

SMEC

SL 2000/E Series

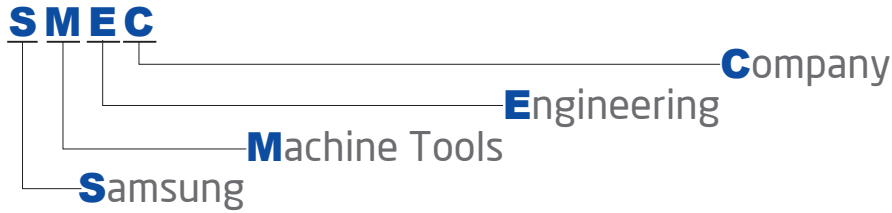
6"- 8" BOX GUIDE TYPE
HORIZONTAL TURNING CENTER

SL 2000/E Series

- SL 2000A
- SL 2000AE
- SL 2000B
- SL 2000BE
- SL 2000AM
- SL 2000BM

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



Superior Spindle design

The radiator fan design of the spindle minimizes thermal growth and the inclusion of the Bzi sensor improves the accuracy of rotation detection and enables high quality machining

Optimized Travels

The pre-tensioned and double anchored travel axis ballscrews and six-points of contact x-axis slideway frame enables high rigidity, heavy duty cutting.

SL 2000/E Series

SL 2000A/AE/AM/B/BE/BM

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

- 6"-8" high rigidity BOX GUIDE TYPE compact turning center
- 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

[]:Option

		SL 2000A/AE AM	SL 2000B/BE BM
Swing over bed	inch	22.45	22.45
Max. turning length	inch	21.26 20.48	21.26 20.48
Chuck size	inch	6"	8"
Spindle bore	inch	2.41	3.0
Max. spindle speed	rpm	6,000	4,500
Spindle motor (cont/max)	HP	20.12/24.81	20.12/24.81
Travel (X/Z)	inch	8.27/22.14 8.47/22.14	8.27/22.14 8.47/22.14
No. of tool stations	EA	12 12[24](BMT55)	12 12[24](BMT55)

High Rigidity Design

45° slant bed with torque tube ribbed design suppresses backlash from heavy duty cutting, enabling high precision machining.

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 2000/E Series

HORIZONTAL TURNING CENTER

Superior Spindle Design



Radiator fin spindle minimizing thermal growth

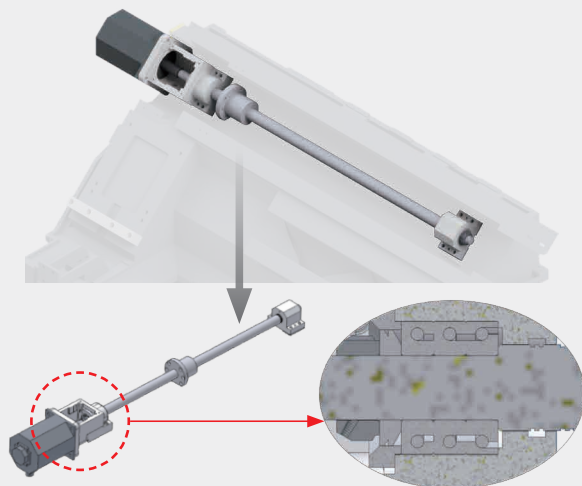
The radiator fin design of the spindle head minimizes thermal growth enabling high precision cutting



Changed spindle rotation detection sensor eliminating a cause of service issues

By changing the spindle orientation sensor from a position encoder to a Bzi sensor improves overall productivity by improving the accuracy of spindle rotation measurement, removing the need to adjust the timing belt and eliminating a cause of service issues

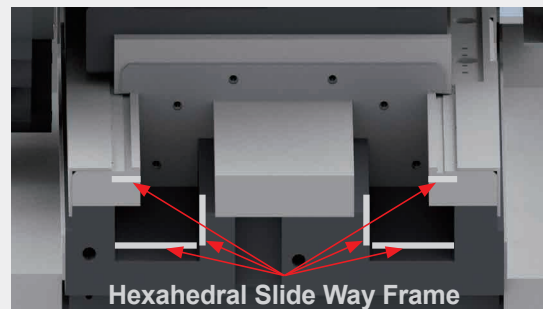
Optimize Travel System



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

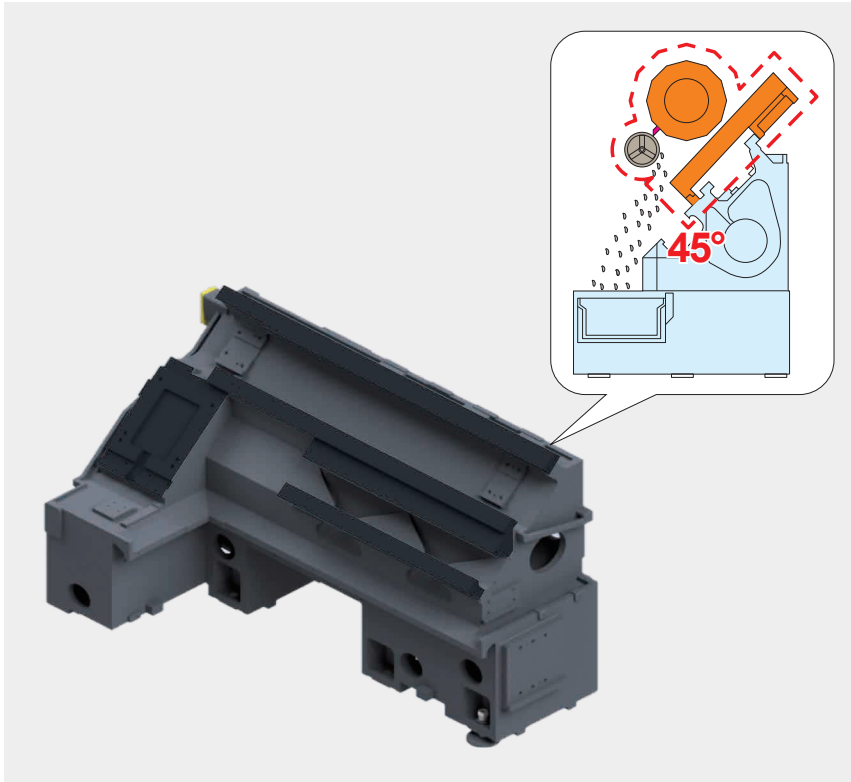
- Pre-tensioned and double anchored ballscrews
- High precision Angular bearing and large diameter high precision ballscrews



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

High Rigidity Design



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

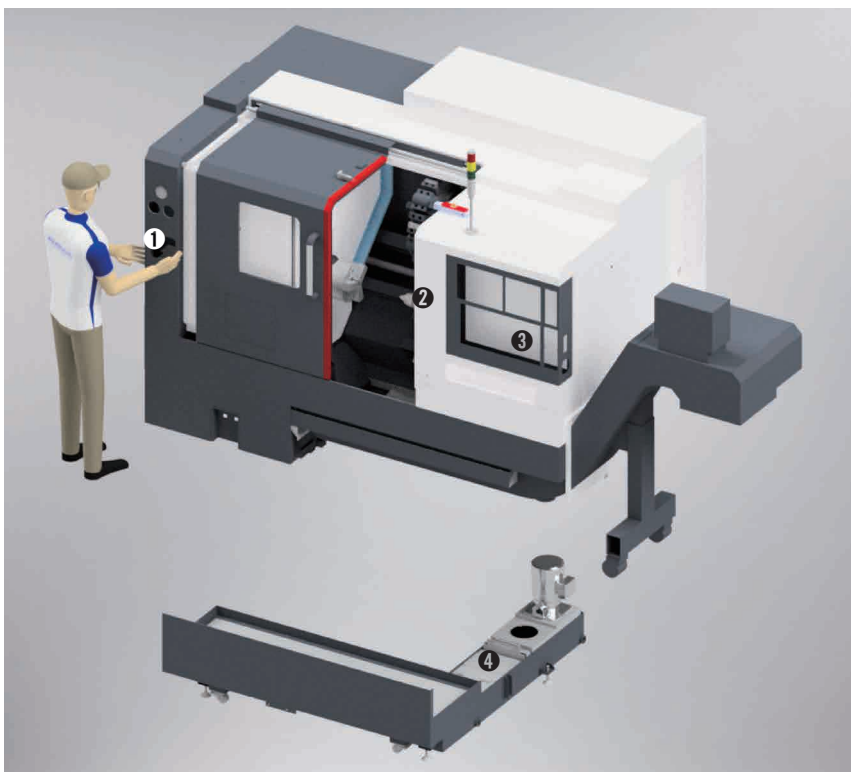
The 45° slant bed with torque tube ribbing design with its excellent torsional and bending resistance, is capable of suppressing backlash while providing high precision even during heavy duty cutting.

Also, the slant bed provides superb access to parts and effective chip removal

Effective chip removal

The 45° slant bed allows easy chip removal while making it easier to change tools and inspect parts

Ease of Use



1 Easy hydraulic valve adjustment

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

2 Programmable tailstock

Operating automatically using M-codes offering both efficiency and convenience

3 User-centric OP Panel

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

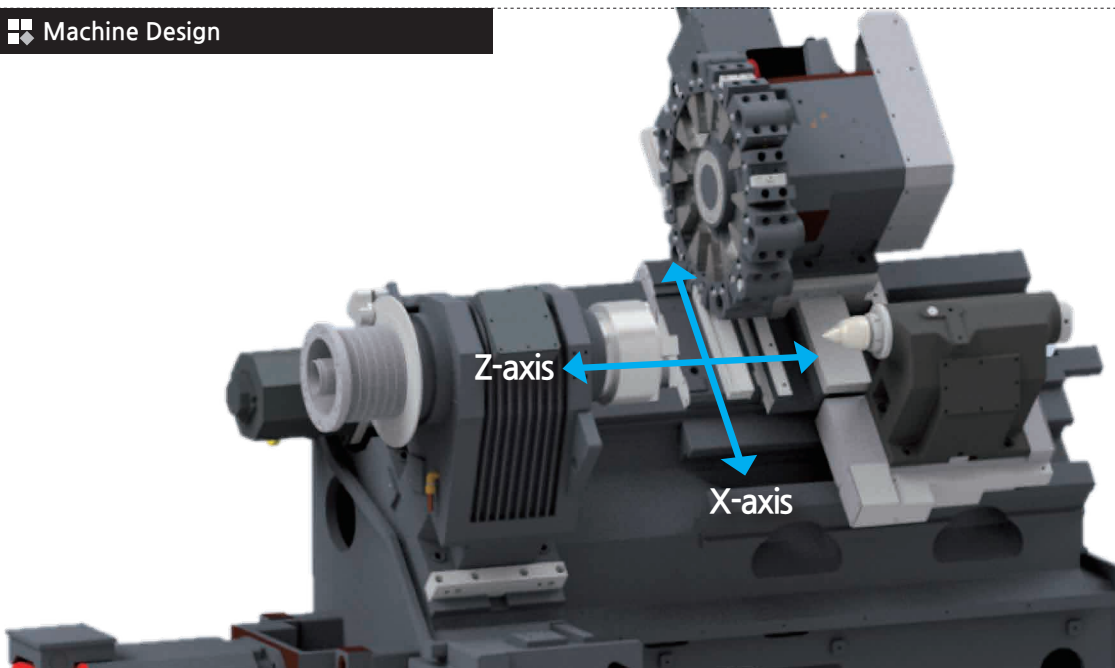
4 Easy coolant tank maintenance

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

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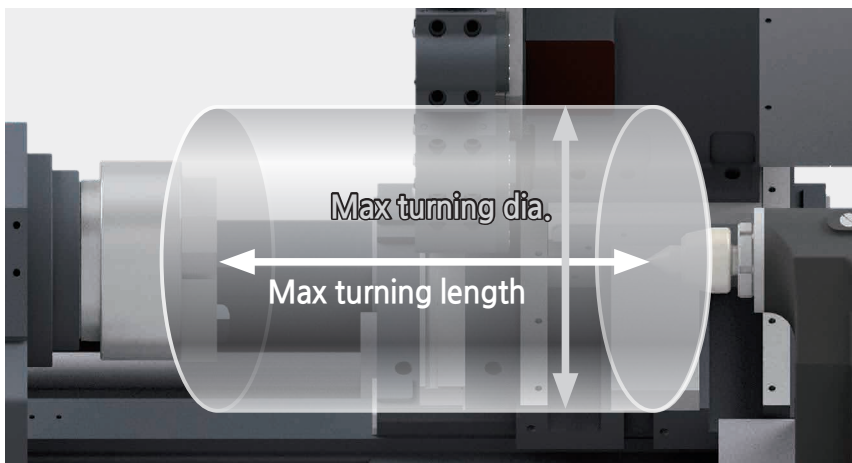
Machine Design



Model	Chuck size	Travel (inch)		Rapid traverse (ipm)	
		X-axis	Z-axis	X-axis	Z-axis
SL 2000A/AE	6"	8.27	22.05	0.95	1.19
SL 2000AM	6"	8.47	22.05	0.95	1.19
SL 2000B/BE	8"	8.27	22.05	0.95	1.19
SL 2000BM	8"	8.47	22.05	0.95	1.19

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

Work Range



Providing a large work envelope, ensuring cost effective productivity

SL 2000A/AE/B/BE

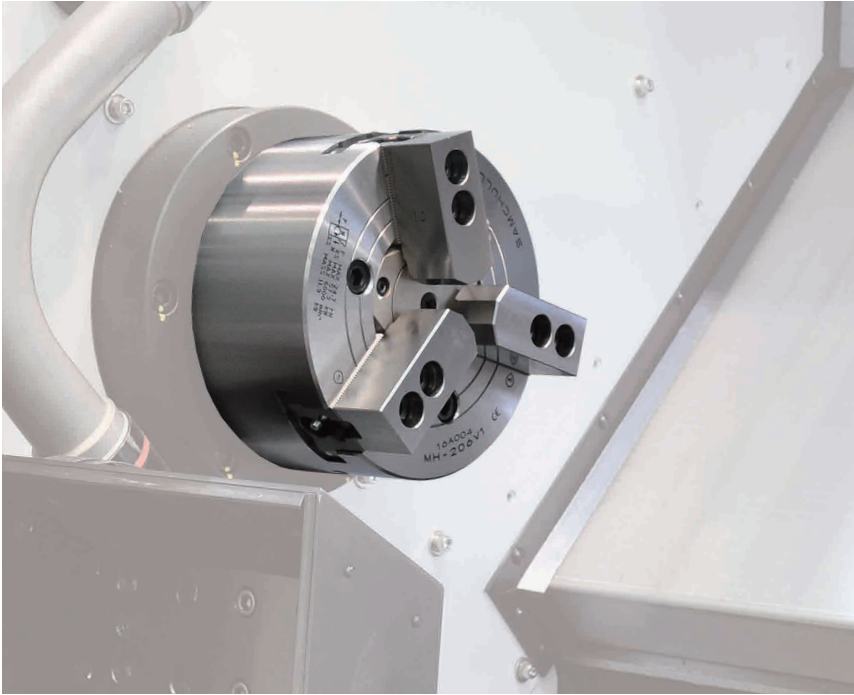
Max turning dia/length
 $\text{\O}14.18/21.26$ inch

SL 2000AM/BM

Max turning dia/length
 $\text{\O}14.18/20.48$ inch

Model	Unit	Max turning dia	Max turning length
SL 2000A/AE	inch	$\text{\O}14.18$	21.26
SL 2000AM	inch	$\text{\O}14.18$	20.48
SL 2000B/BE	inch	$\text{\O}14.18$	21.26
SL 2000BM	inch	$\text{\O}14.18$	20.48

Spindle



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

SL 2000A/AE/AM

Max spindle speed
6,000rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
105.70/173.77lbs.ft

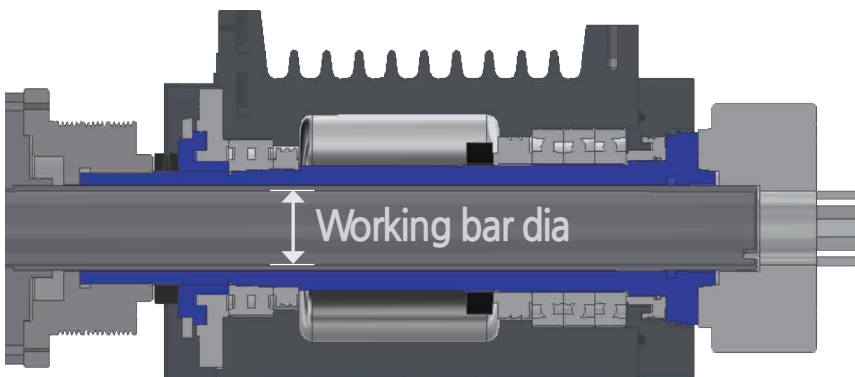
SL 2000B/BE/BM

Max spindle speed
4,500rpm

Power(cont/15min)
20.12/24.81HP

Torque(cont/15min)
184.25/302.48lbs.ft

Model	Chuck size	Speed rpm	Power (cont/15min) HP	Torque (cont/15min) lbs.ft
SL 2000A/AE	6"	6,000	20.12/24.81	105.70/173.77
SL 2000AM	6"	6,000	20.12/24.81	105.70/173.77
SL 2000B/BE	8"	4,500	20.12/24.81	184.25/302.48
SL 2000BM	8"	4,500	20.12/24.81	184.25/302.48



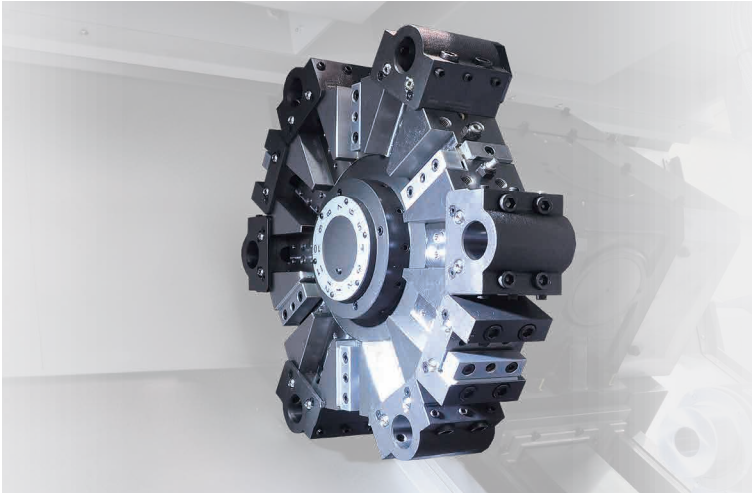
Category	Unit	SL 2000A/AE/AM	SL 2000B/BE/BM
Spindle bore	inch	Ø2.41	Ø3.0
Working bar dia	inch	Ø2.01	Ø2.64
Spindle nose	ASA	A2-5	A2-6

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/E Series

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Turret



Servo turret

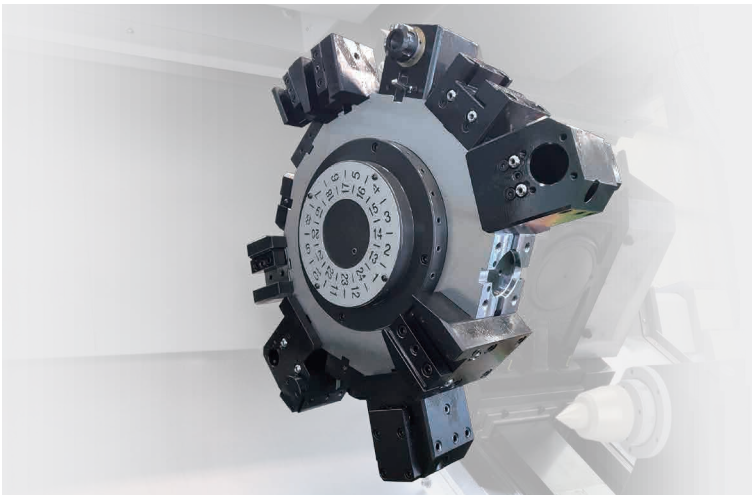
The turret uses a highly reliable, high-power servo motor and the Non-stop Random index method.

2-axis turret

The 0.15 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 : **0.15** secs

No. of tool positions : **12** ea
(□1"×1", Ø1.58)



BMT milling turret

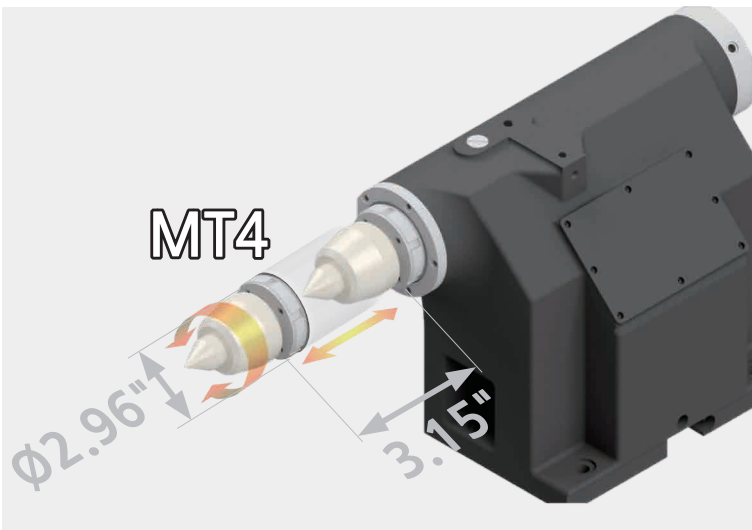
This 12 station (BMT55) turret with the largest in class curvic coupling and power hydraulic clamping force is capable of accepting a rotary tool in every tool position and allows a variety of machining operations with a single set-up

The best in class BMT55 tool holders ensures high rigidity, high precision machining and with non-stop turret indexing in either direction minimizes the turret index time down to 0.2 seconds per station.

Turret indexing time : **0.2** secs

No. of tool positions : **12** ea
(□1"×1", Ø1.58)

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.

Tailstock stroke : **17.72**inch

Quill stroke : **3.15**inch

Quill taper : **MT4**

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.

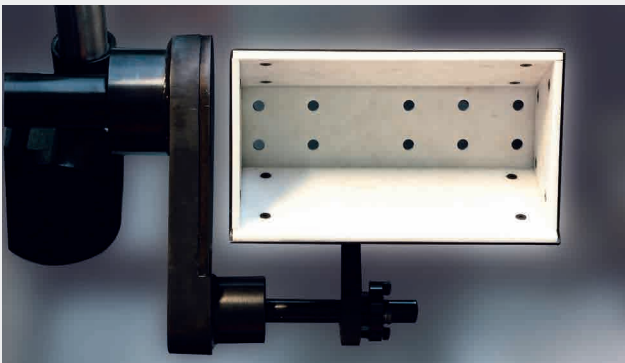
Autodoor

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.



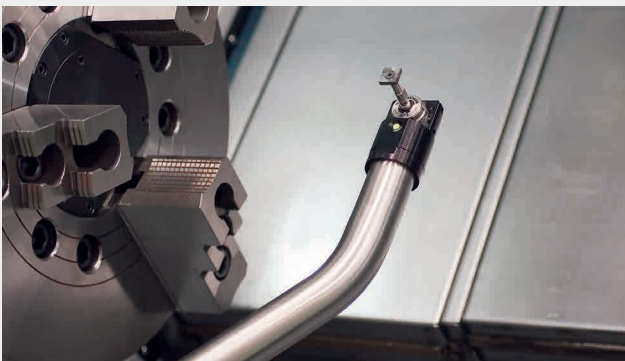
Air Blow

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



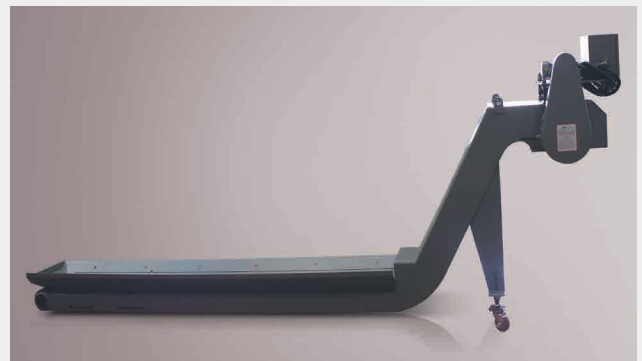
Tool Presetter

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



Chip Conveyor

Used to remove chips created during the machining process.



SL 2000/E Series

HORIZONTAL TURNING CENTER

SMEC FANUC i series



SL 2000/E Series

- 10.4" LCD color display
- High quality designed OP Panel
- Conversational programming, Manual Guide i(SL 2000A/B option, SL 2000AM/BM standard)
- Part program size 2MB
- SMEC Custom S/W

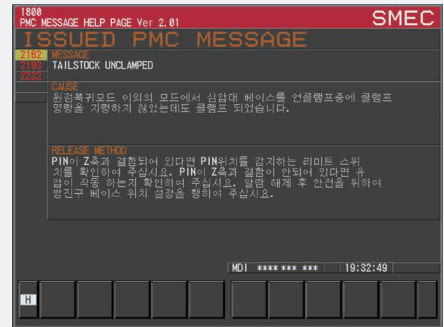
SMEC Custom S/W displayed using MDI's button or OP Panel's button

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



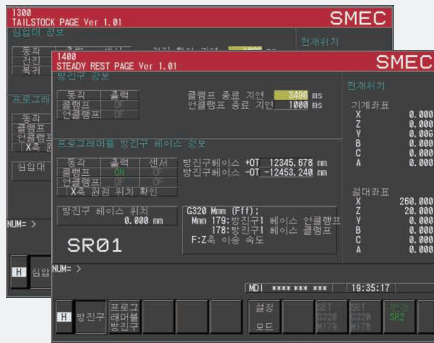
M/G-Code check function

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



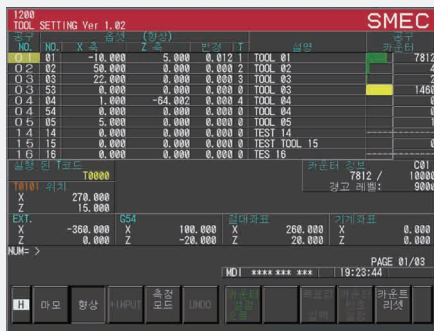
PMC alarm check function

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



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

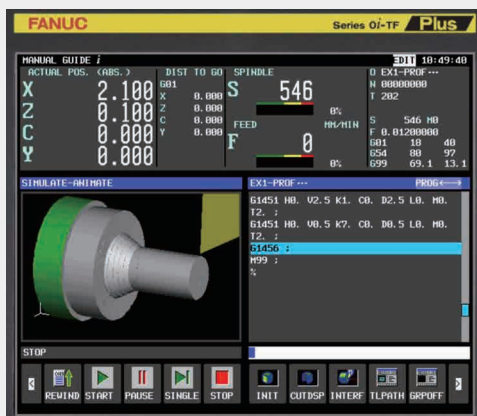
Tool information and setting management mode



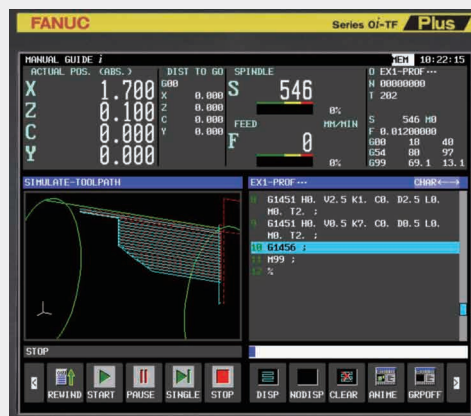
Counter for each T-Code

Manual Guide I

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

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

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



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

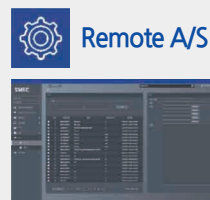


Remote Control/ Management

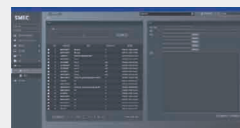


Remote control and operation

- Emergency stop switch, program editing, etc.



Remote A/S



Problem diagnosis via remote control

- Provide remote diagnosis services to users via the IoT solution

SL 2000/E Series

HORIZONTAL TURNING CENTER

Power-Torque Diagram

SL 2000A/AE/AM

Max speed

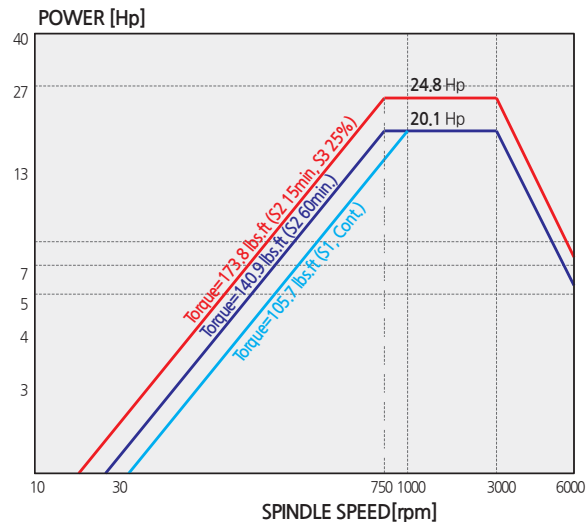
6,000 rpm

Power(cont/15min)

20.12/24.81 HP

Torque(cont/15min)

105.70/173.77 lbs.ft



SL 2000B/BE/BM

Max speed

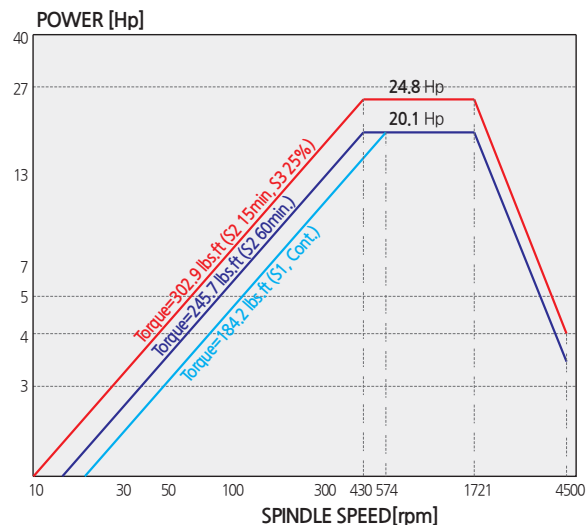
4,500 rpm

Power(cont/15min)

20.12/24.81 HP

Torque(cont/15min)

184.25/302.48 lbs.ft



SL 2000AM/BM

Milling Motor Torque Diagram

Max speed

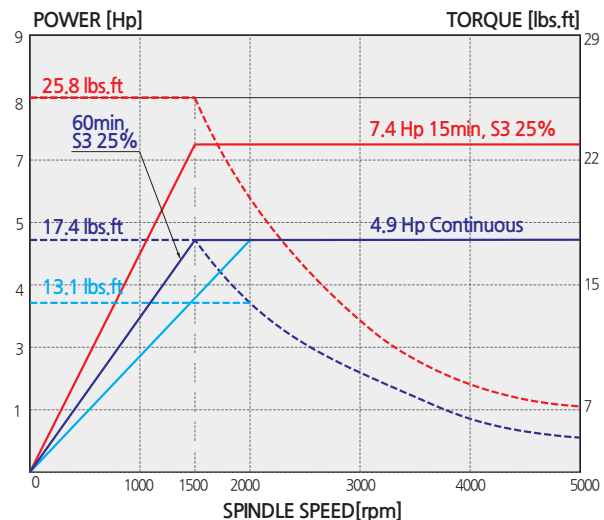
5,000 rpm

Power(cont/15min)

4.97/7.38 HP

Torque(cont/15min)

13.06/25.82 lbs.ft



Cutting Performance

Test conditions : : SL 2000B(8")

◆ O.D Cutting

Cutting dia.	inch	Ø1.66
Cutting depth	inch	0.18
Cutting speed	ipm	7795.28
Spindle speed	rpm	1,500
Feedrate	inch/rev	0.022
Chip removal rate	oz/min	16.57

◆ U-Drill Cutting

U-drill dia.	inch	Ø1.97
Cutting speed	ipm	8661.42
Spindle speed	rpm	1,400
Feedrate	inch/rev	0.006
Chip removal rate	oz/min	13.97

◆ Tap

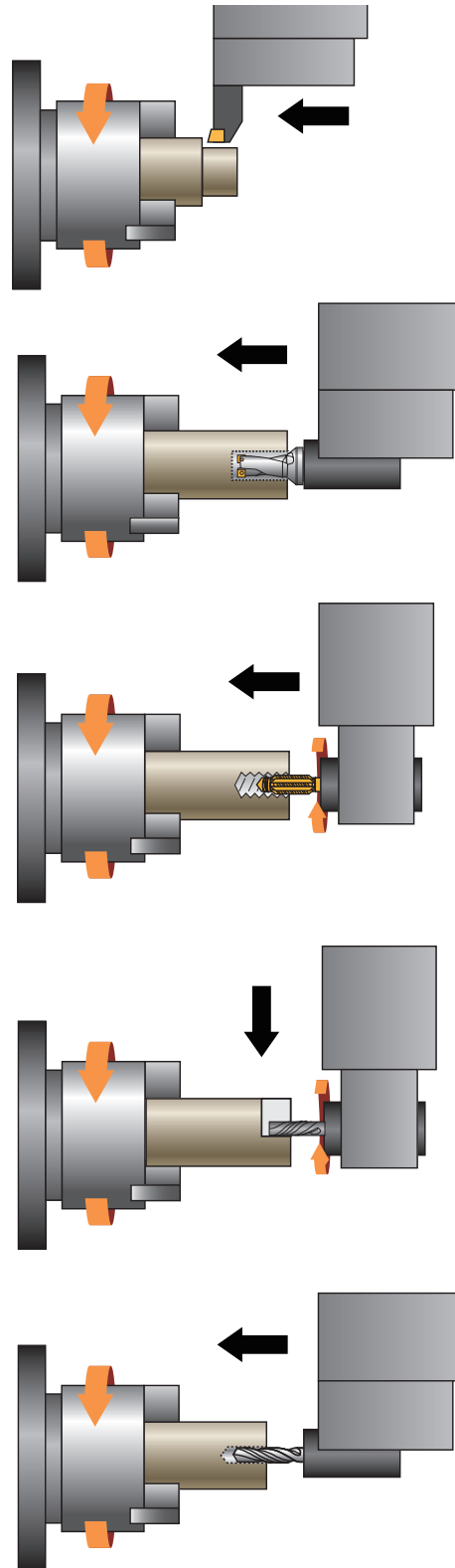
Tap size	mm	M12×1.75
Cutting depth	inch	0.79
Cutting speed	ipm	590.56
Spindle speed	rpm	596
Feedrate	inch/rev	0.069

◆ Endmill

Endmill dia.	inch	Ø0.63
Cutting depth	inch	0.79
Cutting speed	ipm	2952.76
Spindle speed	rpm	1,500
Feedrate	ipm	11.82
Chip removal rate	oz/min	3.25

◆ Drill

Drill dia.	inch	Ø0.63
Cutting depth	inch	1.19
Cutting speed	ipm	2952.76
Spindle speed	rpm	1,500
Feedrate	inch/rev	0.012
Chip removal rate	oz/min	3.05



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

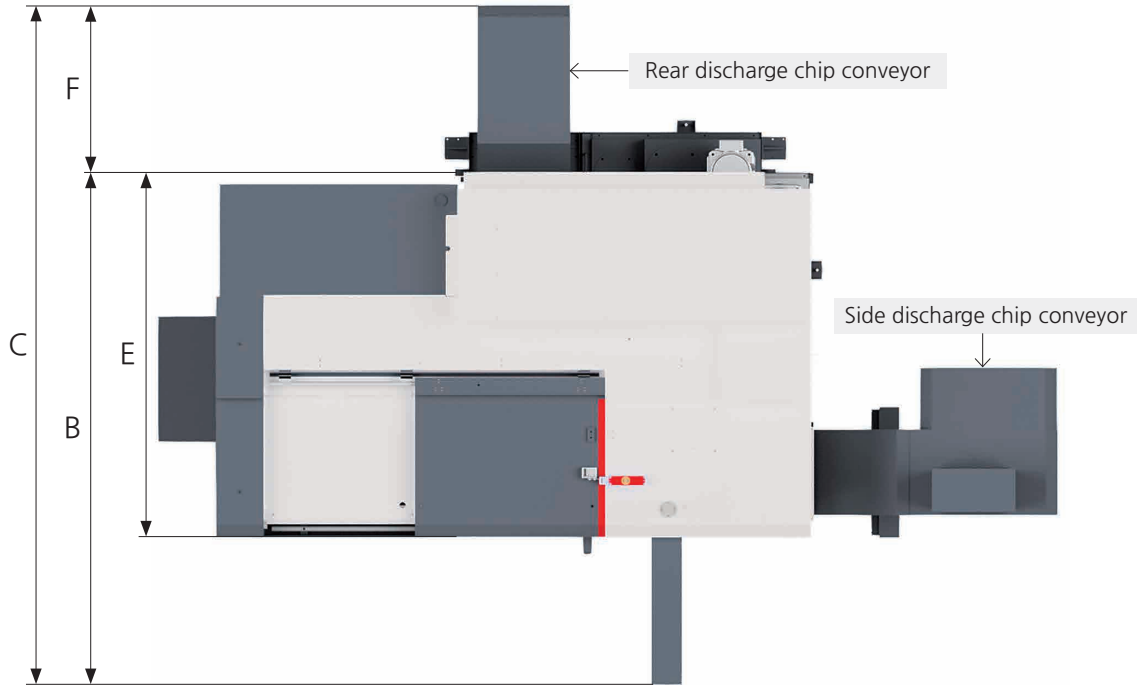
SL 2000/E Series

HORIZONTAL TURNING CENTER

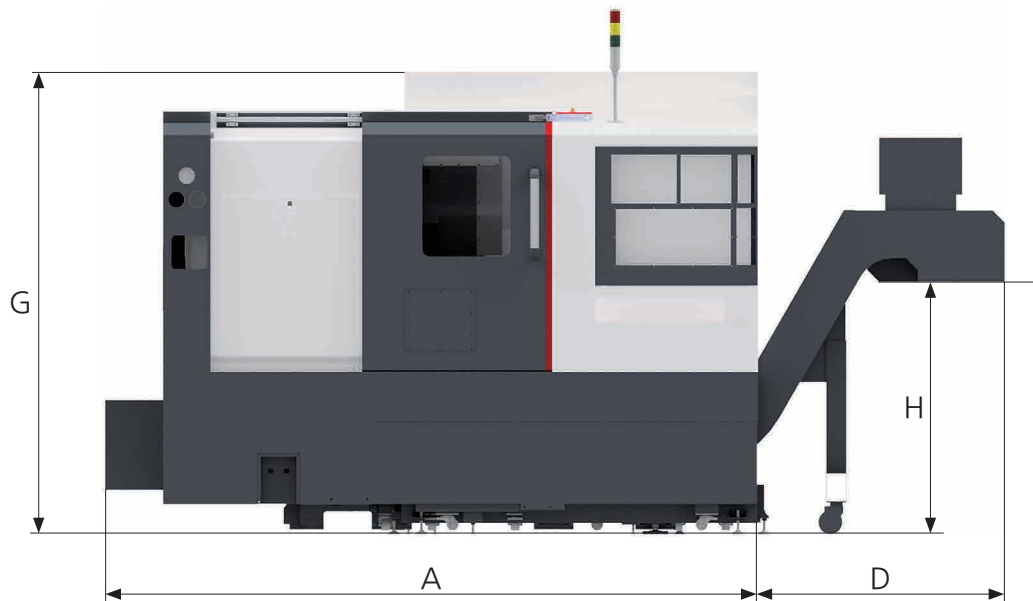
Machine Dimensions

Unit : inch

Top view

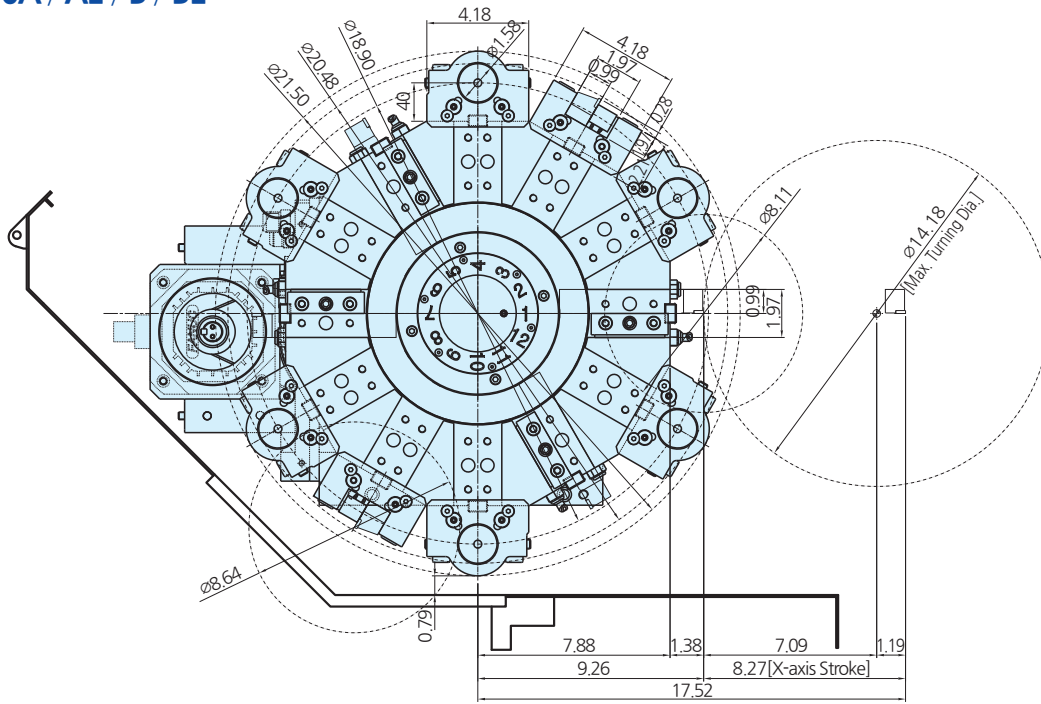


Front view

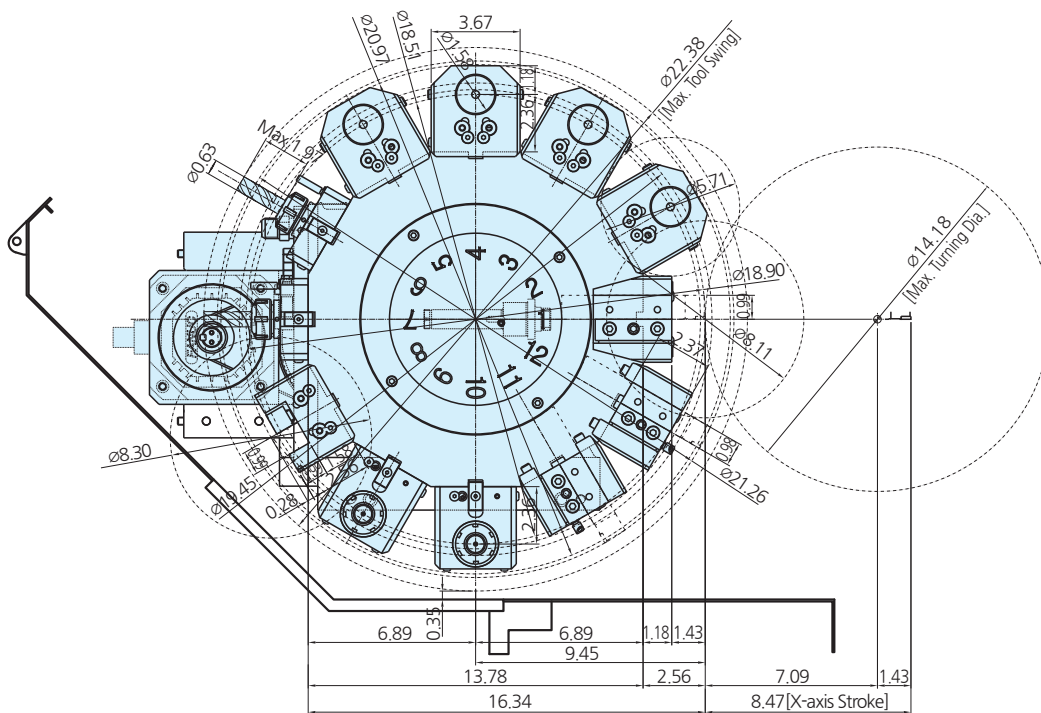


Model	A (Length)	B (Width incl OP Panel)	C (Max width)	D (Add length from side C/C)	E (Machine width)	F (Add width from rear C/C)	G (Machine height)	H (C/C discharge height)
SL 2000/E Series	107.80	84.65	91.78	40.75	60.24	31.54	75.67	41.54

SL 2000A / AE / B / BE

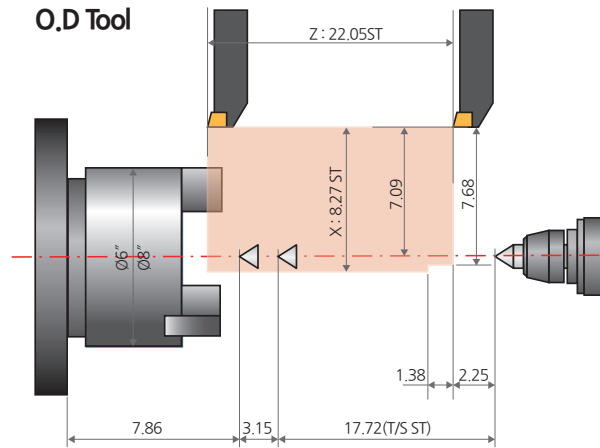


SL 2000AM / BM

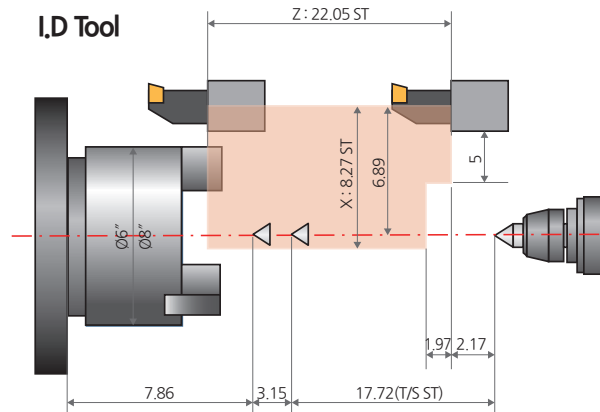


SL 2000A / AE / B / BE

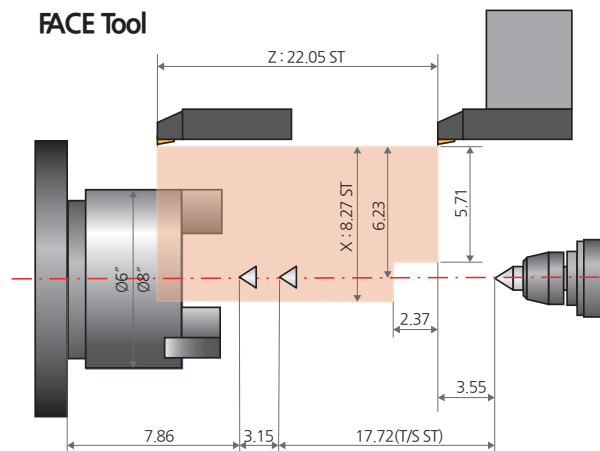
O,D Tool



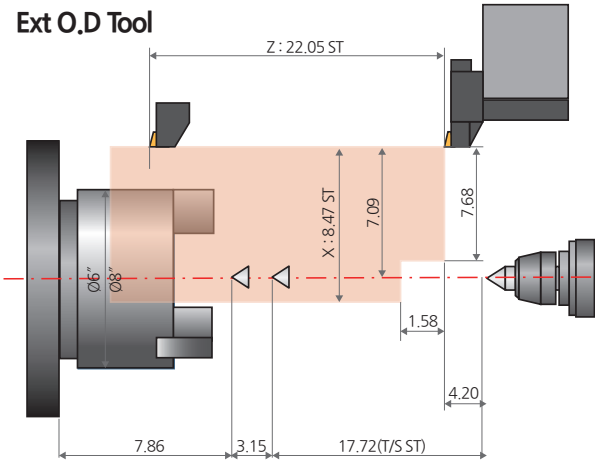
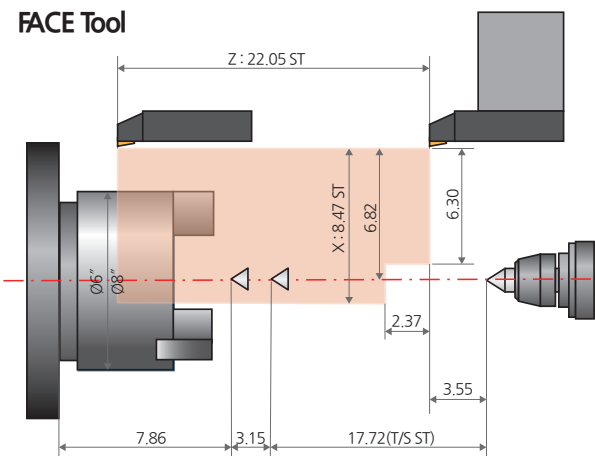
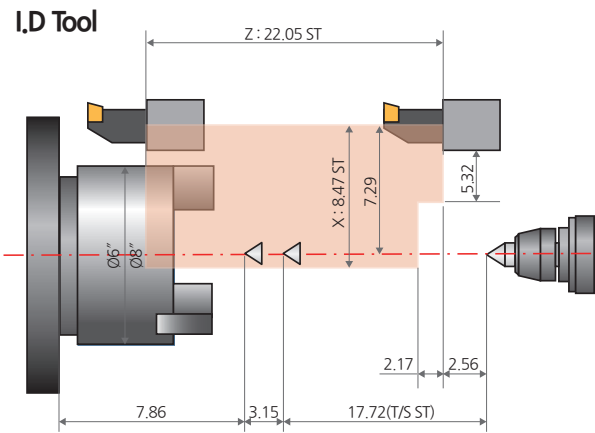
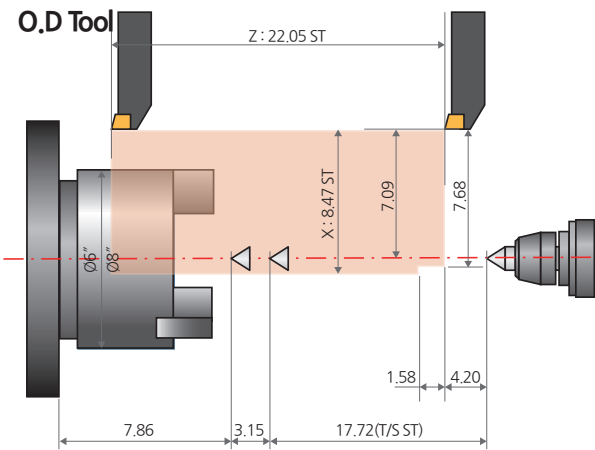
I,D Tool



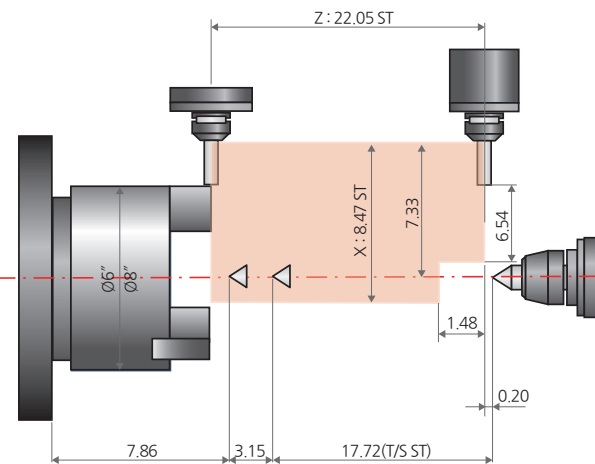
FACE Tool



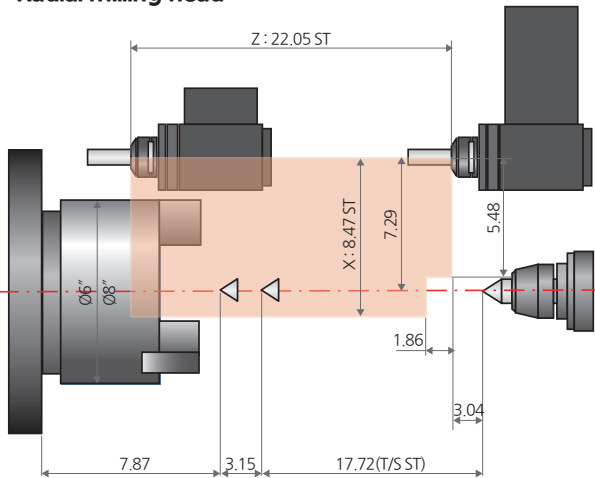
SL 2000AM / BM



Axial milling head (ER25)



Radial milling head



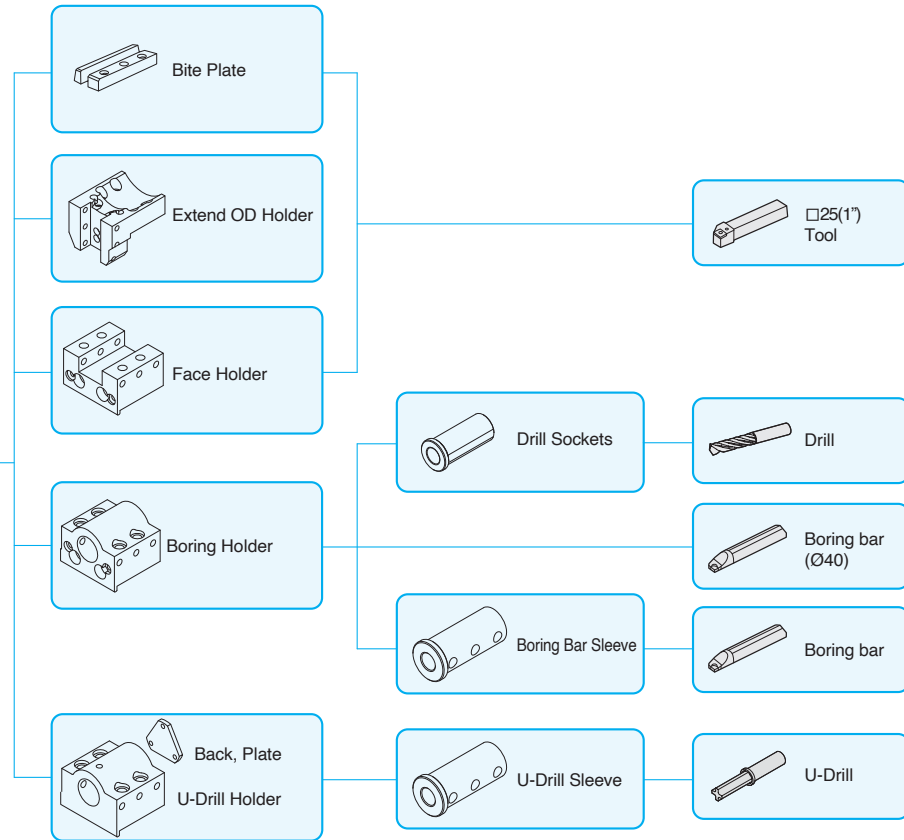
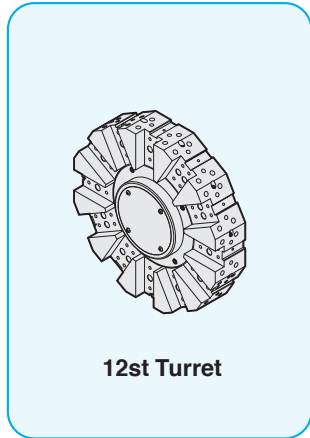
SL 2000/E Series

HORIZONTAL TURNING CENTER

Tooling System

Unit : inch

SL 2000A / AE / B / BE

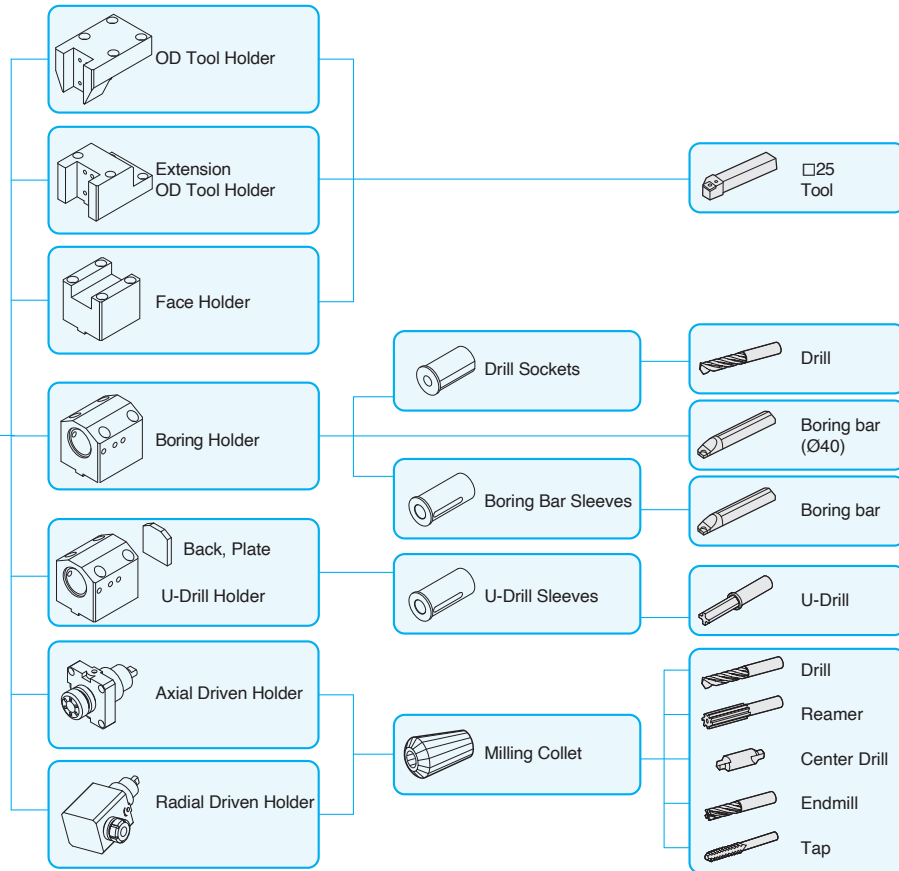
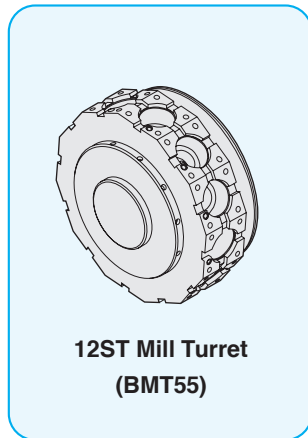


Standard Tooling (SL 2000A/AE/B/BE)

Item / Description			6 Inch	8 Inch
Static Holder	Bite Plate		4	4
	OD Holder	Extension	-	-
	Face Holder		2	2
Boring Holder	ID Holder	Single (Ø1 1/2")	-	-
	U-Drill Holder	Cap	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
		Ø1/2"	1	1
		Ø5/8"	1	1
		Ø3/4"	1	1
		Ø1"	1	1
		Ø1 1/4"	1	1
	Drilling	MT2	1	1
		MT3	1	1
	ER Collet		-	-

SL 2000AM / BM

Unit : inch



Standard Tooling (SL 2000AM/BM)

Item / Description			6 Inch	8 Inch
Static Holder	Bite Plate		-	-
	OD Holder		1	1
	OD Holder	Extension	2	2
	Face Holder		1	1
Boring Holder	ID Holder	Single (Ø1 1/2")	-	-
	U-Drill Holder	Cap	4	4
Milling Holder	Axial Milling Holder (Straight)	Standard	2	2
		T.T.C	-	-
	Radial Milling Holder (Angular)	Standard	1	1
		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
	Drilling	MT2	1	1
		MT3	1	1
	ER Collet		-	-

SL 2000/E Series

HORIZONTAL TURNING CENTER

Standard / Optional

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

Category		SL 2000A SL 2000B	SL 2000AE SL 2000BE	SL 2000AM SL 2000BM	Category		SL 2000A SL 2000B	SL 2000AE SL 2000BE	SL 2000AM SL 2000BM		
Spindle	3 jaw open-center chuck	●	●	●	Chip Disposal	Coolant tank	140L	●	●	●	
	3 jaw closed-center chuck	○	○	○		Chip conveyor (Hinge/ Screper)	Right-side		○	○	○
	Soft jaw (3set)	●	●	●			Rear		○	○	○
	Hard jaw (1set)	●	●	●		Special chip conveyor (Drum Filter)		△	△	△	
	Chuck clamp footswitch	●	●	●		Chip bucket	Fixed 380L		○	○	○
	Dual pressure chucking	○	○	○	Rotate 275L			○	○	○	
	C-axis control (0.001°)	X	X	●	Safety Features	Door interlock		●	●	●	
	Chuck clamp confirmation	●	●	●		Backspin torque limiter(BST)		X	X	X	
	Chuck dual footswitch	○	○	○		Torque limiter		X	X	X	
Turret	Tool holder	●	●	●		Full splash guard		●	●	●	
	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)	●	●	●	Chuck hyd. pressure interlock		X	X	X		
	Drill socket	●	●	●	Electrical	3 step patrol lamp and buzzer		●	●	●	
	U-drill holder	●	●	●		Lamp for electrical cabinet		X	X	X	
	U-drill cap	●	●	●		Remote MPG		X	X	X	
	Swivel head holder	○	○	○		Work counter	Digital	△	△	△	
	Tailstock	Programmable tailstock	●	●		●	Total counter	Digital	△	△	△
		Live center (standard with tailstock)	○	○		○	Tool counter	Digital	△	△	△
High precision live center		○	○	○		Multi counter	6EA	△	△	△	
Dual pressure tailstock		○	○	○			9EA	△	△	△	
Quill forward/reverse confirmation		○	○	○		Grounded circuit breaker		△	△	△	
Tailstock footswitch		○	○	○		AVR(Auto Voltage Regulator)		X	X	X	
Coolant & Air Blow	Standard coolant (nozzle)	○	○	○		Transformer	25kVA	○	○	○	
	Chuck coolant	○	○	○			30kVA	△	△	△	
	Coolant gun	○	○	○			Auto Power Off		○	○	○
	TSC for chuck (for special coolant)	△	△	△	Measurement	Tool Presetter	Manual	●	○	●	
	Chuck air blower	○	○	○		Tool Presetter	Auto	○	○	○	
	Rotary tool holder TSC	○	○	○		Air zero measuring device	TACO	△	△	△	
	Tailstock air blower	X	X	X			SMC	△	△	△	
	Turret tool air blower	X	X	X		Linear scale	X-axis	○	○	○	
	Air gun	○	○	○			Z-axis	○	○	○	
	Through spindle air blower (for special chuck)	○	○	○	Coolant level gauge (requires chip conveyor)		○	○	○		
	Coolant pump	4.5Bar	○	●	○	Environmental	Air conditioner for electrical cabinet		○	○	○
		6Bar	○	○	○		Dehumidifier		△	△	△
		10Bar	●	○	●		Oil mist collector		○	○	○
		14.5Bar	○	○	○		Oil skimmer		●	○	●
		20Bar	○	○	○		MQL(Minimal Quantity Lubrication)		○	○	○
	Power coolant system (for automation solutions)	△	△	△	Automation		Auto door		○	○	○
	Coolant chiller		○	○		○	Auto shutter (for automation solution)		○	○	○
		○	○	○		Sub controller		△	△	△	
Standard hydraulic cylinder	Open-center	●	●	●		Barfeeder interface		●	○	●	
	35Bar / 14L	●	●	●		Additional M-codes (4 pairs)		△	△	△	
Standard hydraulic unit	35Bar / 15L	X	X	X		Automation interface		△	△	△	
						I/O expansion (including both IN and OUT)	16 contacts	△	△	△	
						32 contacts	△	△	△		
						Parts catcher		●	○	●	
						Part conveyor (requires part catcher)		X	X	X	
					Hydraulic Supply	Standard hydraulic cylinder	Open-center	●	●	●	
						Standard hydraulic unit	35Bar / 14L	●	●	●	
						35Bar / 15L	X	X	X		

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

Machine Specifications

[] : Optional

Category			SL 2000/E		SL 2000M	
			A type	B type	A type	B type
Chuck	Chuck Size	inch	6"	8"	6"	8"
Capacity	Swing over Bed	inch	22.45	22.45	22.45	22.45
	Swing over Cross-slide	inch	18.12	18.12	18.12	18.12
	Max. Turning Dia.	inch	14.18	14.18	14.18	14.18
	Max. Milling Dia.	inch	-	-	14.65	14.65
	Max. Turning Length	inch	21.26	21.26	20.48	20.48
Spindle	Spindle Speed	rpm	6,000	4,500	6,000	4,500
	Spindle Nose	ASA	A2-5	A2-6	A2-5	A2-6
	Draw Tube I.D.	inch	2.05	2.68	2.05	2.68
	Spindle Bore	inch	2.41	3.0	2.41	3.0
	Spindle Motor (Cont./Max)	HP	20.12/24.81	20.12/24.81	20.12/24.81	20.12/24.81
Travels	X-axis Stroke	inch	8.27	8.27	8.47	8.47
	Z-axis Stroke	inch	22.14	22.14	22.14	22.14
	X-axis Rapid Traverse	ipm	944.89	944.89	944.89	944.89
	Z-axis Rapid Traverse	ipm	1181.11	1181.11	1181.11	1181.11
Turret	No. of Tool Positions	ea	12	12	12[24] (BMT55)	12[24] (BMT55)
	Shank Size for Square Tool	inch	1	1	1	1
	Boring Bar Dia.	inch	1.58	1.58	1.58	1.58
	Indexing Time	sec	0.15	0.15	0.20	0.20
	Rotary Tool Speed	rpm	-	-	5,000	5,000
	Rotary Tool Motor (Cont./Max)	HP	-	-	4.97/7.38	4.97/7.38
Tailstock	Quill diameter	inch	2.93	2.93	2.93	2.93
	Quill stroke	inch	3.15	3.15	3.15	3.15
	Quill taper	MT	MT4	MT4	MT4	MT4
Machine	Size (with SIDE chip conveyor) LxWxH	inch	107.80(146.97) × 60.24 × 75.60		107.80(146.97) × 60.24 × 75.60	
	Size (with REAR chip conveyor) LxWxH	inch	107.80 × 68.90(91.77) × 75.60		107.80 × 68.90(91.77) × 75.60	
	Weight	lbs	8,157.11	8,598.03	8,377.57	8,818.50
	Coolant tank capacity	gal	200	200	200	200
Electric power supply		kVA/V	31/220	31/220	31/220	31/220
Controller			FANUC Oi-TF+			

※ Design and specifications are subject to change without notice.

SL 2000/E Series

HORIZONTAL TURNING CENTER

NC Specification / FANUC

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



Category		Oi-TF+	
		SL 2000A/AE/B/BE	SL 2000AM/BM
Controlled axis	Controlled axes	X, Z	X, Z, C
	Max. simultaneously controlled axes	4	
	Least command increment	0.001mm / 0.0001"	
	Stored stroke check	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	
	Retraction for rigid tapping	○	
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 return	G28	
	Reference position 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 advanced preview control	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 offset	●	
	Tool life management	●	
	Tool path graphic display	●	



Category		O _i -TF+	
		SL 2000A/AE/B/BE	SL 2000AM/BM
Program input	Absolute/incremental programming	G90/G91	
	Multiple repetitive cycle	●	
	Multiple repetitive cycle II	●	
	Canned cycles	●	
	Canned cycle for drilling	●	
	Decimal point programming	●	
	Inch/metric conversion	G20 / G21	
	Program restart	●	
	Sub program call	●	
	Max. programmable dimension	±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 ethernet	●	
	Fast ethernet	X	
Setting and display	Alarm & Operator histor display	●	
	Run hour and parts count display	●	
	Display spindle & servo overload	●	
	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	X	○
	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 O _i	○	X
	Manual guide i	○	●



14 West Forest Avenue Englewood, NJ 07631 USA
Office: +1 201-227-7632
Email: sales@smecamerica.com

www.smecmachinetools.com/eng
www.youtube.com/smecmachinetools



❖ Design and specifications subject to change without notice.

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