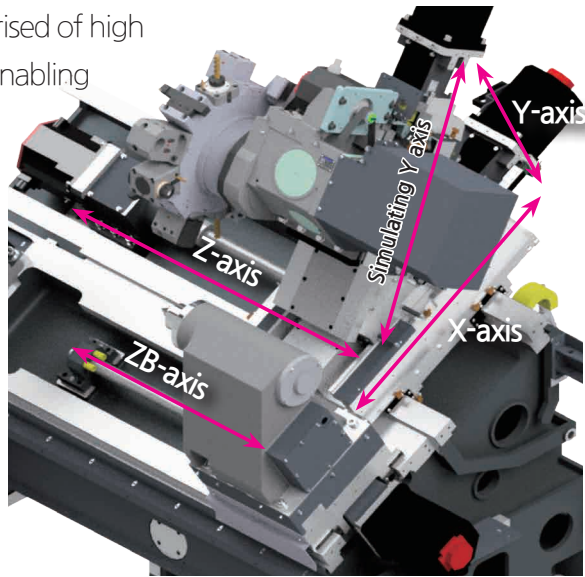
The gauge and hydraulic valves are located at a height that make it easy for the operator to adjust

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

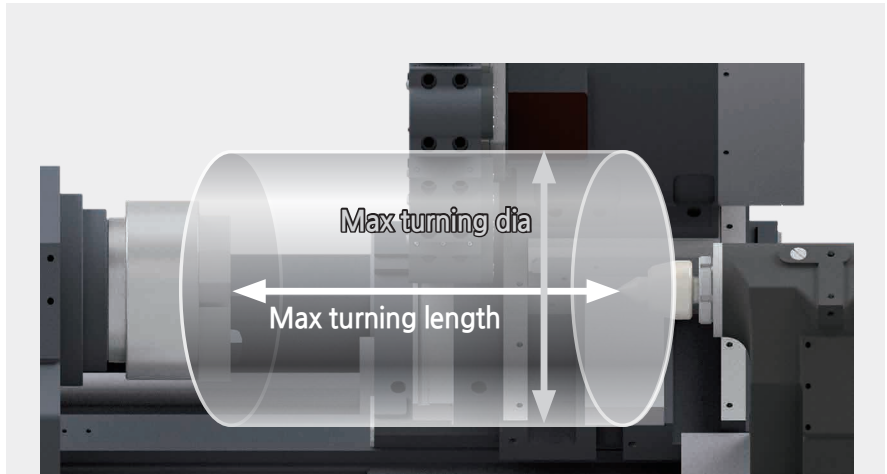
Machine Design

All travel axes are comprised of high rigidity box guideways enabling heavy duty cutting and superb productivity



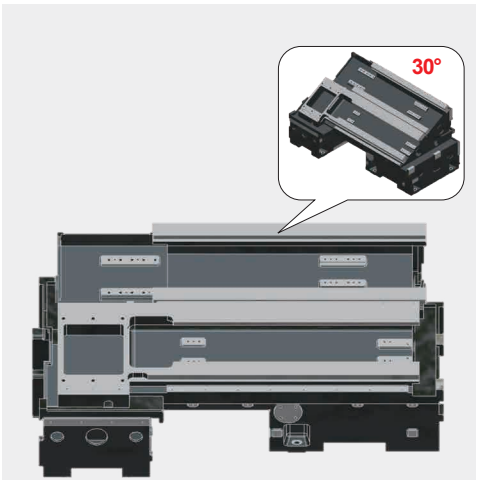
Model	Main/sub chuck size (inch)	Travel (mm)			
		X-axis	Y-axis	Z-axis	ZB-axis
SL 2000AY ASY	6/- 6/6	235	105(±55)	580	580
SL 2000BY BSY	8/- 8/6	235	105(±55)	580	580
SL 2500AY ASY	8/- 8/6	235	100(±55)	580	580
SL 2500BY BSY	10/- 10/6	235	100(±55)	580	565
SL 2500ALY ALSY	8/- 8/6	235	100(±55)	1,375	1,388
SL 2500BLY BLSY	10/- 10/6	235	100(±55)	1,375	1,346

Work Range



Unit : mm

Model	SL 2000 AY/ASY	SL 2000 BY/BSY	SL 2500 AY/ASY	SL 2500 BY/BSY	SL 2500 AY/ALSY	SL 2500 BY/BLSY
Max turning dia	Ø395	Ø395	Ø360	Ø360	Ø360	Ø360
Max turning length	490	450	490	476	1,280	1,265



30° slant bed provides excellent stability during heavy duty cutting

The 30° slant bed with high-torque tubing and ribbed structure provides superb rigidity against twisting and bending, dampening vibration during heavy duty cutting for high precision machining
The use of a slant bed allows for easier access to the workpiece and excellent chip discharge

Providing a large work envelope, ensuring cost effective productivity

SL 2000SY Series(A, B type)
Max turning dia
Ø395mm

SL 2500SY Series(A, B type)
Max turning dia
Ø360mm

Spindle



The high power motor allows both high precision and high torque machining, improving operator productivity.

SL 2000AY/ASY

Max spindle speed (Main) Power (cont/Max.)
6,000rpm 11/18.5kW
Torque (cont/Max.)
69.58/156.8N·m

SL 2000BY/BSY

Max spindle speed (Main) Power(cont/Max.)
4,500rpm 11/18.5kW
Torque (cont/Max.)
84.45/208.74N·m

SL 2500AY/ASY/ALY/ALSY

Max spindle speed (Main) Power (cont/Max.)
4,500rpm 11/18.5kW
Torque (cont/Max.)
186.2/313.1N·m

SL 2500BY/BSY/BLY/BLSY

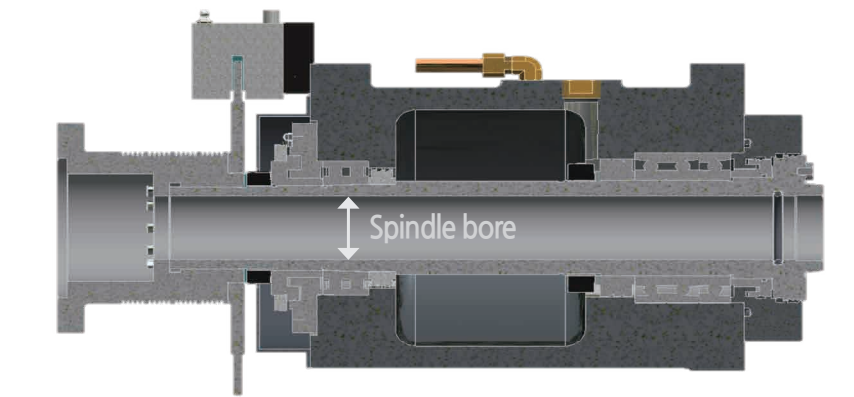
Max spindle speed (Main) Power (cont/Max.)
3,500rpm 16.5/26kW
Torque (cont/Max.)
522.3/734.1N·m

SL 2000SY_6" SUB Spindle

Max spindle speed (Main) Power (cont/Max.)
6,000rpm 5.5/7.5kW
Torque (cont/Max.)
40.18/51.94N·m

SL 2500SY_8" SUB Spindle

Max spindle speed (Main) Power (cont/Max.)
4,000rpm 11/15kW
Torque (cont/Max.)
140.1/207.8N·m



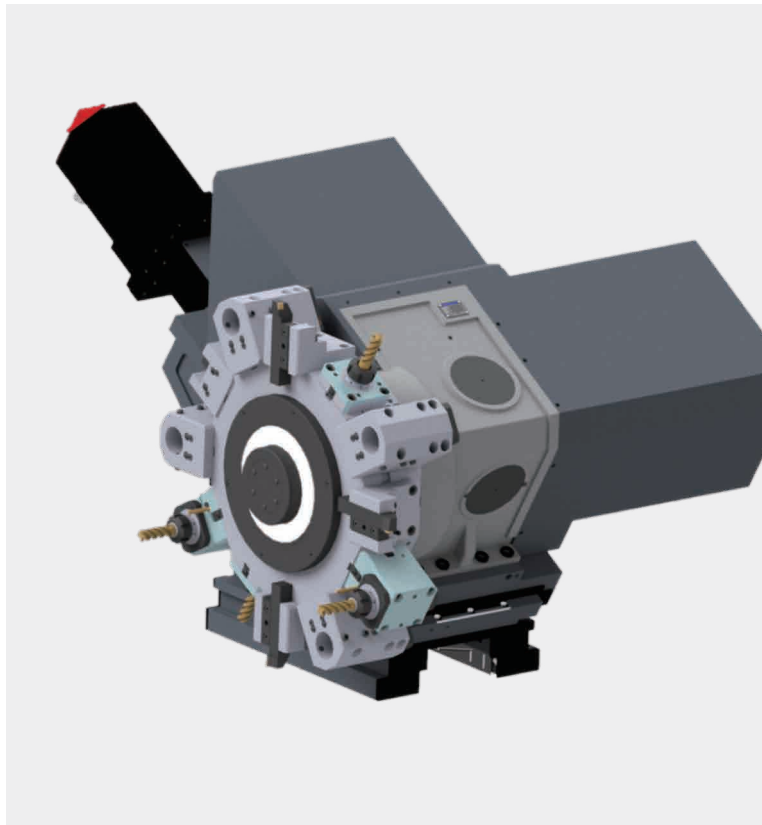
Category	Unit	SL 2000AY/ASY	SL 2000BY/BSY	SL 2500AY/ASY	SL 2500BY/BSY
Spindle bore (main)	mm	Ø61	Ø76	Ø78	Ø86
Spindle nose (main)	ASA	A2-5	A2-6	A2-6	A2-8

The high precision Double Row of Cylindrical Roller Bearings and Angular Ball Bearings on the front end of the spindle and the Double Row of Cylindrical Roller Bearings on the back end of the spindle ensure high precision, high speed machining performance

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

Turret



BMT milling turret

This 24 tool position (BMT55/BMT65) turret with the largest in class curvic coupling and power hydraulic clamping force is capable of accepting a rotary tool in every tool position and allows a variety of machining operations with a single set-up

The best in class BMT55/BMT65 tool holders ensures high rigidity, high precision machining and with non-stop turret indexing in either direction minimizes the turret index time down to 0.15 seconds per station.

Turret indexing time : **0.15sec**

No. of tool positions :

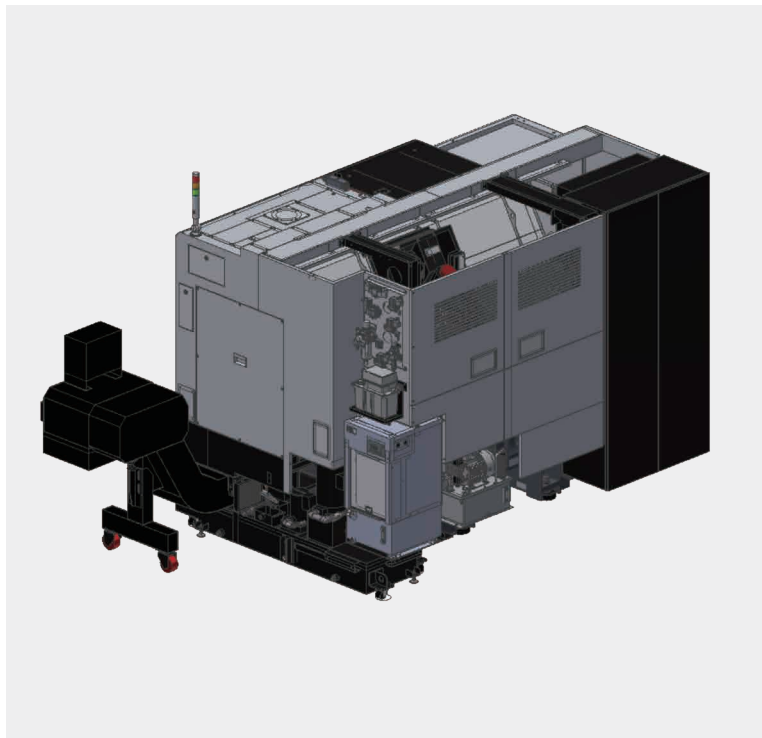
SL 2000Y/SY

12 (□25×25, Ø40)

SL 2500Y/LY/SY/LSY

12 (□25×25, Ø50)

Coolant System



Tank capacity : **250ℓ**

Coolant pump (STD) :

4.5bar(1.1kW)

Coolant pump (OPT) :

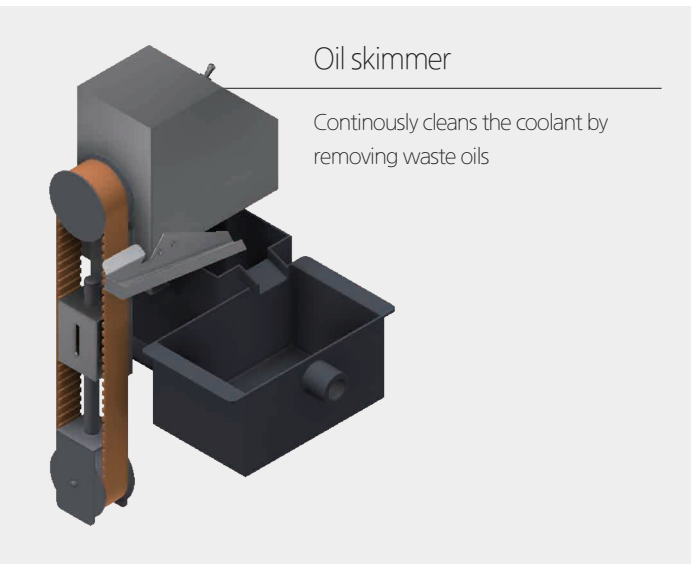
7, 10, 14.5, 20bar

→ 60Hz(Submerged)

30~70bar

→ 60Hz(Independent)

Accessories[Optional]



Oil skimmer

Continuously cleans the coolant by removing waste oils

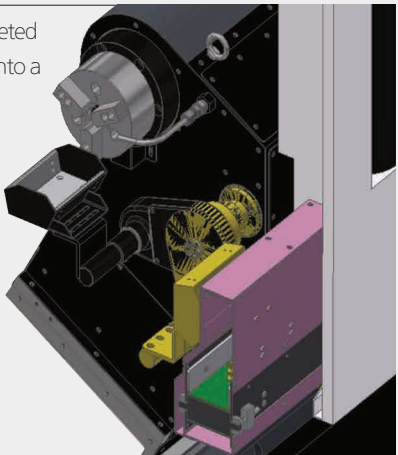
Tool presetter

Provides faster and more precise tool setup, checking for tool wear and compensation



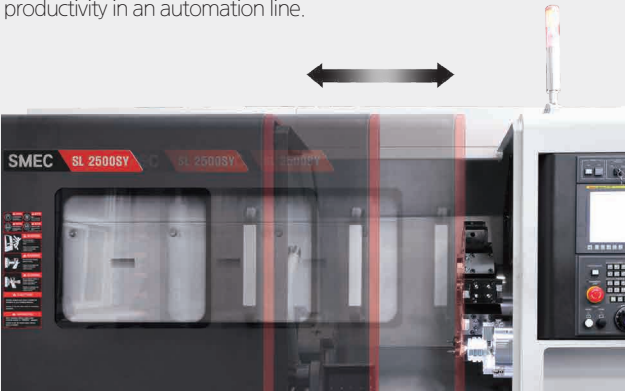
Part catcher & conveyor

Used to receive the completed part and discharge them into a container attached to the exterior of the machine.



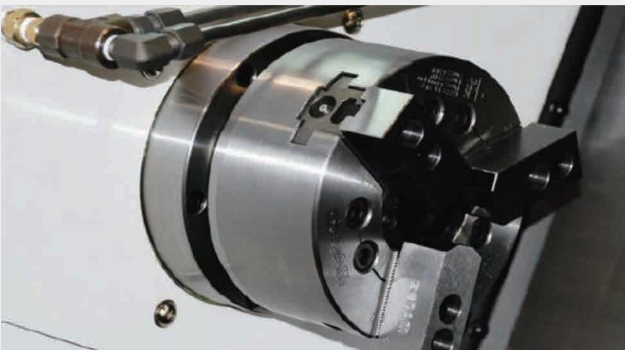
Autodoor

Used to quickly open/close the operator door via program to increase productivity in an automation line.



Air blow

Used to automatically remove chips from the chuck after machining and used for safe loading of the chuck in an automated line.



Chip conveyor

Used to discharge chips created during machining



SMEC FANUC i series



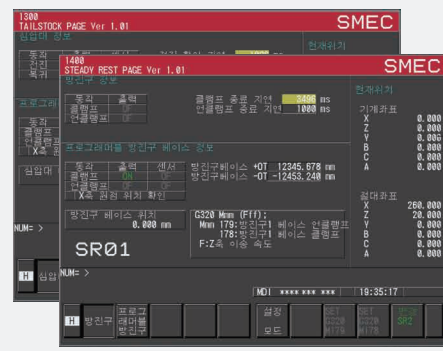
- 15" LCD color display
- High quality designed OP Panel
- Conversational programming, Manual Guide i
- Part program size 2MB
- SMEC Custom S/W

SMEC Custom S/W displayed using MDI's **S1** button or OP Panel's **CUSTOM** button

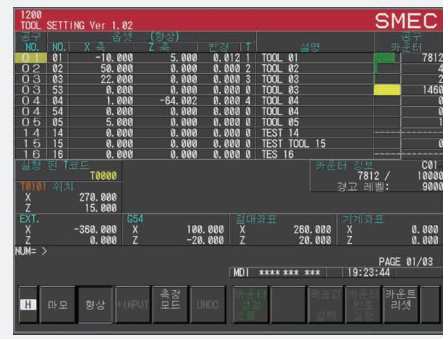
CUSTOM : Provide operator convenience and improve productivity using the support function for tool management and additional device setting.



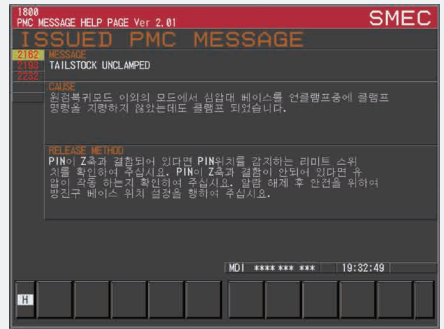
M/G-Code check function
Allows the operator to directly read the M/G-Code on the machine for easy application programming



Easy tailstock setting
Easily configure a variety of functions such as travel limiting, origin setting and signal check



Display only the necessary tools and offsets and check the configured counter at the same time
Tool information and setting management mode



PMc alarm check function
When a PMc alarm occurs, the cause and countermeasures are described in detail, making operation and maintenance more convenient



Counter for each T-Code

Manual Guide i (STD)

SMEC's Manual Guide i system enables advanced part program creation and more efficient and faster machining with conversational programming



Check cutting result using cutting simulation

Easy program creation and editing

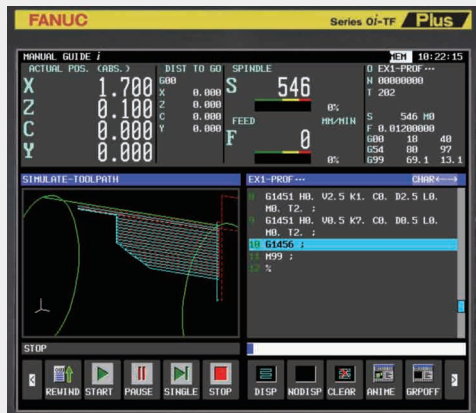
Program creation using advanced part program editing and extensive cutting cycles

Check program using cutting simulations

Program pre-check using realistic cutting simulation

Effective cutting setup

Tool and cutting condition offset data setup based on measurement cycle



Check cutting path using cutting simulation

Advanced cutting capabilities

Check cutting status such as cutting cycle name and tool icon during the cutting process

Measurement

Feedback of cutting results and tool offset values after cutting

IoT Solution (OPT)



NC-Gate / IoT-Gate

The NC-Gate / IoT-Gate that was developed in-house with our ICT technology is a universal gateway that not only interworks with our machine tools, but machine tools from other manufacturers, robots, automation equipment, and analog / digital sensors as a network device capable of bi-directional communication.

Supported drivers : Fanuc / Mitsubishi / Siemens NC, Modbus TCP, DeviceNet, Profibus, Ethernet, AI/DI/DO



Provides key performance indicators and displays target achievement

- Indicators : achievement rate, productivity, process defect rate, equipment and factory usage, quality defect rate, lead time, and average cycle time



Provides figures and graphs of overall equipment effectiveness

- Availability, performance, quality, etc.



Provides operation status and alarm information in case of problems in the production line

- Provides information about the operation status, speed, production alarms, etc. of each machine



Remote control and operation

- Emergency stop switch, program editing, etc.



Problem diagnosis via remote control

- Provide remote diagnosis services to users via the IIoT solution

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

Power-Torque Diagram

SL 2000AY/ASY

Max spindle speed

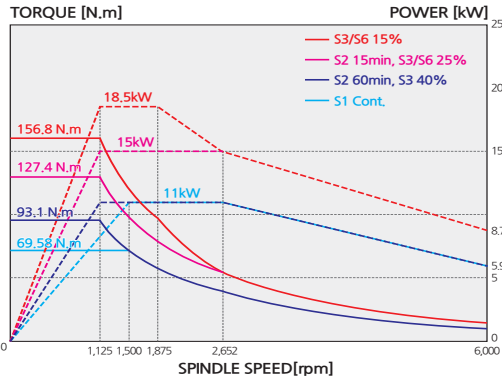
6,000rpm

Power (cont/Max.)

11/18.5kW

Torque (cont/Max.)

69.58/156.8N·m



SL 2000BY/BSY

Max spindle speed

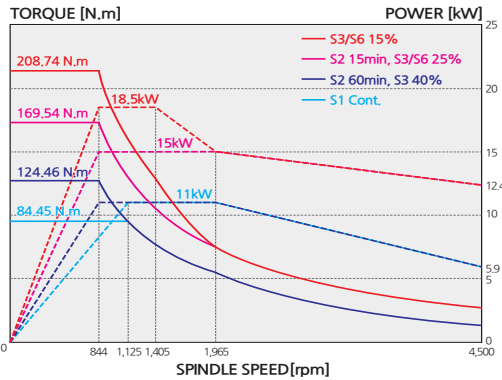
4,500rpm

Power (cont/Max.)

11/18.5kW

Torque (cont/Max.)

84.45/208.74N·m



SL 2000SY_6" SUB Spindle

Max spindle speed

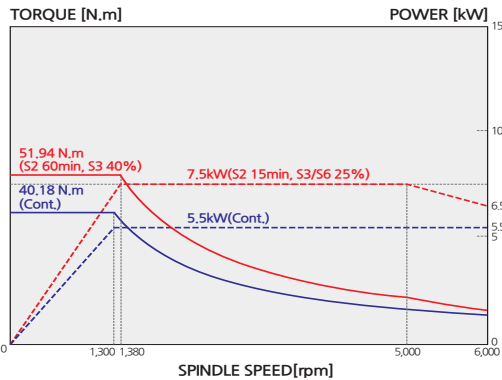
6,000rpm

Power (cont/Max.)

5.5/7.5kW

Torque (cont/Max.)

40.18/51.94N·m



SL 2000SY_MILL Motor

Max spindle speed

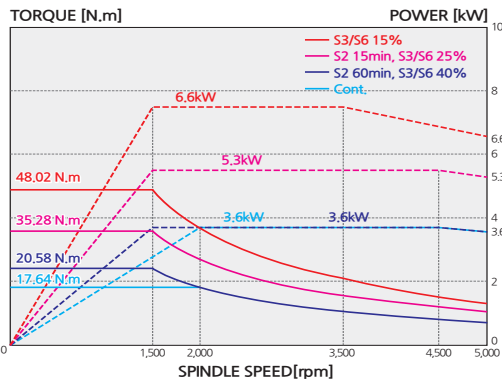
5,000rpm

Power (cont/Max.)

3.6/6.6kW

Torque (cont/Max.)

17.64/48.02N·m



Power-Torque Diagram

SL 2500AY/ASY/ALY/ALSY

Max spindle speed

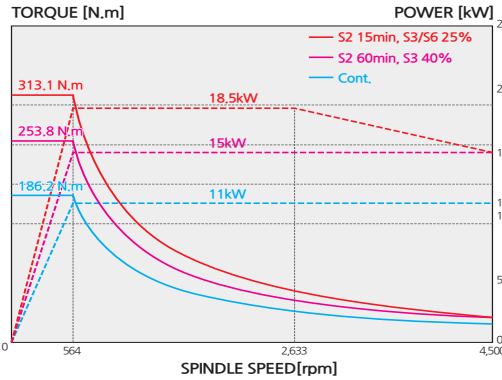
4,500rpm

Power (cont/Max.)

11/18.5kW

Torque (cont/Max.)

186.2/313.1N·m



SL 2500BY/BSY/BLY/BLSY

Max spindle speed

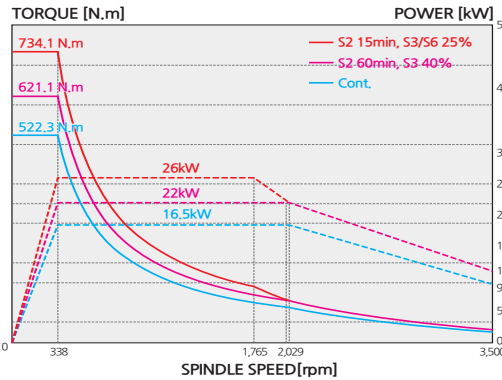
3,500rpm

Power (cont/Max.)

16.5/26kW

Torque (cont/Max.)

522.3/734.1N·m



SL 2500SY_8" SUB Spindle

Max spindle speed

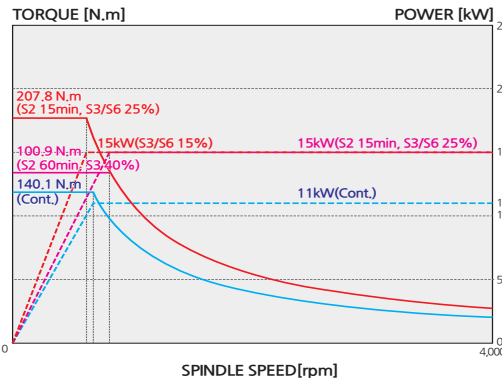
4,000rpm

Power (cont/Max.)

11/15kW

Torque (cont/Max.)

140.1/207.8N·m



SL 2500SY_MILL Motor

Max spindle speed

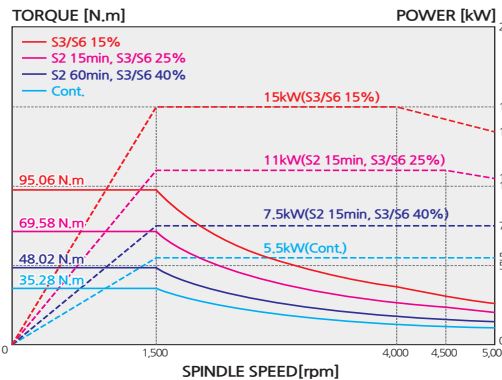
5,000rpm

Power (cont/Max.)

5.5/15kW

Torque (cont/Max.)

35.28/95.06N·m



SL 2000/2500SY Series

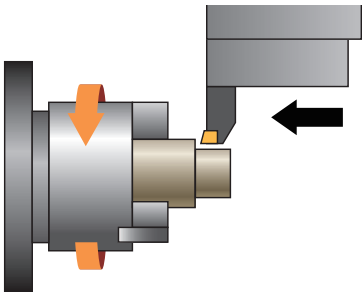
Y-AXIS HORIZONTAL TURNING CENTER

Cutting Performance

Test conditions : SL 2500BSY(8"), Material : SM45C

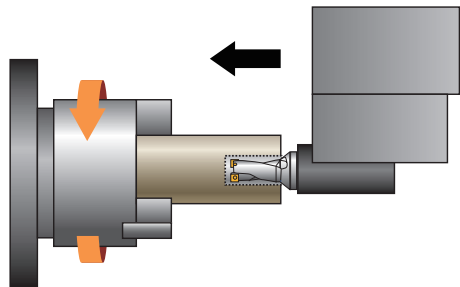
O.D Cutting

Cutting dia.	mm	Ø67
Cutting depth	mm	5
Cutting speed	m/min	210
Spindle speed	rpm	998
Feedrate	mm/rev	0.5
Chip removal rate	cc/min	525



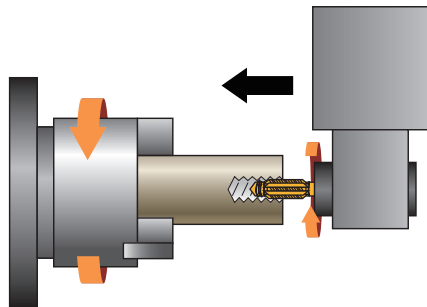
U-Drill Cutting

U-drill dia.	mm	Ø60
Cutting speed	m/min	130
Spindle speed	rpm	670
Feedrate	mm/rev	0.22
Chip removal rate	cc/min	286



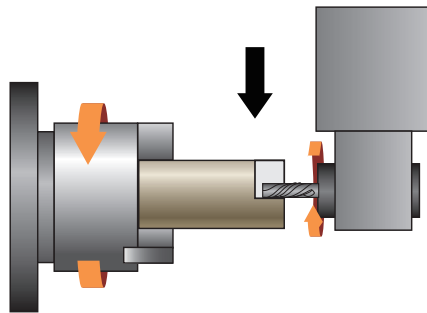
Tap

Tap size	mm	M22×2.5
Cutting depth	mm	30
Cutting speed	m/min	25
Spindle speed	rpm	362
Feedrate	mm/rev	2.5



Endmill

Endmill dia.	mm	Ø20
Cutting depth	mm	5
Cutting speed	m/min	100
Spindle speed	rpm	1,592
Feedrate	mm/min	100
Chip removal rate	cc/min	64

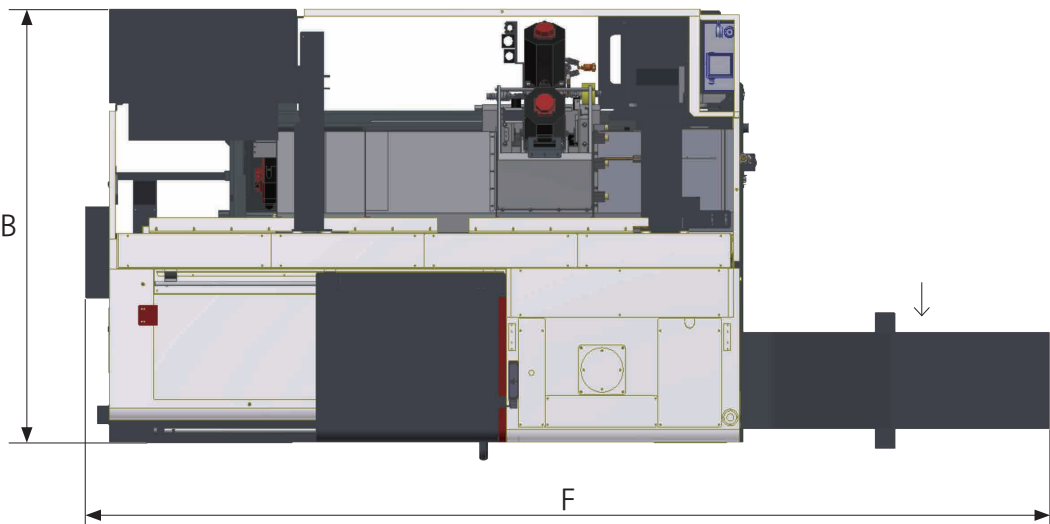


※ The above data is based on internal testing. Values may change depending on cutting conditions.

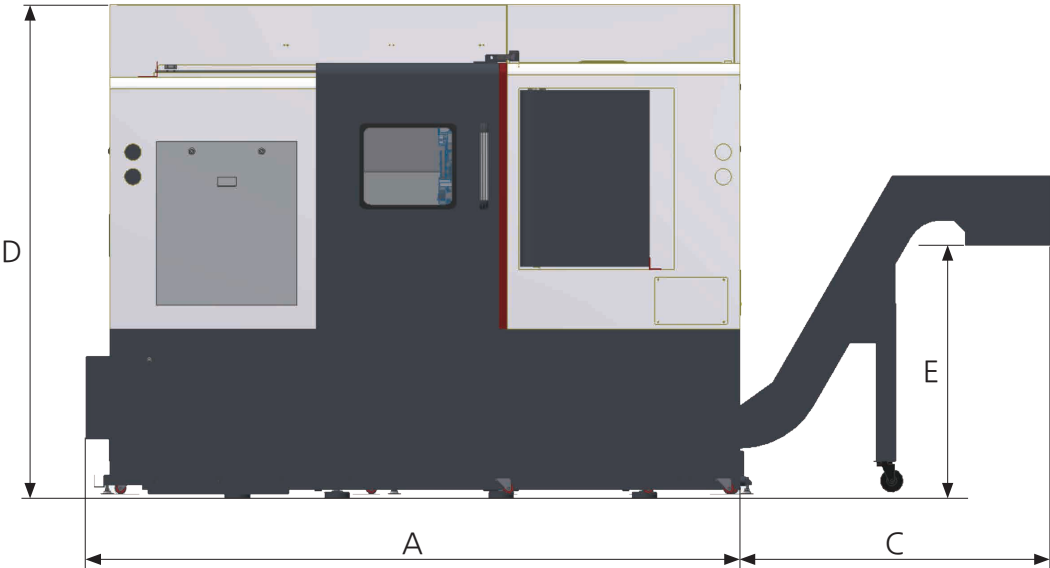
Machine Dimensions

Unit : mm

Top view



Front view



Model	A (Machine front)	B (Machine side)	C	D (Machine height)	E	F
SL 2000Y/SY	2,790	1,752	1,324	2,095	860	4,114
SL 2500Y/SY	3,643	1,930	1,204	2,085	913	4,847
SL 2500LY/LSY	4,123	2,030	1,436	2,090	885	6,153

Y-AXIS HORIZONTAL TURNING CENTER

SL 2000Y

Technical drawings of the 1000 Series Lathe. The top drawing is a front view showing a circular lathe bed with various diameters and features labeled. The bottom drawing is a side view showing the lathe's profile with dimensions for the bed, headstock, and tailstock. The side view includes labels for "INTERFERENCE AREA WITH TAILSTOCK" and "235(X ST)".

SL 2500Y/LY

SLIDE COVER interfere point when Y-axis at -50

182.5	40	35	180	55
257.5		235[X-axis Stroke]		
492.5				

Technical drawing of the front view of a 12-axis NC turret. The drawing shows the turret body with 12 tool stations arranged radially. Key dimensions and features include:

- Overall diameter: $\varnothing 201.5$
- Maximum tool swing diameter: $\varnothing 601.3$ [Max. Tool Swing]
- Maximum turning diameter: $\varnothing 360$ [Max. Turning Dia.]
- Tool holder dimensions: $\varnothing 20$, $\varnothing 30$, $\varnothing 39.5$, $\varnothing 45$, $\varnothing 72$, $\varnothing 80$, $\varnothing 94$, $\varnothing 97$
- Mounting dimensions: 182.5, 257.5, 40, 35, 180, 21
- Slide cover interference point when Y-axis at -50
- 235[X-axis Stroke]
- 458.5

SL 2000/2500SY Series

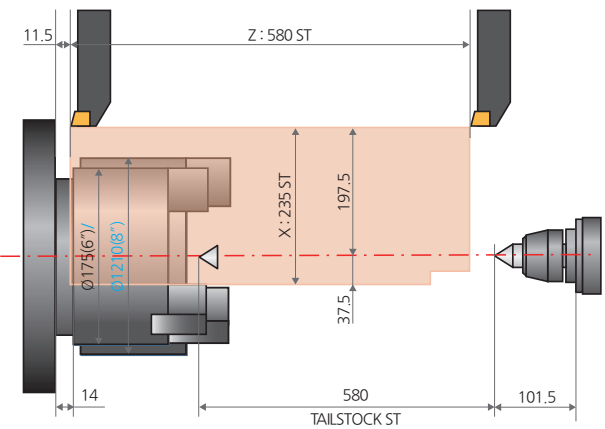
Y-AXIS HORIZONTAL TURNING CENTER

Work Range

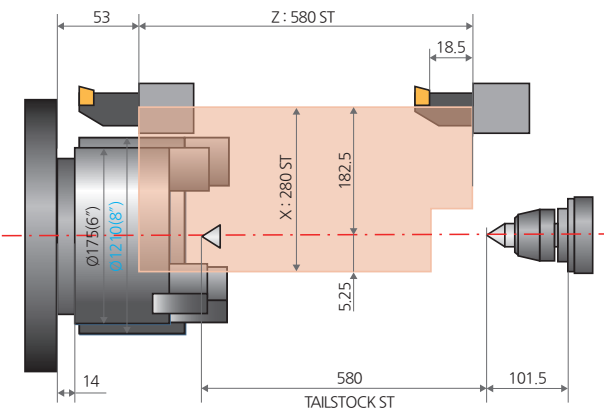
SL 2000AY/BY

Unit : mm

O.D Tool

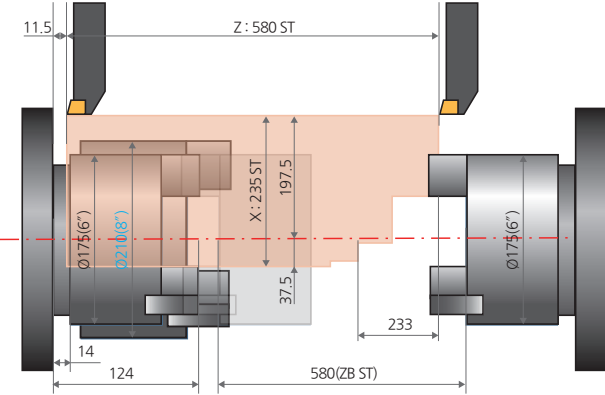


I.D Tool

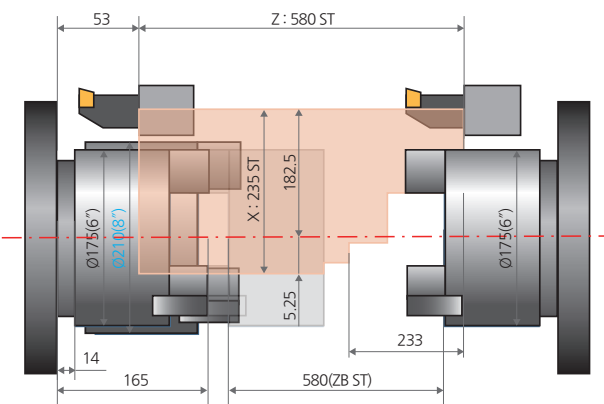


SL 2000ASY/BSY

O.D Tool



I.D Tool

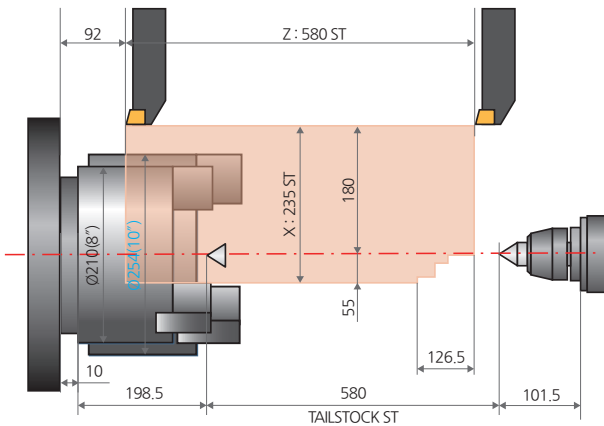


Work Range

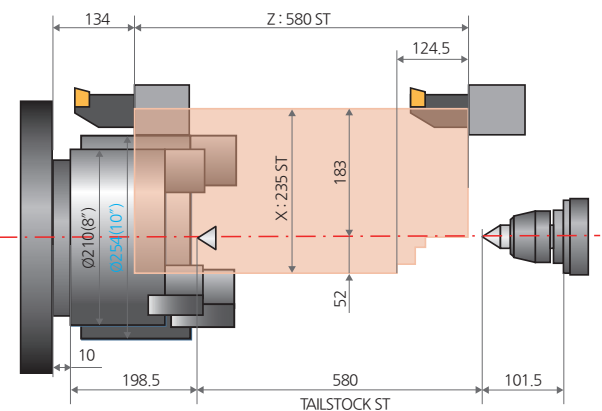
SL 2500AY/BY

Unit : mm

O.D Tool

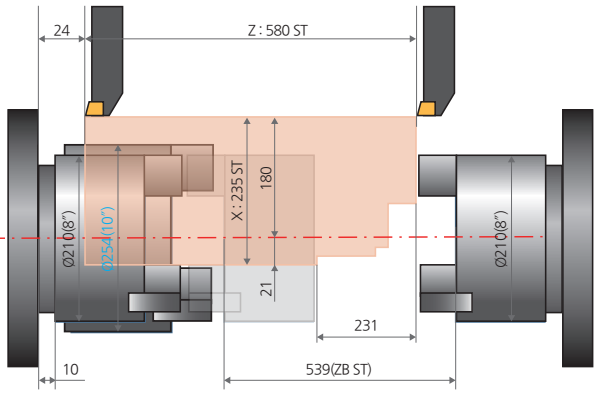


I.D Tool

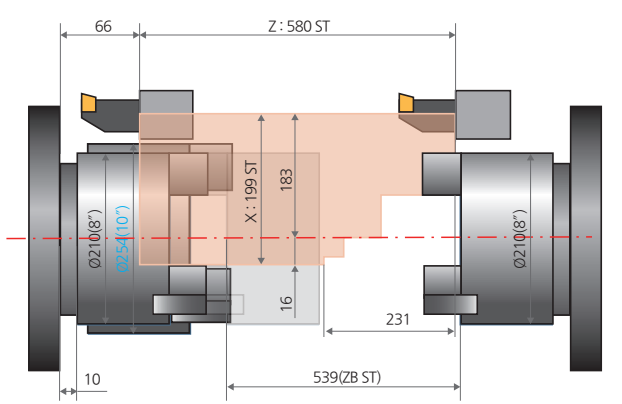


SL 2500ASY/BSY

O.D Tool



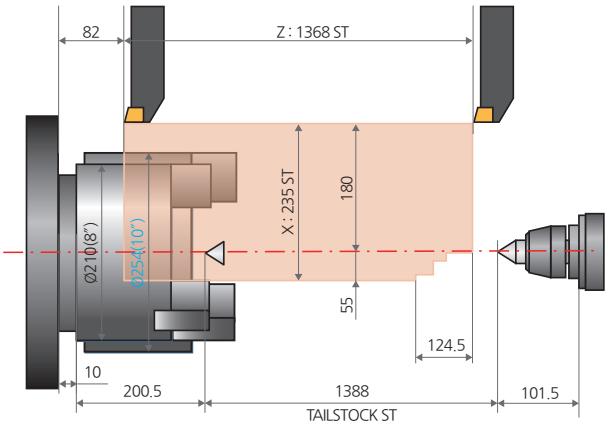
I.D Tool



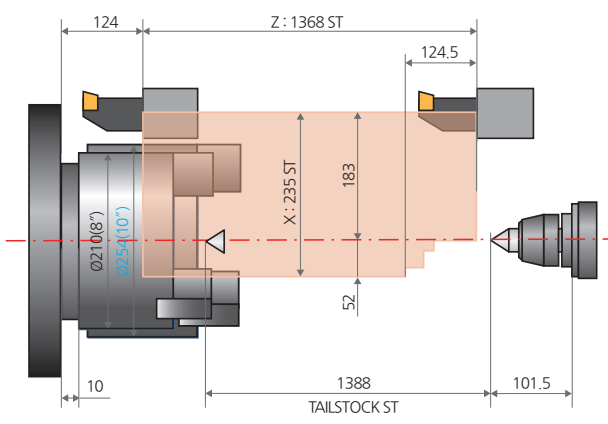
Work Range

SL 2500ALY/BLY

O.D Tool

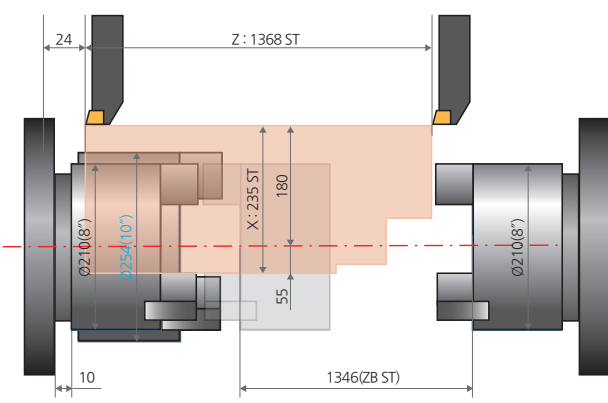


I.D Tool

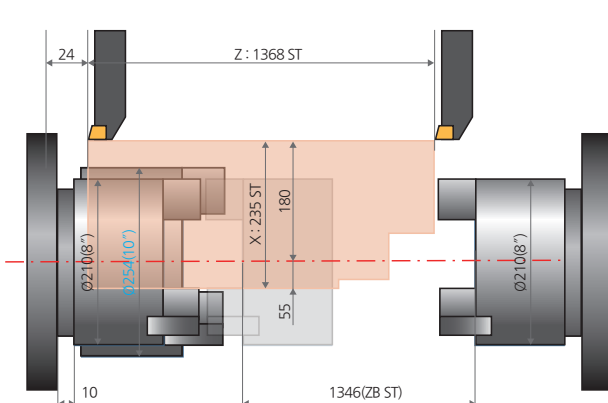


SL 2500ALSY/BSLY

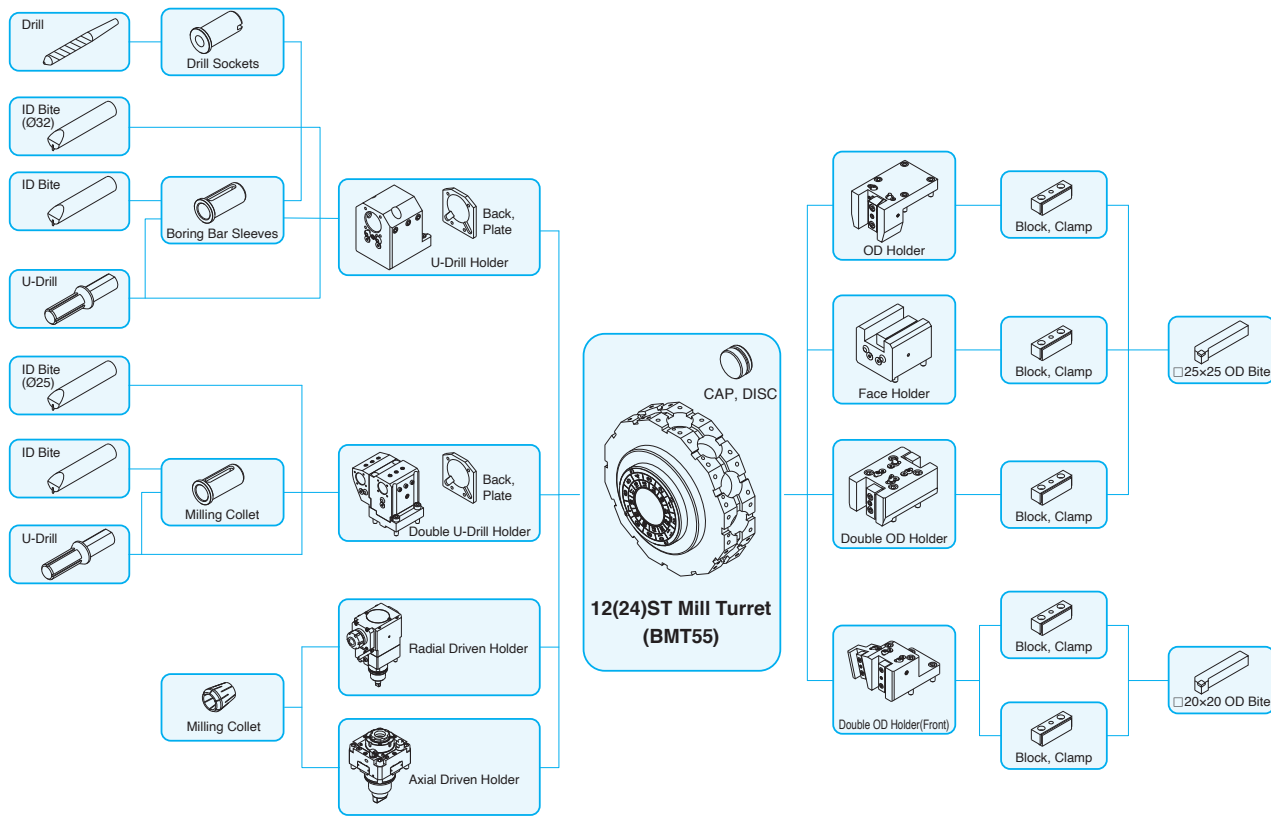
O.D Tool



I.D Tool



Tooling System



Standard Tooling

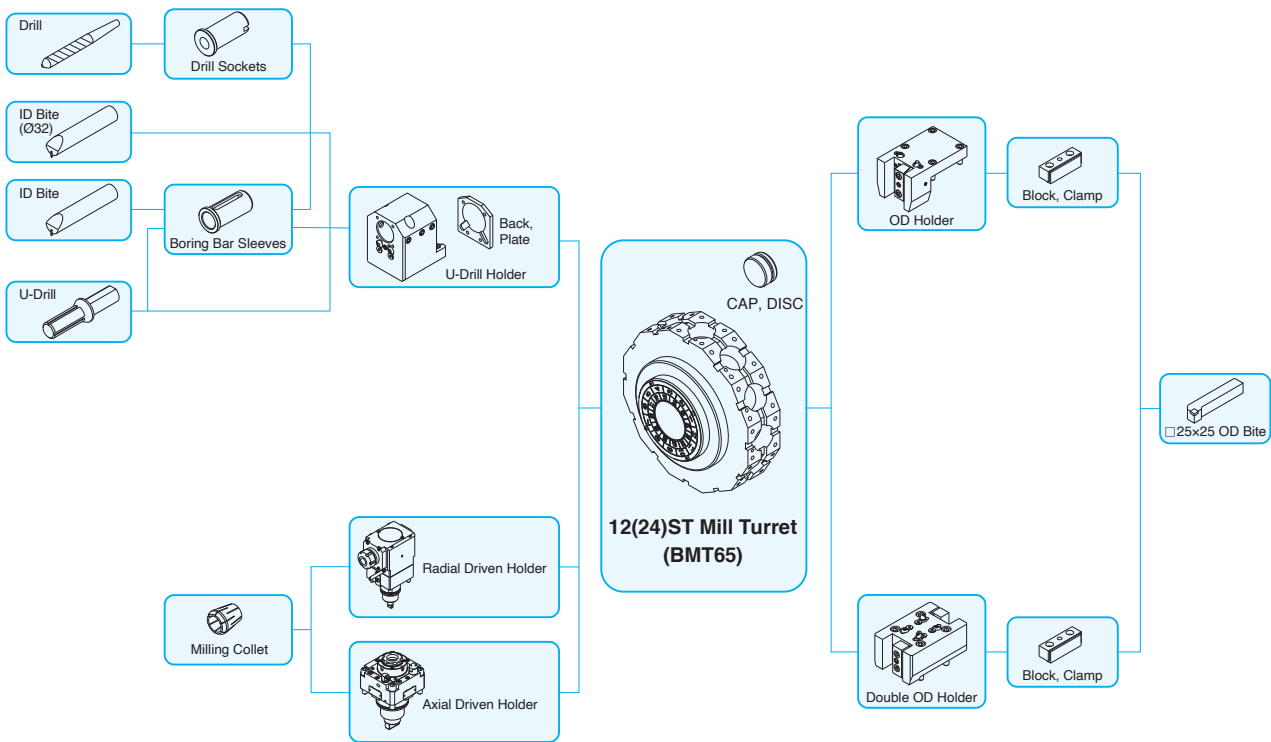
Item / Description			SL 2000Y/SY	
			Y	SY
Static Holder	Block, Clamp		4	7
	OD Holder		2	1
	OD Holder	Double	-	1
	OD Holder	Double (Front)	1	1
	OD Holder	Double (Sub)	-	1
	Face Holder		1	1
Boring Holder	ID Holder		2	1
	ID Holder	Double	1	1
	U-Drill Holder		1	-
	U-Drill Holder	Double	-	1
Milling Holder	Axial Milling Holder		2	2
	Radial Milling Holder		2	2
Socket	Boring	Ø10	1	1
		Ø12	1	1
		Ø16	1	1
		Ø20	1	1
		Ø25	1	1
		Ø32	1	1
	Drilling	MT2	1	1
		MT3	1	1
	ER Collet		-	-

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

Tooling System

Unit : mm



Standard Tooling

Item / Description			SL 2500Y/SY		SL 2500LY/LSY	
			Y	SY	LY	LSY
Static Holder	Block, Clamp		4	7	4	7
	OD Holder		4	1	4	1
	OD Holder	Double	-	3	-	3
	OD Holder	Double (Front)	-	-	-	-
	OD Holder	Double (Sub)	-	-	-	-
	Face Holder		-	-	-	-
Boring Holder	ID Holder		-	-	-	-
	ID Holder	Double	-	-	-	-
	U-Drill Holder		4	-	4	-
	U-Drill Holder	Double	-	4	-	4
Milling Holder	Axial Milling Holder		2	2	2	2
	Radial Milling Holder		2	2	2	2
Socket	Boring	Ø10	1	1	1	1
		Ø12	1	1	1	1
		Ø16	1	1	1	1
		Ø20	1	1	1	1
		Ø25	1	1	1	1
		Ø32	1	1	1	1
		Ø40	1	1	1	1
	Drilling	MT3	1	1	1	1
		MT4	1	1	1	1
	ER Collet		-	-	-	-

Standard / Optional

● : Standard ○ : Optional △ : Discuss X : N/A

Category		SL 2000SY	SL 2500SY	SL 2500LSY
Spindle	3 jaw open-center chuck	●	●	●
	3 jaw closed-center chuck	X	X	X
	Soft jaw (3set)	●	●	●
	Hard jaw (1set)	○	○	○
	Chuck clamp footswitch	●	●	●
	Dual pressure chucking	○	○	○
	C-axis control (0.001")	●	●	●
	Chuck clamp confirmation	●	●	●
	Chuck dual footswitch	○	○	○
Turret	Tool holder	●	●	●
	Rotary holder type	BMT	●	●
	Rotary holder (axial)	Collet-type, 2EA	●	●
	Rotary holder (radial)	Collet-type, 2EA	●	●
	Rotary holder (axial)	Adapter-type	X	X
	Rotary holder (radial)	Adapter-type	X	X
	Boring bar sleeve (same as U-drill holder sleeve)	●	●	●
	Drill socket	●	●	●
	U-drill holder	●	●	●
	U-drill cap	X	X	X
	Swivel head holder	△	△	△
Tailstock	NC(Servo Motor) tailstock	●	●	●
	Live center (standard with tailstock)	●	●	●
	Tailstock 2 step pressure system	X	X	X
	Quill forward/reverse confirmation	X	X	X
	Tailstock footswitch	X	X	X
Coolant & Air Blow	Standard coolant (nozzle)	○	○	○
	Coolant above chuck	○	○	○
	Coolant gun	○	○	○
	TSC for chuck (for special chuck)	△	△	△
	TSC for sub-spindle (work ejector required)	○	○	○
	Bed flushing	X	X	X
	Air blower	○	○	○
	Rotary tool holder TSC	○	○	○
	Sub-spindle air blower	○	○	○
	Turret tool air blower	X	X	X
	Air gun	○	○	○
	Through spindle air blower (for special chuck)	△	△	△
	Through spindle air blower for sub-spindle (work ejector required)	X	X	X
	Coolant pump	4.5Bar	●	●
		7Bar	○	○
		10Bar	○	○
		14.5Bar	○	○
		20Bar	○	○
	Power coolant system (for automation solutions)	△	△	△
	Coolant chiller	○	○	○
Chip Disposal	Coolant tank	●	●	●
	Chip conveyor (Hinge / Scraper)	Side	●	●
		Rear	△	△
	Special chip conveyor (drum filter)	△	△	△
	Chip bucket	Fixed 380L	○	○
Safety Features	Door interlock	●	●	●
	Torque limiter	●	●	●
	Full splash guard	●	●	●
	Chuck hyd pressure interlock	△	△	△
Electrical	3 step patrol lamp and buzzer	●	●	●
	Lamp for electrical cabinet	○	○	○
	Remote MPG	○	○	○
	Work counter	Digital	○	○
	Total counter	Digital	○	○
	Tool counter	Digital	○	○
	Multi counter	6EA	○	○
		9EA	○	○
	Grounded circuit breaker	○	○	○
	AVR(Auto Voltage Regulator)	○	○	○
	Transformer	25kVA	○	○
		30kVA	○	○
	Auto Power Off	○	○	○
Measurement	Tool Presetter	Manual	○	○
	Tool Presetter	Auto	○	○
	Air zero measuring device (for special chuck)	TACO	△	△
		SMC	△	△
	Linear scale	X-axis	○	○
		Y-axis	○	○
		Z-axis	○	○
	Coolant level gauge (requires chip conveyor)	○	○	○
Environmental	Air conditioner for electrical cabinet	○	○	○
	Dehumidifier	△	△	△
	Oil mist collector	○	○	○
	Oil skimmer	○	○	○
	MQL(Minimal Quantity Lubrication)	△	△	△
Automation	Auto door	○	○	○
	Auto shutter (for automation solutions)	△	△	△
	Sub controller	△	△	△
	Barfeeder interface	●	●	●
	Additional M-codes (4 pairs)	○	○	○
	Automation interface	○	○	○
	I/O expansion (including both IN and OUT)	16 contacts	○	○
		32 contacts	○	○
	Parts catcher	○	○	○
	Parts conveyor (parts catcher required)	○	○	X
Hydraulic Supply	Standard hydraulic cylinder	Open-center	●	●
	Standard hydraulic unit	35Bar	●	●

※ For detailed information, please contact your local SMEC dealer.

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

Machine Specifications

[] : Option

Category			SL 2000Y		SL 2000SY	
			A type	B type	A type	B type
Chuck	Chuck size (main/sub)	inch	6"/-	8"/-	6"/6"	8"/6"
Capacity	Swing over bed	mm	650	650	650	650
	Swing over cross-slide	mm	540	540	540	540
	Max turning diameter	mm	395	395	395	395
	Max milling diameter	mm	310	310	310	310
	Max turning length	mm	490	450	490	450
Spindle	Spindle speed (main/sub)	rpm	6,000/-	4,500/-	6,000/6,000	4,500/6,000
	Spindle nose (main/sub)	ASA	A2-5/-	A2-6/-	A2-5/A2-5	A2-6/A2-5
	Draw tube ID	mm	52	68	52	68
	Spindle bore (main/sub)	mm	61	76	61	76
	Main spindle motor (cont/max)	kW	11/18.5	11/18.5	11/18.5	11/18.5
	Sub-spindle motor (cont/max)	kW	-	-	5.5/7.5	5.5/7.5
Travels	X-axis stroke	mm	235	235	235	235
	Y-axis stroke	mm	105 (±52.5)	105 (±52.5)	105 (±52.5)	105 (±52.5)
	Z-axis stroke	mm	580	580	580	580
	ZB-axis stroke	mm	580	580	580	580
	X-axis rapid traverse	m/min	24	24	24	24
	Y-axis rapid traverse	m/min	10	10	10	10
	Z-axis rapid traverse	m/min	30	30	30	30
	ZB-axis rapid traverse	m/min	24	24	24	24
Turret	No of tool positions	ea	12[24] (BMT55)	12[24] (BMT55)	12[24] (BMT55)	12[24] (BMT55)
	OD tool size	mm	25	25	25	25
	Boring bar diameter	mm	40	40	40	40
	Indexing time	sec	0.15	0.15	0.15	0.15
	Rotary tool speed	rpm	5,000	5,000	5,000	5,000
	Rotary tool motor (cont/max)	kW	3.7/7.5	3.7/7.5	3.7/7.5	3.7/7.5
Tailstock	Quill diameter	mm	-	-	-	-
	Quill stroke	mm	580	580	-	-
	Quill taper	MT	MT5 (Servo motor)	MT5 (Servo motor)	-	-
Machine	Size (with SIDE chip conveyor) L×W×H	mm	2,790(4,125)×1,752×2,085		2,790(4,125)×1,752×2,085	
	Weight	kg	3,850	3,900	4,150	4,200
	Coolant tank capacity	Liter	170	170	170	170
Electric power supply			kVA/V	43/220	45/220	55/220 58[66]/220
Controller			FANUC Oi-TF+, SIEMENS			

※ Design and specifications are subject to change without notice.

Machine Specifications

[] : Option

Category			SL 2500Y		SL 2500SY	
			A type	B type	A type	B type
Chuck	Chuck size (main/sub)	inch	8"/-	10"/-	8"/6"	10"/6[8]"
Capacity	Swing over bed	mm	650	650	650	650
	Swing over cross-slide	mm	540	540	540	540
	Max turning diameter	mm	360	360	360	360
	Max milling diameter	mm	374	374	374	374
	Max turning length	mm	490	476	490	476
Spindle	Spindle speed (main/sub)	rpm	4,500/-	3,500/-	4,500/6,000	3,500/6,000[4,000]
	Spindle nose (main/sub)	ASA	A2-6/-	A2-8/-	A2-6/A2-5	A2-8/A2-5[A2-6]
	Draw tube ID	mm	68	77	68/36	77/36[52]
	Spindle bore (main/sub)	mm	78	86	78/45	86/45[61]
	Main spindle motor (cont/max)	kW	11/18.5	18.5/26	11/18.5	18.5/26
	Sub-spindle motor (cont/max)	kW	-	-	5.5/7.5	5.5/7.5
Travels	X-axis stroke	mm	235	235	235	235
	Y-axis stroke	mm	100 (±50)	100 (±50)	100 (±50)	100 (±50)
	Z-axis stroke	mm	580	580	580	580
	ZB-axis stroke	mm	580	565	580	565
	X-axis rapid traverse	m/min	18	18	18	18
	Y-axis rapid traverse	m/min	12	12	12	12
	Z-axis rapid traverse	m/min	24	24	24	24
	ZB-axis rapid traverse	m/min	24	24	24	24
Turret	No of tool positions	ea	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)
	OD tool size	mm	25	25	25	25
	Boring bar diameter	mm	50	50	50	50
	Indexing time	sec	0.20	0.20	0.20	0.20
	Rotary tool speed	rpm	5,000	5,000	5,000	5,000
	Rotary tool motor (cont/max)	kW	3.7/5.5	3.7/5.5	3.7/5.5	3.7/5.5
Tailstock	Quill diameter	mm	-	-	-	-
	Quill stroke	mm	-	-	-	-
	Quill taper	MT	MT5 (Servo motor)	MT5 (Servo motor)	-	-
Machine	Size (with SIDE chip conveyor) L×W×H	mm	3,643(4,667)×1,930×2,085		3,643(4,667)×1,930×2,085	
	Size (with REAR chip conveyor) L×W×H	mm	3,358×2,478(2,820)×2,085		3,358×2,478(2,820)×2,085	
	Weight	kg	5,600	5,800	5,800	6,000
	Coolant tank capacity	Liter	173	173	173	173
Electric power supply			kVA/V	43/220	55/220	45/220 58[66]/220
Controller			FANUC Oi-TF+, SIEMENS			

※ Design and specifications are subject to change without notice.

SL 2000/2500SY Series

Y-AXIS HORIZONTAL TURNING CENTER

Machine Specifications

Category			SL 2500LY		SL 2500LSY	
			A type	B type	A type	B type
Chuck	Chuck size (main/sub)	inch	8"/-	10"/-	8"/6"	10"/6[8]"
Capacity	Swing over bed	mm	650	650	650	650
	Swing over cross-slide	mm	540	540	540	540
	Max turning diameter	mm	360	360	360	360
	Max milling diameter	mm	374	374	374	374
Spindle	Max turning length	mm	1,284	1,271	1,284	1,271
	Spindle speed (main/sub)	rpm	4,500/-	3,500/-	4,500/6,000	3,500/6,000[4,500]
	Spindle nose (main/sub)	ASA	A2-6/-	A2-8/-	A2-6/A2-5	A2-8/A2-5[A2-6]
	Draw tube ID	mm	68	77	68/36	77/36[52]
Travels	Spindle bore (main/sub)	mm	78	86	78/45	86/45[61]
	Main spindle motor (cont/max)	kW	11/18.5	18.5/26	11/18.5	18.5/26
	Sub-spindle motor (cont/max)	kW	-	-	5.5/7.5	5.5/7.5[11/15]
	X-axis stroke	mm	235	235	235	235
Turret	Y-axis stroke	mm	100 (±50)	100 (±50)	100 (±50)	100 (±50)
	Z-axis stroke	mm	1,375	1,375	1,375	1,375
	ZB-axis stroke	mm	1,388	1,346	1,388	1,346
	X-axis rapid traverse	m/min	18	18	18	18
Tailstock	Y-axis rapid traverse	m/min	10	10	10	10
	Z-axis rapid traverse	m/min	24	24	24	24
	ZB-axis rapid traverse	m/min	24	24	24	24
Machine	No of tool positions	ea	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)	12[24] (BMT65)
	OD tool size	mm	25	25	25	25
	Boring bar diameter	mm	50	50	50	50
	Indexing time	sec	0.15	0.15	0.15	0.15
Controller	Rotary tool speed	rpm	5,000	5,000	5,000	5,000
	Rotary tool motor (cont/max)	kW	3.7/5.5	3.7/5.5	3.7/5.5	3.7/5.5
	Quill diameter	mm	-	-	-	-
	Quill stroke	mm	1,390	1,375	-	-
Electric power supply	Quill taper	MT	MT5 (Servo motor)	MT5 (Servo motor)	-	-
	Size (with SIDE chip conveyor) L×W×H	mm	4,123(5,559)×2,030×2,090		4,123(5,559)×2,030×2,090	
	Weight	kg	7,400	7,500	7,500	7,600
	Coolant tank capacity	Liter	250	250	250	250
Electric power supply			kVA/V	43/220	55/220	45/220
Controller			FANUC 0i-TF+, SIEMENS			

※ Design and specifications are subject to change without notice.

NC Specification / FANUC

● : STD ○ : Optional X : N/A

Functions		0i-TF+
Controlled axis	Controlled axes	X, Z, Y, B, C
	Max simultaneously controlled axes	4
	Least input increment	0.001mm / 0.0001"
	Built-in stroke limit	Soft overtravel 1, 2, 3
	Machine lock	●
Operation functions	Manual handle feed	X1, X10, X100
	Dry run	●
	Single block	●
	Feed per minute	G94
	Feed per revolution	G95
	DNC operation	Ethernet, CF card
Interpolation functions	Thread cutting pause	○
	Linear interpolation	G01
	Circular interpolation	G02, G03
	Dwell	G04
	Cylindrical interpolation	G70.1
	Skip	G31
	Nano smoothing	X
	Polar coordinate interpolation	●
	Reference position (zero) return	G28
	Reference position (zero) return check	G27
	2nd, 3rd, 4th reference point return	G30
	Variable lead thread cutting	●
Feed function	Thread repair	●
	Rapid traverse override	F0, 25%, 50%, 100%
	Feedrate override	0~200%
	Jog override	●
	AI look ahead	X
	AI contour control II	○ (200 block)
Spindle function	Spindle orientation	●
	Rigid tapping	M29
	Spindle override	S0 ~ 150%
	Arbitrary speed threading	○
Tool functions	Tool number command	T4-Digt Tool number
	Tool nose radius compensation	G40 ~ G42
	Tool offset pairs	128-pairs
	Tool geometry / wear offset	●
	Tool length compensation	X
Editing operation	Tool life management	●
	Tool path graphic display	●
Program input	Functions	0i-TF+
	Absolute / incremental command	G90/G91
	Repeating canned cycle	●
	Repeating canned cycle 2	●
	Canned cycles	●
	Drilling canned cycle	●
	Decimal point input	●
	Inch / metric conversion	G20 / G21
	Program restart	●
	Sub program call	●
	Max programmable value	±99999.999mm/±9999.9999"
	M function	3 digit
	Custom macro	●
	Addition of custom macro common variables	#100~#199, #500~#999
Interface function	Direct drawing dimension programming	●
	Programmable data input	G10
	Tape code	ISO / EIA
	Optional block skip	●
Setting and display	Workpiece coordinate system	G52 ~ G59
	Addition of workpiece coordinate system	X
	Embedded ethernet	●
	Fast ethernet	X
	Alarm and operator history display	●
	Run hour and parts count display	●
	Loadmeter display	●
	Self diagnosis function	●
Data input/output	Extended part program editing	●
	Machining condition selection function	○
	Machining quality level adjustment	X
	Display screen	15" color LCD
Editing operation	Multi-language display	25 language
	Fast data server	X
	RS232C interface	●
	Memory card input / output	●
Tool functions	USB memory input / output	●
	Part program storage size	2Mbyte
	Number of registered programs	1,000 EA
	Manual guide 0i	X
Editing operation	Manual guide i	●