

■ NC Unit Specifications / FANUC Series

Item	Specification	0i-TD
Controlled axis	Max. feed axes	4 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	400EA	
Setting and display	Alarm & Operator history display	ALARM & OPERATION DISPLAY
	Run hour and parts count display	RUNNING TIME & PART NO. DISPLAY
	Display spindle & servo overload	SPINDLE & SERVO LOAD DISPLAY
	Self-diagnosis function	
	Extended part program editing	COPY, MOVE, CHANGE OF NC PROGRAM
	Display screen	10.4" color
Data input/output	Memory card input/output	
	USB memory input/output	
Editing operation	Part program storage size	512Kbyte(1280m)
Manual guide i	Manual Guide i	OPT

SAMSUNG Machine Tools

PL 800V/800VM VERTICAL TURNING CENTER



SMEC
SAMSUNG MACHINE TOOLS

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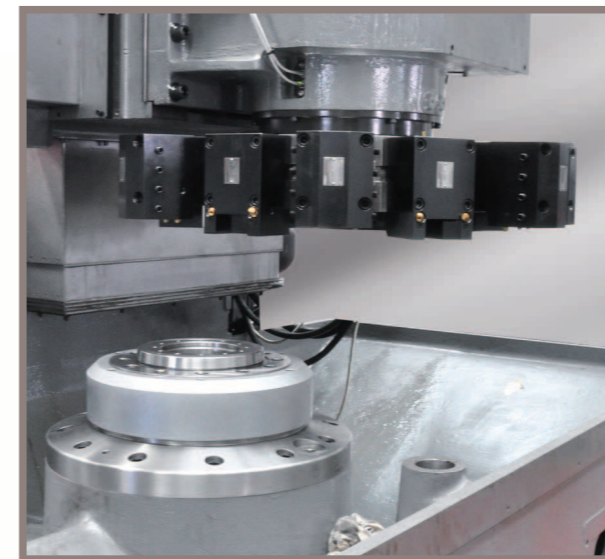
SMEC
SAMSUNG MACHINE TOOLS

**SAMSUNG'S Advanced
Engineering and Machine Design**

**PL 800V(R/L)
PL 800VM(R/L)**



The Samsung PL 800V / 800VM are heavy duty ultra Precision Vertical Turning Centers that are designed to handle heavy cutting as well as superior surface finishes.



Spindle Speed
2,000 rpm

Spindle Motor(Max/cont.)
30 / 22 kW

Rapid Travel(X/Z)
20 / 20 m/min

Feed Motor(X/Z)
4 / 9 kW

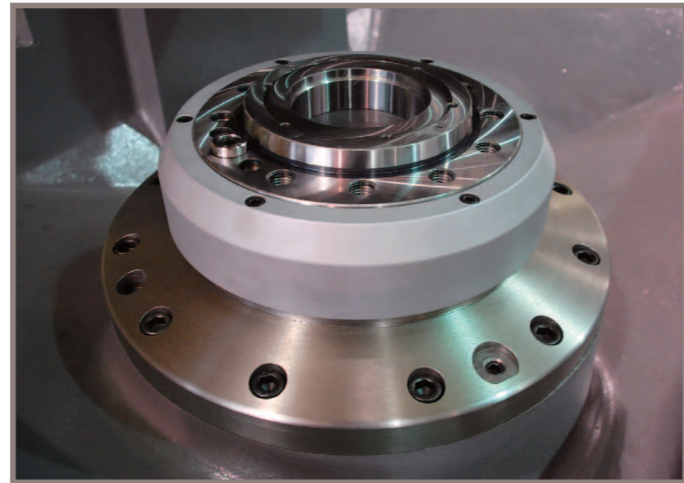
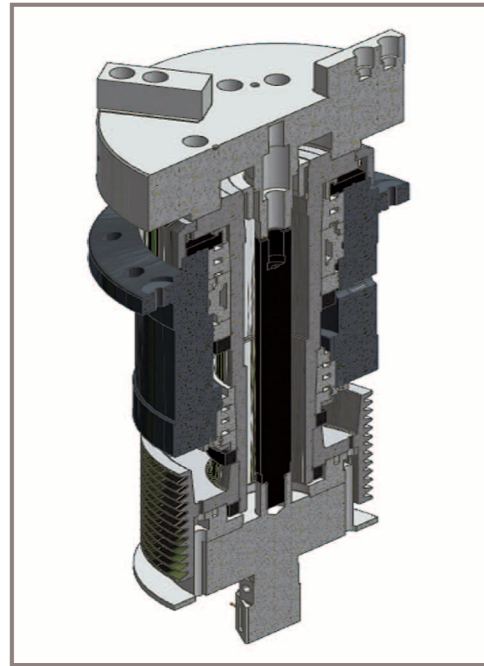
Max. Turning Length
800 mm

Max. Turning Diameter
810 mm

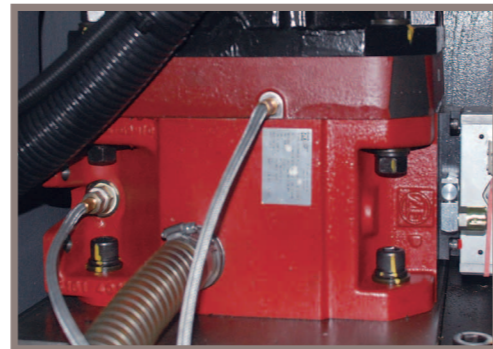
One piece meehanite casting bed with hardened and ground solid box way construction



High Accuracy, High Rigidity Spindle



■ 2 Step Gear Box (Opt.)



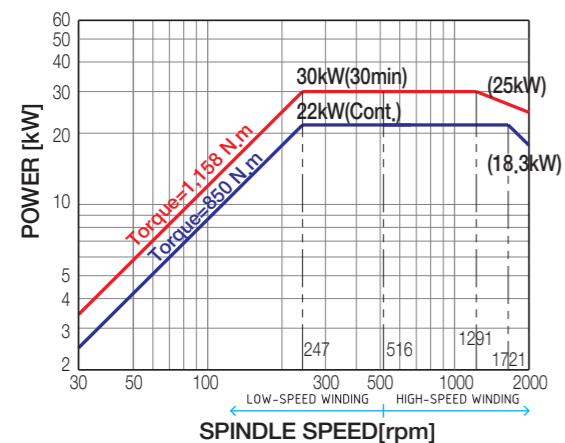
■ Main Spindle Structure

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.

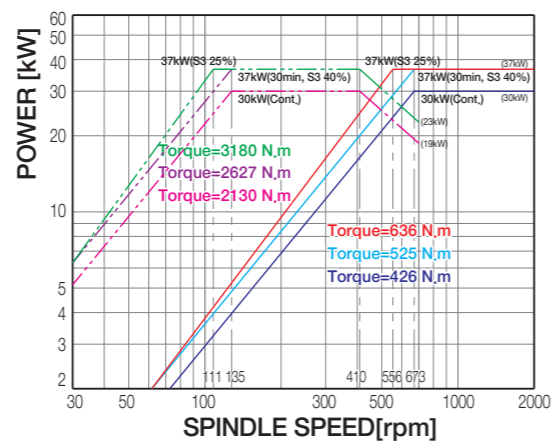
A2-11, 15"~24" chuck available

■ Spindle Power & Torque Diagram

■ Main spindle (Std.)

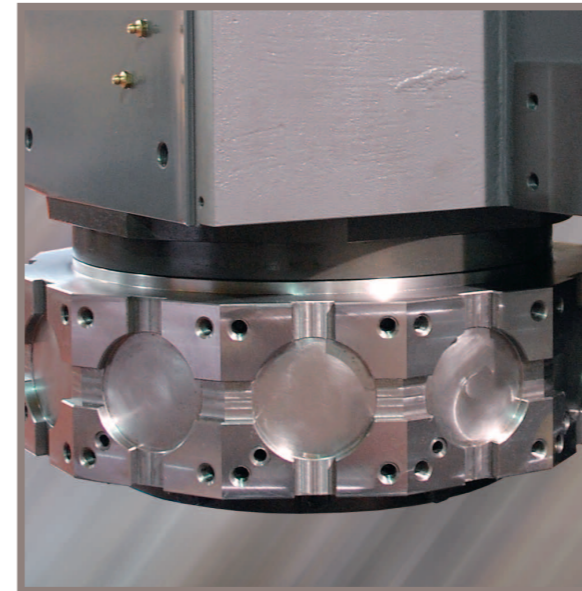


■ Main spindle with 2 step Gear box



■ Machine Structure

■ PL 800V (Standard Turret)



■ PL 800VM (Mill Turret)



Indexing time

0.3 sec.

Number of tool positions

12 stations

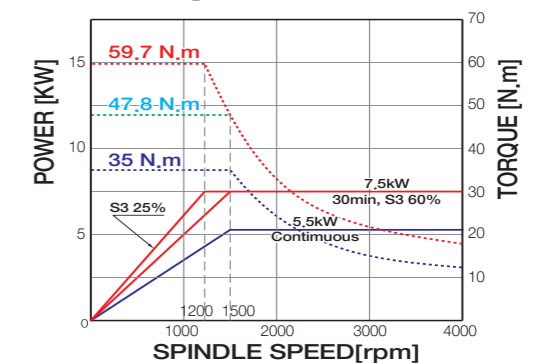
■ High Speed, Heavy Duty Servo Turret

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 8,115 kg-f of turret clamping force enables precision as well as heavy-duty cutting. PL 800VM is equipped with standard 12-station BMT 75 turret, capable of accepting rotary tools at any station.

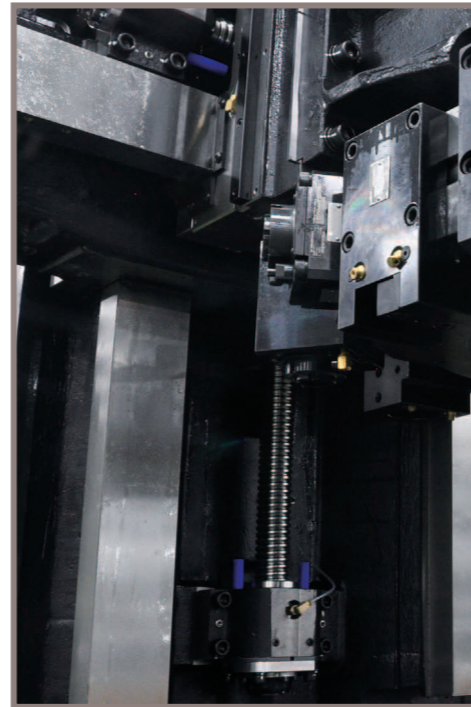
CLAMP FORCE [HYD. CLAMPING]	kgf	8,063(TOTAL)
[SPRING CLAMPING]		[8,011(50kgf/cm ²) [52]



■ Mill spindle

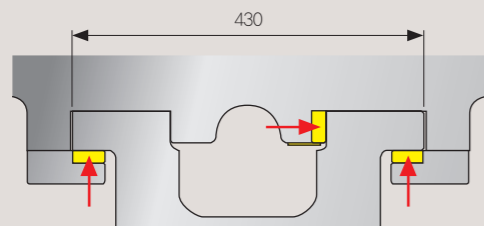


Machine Structure



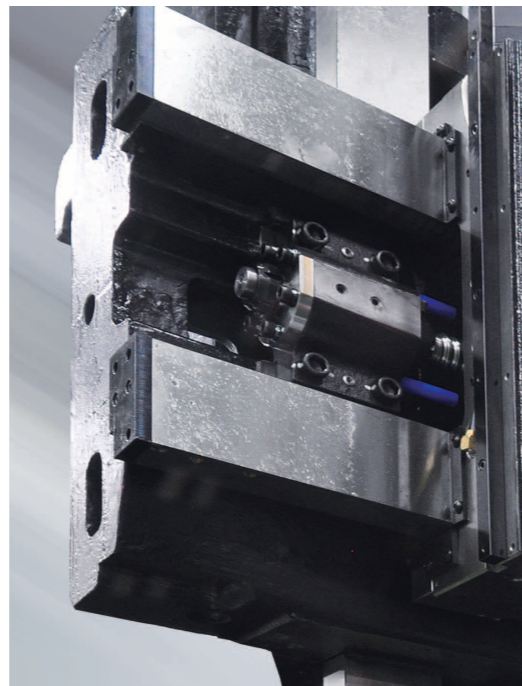
Main Body Construction

The main body of PL 800V/800VM 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
430 mm

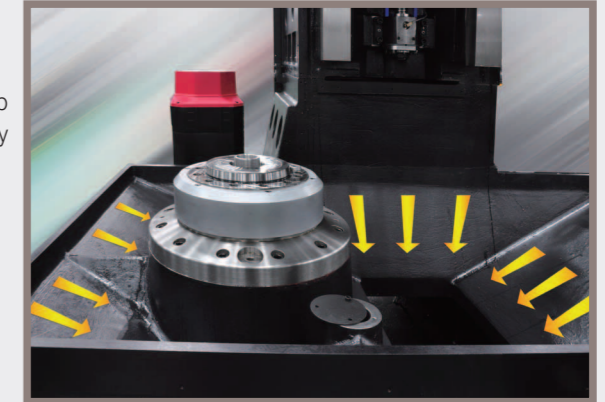


Machine Structure

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
0.9 kW
- Discharge Capacity
300 L/min

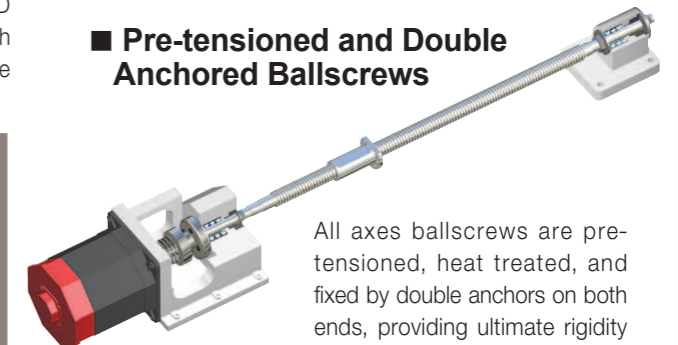


Swivel Operation Panel

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

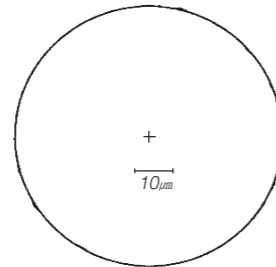
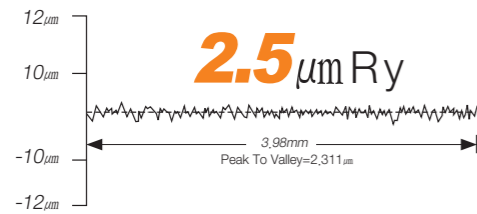
- Capacity : **3 Liter**
- Pressure : **1.5 Mpa**



High Precision

Surface Roughness (O.D. cutting)

Roundness



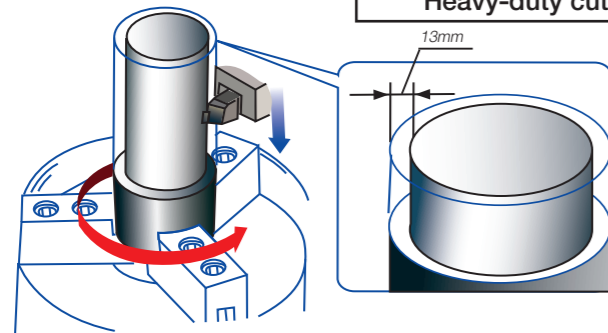
0.50 μm (actual result)

Machine type	PL 800V
Tool	Diamond tool (nose radius 0.020 inch)
Material	AL150 (Aluminum)
Cutting speed	198 m/min
Feedrate	0.05 mm/rev
Depth of cut	0.1mm
Outer diameter	200mm
Filter	1-50

Processing Speed

Turning Performance (material:SM45C) PL 800V

Heavy-duty cutting (O,D) (32mm x 32mm qualified tool)

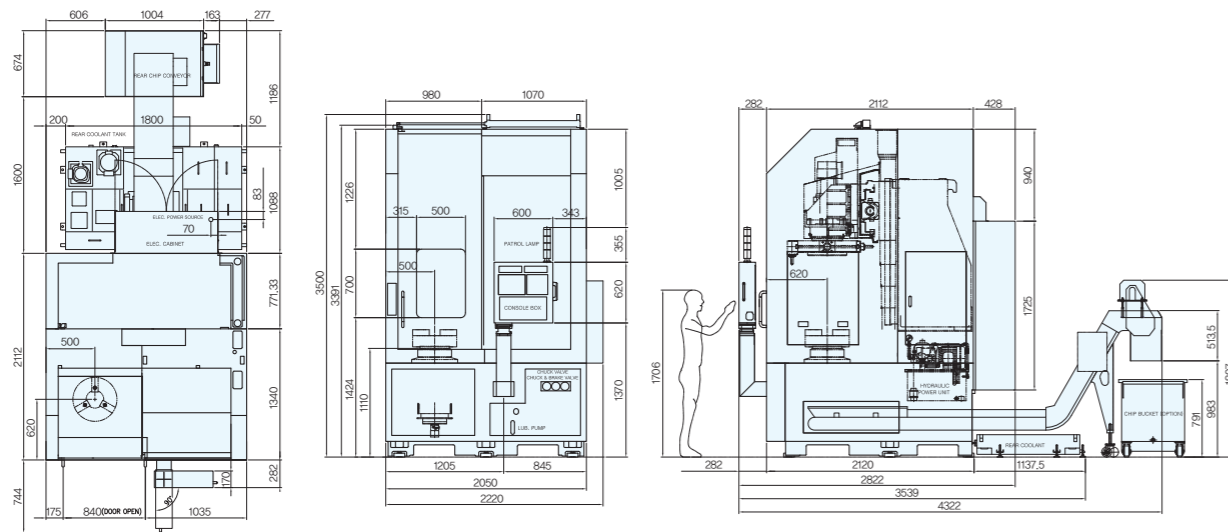


Spindle speed
357 rpm
Cutting speed
142 m/min
Depth of cut
13 mm <Spindle Load 65%>
Feedrate
0.3 mm/rev

Machine Dimensions

PL 800V / 800VM

Unit : mm



Tool Holders & Sleeves

Unit : mm

