SMEC

SL 2500/3000 Series

8"- 12" BOX GUIDE TYPE
HORIZONTAL TURNING CENTER

SL 2500 Series
(A Type:8", B Type:10")

- SL 2500/X/L
- SL 2500M/XM/LM

SL 3000 Series
(A Type:10", B Type:12")

- SL 3000/X/L
- SL 3000M/XM/LM

SMEC

- 1988 - Started as Samsung Heavy Industries Machine Tools Business
- 1989 - Horizontal and vertical machining center technology partnership with OKK Japan
- 1991 - Turning center and vertical machining center technology partnership with Mori Seiki
- 1996 - 5-sided processing center technology partnership with Toshiba
- 1999 - Spun out from Samsung Aerospace Industries and established SMEC Co., Ltd

Samsung
Machine Tools
Engineering
Company

Diverse Work Range Lineup

Customer satisfaction provided by the availabile diverse work range lineup with 8"/10"/12" chucks and 19.69/31.50/39.37inch turning lengths

High Rigidity Bed and Optimized Travels

The torque tube ribbed bed supports heavy duty cutting and the pre-tensioned and double anchored travel axis ballscrews and six-points of contact x-axis slideway frame supports high precision

SL 2500 Series
(A Type:8", B Type:10")

SL 2500/X/L/M/XM/LM

SL 3000 Series
(A Type:10", B Type:12")

SL 3000/X/L/M/XM/LM

Enhanced heavy duty and high precision cutting, increased space efficiency and ease of use

- 45° slant torque tube ribbed bed supporting heavy duty cutting
- Significantly reduced non-cutting time for high efficiency machining
- Servo turret for improved high speed performance
- Low center of gravity design minimizing vibrations and thermal growth to ensure high rigidity

Maximized Production Efficiency

Design optimized for easy workpiece insert and switching, and the placing of the hydraulic gauges and valves at eye-height in the front of the machine maximizes productivity

Ease of Use

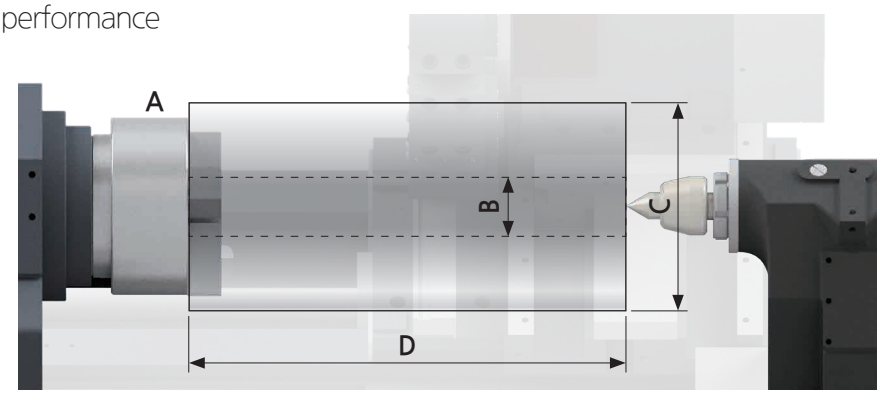
Operator convenience enhanced by standard features such as M-code operated programmable tailstock, Manual Guide i, and operator-centric OP Panel

SL 2500/3000 Series

HORIZONTAL TURNING CENTER

Diverse Work Range Lineup

Improved productivity with the available diverse work range. Customer satisfaction with superb cost-effective performance



The SL 2500/3000 series offers

3 **chuck sizes**

3 **turning lengths**

and optional **rotary tooling**

for a **24 model lineup**

A (Chuck size) : 8", 10", 12"

B (Working bar dia) : ∅2.60~∅3.55inch

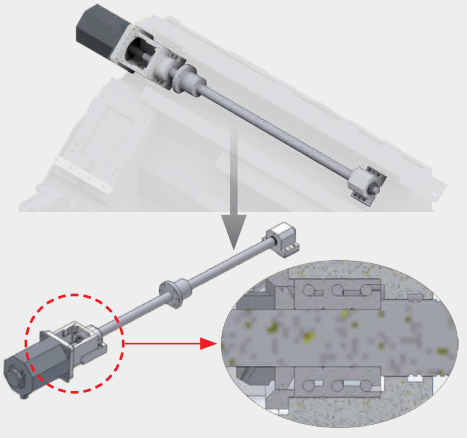
C (Max turning dia) : ∅15.95~∅16.93inch

D (Max turning length) : 19.57~41.50inch

High Rigidity Bed and Optimized Travel System

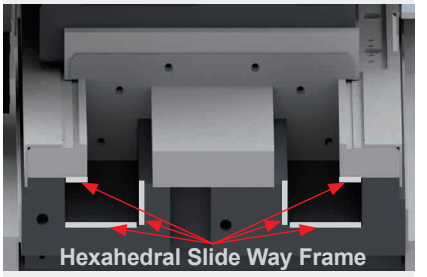
45° slant bed providing excellent stability even during heavy duty cutting

The 45° slant bed with torque tube ribbing design with its excellent torsional and bending resistance, is capable of suppressing backlash while providing high precision even during heavy duty cutting.
Also, the slant bed provides superb access to parts and effective chip removal



Pre-tensioned and Double Anchored Ballscrews

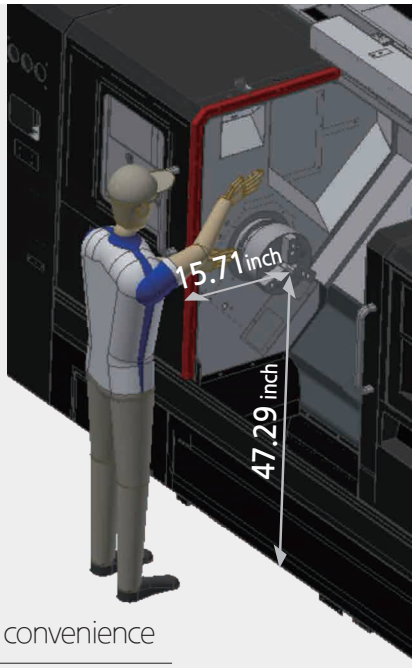
The high precision ballscrews for all axes are pre-tensioned and anchored on both ends using P4 class high precision angular bearings to ensure minimal thermal growth - Pre-tensioned and double anchored ballscrews
- High precision Angular bearing and large diameter high precision ballscrews



6-point of contact Slide Way Frame (X-axis)

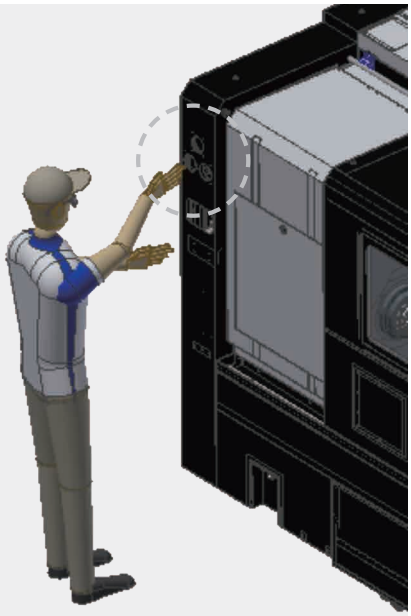
The wide guideway surface and 6-point of contact slideway is heat treated and precision grounded to maintain high rigidity during heavy duty cutting over its long lifetime

Designed for Enhanced Productivity



Enhanced operator convenience

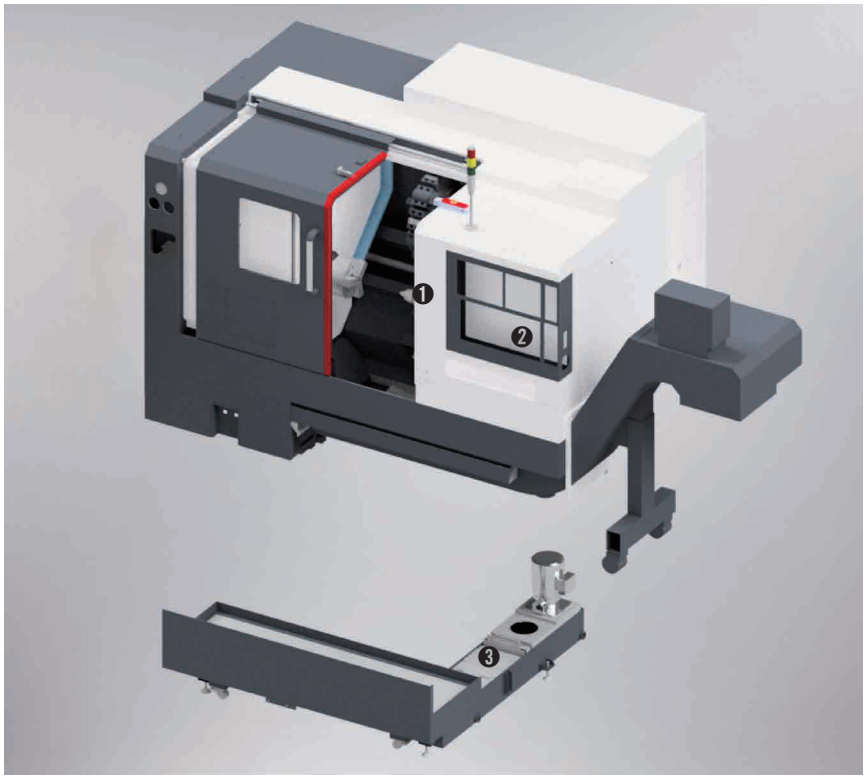
Accessibility of the chuck reduces operator fatigue when inserting/removing workpieces



Easy hydraulic valve adjustment

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

Ease of Use



❶ Programmable tailstock

Operating automatically using M-codes offering both efficiency and convenience

❷ User-centric OP Panel

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

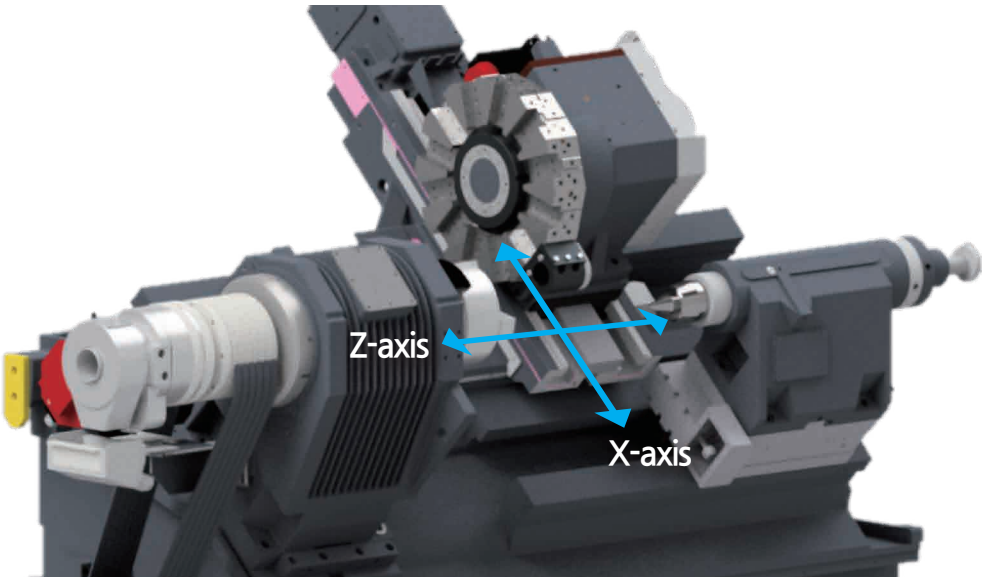
❸ Easy coolant tank maintenance

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

SL 2500/3000 Series

HORIZONTAL TURNING CENTER

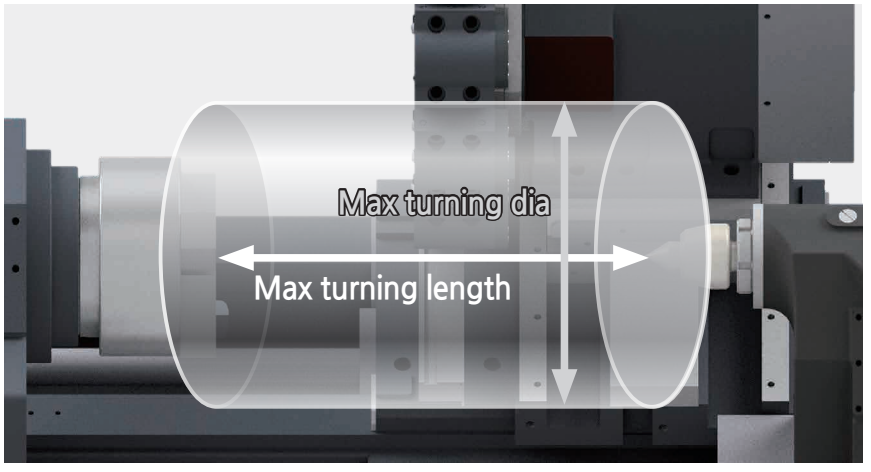
Machine Design



Model	Chuck size	Travel (inch)		Rapid traverse (ipm)	
		X-axis	Z-axis	X-axis	Z-axis
SL 2500(3000)A/AX/AL	8"(10")	9.65	23.63/34.65/43.31	944.89	1,181.11
SL 2500(3000)AM/AXM/ALM	8"(10")	9.65	21.26/32.29/40.95	944.89	1,181.11
SL 2500(3000)B/BX/BL	10"(12")	9.65	23.63/34.65/43.31	944.89	1,181.11
SL 2500(3000)BM/BXM/BLM	10"(12")	9.65	21.26/32.29/40.95	944.89	1,181.11

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

Work Range



Model	Unit	Max turning dia	Max turning length
SL 2500(3000)A/AX/AL	inch	Ø16.93	22.45/33.47/42.13(21.82/32.84/41.50)
SL 2500(3000)AM/AXM/ALM	inch	Ø15.95	19.85/30.87/39.53(19.57/30.20/39.26)
SL 2500(3000)B/BX/BL	inch	Ø16.93	21.82/33.47/41.50(20.79/32.84/40.48)
SL 2500(3000)BM/BXM/BLM	inch	Ø15.95	19.57/30.20/39.26(19.57/28.98/37.64)

Providing a large work envelope, ensuring cost effective productivity

SL 2500/3000 Series(A, B type)

Max turning dia

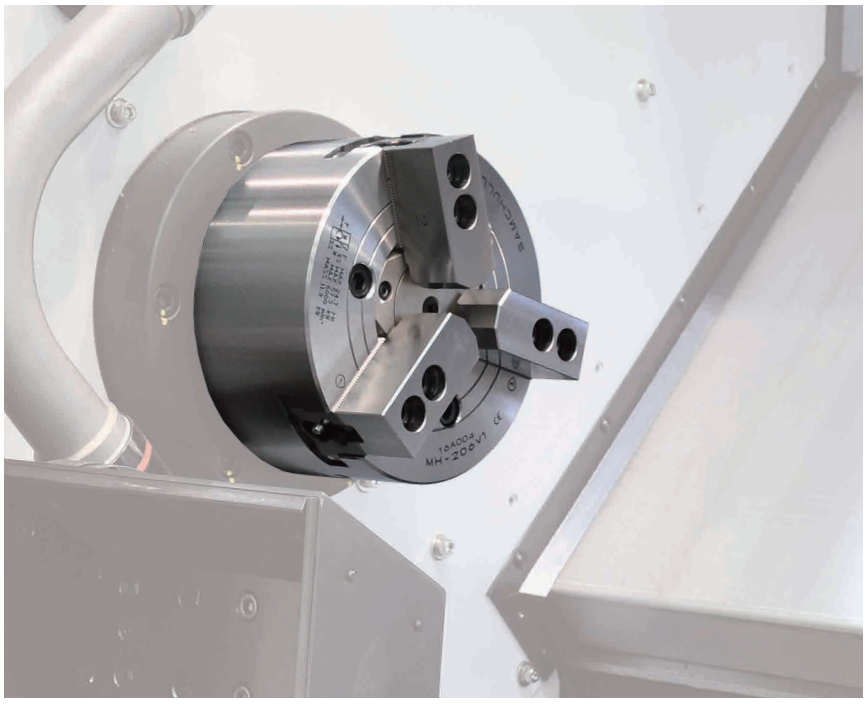
Ø16.93inch

SL 2500M/3000M Series(A, B type)

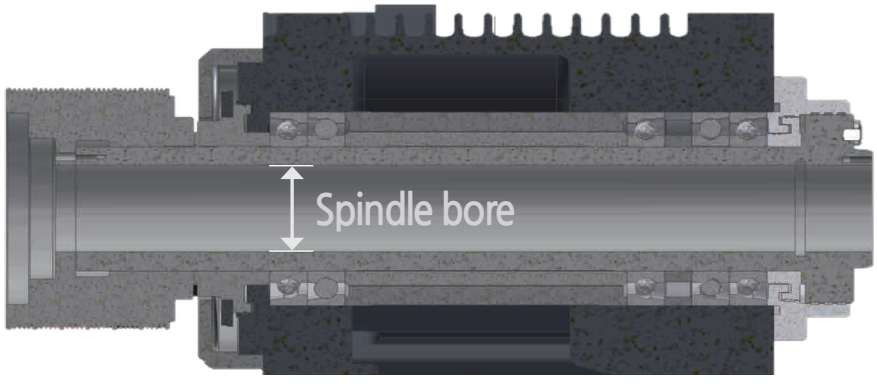
Max turning dia

Ø15.95inch

Spindle



Model	Chuck size	Speed rpm	Power (cont/15min) HP	Torque (cont/15min) lbs.ft
SL 2500 Series (A type)	8"	4,500	20.12/24.81	186.76/307.05
SL 2500 Series (B type)	10"	3,500	20.12/24.81	239.57/393.94
SL 3000 Series (A type)	10"	3,500	24.81/34.87	385.38/541.60
SL 3000 Series (B type)	12"	3,000	24.81/34.87	450.51/633.13



Category	Unit	SL 2500A / AM	SL 2500B / BM SL 3000A / AM	SL 3000B / BM
Spindle bore	inch	Ø3.08	Ø3.39	Ø4.14
Working bar dia	inch	Ø2.60	Ø3.00	Ø3.55
Spindle nose	ASA	A2-6	A2-8	A2-8

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

SL 2500 Series(A type)

Max spindle speed
4,500rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
186.76/307.05lbs.ft

SL 2500 Series(B type)

Max spindle speed
3,500rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
239.57/393.94lbs.ft

SL 3000 Series(A type)

Max spindle speed
3,500rpm

Power(cont/15min)
24.81/34.87HP

Torque(cont/15min)
385.38/541.60lbs.ft

SL 3000 Series(B type)

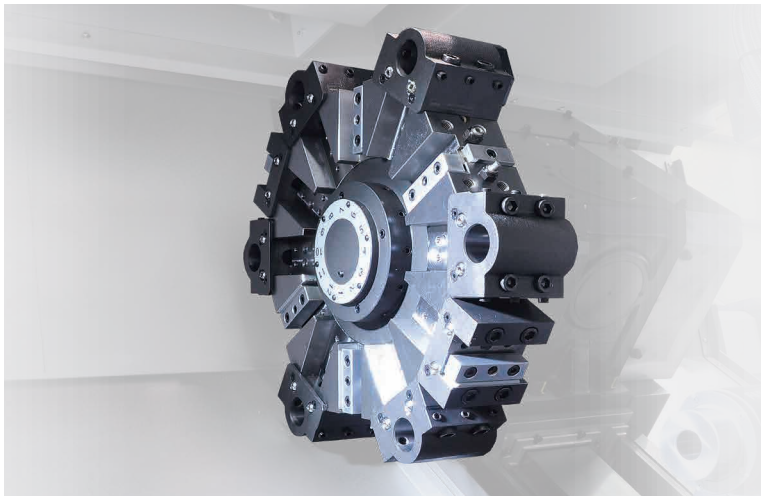
Max spindle speed
3,000rpm

Power(cont/15min)
24.81/34.87HP

Torque(cont/15min)
450.51/633.13lbs.ft

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

Turret



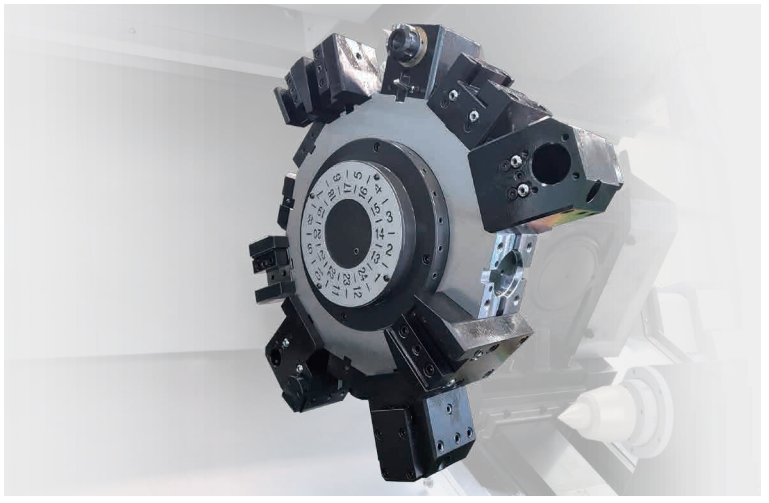
Servo turret

The turret uses a highly reliable, high-power servo motor and the Non-stop Random index method.

2-axis turret

The 0.20 second turret indexing time significantly reduces non-cutting time, while the 3 piece curvic coupling greatly enhances the clamping force and index accuracy.

Turret indexing time : 0.20secs
No. of tool positions : 12 (□1"×1", Ø2)
[OPT] 10 (□1"×1", Ø2)

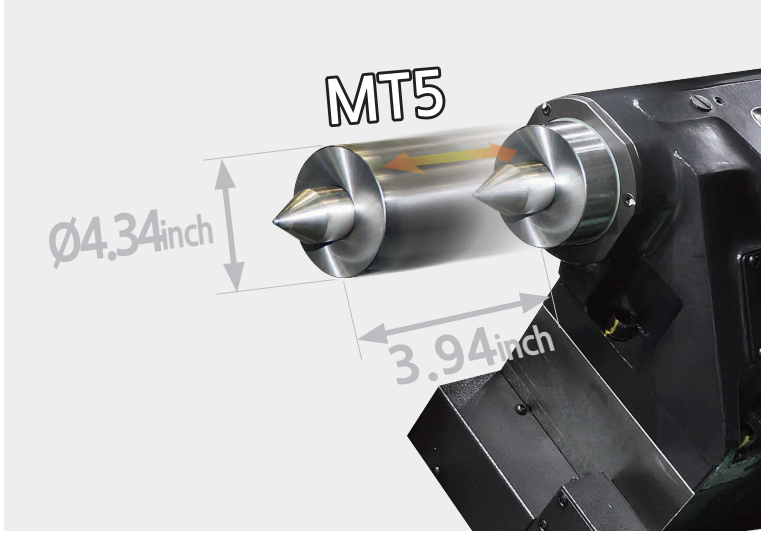


BMT milling turret

This 12 station (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 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 0.20 seconds per station.

Turret indexing time : 0.20secs
No. of tool positions : 12 (□1"×1", Ø2)

Tailstock



Programmable tailstock [standard]

The programmable tailstock is capable of automated forward/ reverse of the tailstock and quill using M-codes and maintains high precision during heavy duty machining.

Quill stroke : 3.94inch
Quill taper : MT5 (LIVE)

Optional Accessories

Spindle Chiller

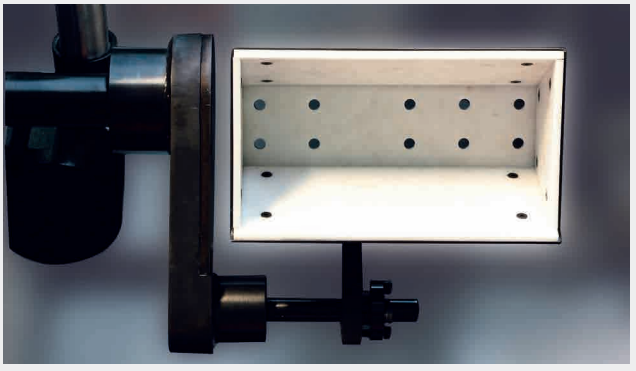
For long-term high-speed continuous operation, a spindle oil chiller may be installed to circulate chilled oil around the spindle bearings to prevent thermal growth in the spindle and ensure high precision machining.

Autodoor

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

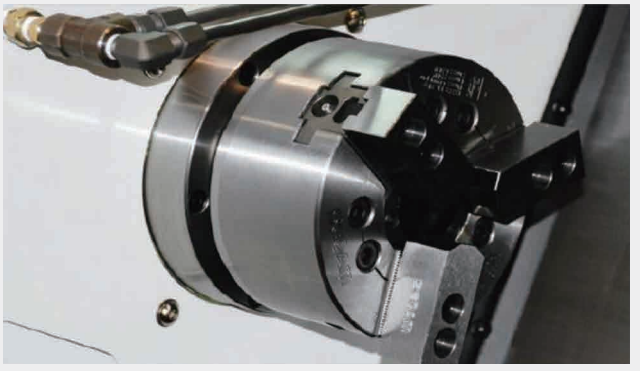
Part Catcher

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



Air Blow

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

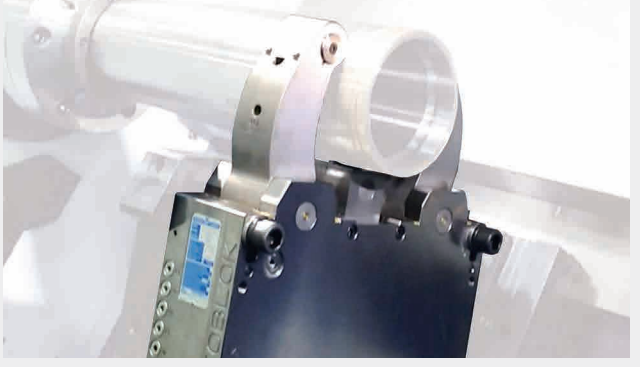


Tool Presetter

Used for setting of tools and for quick and accurate tool length compensation for worn tools.

Steady Rest

Hydraulic steady rest used to support long workpieces for safe machining



SMEC FANUC i series

SL 2500/3000 Series

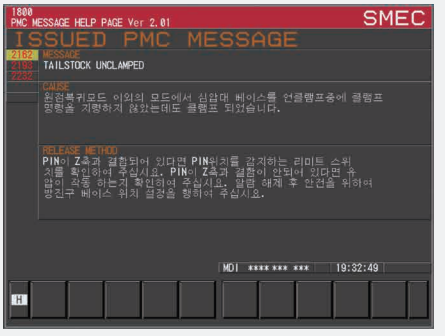
- 10.4'' LCD color display
- High quality designed OP Panel
- Conversational programming, Manual Guide i
- Part program size 2MB
- SMEC Custom S/W

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

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

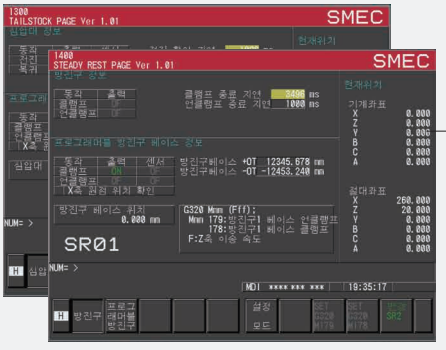
M/G-Code check function

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



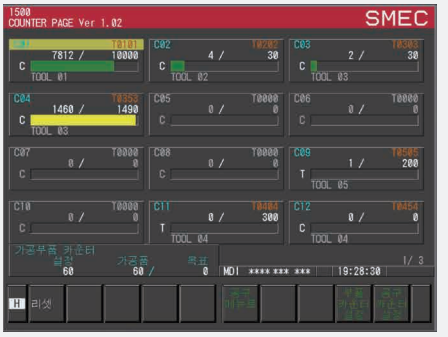
PMC alarm check function

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

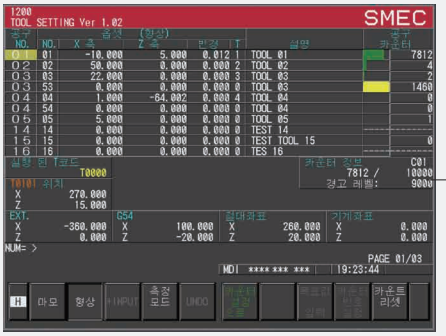


Easy tailstock setting

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



Counter for each T-Code

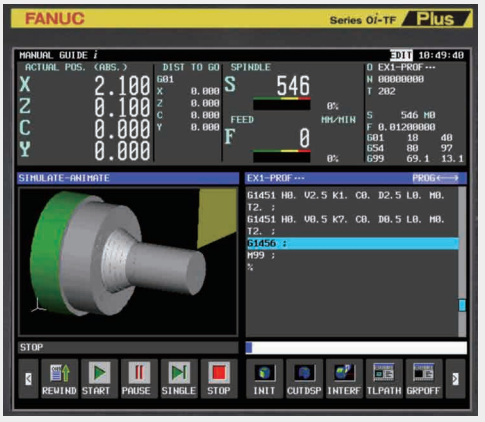


Display only the necessary tools and offsets and check the configured counter at the same time

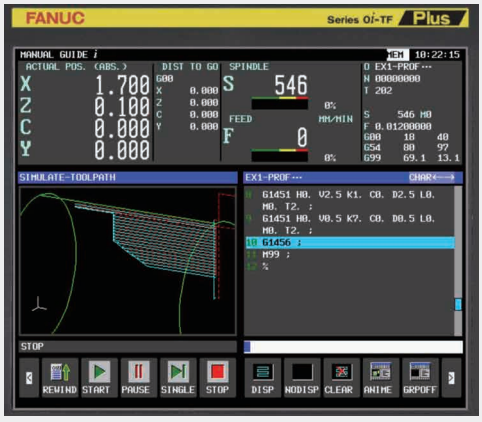
Tool information and setting management mode

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



Check cutting path using cutting simulation

Easy program creation and editing

Program creation using advanced part program editing and extensive cutting cycles

Advanced cutting capabilities

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

Check program using cutting simulations

Program pre-check using realistic cutting simulation

Measurement

Feedback of cutting results and tool offset values after cutting

Effective cutting setup

Tool and cutting condition offset data setup based on measurement cycle

IoT Solution (OPT)

NC-Gate
Basic Platform

IoT-Gate
Expansion Platform

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

KPI (Key Performance Indexes)

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

OEE (Overall Equipment Effectiveness)

Provides figures and graphs of overall equipment effectiveness

· Availability, performance, quality, etc.

Realtime Monitoring

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

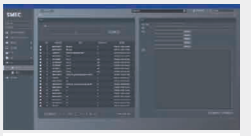
· Provides information about the operation status, speed, production alarms, etc. of each machine

Remote Control/ Management

Remote control and operation

· Emergency stop switch, program editing, etc.

Remote A/S



Problem diagnosis via remote control

· Provide remote diagnosis services to users via the IIoT solution

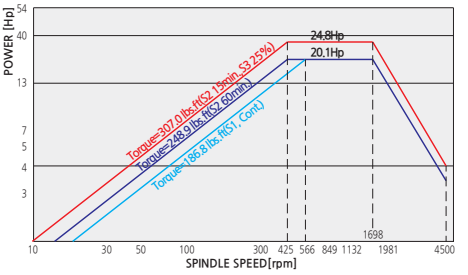
Power-Torque Diagram

SL 2500 Series(A type)

Max speed
4,500rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
186.76/307.05lbs.ft

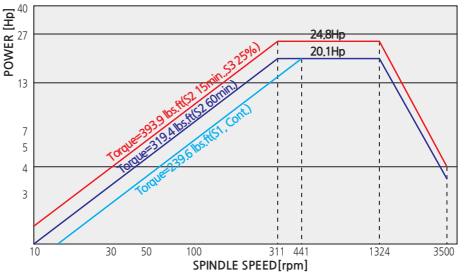


SL 2500 Series(B type)

Max speed
3,500rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
239.57/393.94lbs.ft

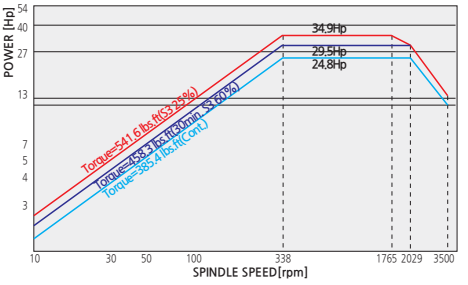


SL 3000 Series(A type)

Max speed
3,500rpm

Power(cont/15min)
24.81/34.87HP

Torque(cont/15min)
385.38/541.60lbs.ft

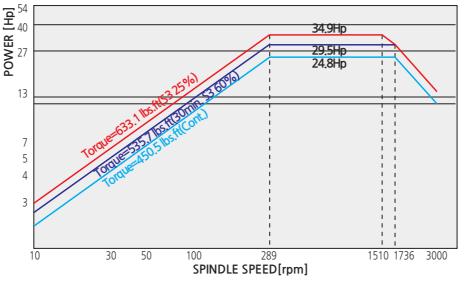


SL 3000 Series(B type)

Max speed
3,000rpm

Power(cont/15min)
24.81/34.87HP

Torque(cont/15min)
450.51/633.13lbs.ft



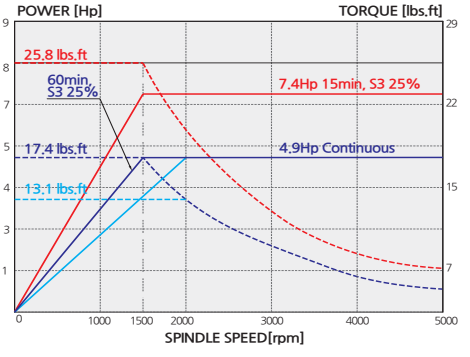
SL 2500/3000 Series(A,B type)

Milling Motor Torque Diagram

Max speed
5,000rpm

Power(cont/15min)
4.97/7.38HP

Torque(cont/15min)
13.06/25.82lbs.ft

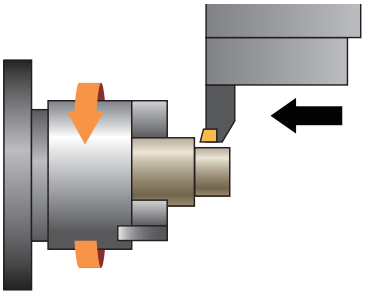


Cutting Performance

Test conditions : SL 2500B(10"), Material : SM45C

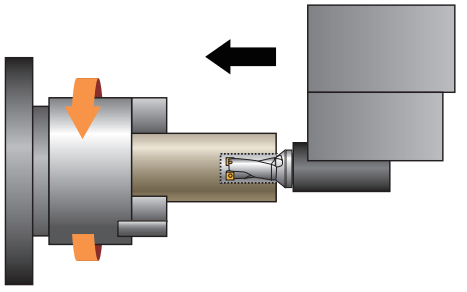
◆ O.D Cutting

Cutting dia.	inch	Ø2.45
Cutting depth	inch	0.20
Cutting speed	ipm	11,417.33
Spindle speed	rpm	1,500
Feedrate	inch/rev	0.018
Chip removal rate	oz/min	22.09



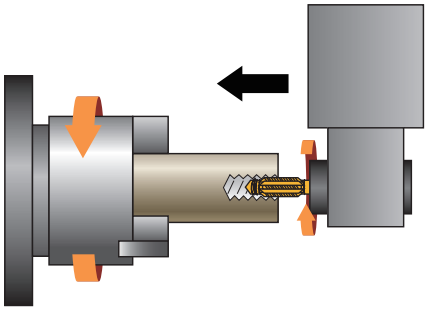
◆ U-Drill Cutting

U-drill dia.	inch	1.97
Cutting speed	ipm	6,692.92
Spindle speed	rpm	1,082
Feedrate	inch/rev	0.010
Chip removal rate	oz/min	17.96



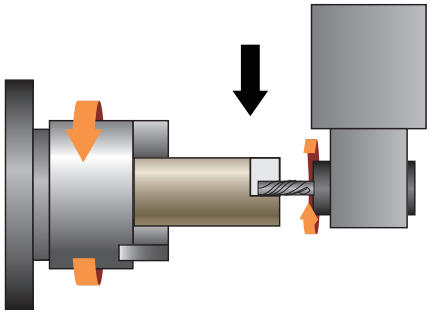
◆ Tap

Tap size	mm	M16×20
Cutting depth	inch	1.19
Cutting speed	ipm	1,574.81
Spindle speed	rpm	800
Feedrate	inch/rev	0.079



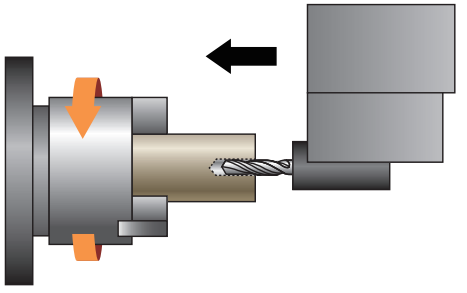
◆ Endmill

Endmill dia.	inch	Ø0.63
Cutting depth	inch	0.32
Cutting speed	ipm	3,149.61
Spindle speed	rpm	1,592
Feedrate	ipm	31.34
Chip removal rate	oz/min	3.45



◆ Drill

Drill dia.	inch	Ø0.63
Cutting depth	inch	1.19
Cutting speed	ipm	3,346.46
Spindle speed	rpm	1,692
Feedrate	inch/rev	0.016
Chip removal rate	oz/min	4.60

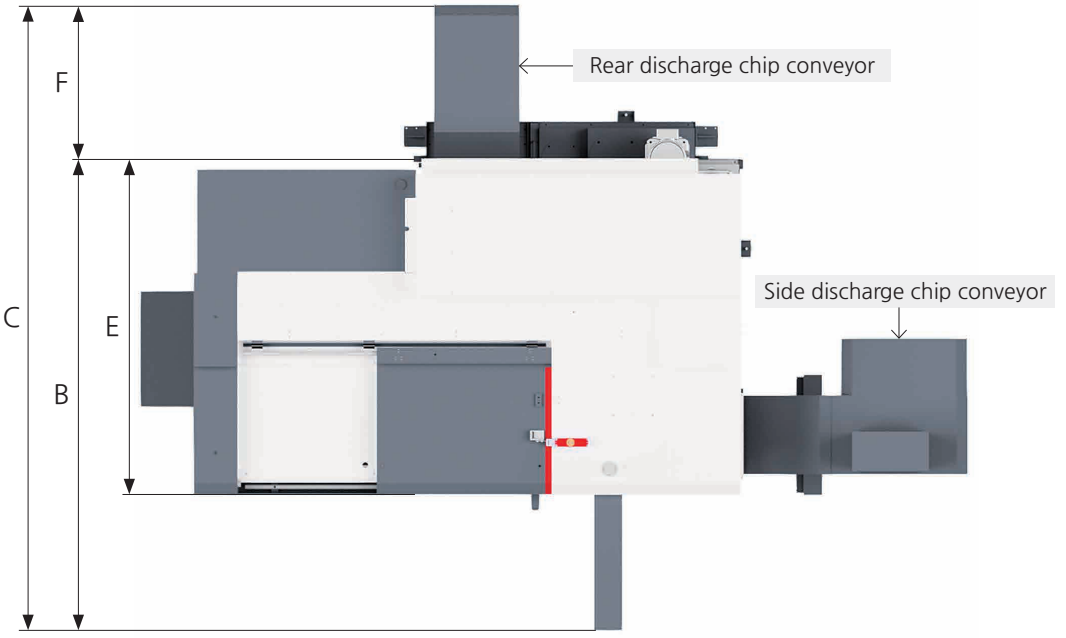


※ The above data is based on internal testing. Values may change depending on cutting conditions.

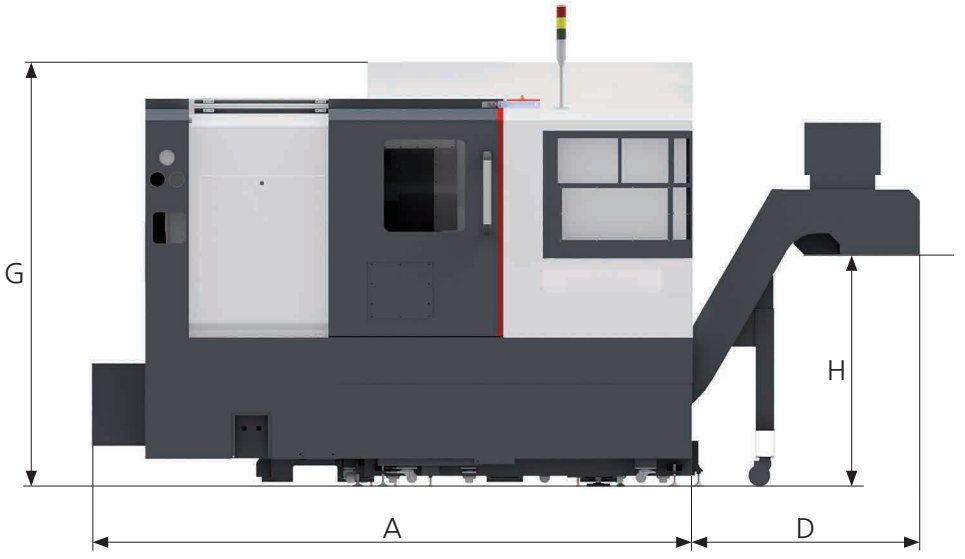
Machine Dimensions

Unit : inch

Top view



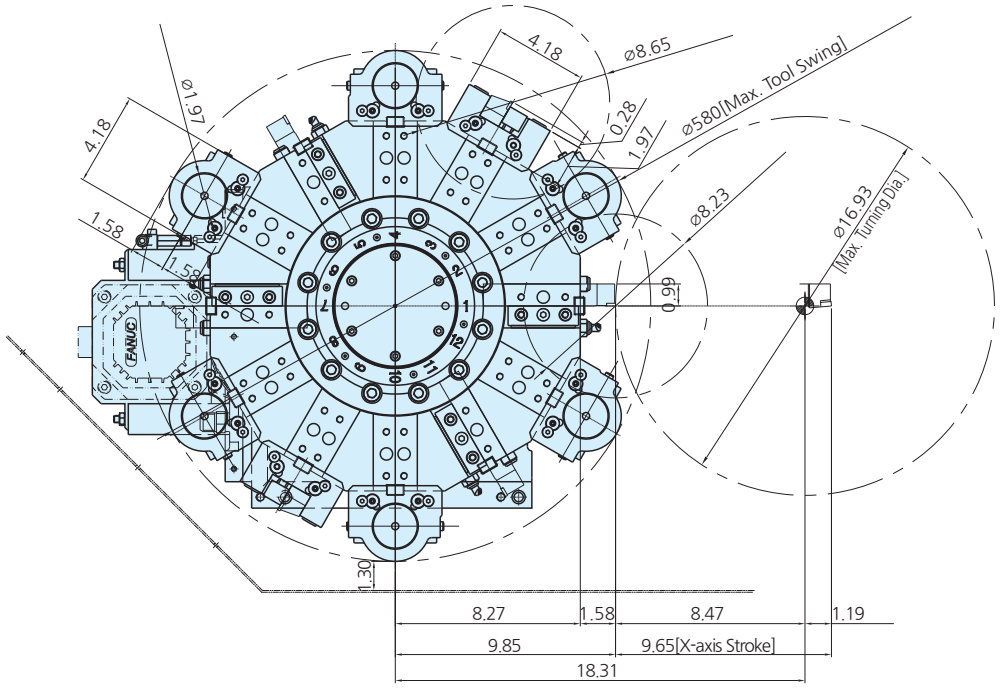
Front view



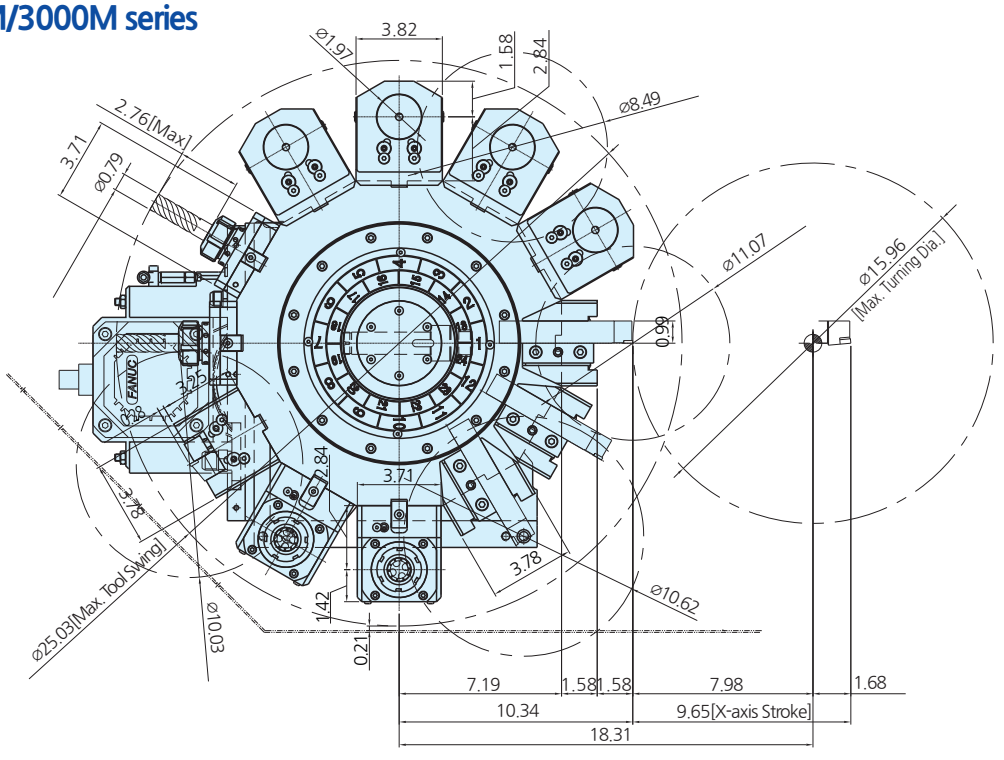
Model	A (Machine front)	B	C	D	E (Machine front)	F	G (Machine front)	H
SL 2500/3000 Series	123.04	62.88	98.39	43.51	63.39	33.55	76.26	30.63
SL 2500X/3000X Series	135.04	62.88	-	41.54	63.39	-	76.19	32.21
SL 2500L/3000L Series	142.92	62.88	-	43.51	63.39	-	76.26	30.71

Unit : inch

SL 2500/3000 series



SL 2500M/3000M series

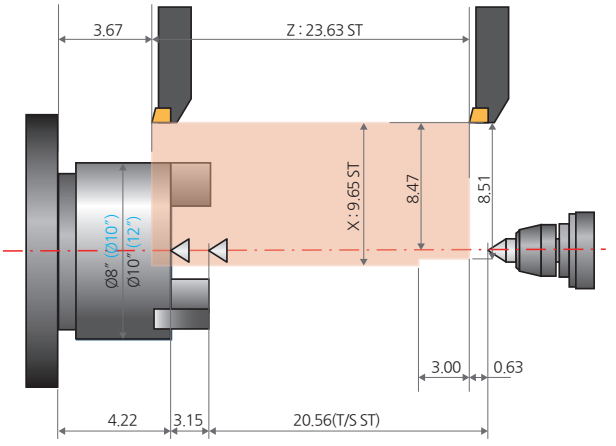


Work Range

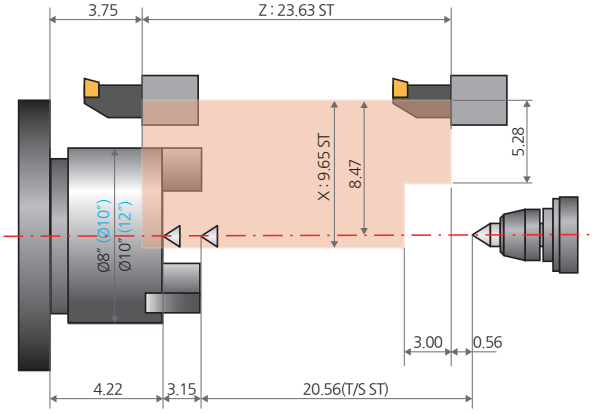
Unit : inch

SL 2500A/B
SL 3000A/B

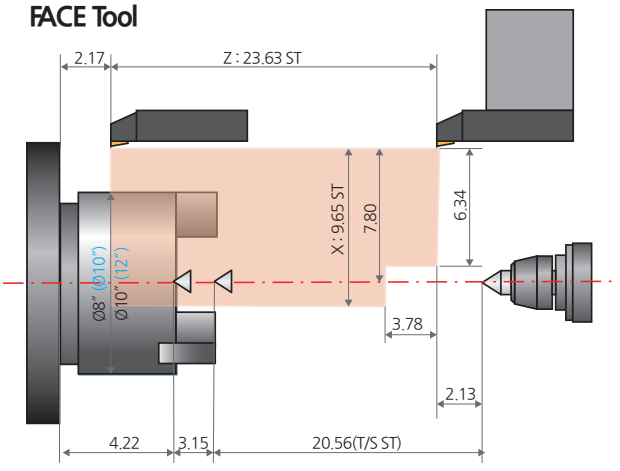
O.D Tool



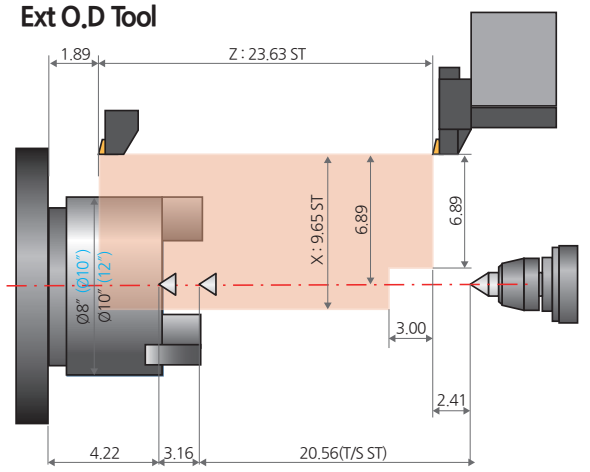
I.D Tool



FACE Tool



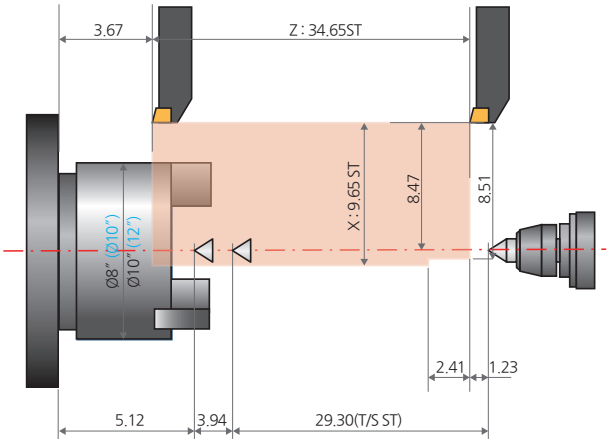
Ext O.D Tool



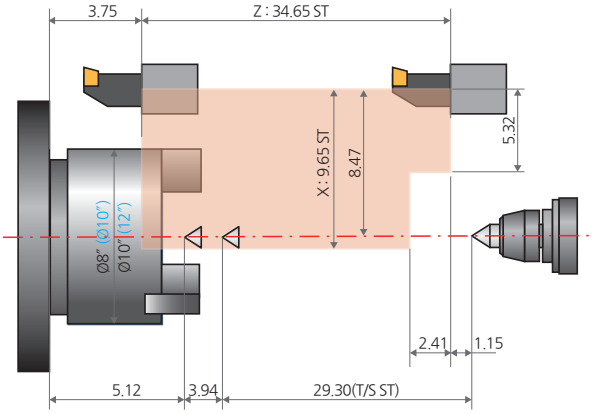
Unit : inch

SL 2500AX/BX
SL 3000AX/BX

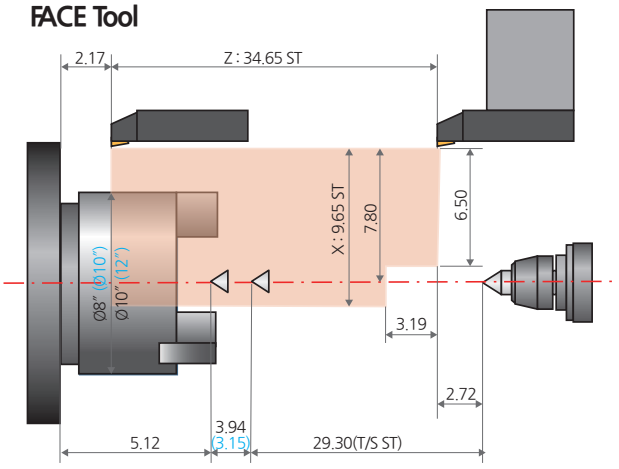
O.D Tool



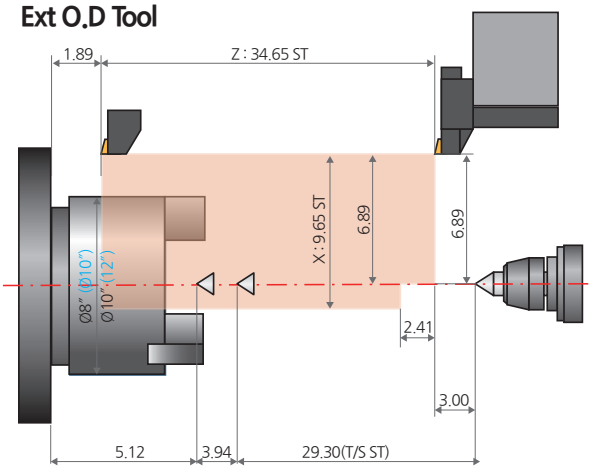
I.D Tool



FACE Tool



Ext O.D Tool

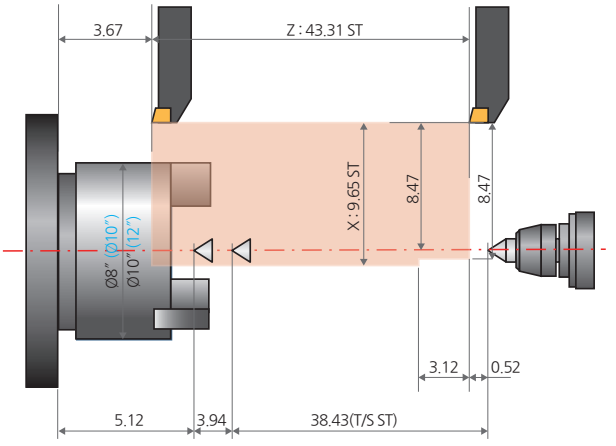


Work Range

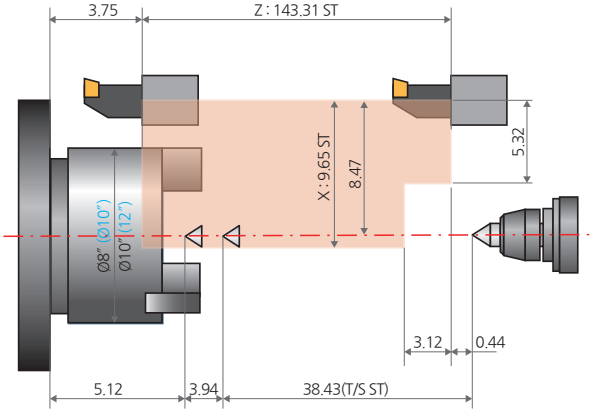
Unit : inch

SL 2500AL/BL
SL 3000AL/BL

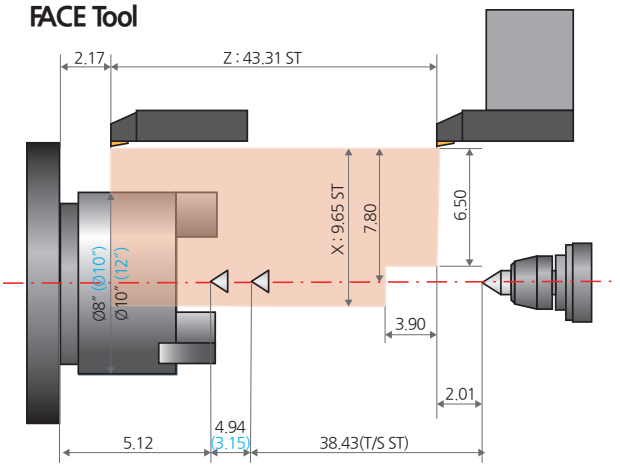
O.D Tool



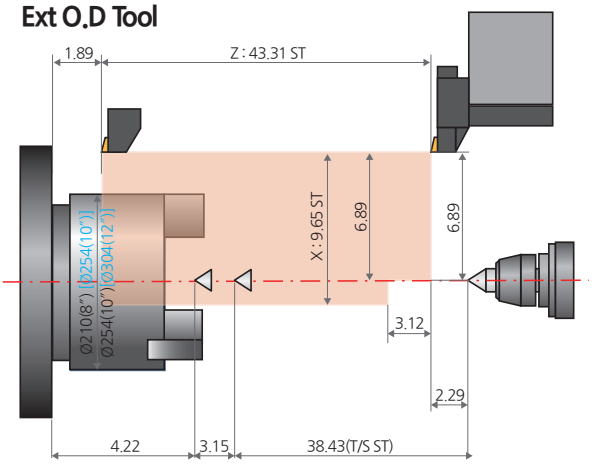
I.D Tool



FACE Tool



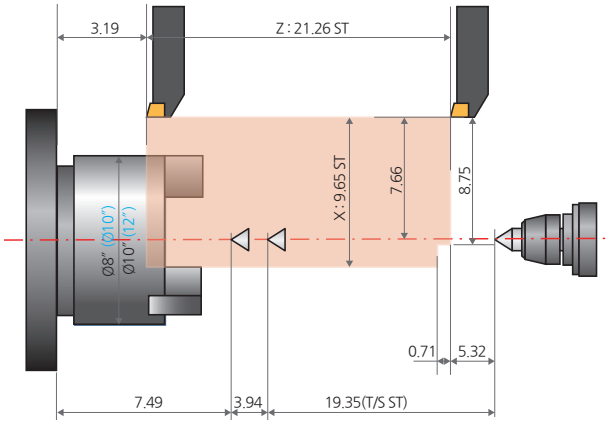
Ext O.D Tool



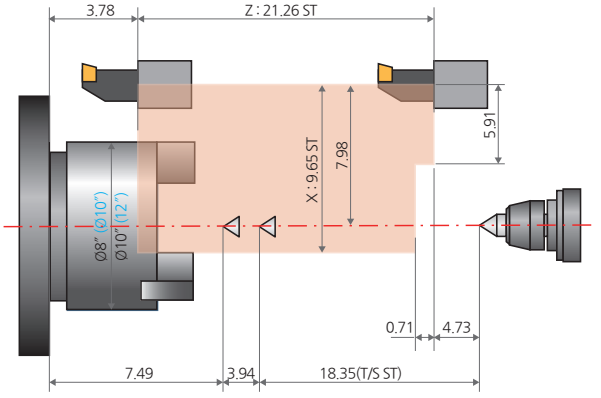
Unit : inch

SL 2500AM/BM
SL 3000AM/BM

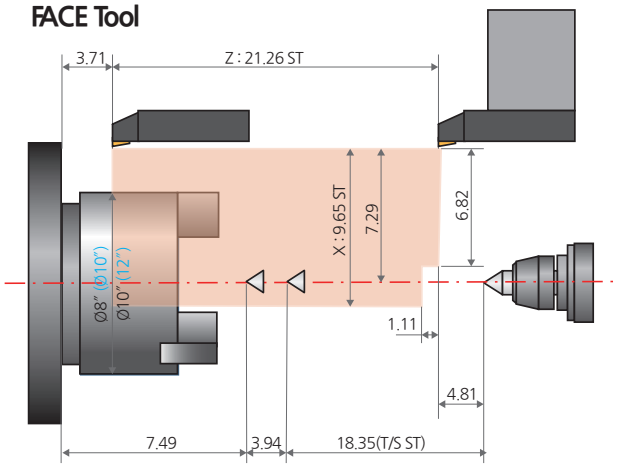
O.D Tool



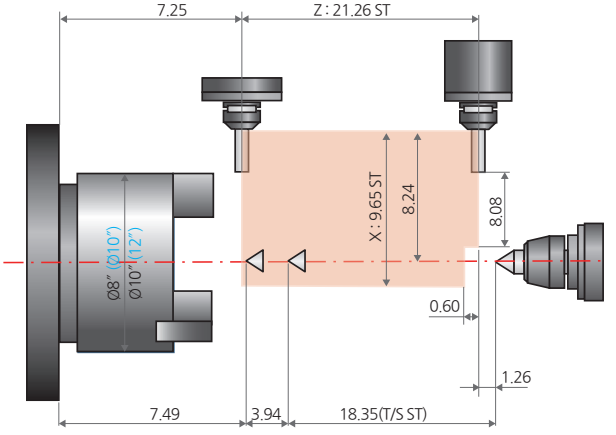
I.D Tool



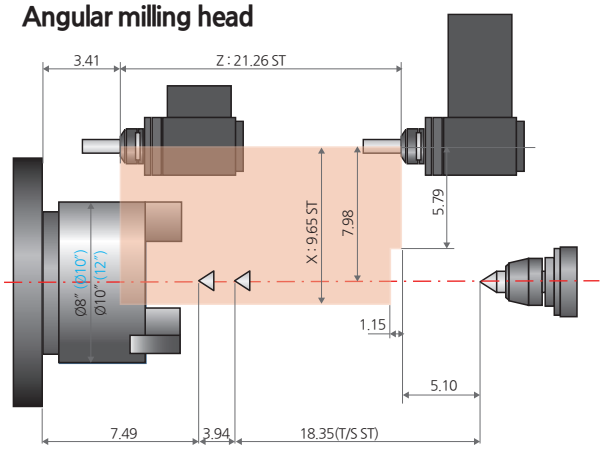
FACE Tool



Straight live tool holder



Angular milling head

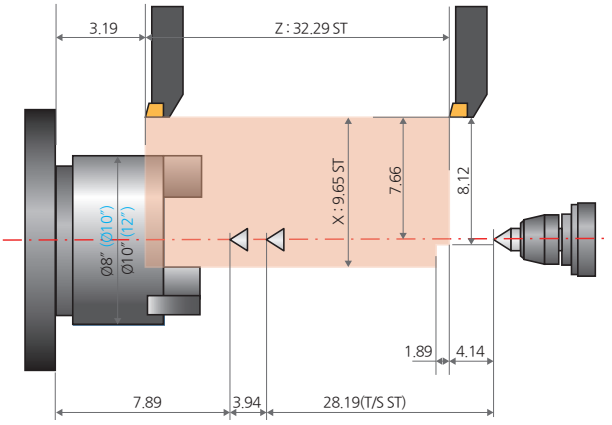


Work Range

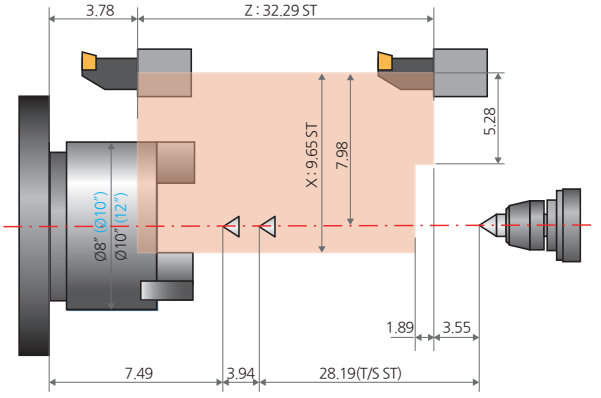
Unit : inch

SL 2500AXM/BXM
SL 3000AXM/BXM

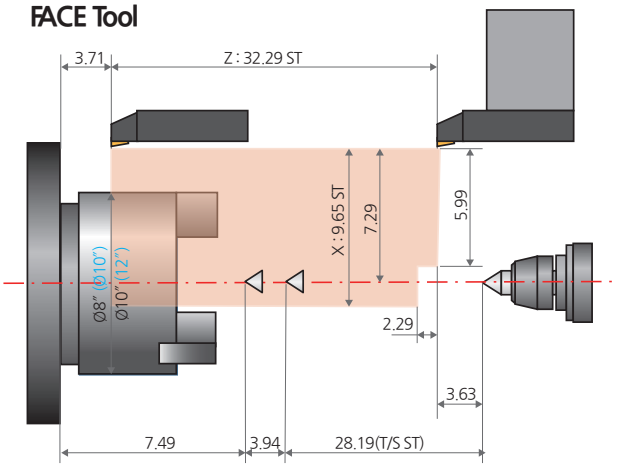
O.D Tool



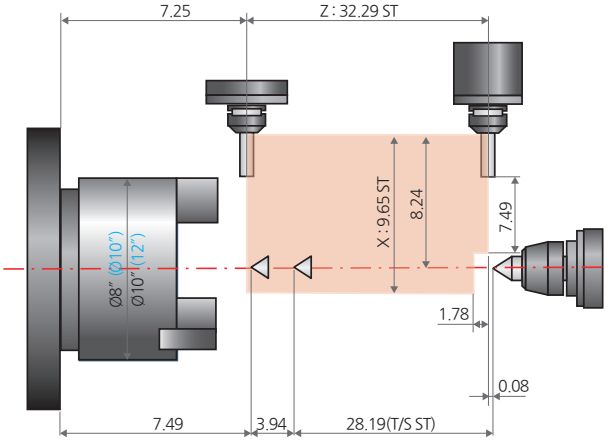
I.D Tool



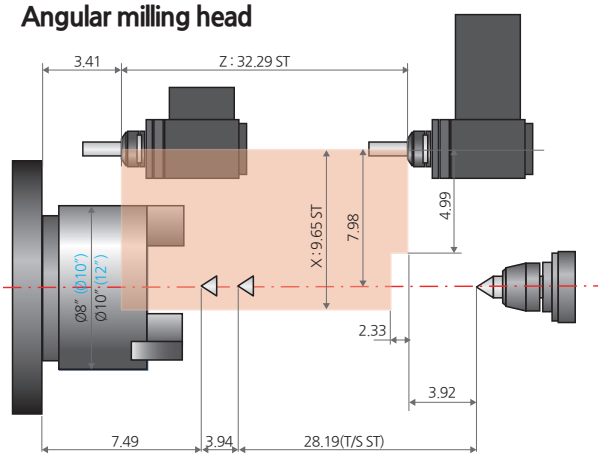
FACE Tool



Straight live tool holder



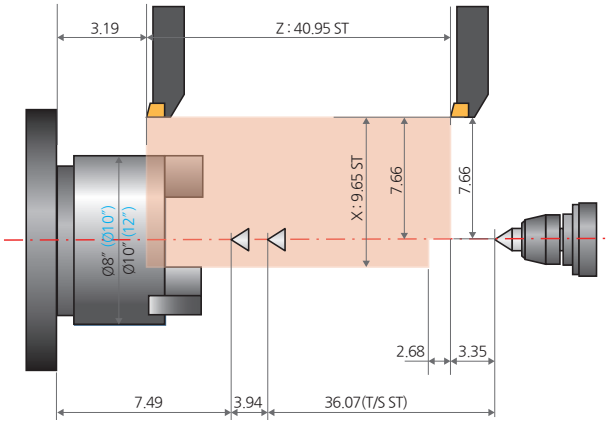
Angular milling head



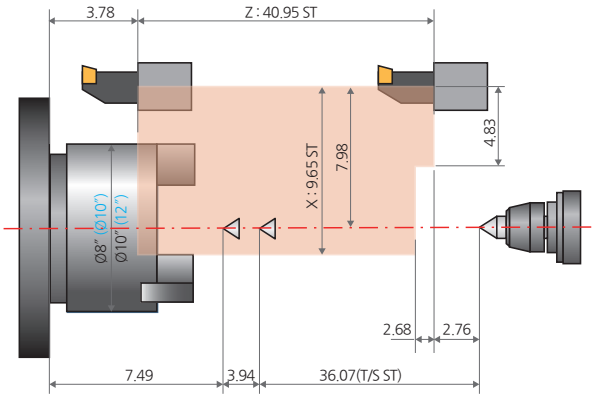
Unit : inch

SL 2500ALM/BLM
SL 3000ALM/BLM

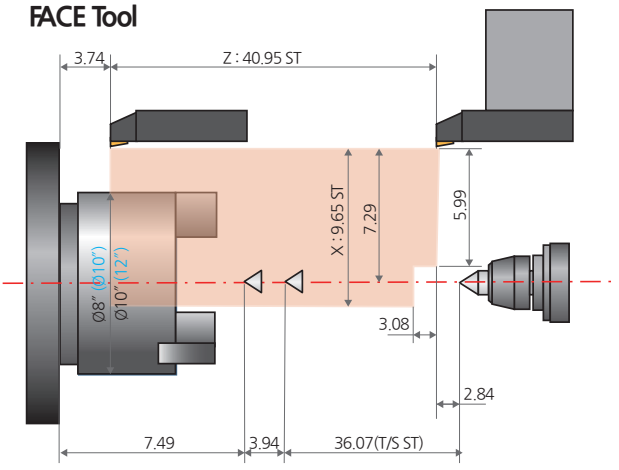
O.D Tool



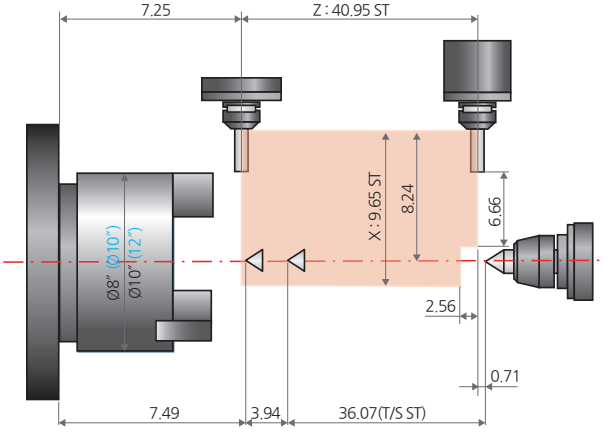
I.D Tool



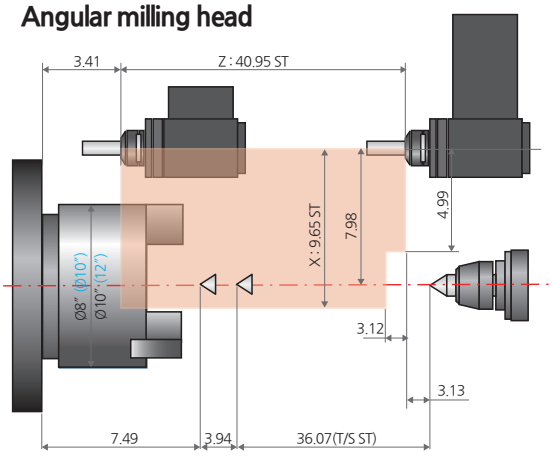
FACE Tool



Straight live tool holder

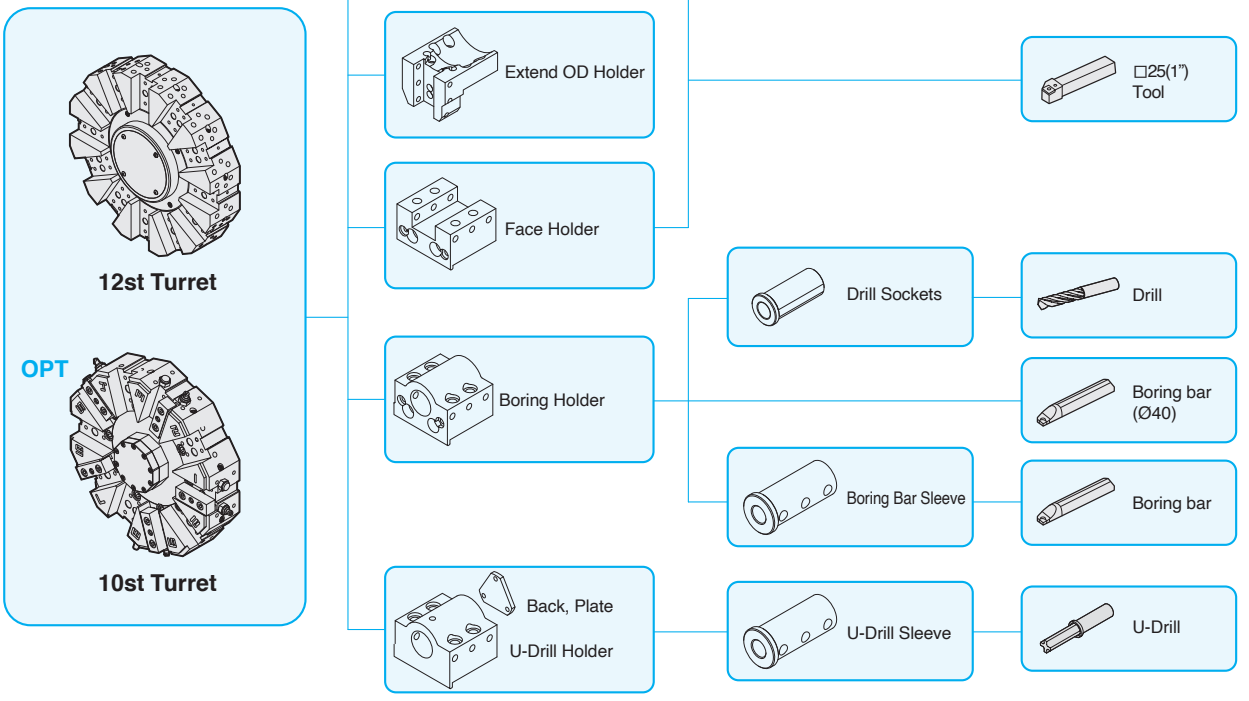


Angular milling head



Tooling System

SL 2500/3000 series

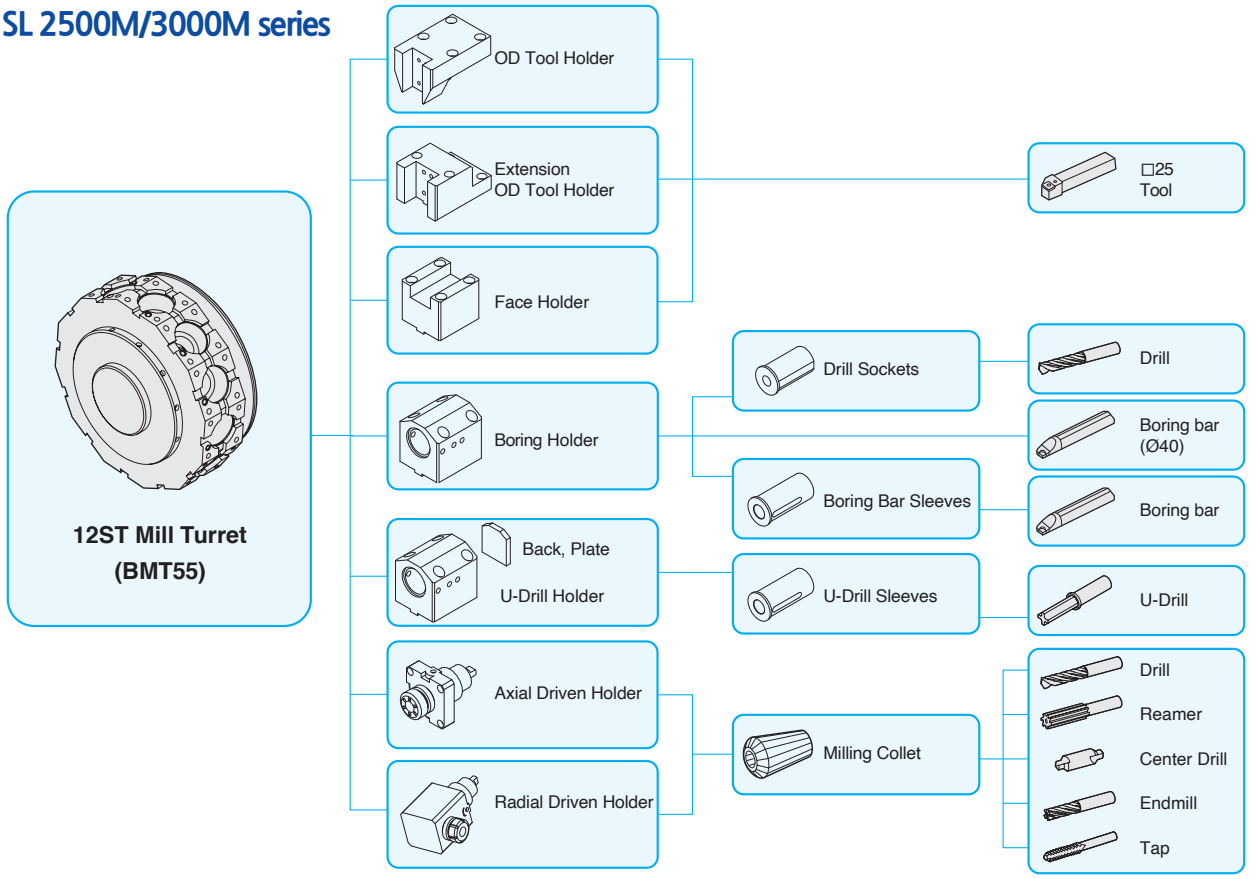


Standard Tooling (SL 2500/3000 series)

[ ] : 10st Turret

Item / Description			SL 2500 (8-inch/10-inch)	SL 3000 (10-inch/12-inch)
Static Holder	Bite Plate		4 [2]	4
	OD Holder	Extension	-	-
	Face Holder		2 [2]	2
Boring Holder	ID Holder	Single (Ø2″)	-	-
	U-Drill Holder	Cap	6 [6]	6
Milling Holder	Axial Milling Holder (Straight)	Standard	-	-
		T.T.C	-	-
	Radial Milling Holder (Angular)	Standard	-	-
		T.T.C	-	-
Socket	Boring	Ø3/8"	1 [1]	1
		Ø1/2"	1 [1]	1
		Ø5/8"	1 [1]	1
		Ø3/4"	1 [1]	1
		Ø1"	1 [1]	1
		Ø1 1/4"	1 [1]	1
		Ø1 1/2"	1 [1]	1
	Drilling	MT3	1 [1]	1
		MT4	1 [1]	1
	ER Collet		-	-

SL 2500M/3000M series



Standard Tooling (SL 2500M/3000M series)

Item / Description			SL 2500M (8-inch/10-inch)	SL 3000M (10-inch/12-inch)
Static Holder	Bite Plate		4	4
	OD Holder		3	3
	Face Holder		1	1
Boring Holder	ID Holder	Single (Ø2″)	-	-
	U-Drill Holder	Cap	4	4
Milling Holder	Axial Milling Holder (Straight)	Standard	2	2
		T.T.C	-	-
	Radial Milling Holder (Angular)	Standard	2	2
		T.T.C	-	-
Socket	Boring	Ø3/8"	1	1
		Ø1/2"	1	1
		Ø5/8"	1	1
		Ø3/4"	1	1
		Ø1"	1	1
		Ø1 1/4"	1	1
		Ø1 1/2"	1	1
	Drilling	MT3	1	1
		MT4	1	1
	ER Collet		-	-

Standard / Optional

● : Standard ○ : Optional △ : To be discussed X : N/A

Category			SL 2500 SL 3000 (A type)	SL 2500M SL 3000M (A type)	SL 2500 SL 3000 (B type)	SL 2500M SL 3000M (B type)
Spindle	3 jaw open-center chuck		●	●	●	●
	3 jaw closed-center chuck		○	○	○	○
	Soft jaw (3set)		●	●	●	●
	Hard jaw (1set)		●	●	●	●
	Chuck clamp footswitch		●	●	●	●
	Dual pressure chucking		○	○	○	○
	C-axis control (0.001°)		X	●	X	●
	Chuck clamp confirmation		●	●	●	●
	Chuck dual footswitch		○	○	○	○
Turret	Tool holder		●	●	●	●
	Rotary holder type	BMT	X	●	X	●
	Rotary holder (axial)	Collet-type, 2EA	X	●	X	●
	Rotary holder (radial)	Collet-type, 2EA	X	●	X	●
	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		●	●	●	●
	Swivel head holder		△	△	△	△
Tailstock	Programmable tailstock		●	●	●	●
	Live center (standard with tailstock)		○	○	○	○
	High precision live center		△	△	△	△
	Dual pressure tailstock		○	○	○	○
	Quill forward/reverse confirmation		○	○	○	○
	Tailstock footswitch		○	○	○	○
Steady rest	Hyd steady rest (only available for X, L models)		○	○	○	○
Coolant & Air Blow	Standard coolant (nozzle)		○	○	○	○
	Chuck coolant		○	○	○	○
	Coolant gun		○	○	○	○
	TSC for chuck (for special coolant)		△	△	△	△
	Chuck air blower		○	○	○	○
	Rotary tool holder TSC		○	○	○	○
	Tailstock air blower		X	X	X	X
	Turret tool air blower		X	X	X	X
	Air gun		○	○	○	○
	Through spindle air blower (for special chuck)		△	△	△	△
	Coolant pump	4.5Bar	●	●	●	●
		6Bar	○	○	○	○
		10Bar	○	○	○	○
		14.5Bar	○	○	○	○
		20Bar	○	○	○	○
	Power coolant system (for automation solutions)		△	△	△	△
	Coolant chiller		△	△	△	△

Category			SL 2500 SL 3000 (A type)	SL 2500M SL 3000M (A type)	SL 2500 SL 3000 (B type)	SL 2500M SL 3000M (B type)
Chip Disposal	Coolant tank	140L	●	●	●	●
	Chip conveyor (Hinge/ Screper)	Right-side	○	○	○	○
		Rear	△	△	△	△
	Special chip conveyor (Drum Filter)		△	△	△	△
	Chip bucket	Fixed 380L	○	○	○	○
Safety Features	Door interlock		●	●	●	●
	Backspin torque limiter(BST)		X	X	X	X
	Torque limiter		X	X	X	X
	Full splash guard		●	●	●	●
	Chuck hyd. pressure interlock		X	X	X	X
Electrical	3 step patrol lamp and buzzer		●	●	●	●
	Lamp for electrical cabinet		X	X	X	X
	Remote MPG		X	X	X	X
	Work counter	Digital	△	△	△	△
	Total counter	Digital	△	△	△	△
	Tool counter	Digital	△	△	△	△
	Multi counter	6EA	△	△	△	△
		9EA	△	△	△	△
	Grounded circuit breaker		△	△	△	△
	AVR(Auto Voltage Regulator)		X	X	X	X
	Transformer	35kVA	○	○	○	○
		50kVA	△	△	△	△
	Auto Power Off		○	○	○	○
Measurement	Tool Presetter	Manual	○	○	○	○
	Tool Presetter	Auto	○	○	○	○
	Air zero measuring device	TACO	△	△	△	△
		SMC	△	△	△	△
	Linear scale	X-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 solution)		△	△	△	△
	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		○	○	○	○
	Part conveyor (requires part catcher)		X	X	X	X
Hydraulic Supply	Standard hydraulic cylinder	Open-center	●	●	●	●
	Standard hydraulic unit	35Bar / 14L	●	●	●	●
		35Bar / 15L	X	X	X	X

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

Machine Specifications

[ ] : Optional

Category			SL 2500/X/L		SL 2500/XM/LM	
			A type	B type	A type	B type
Chuck	Chuck Size	inch	8"	10"	8"	10"
Capacity	Swing over Bed	inch	25.60	25.60	25.60	25.60
	Swing over Cross-slide	inch	18.90	18.90	18.90	18.90
	Max. Turning Diameter.	inch	16.93	16.93	15.95	15.95
	Max. Milling Diameter	inch	-	-	16.93	16.93
	Max. Turning Length	inch	22.45/33.47/42.13	21.82/33.47/41.50	19.85/30.87/39.53	19.57/30.87/39.26
Spindle	Spindle Speed	rpm	4,500	3,500	4,500	3,500
	Spindle Nose	ASA	A2-6	A2-8	A2-6	A2-8
	Draw Tube I.D.	inch	2.68	3.04	2.68	3.04
	Spindle Bore	inch	3.08	3.39	3.08	3.39
	Spindle Motor (Cont./15min)	HP	20.12/24.81	20.12/24.81	20.12/24.81	20.12/24.81
Travels	X-axis Stroke	inch	9.65	9.65	9.65	9.65
	Z-axis Stroke	inch	23.63/34.65/43.31	23.63/34.65/43.31	21.26/32.29/40.95	21.26/32.29/40.95
	X-axis Rapid Traverse	ipm	944.89	944.89	944.89	944.89
	Z-axis Rapid Traverse	ipm	1,181.11	1,181.11	1,181.11	1,181.11
Turret	No. of Tool Positions	ea	12[10]	12[10]	12[24] (BMT65)	12[24] (BMT65)
	Shank Size for Square Tool	inch	1	1	1	1
	Boring Bar Diameter	inch	2	2	2	2
	Indexing Time	sec	0.2	0.2	0.2	0.2
	Rotary Tool Speed	rpm	-	-	5,000	5,000
	Rotary Tool Motor (Cont./15min))	HP	-	-	4.97/7.38	4.97/7.38
Tailstock	Quill diameter	inch	4.34	4.34	4.34	4.34
	Quill stroke	inch	3.94	3.94	3.94	3.94
	Quill taper	MT	MT5	MT5	MT5	MT5
Machine	Size (with SIDE chip conveyor) LxWxH	inch	123.04(166.54) × 63.39 × 76.26 135.04(176.58) × 63.39 × 76.19 142.92(186.42) × 63.39 × 76.26		123.04(166.54) × 63.39 × 76.26 135.04(176.58) × 63.39 × 76.19 142.92(186.42) × 63.39 × 76.26	
	Size (with REAR chip conveyor) LxWxH	inch	123.04 × 78.35(99.61) × 76.26 / - / -		123.04 × 78.35(99.61) × 76.26 / - / -	
	Weight	lbs	11,243.58/12,566.35/13,889.13		11,243.58/12,566.35/13,889.13	11,464.04/12,786.82/14,107.59
	Coolant tank capacity	gal	46.24/52.84/58.12	46.24/52.84/58.12	46.24/52.84/58.12	46.24/52.84/58.12
Electric power supply		kVA/V	34/220	34/220	34/220	34/220
Controller			FANUC 0i-TF+			

※ Design and specifications are subject to change without notice.

SL 2500/3000 Series

HORIZONTAL TURNING CENTER

Machine Specifications

[ ] : Optional

Category			SL 3000/X/L		SL 3000/XM/LM	
			A type	B type	A type	B type
Chuck	Chuck Size	inch	10"	12"	10"	12"
Capacity	Swing over Bed	inch	25.60	25.60	25.60	25.60
	Swing over Cross-slide	inch	18.90	18.90	18.90	18.90
	Max. Turning Diameter.	inch	16.93	16.93	15.95	15.95
	Max. Milling Diameter	inch	-	-	16.93	16.93
	Max. Turning Length	inch	21.82/32.84/41.50	21.82/31.82/40.48	19.57/30.20/39.26	19.57/28.98/37.64
Spindle	Spindle Speed	rpm	3,500	3,000	3,500	3,000
	Spindle Nose	ASA	A2-8	A2-8	A2-8	A2-8
	Draw Tube I.D.	inch	3.04	3.59	3.04	3.59
	Spindle Bore	inch	3.39	4.14	3.39	4.14
	Spindle Motor (Cont./15min)	HP	24.81/34.87	24.81/34.87	24.81/34.87	24.81/34.87
Travels	X-axis Stroke	inch	9.65	9.65	9.65	9.65
	Z-axis Stroke	inch	23.63/34.65/43.31	23.63/34.65/43.31	21.26/32.29/40.95	21.26/32.29/40.95
	X-axis Rapid Traverse	ipm	944.89	944.89	944.89	944.89
	Z-axis Rapid Traverse	ipm	1,181.11	1,181.11	1,181.11	1,181.11
Turret	No. of Tool Positions	ea	12[10]	12[10]	12[24] (BMT65)	12[24] (BMT65)
	Shank Size for Square Tool	inch	1	1	1	1
	Boring Bar Diameter	inch	2	2	2	2
	Indexing Time	sec	0.20	0.20	0.20	0.20
	Rotary Tool Speed	rpm	-	-	5,000	5,000
	Rotary Tool Motor (Cont./15min))	HP	-	-	4.97/7.38	4.97/7.38
Tailstock	Quill diameter	inch	4.34	4.34	4.34	4.34
	Quill stroke	inch	3.94	3.94	3.94	3.94
	Quill taper	MT	MT5	MT5	MT5	MT5
Machine	Size (with SIDE chip conveyor) L×W×H	inch	123.04(166.54) × 63.39 × 76.26 135.04(176.58) × 63.39 × 76.19 142.92(186.42) × 63.39 × 76.26		123.04(166.54) × 63.39 × 76.26 135.04(176.58) × 63.39 × 76.19 142.92(186.42) × 63.39 × 76.26	
	Size (with REAR chip conveyor) L×W×H	inch	123.04 × 78.35(99.61) × 76.26 / - / -		123.04 × 78.35(99.61) × 76.26 / - / -	
	Weight	lbs	11,464.04/12,786.82/14,109.59		11,464.04/12,786.82/14,109.59	11,684.50/13,007.28/14,330.05
	Coolant tank capacity	gal	46.24/52.84/58.12	46.24/52.84/58.12	46.24/52.84/58.12	46.24/52.84/58.12
Electric power supply		kVA/V	41/220	41/220	41/220	41/220
Controller			FANUC 0i-TF+			

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NC Specification / FANUC Series

● : Standard ○ : Optional ( ) : Option X : N/A

Category		0*i*-TF+
Controlled axis	Controlled axes	X, Z, C
	Max. simultaneosly controlled axes	4
	Least command increment	0.001mm / 0.0001"
	Built-in stroke limit	Soft overtravel 1, 2, 3
	Machine lock	●
Operation functions	Pulse handle feed	X1, X10, X100
	Dry run	●
	Single block	●
	Feedrate per minute	G94
	Feedrate per revolution	G95
	DNC operation	Ethernet, CF card
	Thread cutting pause	○
Interpolation functions	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 position return	G30
	Variable lead thread cutting	●
	Thread Repair	Manual guide i (required)
Feed function	Rapid traverse rate override	F0, 25%, 50%, 100%
	Feedrate override	0~200%
	Jog Override	●
	AI look ahead	X
	AI contour control II	OPT(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	●
	Tool life management	●
	Tool path graphic display	●

Category		0*i*-TF+
Program input	Absolute/incremental programming	G90/G91
	Multiple repetitive cycle	●
	Multiple repetitive cycle II	●
	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
	Direct drawing dimension programming	●
	Programmable data input	G10
	Tape code	ISO / EIA
	Optional block skip	●
	Workpiece coordinate system	G52 ~ G59
	Addition of workpiece coordinate system	X
Interface function	Embedded ethemet	●
	Fast ethernet	X
Setting and display	Alarm & Operator histor display	●
	Run hour and parts count display	●
	Loadmeter display	●
	Self-diagnosis function	●
	Extended part program editing	●
	Machining condition selecting function	○
	Machining quality level adjustment	X
	Display screen	10.4" color LCD
	Multi-language display	25 language
Data input/ output	Fast data server	○
	RS232C interface	●
	Memory card input/output	●
	USB memory input/output	●
Editing operation	Part program storage size	512Kbyte(2Mbyte)
	Number of registerable programs	400(1,000) EA
	Manual guide 0i	X
	Manual guide i	●

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