

■ NC Unit Specifications / FANUC Series

Item		Specification	FANUC Series
Controlled axis	Max. feed axes		2 AXIS
	Feed axes		X/Z/(Cs)
	Max. simultaneously controlled axis		4
	Least command increment	0.001mm / 0.0001"	○
Operation functions	Pulse handle feed	X1, X10, X100	○
	Feedrate per minute	G98	○
	Feedrate per revolution	G99	○
Interpolation functions	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 8000(M) / 1000(M)

VERTICAL TURNING CENTER



SMEC
SMEC America Corp.

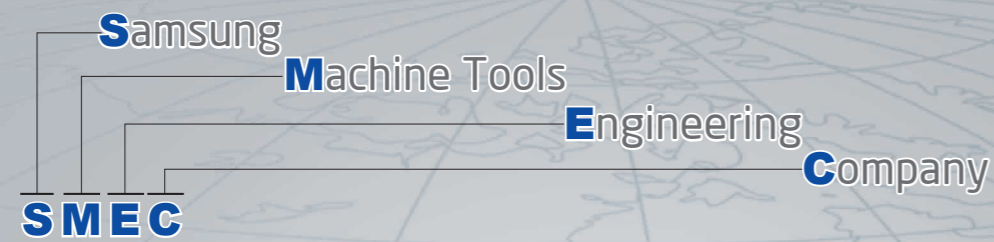
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◆ Design and specifications subject to change without notice.

SMEC
SMEC America Corp.

SMEC



Company History

- 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**
- 2018 - **SMEC America Corp** established to provide factory support to the distributor network and customers

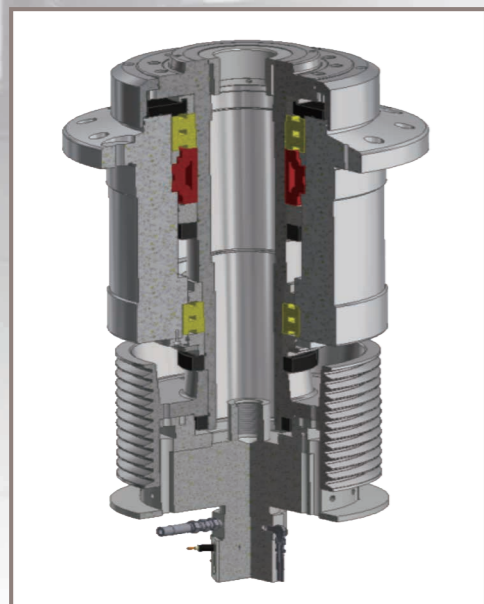
SLV 800/800M SLV 1000/1000M

SMEC'S Advanced Engineering and Machine Design

- High speed, precision and high rigidity spindle
- One piece meehanite casting bed
- Hardened and ground box-way construction



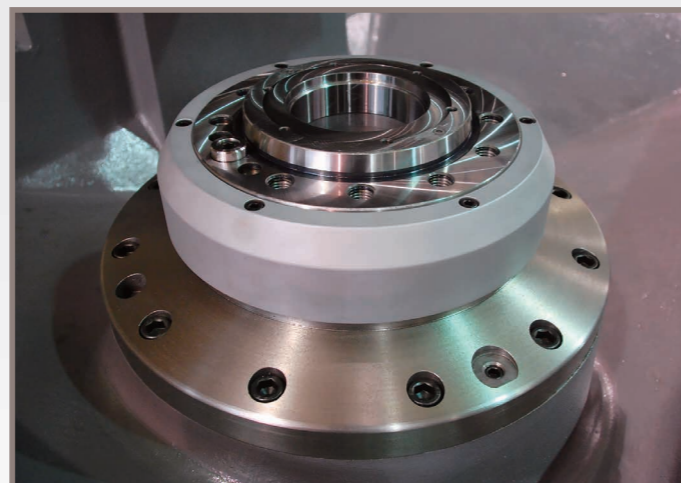
High Accuracy, High Rigidity Spindle



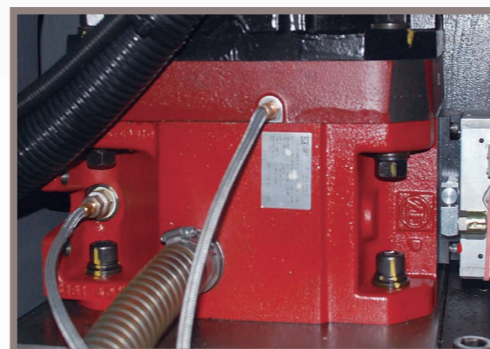
Main Spindle Structure

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.

SLV 800(M): **A2-11, 15"~24" chuck available**
 SLV 1000(M): **A2-15, 24"~32" chuck available**

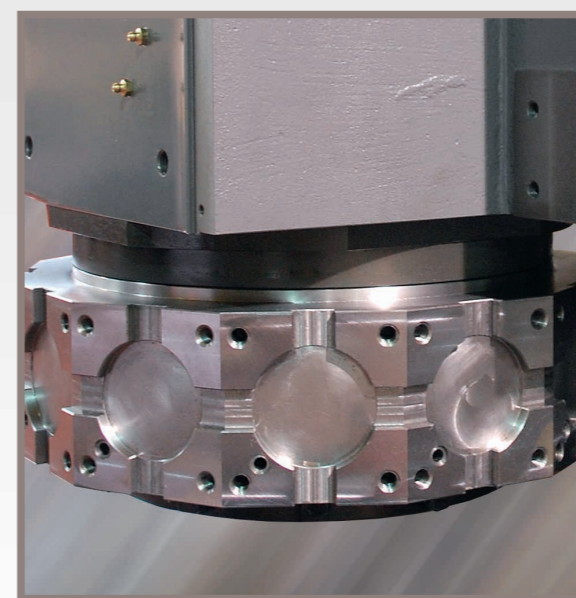


2 Step Gear Box

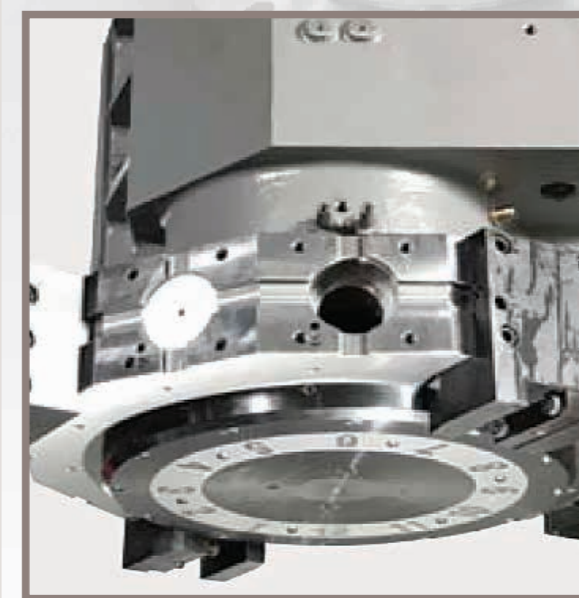


Machine Structure

SLV Standard Turret Design



SLV Mill Turret Design



SLV 800M : BMT75, SLV 1000M : BMT85

Indexing time
0.3 sec.

Number of tool positions
12 stations

High Speed, Heavy Duty Servo Turret

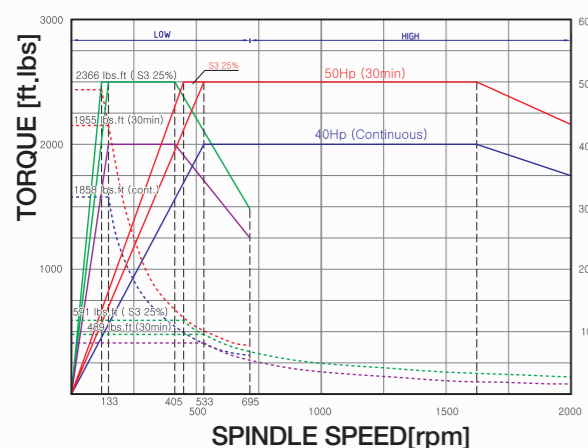
Driven by a reliable high torque servo motor, the 12-station heavy-duty turret indexes nonstop, bi-directionally with a fast 0.3 second from station to station. Large diameter 3 pieces precision Curvic coupling with 16,484 lbs(SLV 800) and 33,484lbs(SLV 1000) of turret clamping force enables precision as well as heavy-duty cutting.

SLV series is equipped with standard 12-station BMT type turret(SLV 800M:BMT75, SLV 1000M:BMT85), capable of accepting rotary tools at any station.

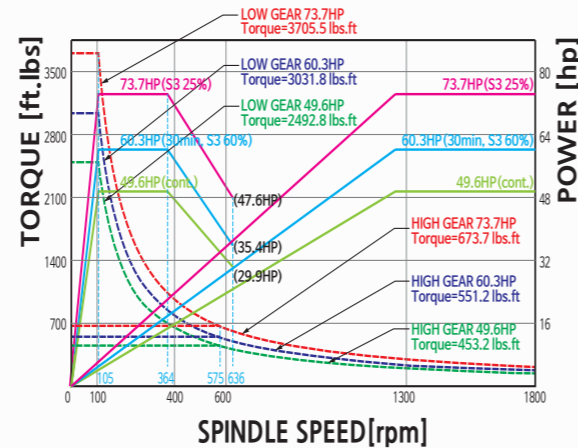


Spindle Power & Torque Diagram

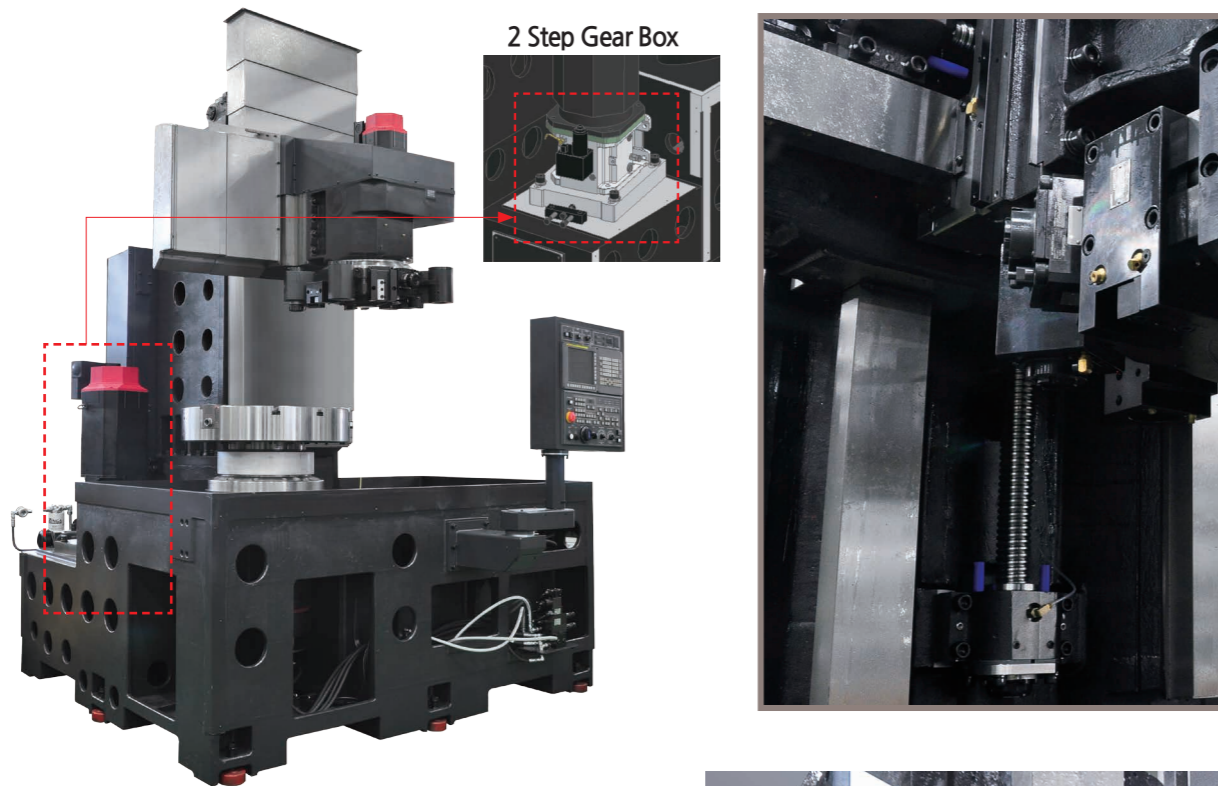
SLV 800 Main spindle with 2 step Gear box



SLV 1000 Main spindle with 2 step Gear box



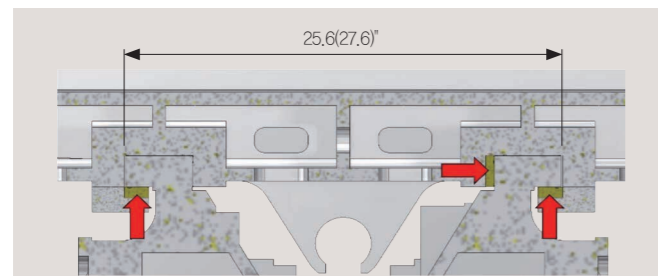
Machine Structure



2 Step Gear Box

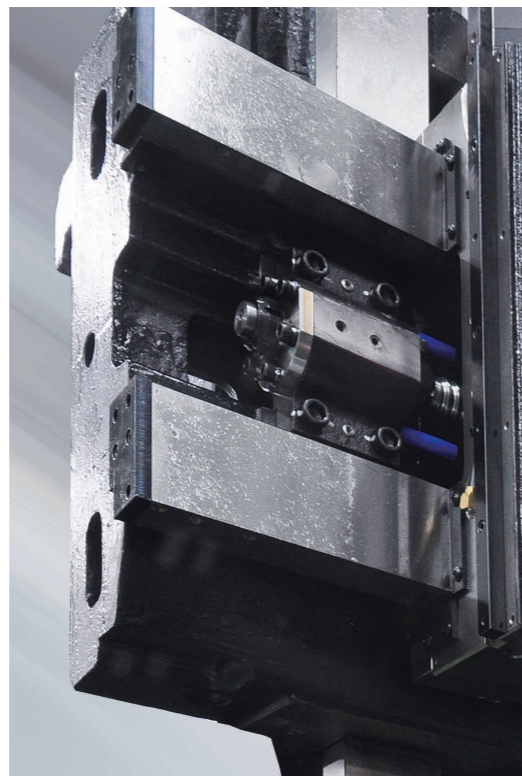
Main Body Construction

The main body of SLV 800M(1000M) 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
25.6(27.6) inch



Machine Structure

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 **1.5 Hp** ·Discharge Capacity **43.6 gal/min**

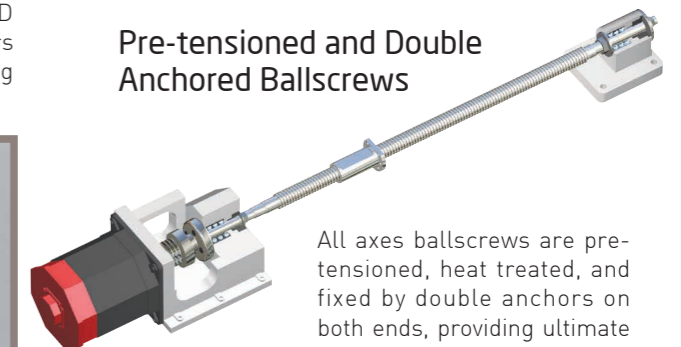


Swivel Operation Panel

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.

Lubrication Unit

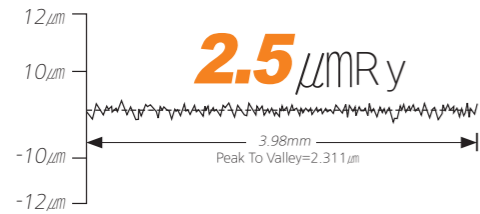
Maintenance free piston distributors automatically lubricate a precise quantity of oil to each lubrication point

·Capacity : **0.8 Gal**
·Pressure : **213 psi**



■ High Precision

Surface Roughness <O.D. cutting>



Roundness

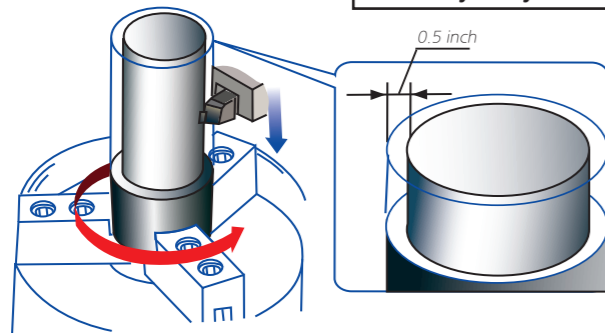


Cutting condition	
Tool	Diamond tool (nose radius 0.020 inch)
Material	AL150(Aluminum)
Cutting speed	650 fpm
Feedrate	0.0020 ipr
Depth of cut	0.005 inch
Outer diameter	7.9 inch
Filter	1-50

■ Processing Speed

Turning Performance (material:SM45C) SLV 800(SLV 1000)

Heavy-duty cutting (O.D) <1 1/4 inch x 1 1/4 inch qualified tool>

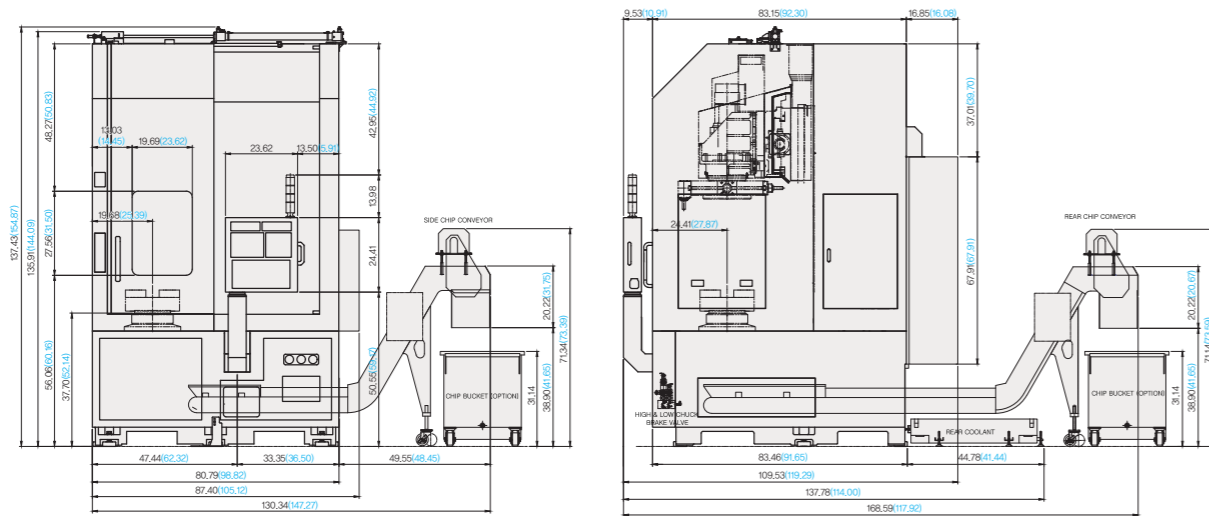


Spindle Speed
357 rpm
Cutting Speed
465 fpm
Depth Of cut
0.5 inch <Spindle Load 65%>
Feedrate
0.11 inch per rev

■ Machine Dimensions

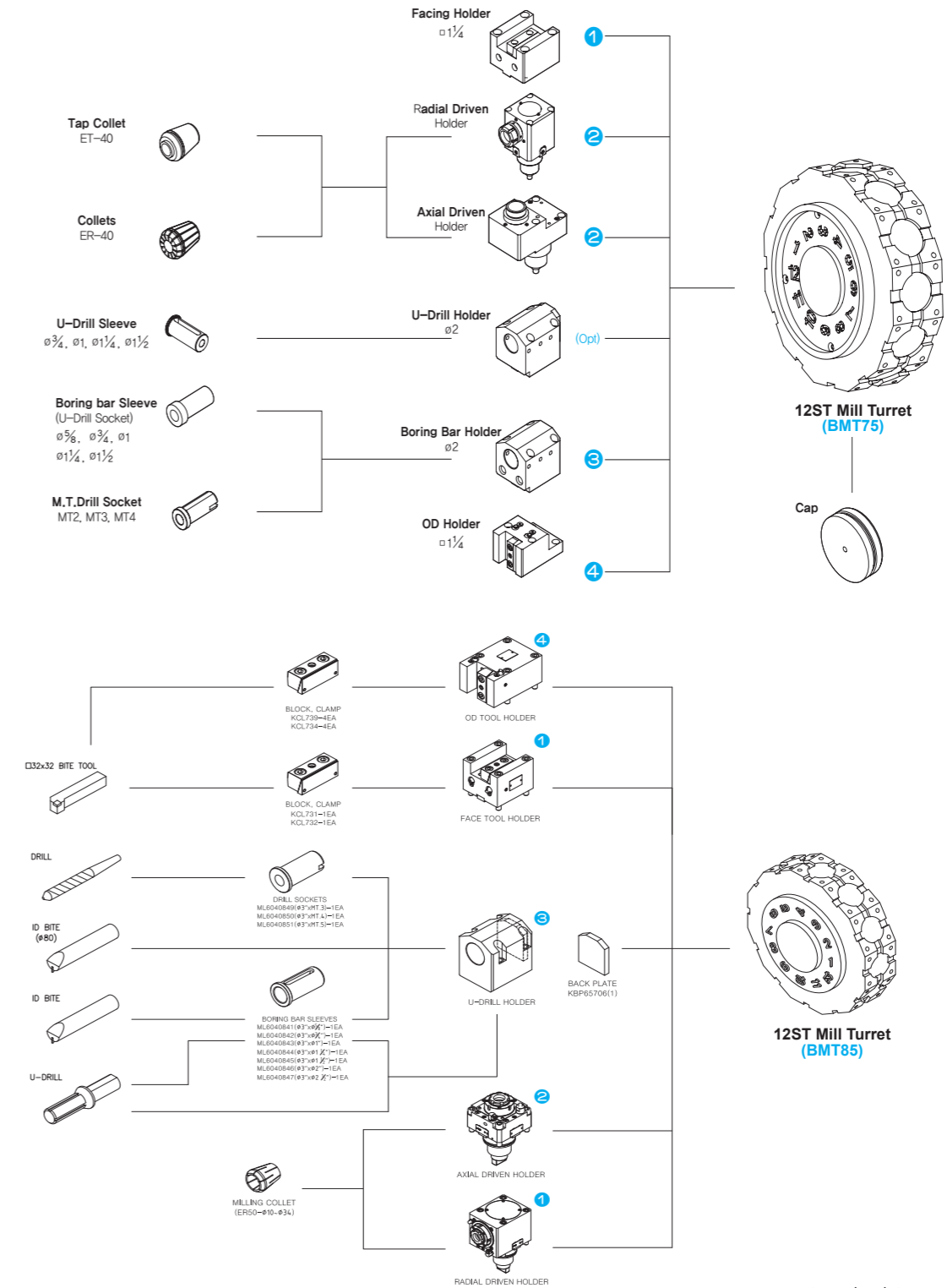
SLV 800(M)[1000(M)]

Unit : inch



■ Tool Holders & Sleeves

Unit : inch

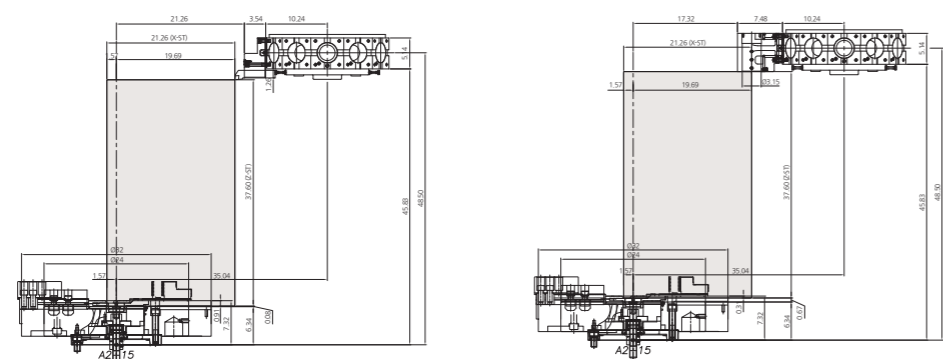


● : Standard Set Numbers

■ Working Ranges

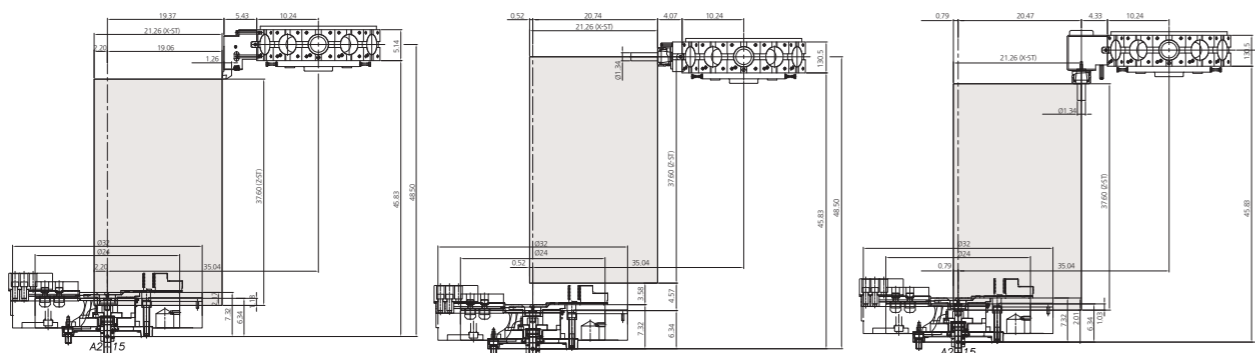
Unit : inch

SLV 1000M



O.D. HOLDER

I.D. HOLDER



FACE HOLDER

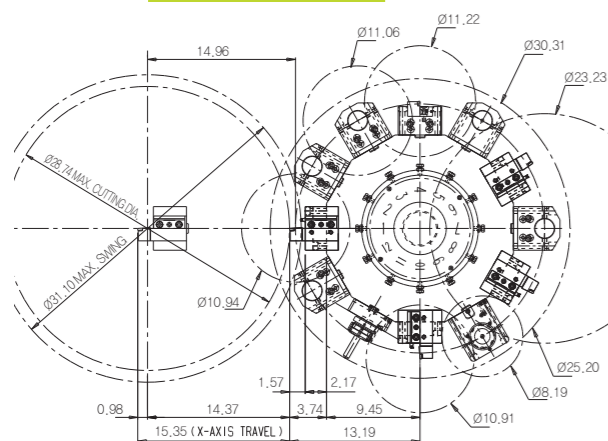
STRAIGHT MILLING HOLDER

ANGULAR MILLING HOLDER

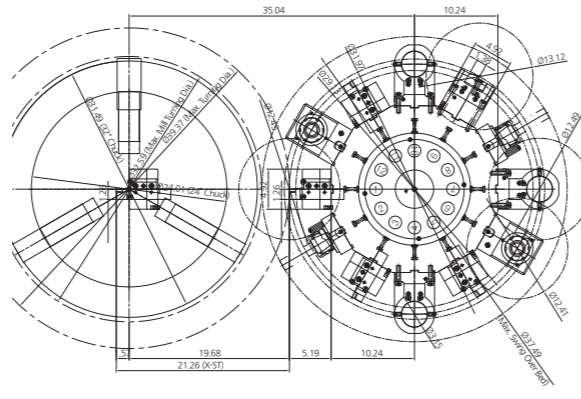
■ Tool Interference Diagram

Unit : inch

SLV 800M



SLV 1000M



■ Major Specifications

DESCRIPTION		SLV 800	SLV 800M	SLV 1000	SLV 1000M	
CAPACITY	Swing over bed	inch	Ø35.04	Ø35.04	Ø43.31	Ø43.31
	Swing over saddle	inch	Ø29.13	Ø29.13	Ø31.30	Ø31.30
	Recommended turning diameter	inch	Ø17.72	Ø17.72	Ø24 [32]	Ø24 [32]
	Max. Turning diameter	inch	Ø32.68	Ø32.68	Ø39.37	Ø39.37
	Max. Turning length	inch	31.50	31.50	37.60	37.60
Chuck size	inch	18[12,21,24]	18[12,21,24]	24" [32"]	24" [32"]	
MAIN SPINDLE	Spindle speed	rpm	2,000	2,000	1,800 [1,200]	1,800 [1,200]
	Spindle nose	ASA	A2-11	A2-11	A2-15	A2-15
	Spindle through hole diameter	inch	Ø4.09	Ø4.09	Ø3.94	Ø3.94
	Spindle bearing diameter (Front)	inch	6.30	6.30	7.87	7.87
	Min. spindle indexing angle	deg	-	0.001	-	0.001
	Spindle drive	-	2-Speed Gear Box	2-Speed Gear Box	Gear Box	Gear Box
Spindle torque (Max./Cont.)	lbs.ft	[2344/1570]		453.2/3705.5		
TRAVEL	X-axis travel	inch	16.93	16.93	21.26	21.26
	Z-axis travel	inch	31.50	31.50	37.60	37.60
	Rapid traverse (X/Z)	ipm	787.4/787.4	787.4/787.4	787.4/787.4	787.4/787.4
	Guide way type	-	Box Guide	Box Guide	Box Guide	Box Guide
TOOL POST	Max. number of tool	-	12	12(BMT75)	12	12(BMT85)
	Shank size for square tool	inch	□1.25	□1.25	□1.25	□1.25
	Boring bar diameter	inch	Ø2.5	Ø2.5	Ø3	Ø3
	Rotary tool spindle speed	rpm	-	4,000	-	3,000
	Indexing time	sec	0.3	0.3	0.3/2.0	0.3/2.0
MOTOR	Main spindle motor (30min./cont.)	hp	[49.6/40.2]		49.6/[60.3]/73.7	
	Servo motor (X/Z)	hp	5.4/12	5.4/12	5.4/9.3	5.4/9.3
	Mill spindle motor(Cont./30min)	hp	-	7.4/10	-	7.4[10.1]/14.7
Electric power supply	kVA	53[61]	53[61]	75	80	
Machine dimension (LxWxH)	inch	80.79x109.53x137.44		98.82x119.29x154.87		
Machine weight	lbs	24,250	24,700	37,478	37,478	
CONTROLLER		Fanuc Oi-TF				

• Figures in inches are converted from metric measurements.
• Design and specifications are subject to change without notice.

• [] :Option

■ Standard Accessories

- HYDRAULIC CHUCK(18")
- SOFT JAW
- SPLASH GUARD
- COOLANT SYSTEM
- TOOL HOLDER
- SPINDLE GEAR BOX(2STEP)
- FOOT SWITCH
- TOOL AND TOOL BOX
- LEVELING BLOCKS

■ Optional Accessories

- CHIP CONVEYOR(REAR,SIDE)
- CHIP BUCKET
- DUAL CHUCKING PRESSURE
- AIR BLOW
- TRANSFORMER
- HIGH-PRESSURE COOLANT(20BAR)
- TOOL PRESETTER
- AUTO DOOR
- AUTO POWER OFF
- PATROL LIGHT