

SAMSUNG Machine Tools

PL 1600G/1600CG GANG CNC TURNING CENTER



SMEC

SAMSUNG MACHINE TOOLS

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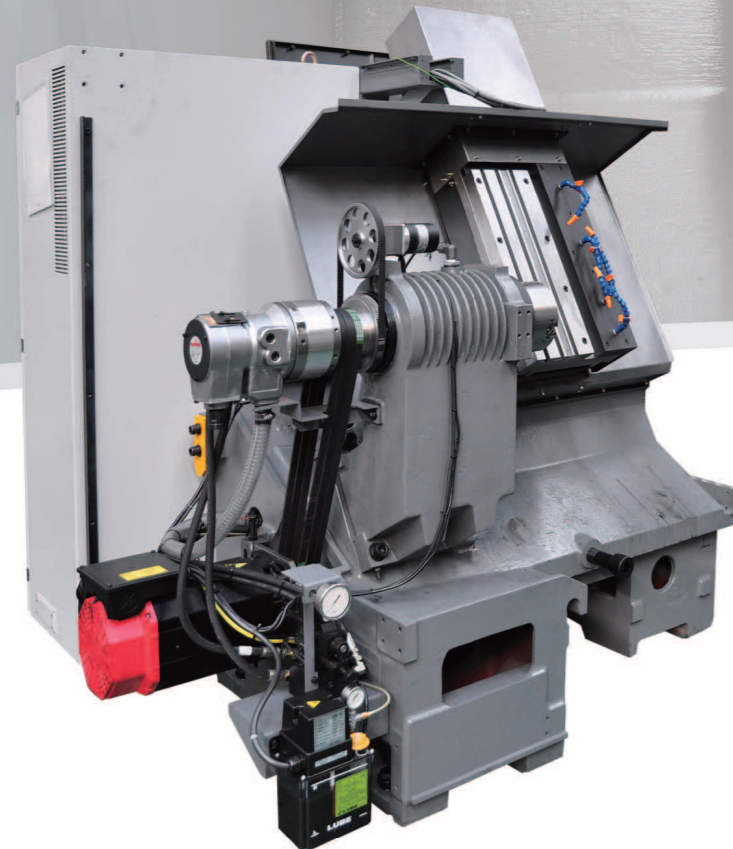
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SAMSUNG MACHINE TOOLS

Best fit on Both High Speed Machining and Automation System.



- Automation Ready System
- High accuracy on repeatability
- Achieving Stable Travers by Applying L/M Guide
- Applying Large Size Ball Screws (X- \varnothing 32, Z- \varnothing 36)

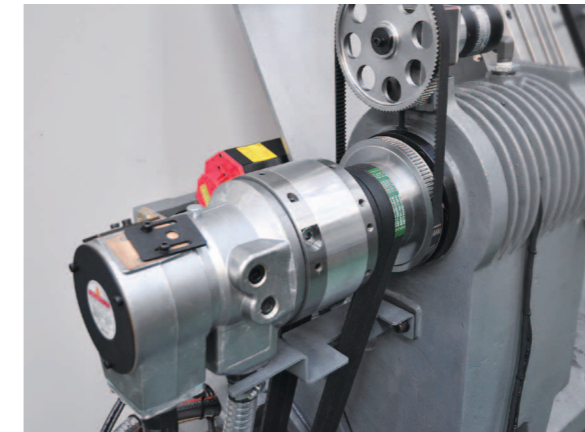


Minimizing the maintenance cost Wide work range

High rigidity one piece cast iron bed structure

- Achieving heavy duty cutting and high precision with superior vibrational absorption and high rigidity of 60 degree slant type bed design.
- Chip conveyors (rear, side) - both rear and side type chip conveyors are available.

Machine Structure

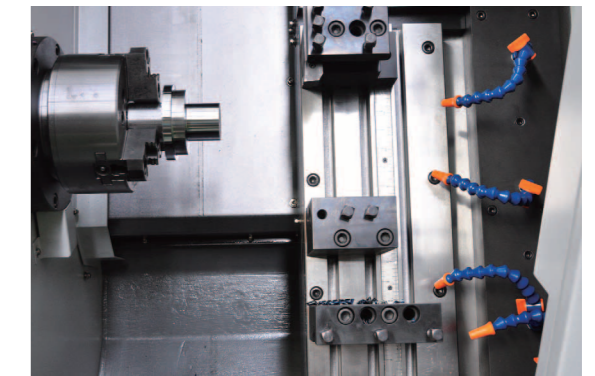


High Accuracy, High Rigidity Spindle

- High precision angular ball bearings on front side and high precision cylindrical roller bearings on back side.
- Highly reliable and rigid main spindle structure.
- Maintaining the stability even under interrupted and heavy cutting.

Gang Type Tool System.

- Maximizing chip to chip for optimizing productivity.
- Applying 60 degree slant type to achieve easy chip disposal
- Higher work and tooling efficiency.

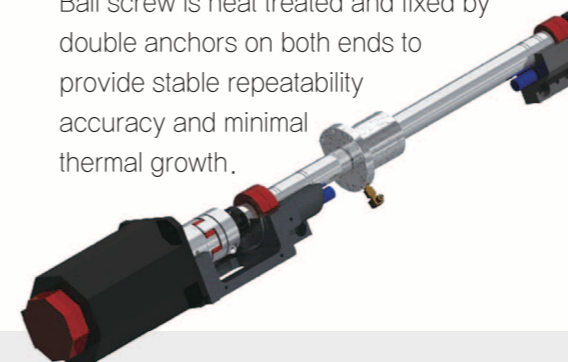


Centralized Control Panel

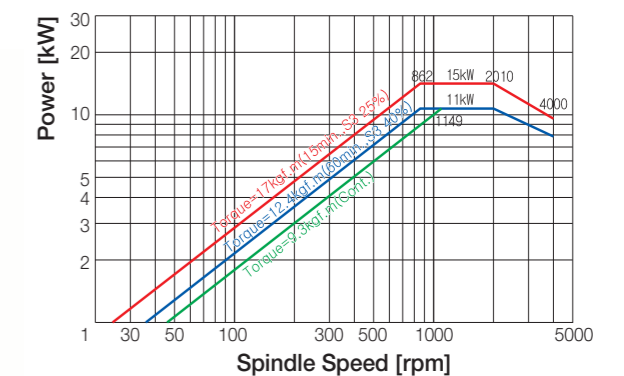
Applying centralized control panel to provide easy operation and access to operator

High Precision Double Anchored Ball Screw

Ball screw is heat treated and fixed by double anchors on both ends to provide stable repeatability accuracy and minimal thermal growth.



Spindle Power and Torque Diagram



Machine Specification

Item		PL 1600G	PL 1600CG
CAPACITY	Swing over the bed	mm	φ 540
	Swing over the cross slide	mm	-
	Max. machining diameter	mm	φ 170
	Max. machining length	mm	250
MAIN SPINDLE	Chuck size	inch	6"
	Speed	rpm	6,000
	Spindle nose	ASA	A2-5
	Bore diameter	mm	φ 53
	Draw tube I.D.	mm	φ 46
	Motor(30min/cont.)	kW	11 / 7.5
TRAVEL	X/Z axis travel	mm	420 / 250
	X/Z rapid traverse rate	m/min	30 / 36
	X/Z feed motor	kW	1.8 / 1.8
TURRET	Number of tool positions	st.	6
	Indexing time	sec	-
	Shank size for square tool	mm	□ 20
	Shank diameter for boring bar	mm	φ 25
TAILSTOCK	Tailstock quill travel	mm	-
	Tailstock quill diameter	mm	-
ELECTRIC POWER SUPPLY	kVA/V	22 / 220	22 / 220
REQUIRED FLOOR SPACE [Side/Rear]	mm	[2,375 × 1,498 / 2,055 × 1,948]	[2,375 × 1,498 / 2,055 × 1,948]
MACHINE WEIGHT	kg	3,000	3,000
CONTROLLER	Fanuc Oi-Mate TD		

• Design and specifications subject to change without notice.

Standard

- 6" HYDRAURIC CHUCK
- TOOL HOLDERS
- SPINDLE ORIENTATION
- TOOL BOX
- BUILT-IN WORK LIGHT
- COOLANT SYSTEM
- HYDRAURIC SYSTEM
- SOFT JAW
- LEVELLING BLOCK

Optional Accessories

- CHIP CONVEYOR
- PARTS CATCHER
- AUTO DOOR
- TOOL HOLDER
- CS CONTROL
- CHIP BUCKET
- BAR FEEDER PREPARATION
- SPECIAL CHUCK
- HIGH PRESSVRE COOLANT
- 5" INDEX ORIENTATION
- OIL SKIMMER

NC Specification / FANUC Oi-Mate TD

Item	Specification	F Oi-Mate TD
Controlled axis	Feed axes	X,Y,(B)
	Max. simultaneously controlled axis	3
	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
	Cylindrical interpolation	G70.1
	Reference position return	G28
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	64
	Tool geometry/wear offset	GEOMETRY & WEAR DATA
	Tool life management	○
	Tool path graphic display	○
Program input	Automatic tool offset	×
	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
Data input/output	Display screen	8.4" color
	Memory card input/output	○
Editing operation	USB memory input/output	○
	Part program storage size	512Kbyte(1280m)