

SMEC

PL 1600G/CG

GANG CNC TURNING CENTER



SMEC Co., Ltd.

157-10, Goldenroot-ro, Juchon-myeon, Gimhae-si, Gyeongsangnam-do, Korea

Tel +82 55 340 4800 Fax +82 55 340 4740

<http://www.esmec.com>

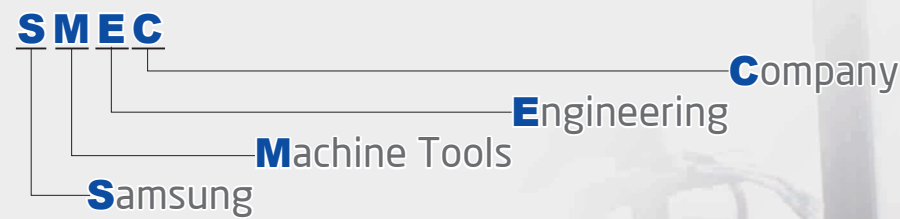


❖ Design and specifications subject to change without notice.

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- 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



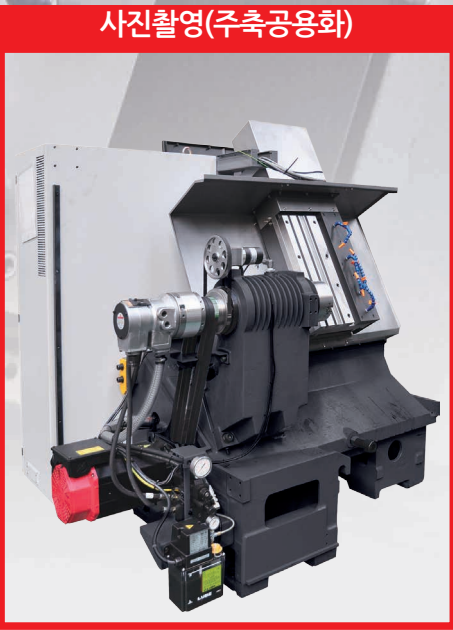
PL 1600G/CG



Minimum Maintenance Cost,
Wide Machining Range

One Bed Casting Structure with
High Rigidity

- Heavy duty cutting and Excellent vibration dampening made possible with 60 degree slant type.
- 2 way(Right, Rear) Chip Conveyor Available
- Available for Factory Automation
- Increased Repeatability
- Stable Traverse with LM Guide
- Large Diameter Ball Screw X- $\varnothing 32$, Z- $\varnothing 36$ applied

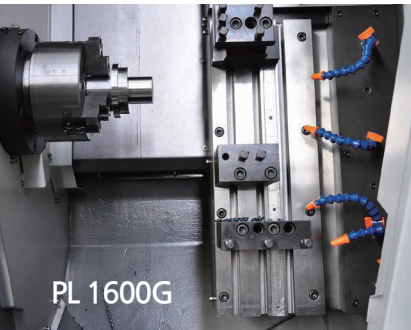


High Accuracy and High
Rigidity Spindle

- High precision angular ball bearings in the front of the spindle, High precision cylindrical roller bearings in the rear
- Spindle Structure with High Accuracy and High Rigidity
- Maintain Stability even during intermittent, heavy duty cutting.

Gang Type Tool Post

- Maximum Productivity by maximizing Chip to Chip
- Easy Chip Disposal with 60 degree slant type
- Increased efficiency for work and tooling

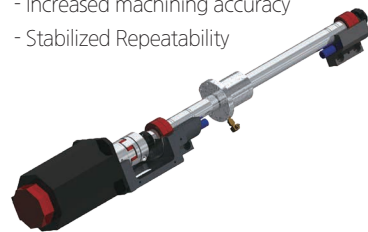


Centralized Control Panel

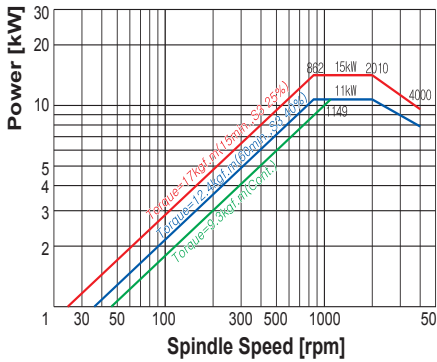
Centralized Control Panel is designed for workers to minimize unnecessary movement and demonstrate excellent control performance for worker's convenience.

High Accuracy Double
Anchored Ball Screws

- Minimizing thermal expansion.
- Increased machining accuracy
- Stabilized Repeatability

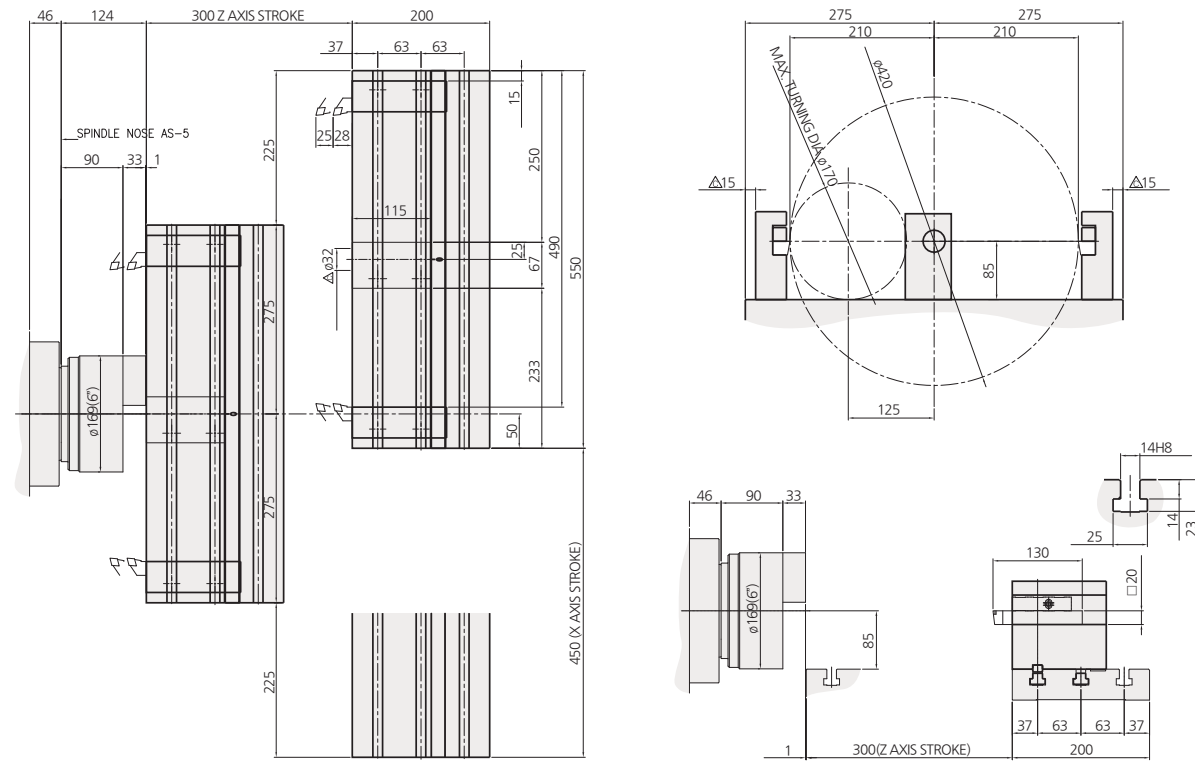


Spindle Power & Torque Diagram



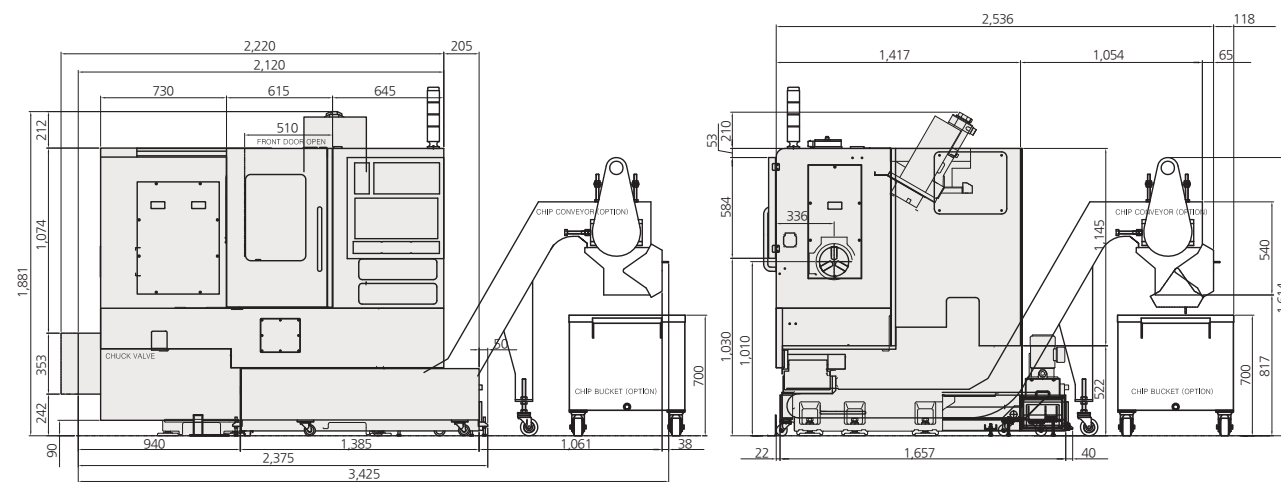
Work Range

Unit : mm



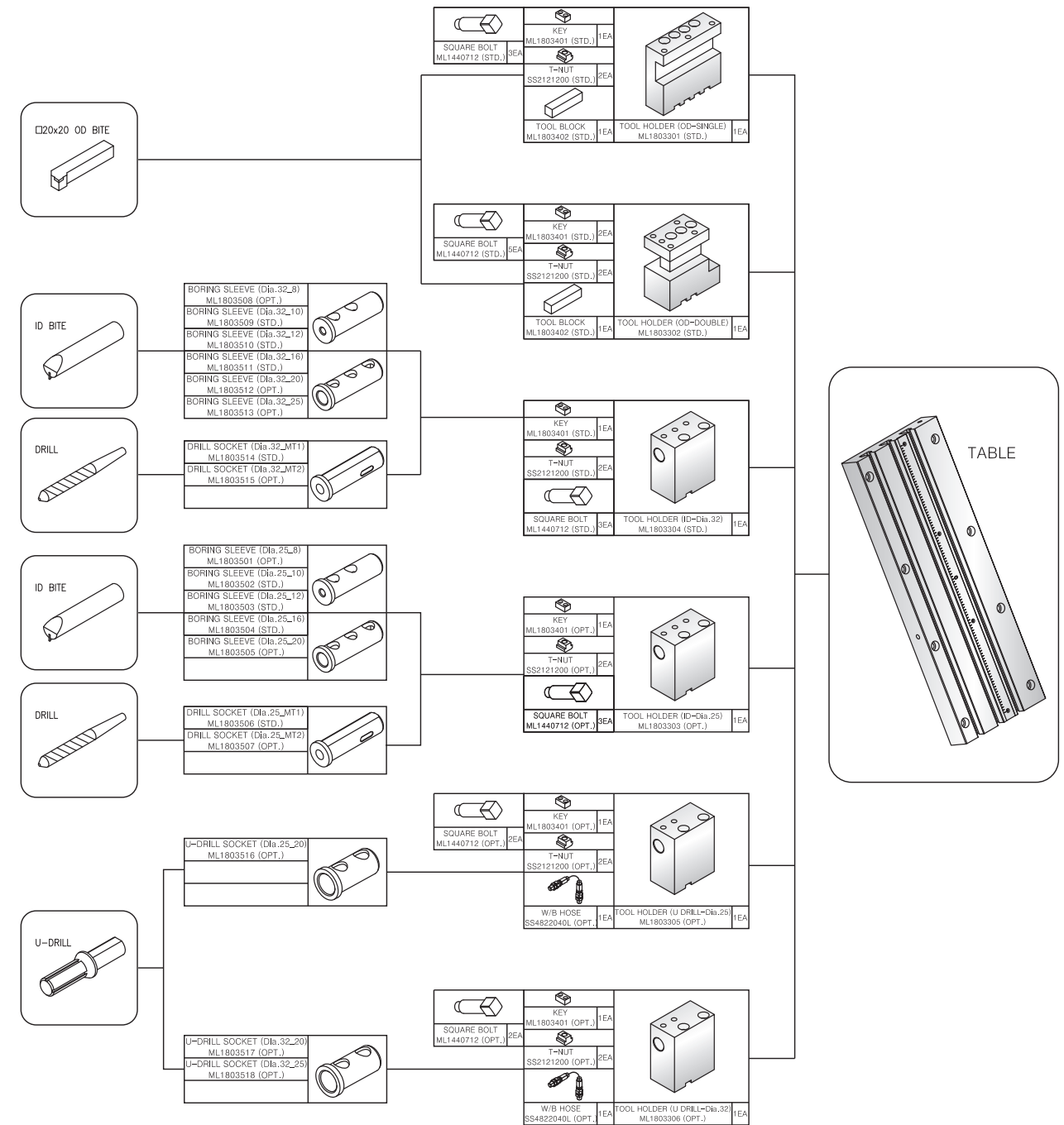
Machine Dimensions

Unit : mm



Tooling System

Unit : mm



Machine Specification

DESCRIPTION			PL 1600G	PL 1600CG
Capacity	Swing over bed	mm	540	540
	Swing over Cross Slide	mm	170	170
	Max. machining diameter	mm	170	170
	Max. machining length	mm	300	270
Main Spindle	Chuck Size	inch	6	8
	Spindle Speed	rpm	6,000	4,500
	Spindle Nose	ASA	A2-5	A2-6
	Bore Diameter	mm	61	61
	Draw Tube I.D	mm	52	52
	Spindle Motor(30min/cont.)	kW	11 / 15	11 / 15
Travel	X/Z axis travel	mm	450 / 300	450 / 270
	X/Z rapid traverse rate	m/min	30 / 36	30 / 36
	Servo Motor (X/Z)	kW	1.8 / 1.8	1.8 / 1.8
Turret	X/Z rapid traverse rate	st.	3(6)	3(6)
	Shank size for square tool	mm	20	20
	Shank diameter for boring bar	mm	32	32
Electric Power Supply		kVA/V	22 / 220	22 / 220
Required Floor Space(L×W)		mm	[2,475×1,697 / 2,156×2,149]	[2,475×1,697 / 2,156×2,149]
Machine Weight		kg	3,000	3,000
Controller			Fanuc 0i(T/P3)	

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Standard Accessories

- Hydraulic Chuck Cylinder
- Standard Work Tools(Holders included)
- Tools/Work Box
- Hydraulic Unit
- Coolant Unit (4.5 bar at 60Hz)
- Door Interlock
- Work Light
- Leveling Unit
- Soft Jaw 3 set
- Chuck Clamp Confirmation
- * Door Interlock, Chuck Clamp Confirmation are CE, KCS standard.

Optional Accessories

- Chip Conveyor & Bucket
- Coolant Gun
- Air Gun
- Mist Collector
- Special Chuck
- Oil Skimmer
- High Pressure Coolant
- Tool Holders & Sleeves
- Hard Jaw
- Signal Tower
- Air Conditioner(for Elec. Cabinet)
- Autodoor & Edge Sensor
- Chucking Air Blower
- Tool Presetter(Manual/Auto)
- Automation Interface
- Material Auto Loading Device
- Parts Catcher
- Bar Feeder Interface
- Transformer
- Foot Switch
- CE

NC Specification (FANUC 0i-Series)

Item		Specification	F 0i-Series
Controlled axis	Controlled 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	○
	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	T4-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		○
	Automatic tool offset		×
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	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&Operation 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		8.4" color
Data input/output	Memory card input/output		○
	USB memory input/output		○
Editing operation	Part program storage size	512Kbyte(1280m)	1280M