

NC Specifications / FANUC Series

	Item	Specification	FANUC Series
Controlled axis	Max. feed axes		2 AXIS
	Feed axes		X/Z/(Cs)
	Max. simultaneously controlled axis		4
Operation functions	Least command increment	0.001mm / 0.0001"	○
	Pulse handle feed	X1, X10, X100	○
	Feedrate per minute	G98	○
Interpolation functions	Feedrate per revolution	G99	○
	Linear interpolation	G01	○
	Circular interpolation	G02, G03	○
	Dwell	G04	○
	Polar coordinate interpolation	G12.1, G13.1	○
	Cylindrical interpolation	G70.1	○
	Variable lead thread cutting	G34	○
	Continuous threading		○
	Reference position return	G28	○
	Reference position return check	G27	○
Feed function	Rapid traverse rate override	F0, 25%, 50%, 100%	○
	Feedrate override		0~150%
Spindle function	Spindle orientation		○
	Rigid tapping		○
Tool functions	Tool number command	T4-Digt / T2-Digt	○
	Tool nose radius compensation	G40 ~ G42	○
	Tool offset pairs		○
	Tool geometry/wear offset	GEOMETRY & WEAR DATA	○
	Tool life management		○
	Tool path graphic display		○
	Automatic tool offset	G36, G37	○
	Direct input of tool offset value measured B		○
Program input	Absolute/incremental programming		○
	Multiple repetitive cycle	G70 ~ G76	○
	Canned cycles	G90, G92, G94	○
	Inch/metric conversion	G20 / G21	○
	Program restart		○
	Retraction for rigid tapping		○
	Max. programmable dimension	±99999.999mm/±9999.9999"	○
	M function	M3 digit	○
	Custom macro		○
	Canned cycle for drilling		○
	Direct drawing dimension programming		○
	Programmable data input	G10	○
	Optional block skip		○
	Workpiece coordinate system	G52 ~ G59	○
	Number of registerable programs		○
Setting and display	Alarm & Operator history display	ALARM & OPERATION DISPLAY	○
	Run hour and parts count display	RUNNING TIME & PART NO. DISPLAY	0~150%
	Display spindle & servo overload	SPINDLE & SERVO LOAD DISPLAY	○
	Self-diagnosis function		○
	Extended part program editing	COPY, MOVE, CHANGE OF NC PROGRAM	○
Data input/output	Display screen		10.4" color
	Memory card input/output		○
Editing operation	USB memory input/output		○
	Part program storage size	512Kbyte(1280m)	○
Manual guide i	Manual Guide i		Option

SMEC

SLV 1000/1000M

VERTICAL TURNING CENTER



SMEC
SMEC CO.,LTD.

SMEC Co., Ltd.

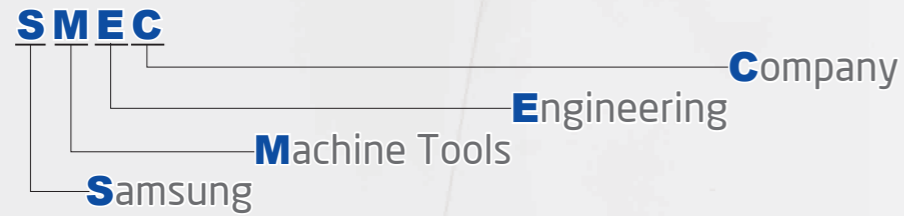
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SMEC
Smart One,
Global One
www.esmec.com



SMEC
SMEC CO.,LTD.

- 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



SLV 1000 SLV 1000M

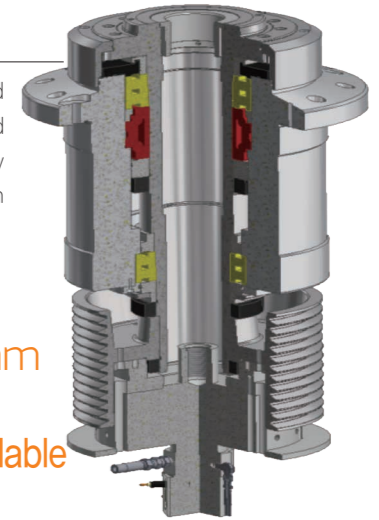
Strongest in class with superb structural design
 Simultaneous heavy duty and precision turning

- High speed, precision and high rigidity spindle
- Stable machine structure
- Significantly reduced non-cutting time and high productivity

High Accuracy, High Rigidity Spindle

Main Spindle Structure

High torque main spindle motor is supported by strong Double Cylindrical Roller bearings and Angular Thrust bearings which allow heavy duty cutting and minimize acceleration/deceleration times.



Spindle nose(ASA) : **A2-15**

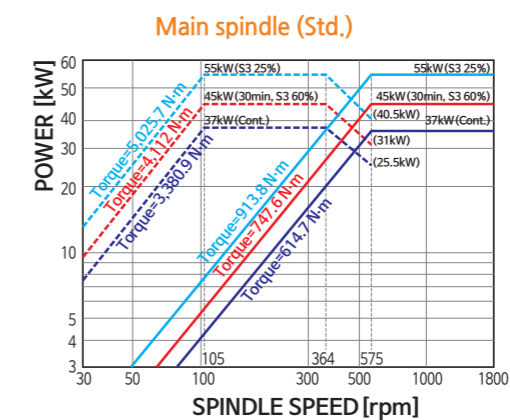
Spindle bearing diameter(front) : **Ø200mm**

A2-15, 24"(32") chuck available

2 Step Gear Box (Std.)



Spindle Power & Torque Diagram



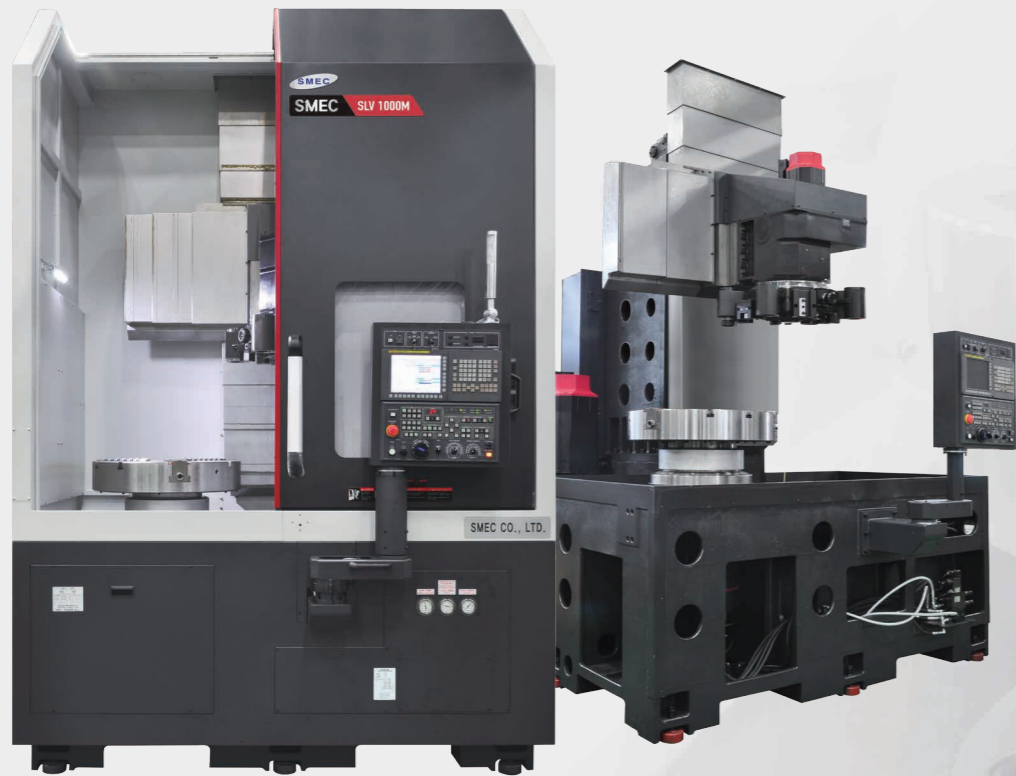
Main Spindle motor(Max./30min/Cont.)

: 55/45/37 Kw

Max. speed

: 1,800 rpm

An innovative high precision, heavy duty CNC Lathe, integrated with all of **SMEC's** advanced technology - **SLV 1000/1000M**

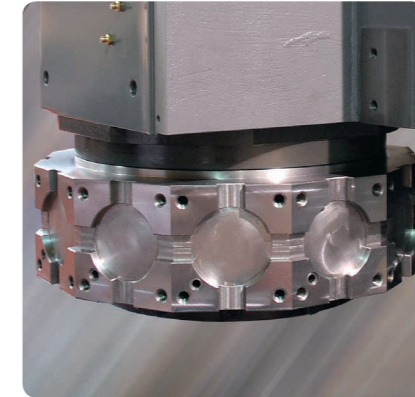


Spindle speed **1,800 mm** Max. machining diameter **1,000 mm**
Max. machining length **955 mm** Rapid traverse(X/Z) **20/20 m/min**

Highly Reliable and Rigid Structural Design

Ensure heavy duty and precision cutting with excellent structural design

SLV 1000 (Standard Turret)



SLV 1000M (Mill Turret)



Indexing Time

0.3 sec(60Hz)

Number of tool positions

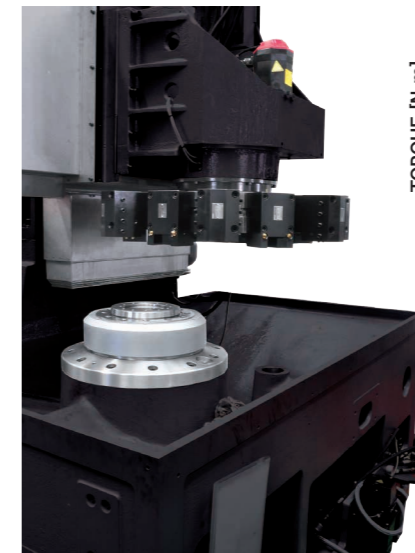
12 stations

High Speed, Heavy Duty Servo Turret

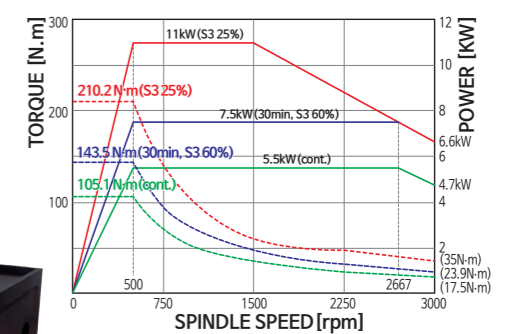
Driven by a reliable high torque servo motor, the 12-station heavy-duty turret indexes nonstop, bi-directionally with a fast 0.20 second from station to station. Large diameter 3 pieces precision Curvic coupling with 148.9kN(33,484lbs) of turret clamping force enables precision as well as heavy-duty cutting.

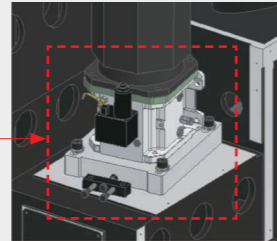
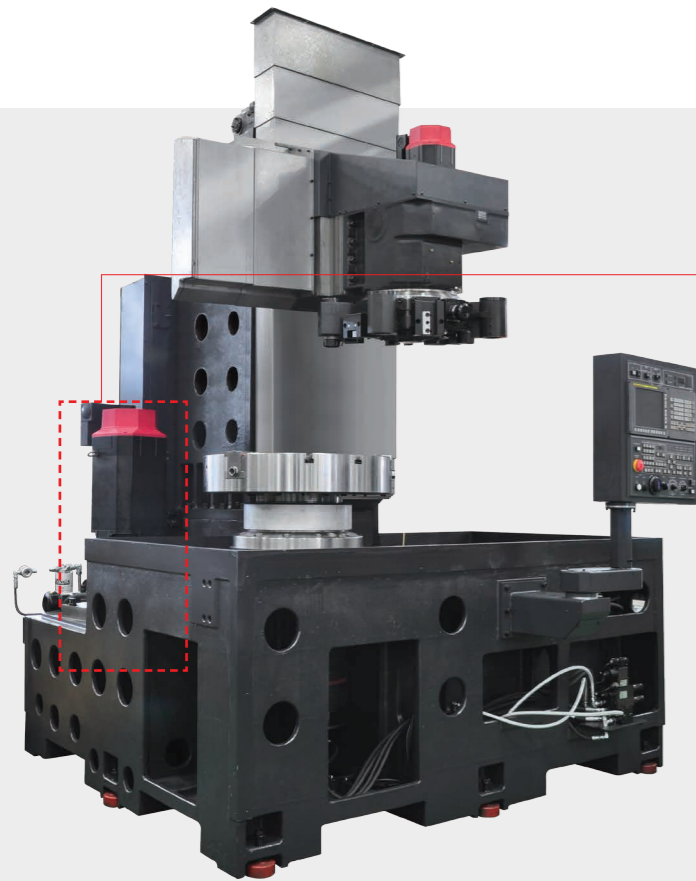
SLV 1000/1000M is equipped with standard 12-station BMT85 turret, capable of accepting rotary tools at any station.

CLAMP FORCE	kN	148.9 (TOTAL)
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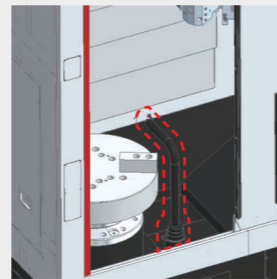


Milling Motor Torque Diagram





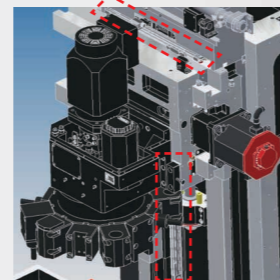
2 Step Gear Box



Tool Presetter
(Special Option)

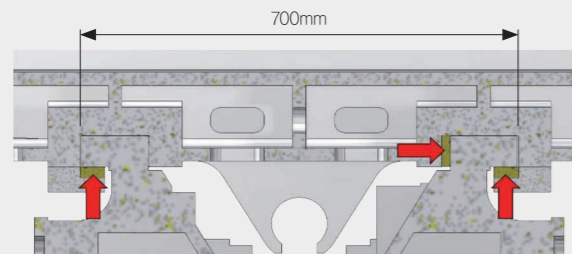
X/Z Linear Scale
(Special Option)

- Spec. : $\pm 5\mu\text{m}$



Main Body Construction

The main body of SLV1000_M is consisted of one piece meehanite cast iron bed, wide column, anti-heat displacement spindle and headstock, and integral Box way construction with anti-friction mating way surfaces that ensure unsurpassed long term rigidity and superior accuracy.



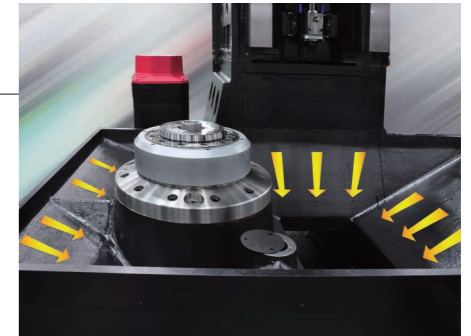
Three(3) adjustable Gibs on X and Z axis provide easier maintenance as well as long term rigidity and accuracy

Column Span : The largest in its class
700mm



Easy Chip Removal and High Volume Coolant System.

Large volume of flushing coolant allows minimal chip build-up, and slanted splash guard design effectively removes the chip out from the machine.

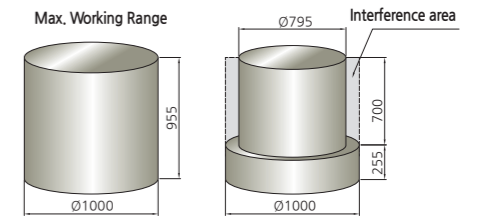


Motor
1.1 kW

Discharge Capacity
300 L/min

Working Range

Unit : mm



Swivel Operation Panel

Swivel operation panel of 10.4 inch color TFT LCD monitor can turn to 90 degree, providing operators with easy access to the control panel while working on the machine.

Pre-tensioned and Double Anchored Ballscrews

All axes ballscrews are pre-tensioned, heat treated, and fixed by double anchors on both ends, providing ultimate rigidity and minimal thermal growth.



Reliable Lubrication Dispenser

Maintenance free piston distributors automatically dispense a precise quantity of oil to each lubrication point

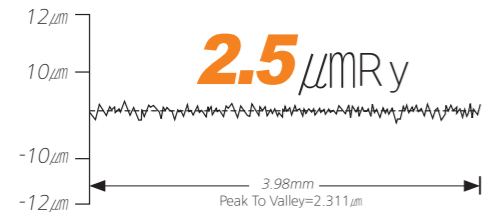
·Capacity : **3 Liter**

·Pressure : **1.5 MPa**



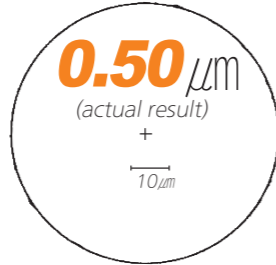
High Precision

Surface Roughness



Model : SLV 1000

Roundness

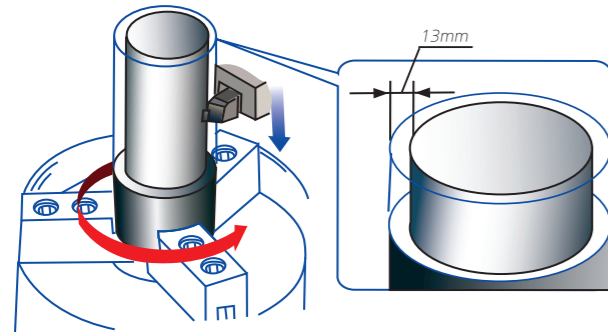


Cutting condition	
Tool	Diamond tool <nose radius 0.020 inch>
Material	AL150<Aluminum>
Cutting speed	198 m/min
Feedrate	0.05 mm/rev
Depth of cut	0.1 mm
Outer diameter	200 mm
Filter	1-50

Processing Speed

Turning Performance (material:SM45C) SLV 1000

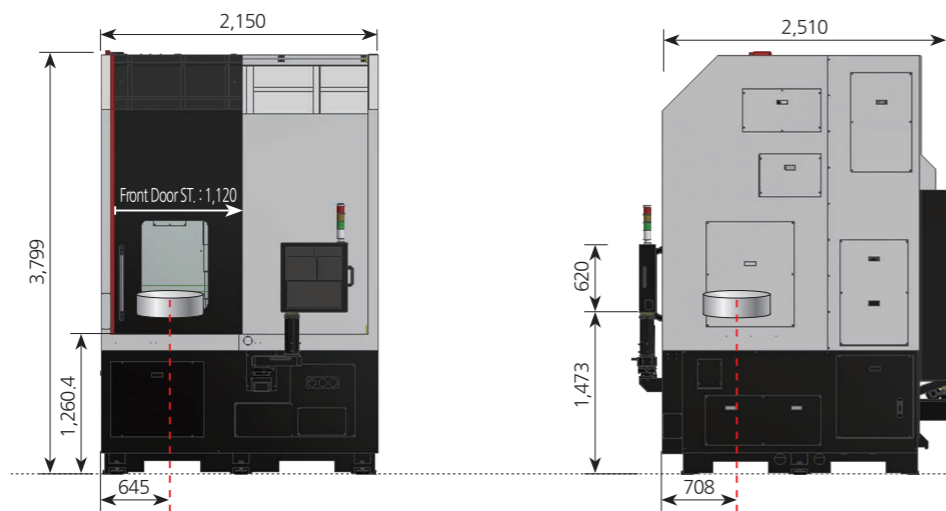
Heavy-duty cutting (O.D) <32mm×32mm qualified tool>



Spindle speed
357 rpm
Cutting speed
142 m/min
Depth of cut
13 mm <Spindle Load 65%>
Feedrate
0.3 mm/rev

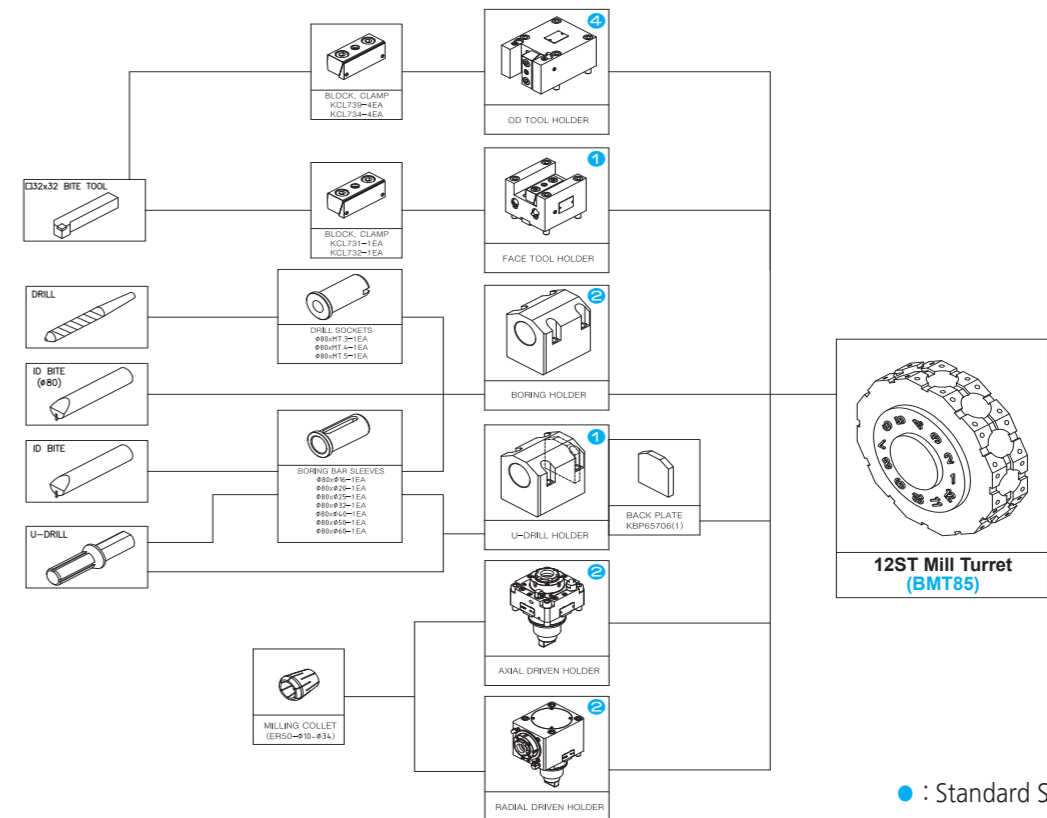
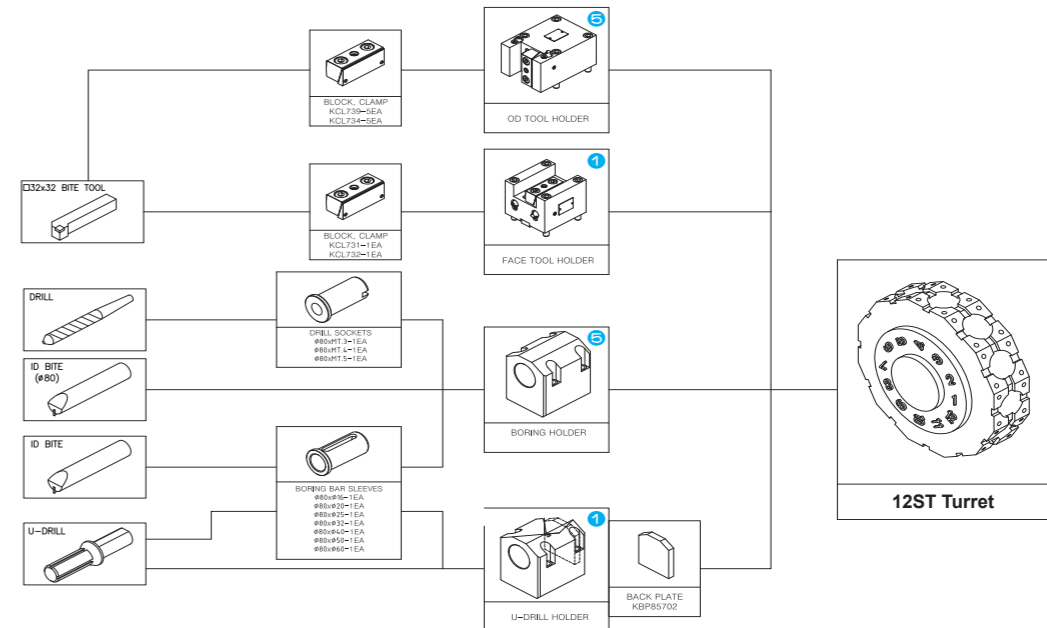
Machine Dimensions

Unit : mm



Tool Holders & Sleeves

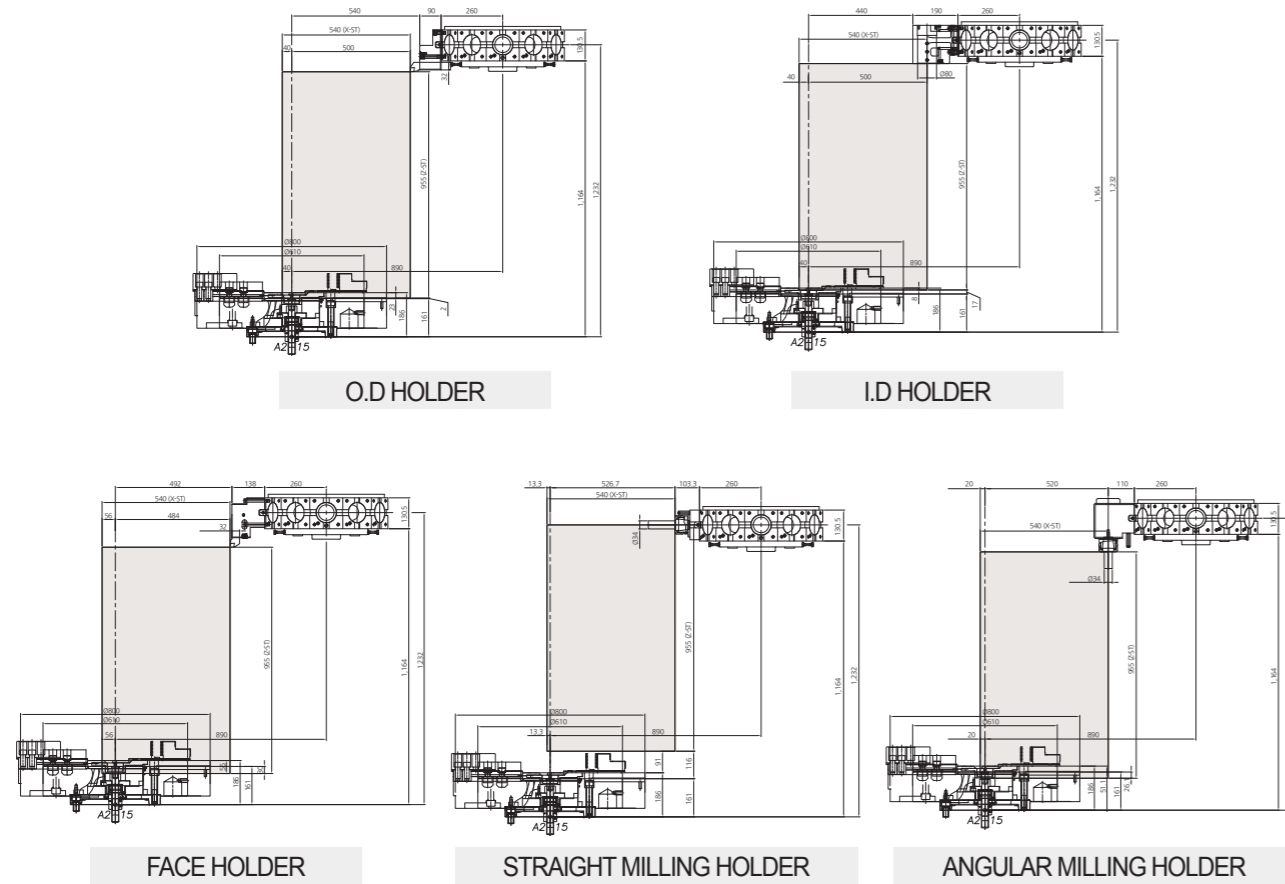
Unit : mm



● : Standard Set Numbers

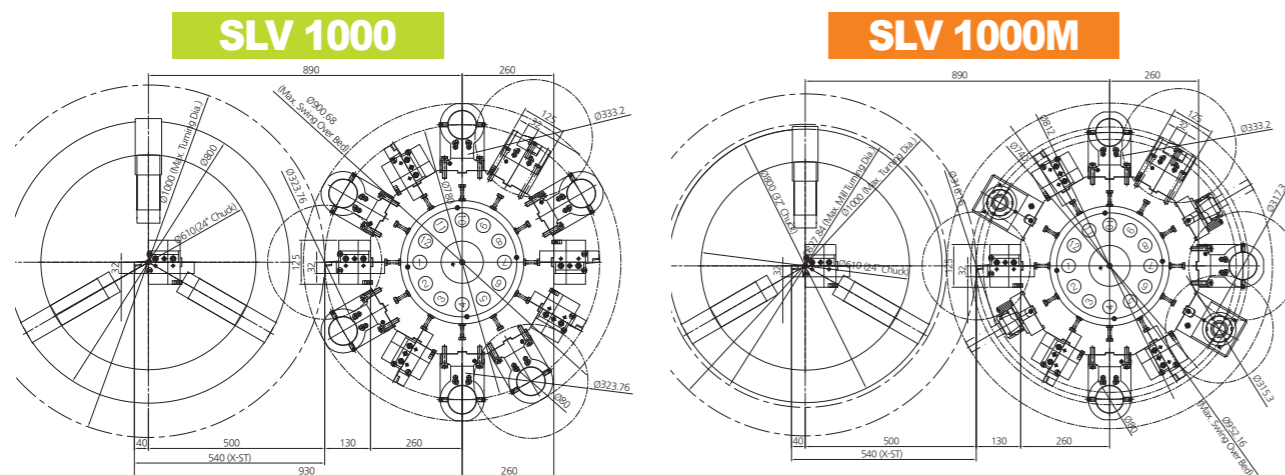
Work Range

Unit : mm



Turret Interference

Unit : mm



Major Specifications

DESCRIPTION		SLV 1000	SLV 1000M	
CAPACITY	Swing over bed	mm	Ø1100	
	Swing over saddle	mm	Ø795	
	Recommended turning diameter	mm	Ø610 [Ø800]	
	Max. Turning diameter	mm	Ø1000	
	Max. Turning length	mm	955	
MAIN SPINDLE	Spindle speed	rpm	1,800 [1,200]	
	Spindle nose	ASA	A2-15	
	Spindle bore diameter	mm	100	
	Spindle bearing diameter (Front)	mm	200	
	Min. spindle indexing angle	deg	-	0.001
	Spindle drive	-	Belt+Gear (+Lub. Tank)	
TRAVEL	Max. spindle torque (Max./Cont.)	N.m	5025.7/3380.9	
	X-axis travel	mm	540	
	Z-axis travel	mm	955	
	Rapid traverse (X/Z)	mm	20/20	
	Guide way type	-	Box Guide	
TOOL POST	Max. number of tool	-	12	12<BMT85>
	OD tool shank size	mm	□ 32	
	Boring bar diameter	mm	Ø80	
	Rotary tool spindle speed	rpm	-	3,000
	Indexing time	sec	0.3/2.0	
MOTOR	Main spindle motor (30min./cont.)	kW	37/45	
	Servo motor (X/Z)	kW	4/7	
	Mill spindle motor(Cont./30min)	kW	-	11/7.5/5.5
Electric power supply	kVA	75	80	
Machine dimension (L×W×H)	mm	2,510 × 3,100 × 3,800		
Machine weight	kg	17,000	17,500	
CONTROLLER		Fanuc Series		

※ Design and specifications subject to change without notice.

[] : Option

Standard Accessories

- Coolant unit
- Work light
- S/G & Rear coolant tank
- Toolbox
- Hyd. Solid chuck (24")
- Soft Jaw (3 set)
- Hard jaw(1set)
- Levelling unit
- Chuck clamp foot switch
- Shower coolant unit
- Chuck pressure switch
- 3 Color patrol lamp
- 10.4" LCD monitor
- Auto lubrication pump
- Manual & Parts list
- Safety precaution name plate
- Door interlock

Optional Accessories

- Hard jaw
- Chip conveyor & bucket (side/rear) (Hinge/Scraper)
- Chip bucket
- Special Chuck
- Dual pressure chucking
- Auto-door
- Air gun
- Air blower
- Oil skimmer
- Chuck coolant
- Coolant gun
- Coolant chiller
- Coolant pressure switch
- Coolant level switch
- High pressure coolant
- Mist collector
- Transformer
- Tool presetter (Removable)
- Linear scale (X,Z)
- Work Counter
- CE Spec.