

■ NC 사양 / FANUC 0i-TD

Item	Specification
Controls	Simultaneous controllable axes Least command increment Least input increment
Feed functions	Feedrate override Dwell Zero return Pulse handle feed Rapid traverse rate override Feedrate per minute Feedrate per revolution 3rd and 4th reference return Feed forward function
Tool functions	Tool number command Tool nose radius compensation Number of tool offsets Tool geometry/wear offset Tool life management Tool path graphic display
Programming functions	Absolute/ incremental programming Constant surface speed control Multiple repetitive canned cycle Simple canned cycle Decimal point input Inch/metric conversion Circular interpolation by radius programming Chamfering & corner R programming Sub program call Thread cutting cycle retract Work coordinate system selection Local/ machine coordinate system Maximum programmable dimension M function User macros Variable lead thread cutting Continuous thread cutting Drilling canned cycle (G80 series) Line/ angle (direct dimension) programming Three G code system (selectable)
Tape functions	Input code I/O interface Part program storage length Number of stored programs Search function
Other functions	MDI / CRT unit Stored stroke check 1 Background editing Help function Running time / Parts number display Load meter display Self diagnostic function Expanded program editing Stored stroke 2 and 3 Spindle orientation



SAMSUNG Machine Tools

PL35 CNC TURNING CENTER



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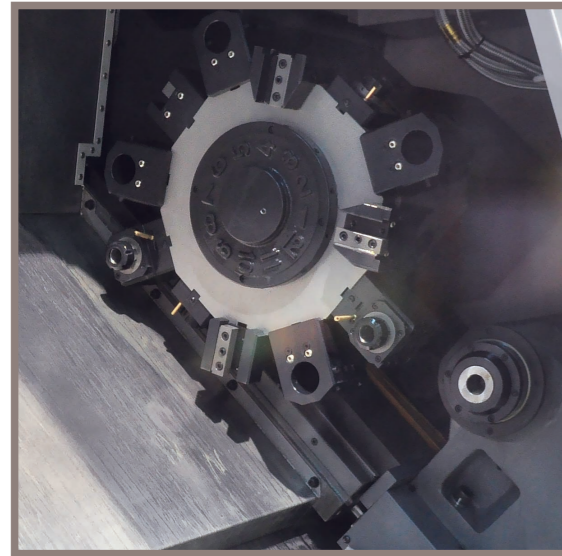
SAMSUNG'S Advanced Engineering and Machine Design

- Cast iron structure for superior dampening characteristics and thermal displacement
- Rigid 45 degree slant bed design for heavy-duty machining
- Torque tube design to minimize bending and twisting
- Integrated box ways for long-term rigidity and heavy-duty machining

PL 35 / 750
PL 35 / 1500
PL 35MC / 1500



PL35/35MC is a heavy duty, ultra precision Turning Center, combined with Samsung's advanced technological features.



Spindle Speed
2,500 rpm

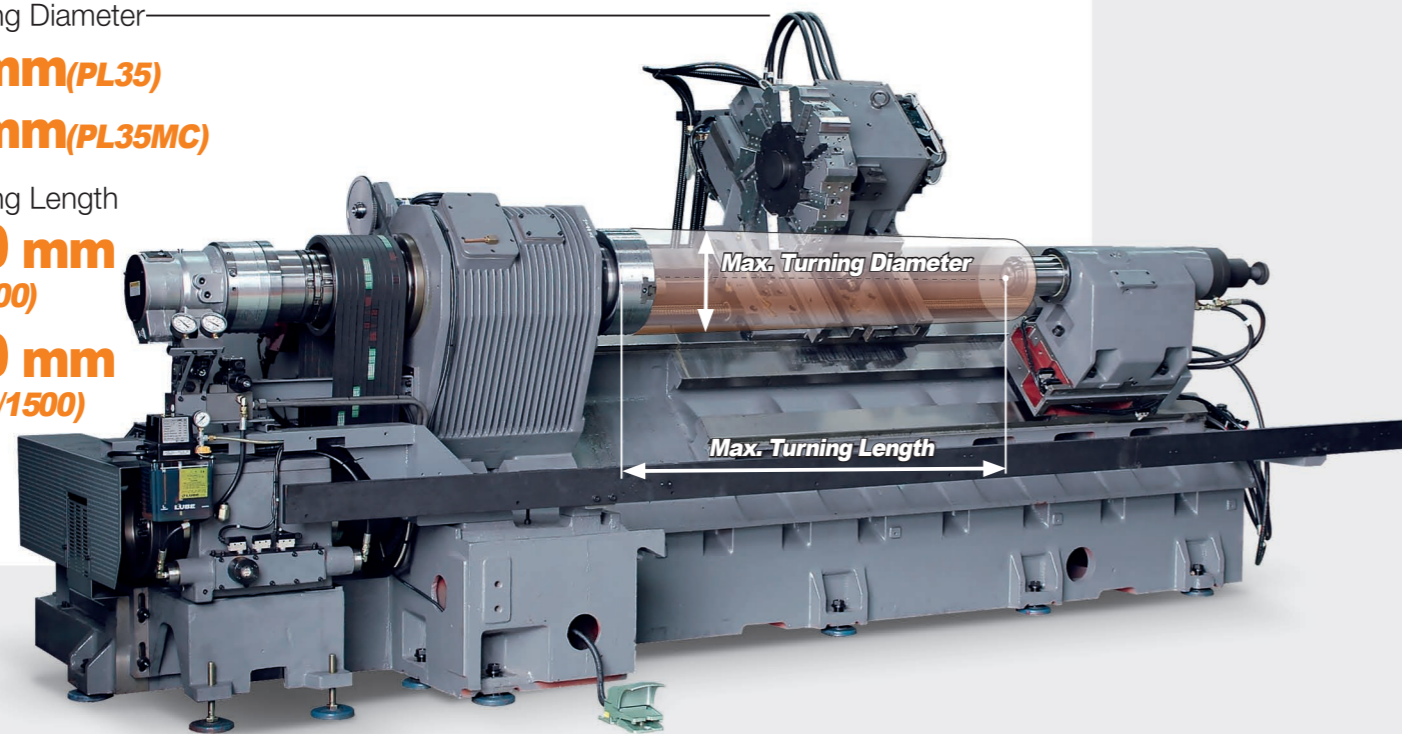
Spindle Motor(30min/cont.)
22/18.5 kW

Rapid Travel(X/Z)
12/15 m/min(PL35)
20/24 m/min(PL35MC)

Feed Motor(X/Z)
3/4 kW(PL35), 4/7 kW(PL35MC)

Max. Turning Diameter
420 mm(PL35)
500 mm(PL35MC)

Max. Turning Length
1,530 mm(PL35/1500)
1,500 mm(PL35MC/1500)



■ **Highly Reliable and Rigid Structural Design**

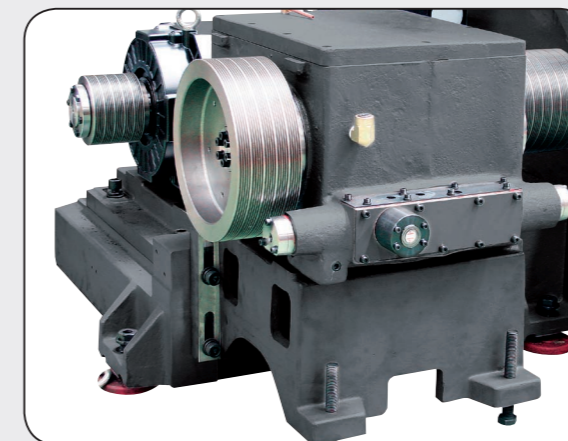
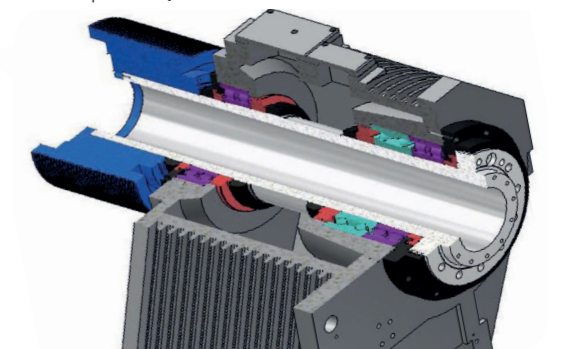
- Meehanite casting with heavily ribbed torque tube design
- Rigid bed supports for powerful cutting
- Excellent vibration dampening and thermal displacement design

High Accuracy, High Rigidity Spindle



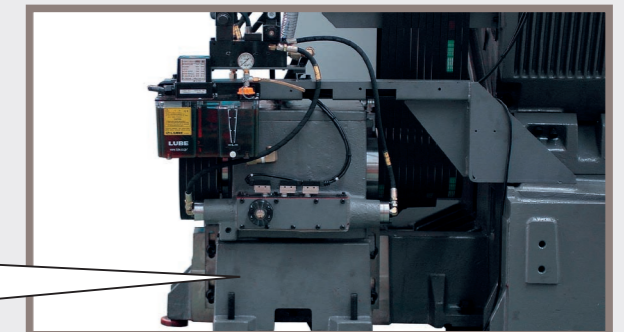
■ **Pin Tube Rib Design for Minimal Axis Heat Transfer**

Radiator fan-like pin tube rib design dissipates heat generated by axis movements, maintaining minimal thermal expansion.



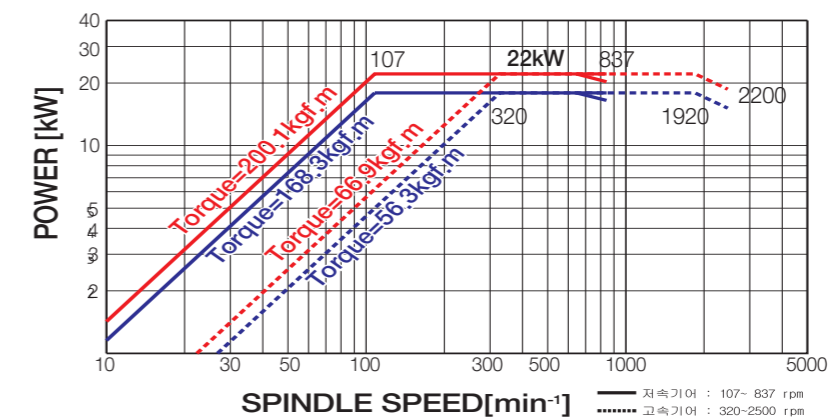
■ **Output Converting Transmission**

Equipped as standard feature, high Output Converting Transmission provides heavy-duty machining.



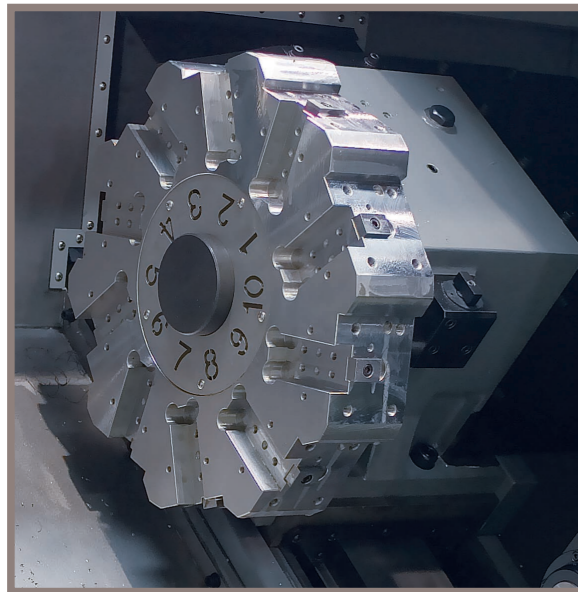
■ **Spindle Power & Torque Diagram**

Unit : mm



Machine Structure

PL35 (High Speed Hydraulic Turret)

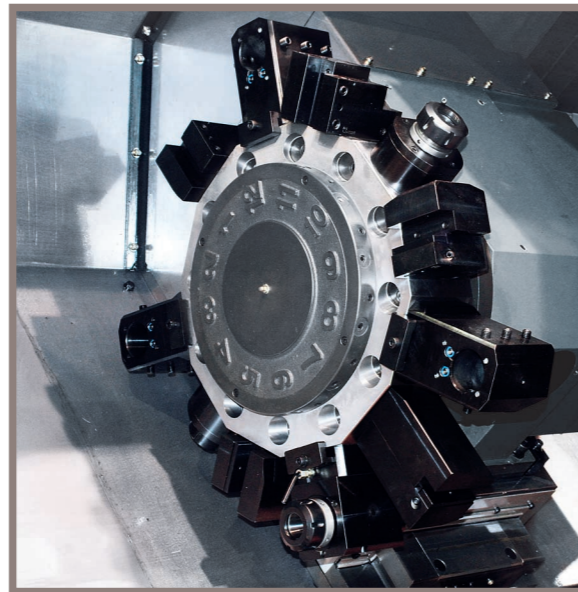


Indexing time
0.25 sec.

Number of tool positions
10 stations

High Speed, Heavy Duty Hyd. Index Turret
Driven by a high torque hydraulic index motor, the 10-station heavy-duty turret can accept tools on both left and right side of each station. Turret indexing (repeatability $\pm 0,005$) is non-stop, bi-directional with a fast 0,25 second next station index time. A large diameter ($\varnothing 250$) Curvic coupling with 6,377kgf clamping force enables precision as well as heavy-duty cutting.

PL35MC (BMT High Speed Turret)

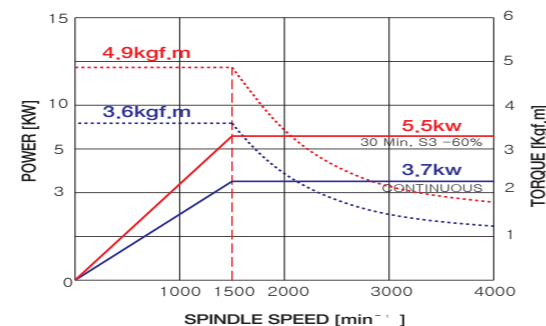


Indexing time
0.25 sec. Number of tool positions
12 stations

Milling Spindle Speed
4,000 rpm Tool Holder
BMT 65

BMT Milling Turret (M Type)
PL35MC is equipped with standard 12-station BMT turret capable of accepting rotary tools at any station, providing flexible machining thru various machining operations in just one set-up. Each BMT holder is securely tightened by 4 screws, allowing the turret to perform heavy-duty cutting, milling and drilling operations. Turret indexing is non-stop, bi-directional with a fast 0,25second next station index time.

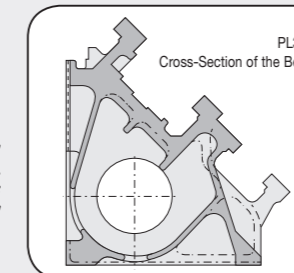
Turret Torque Diagram



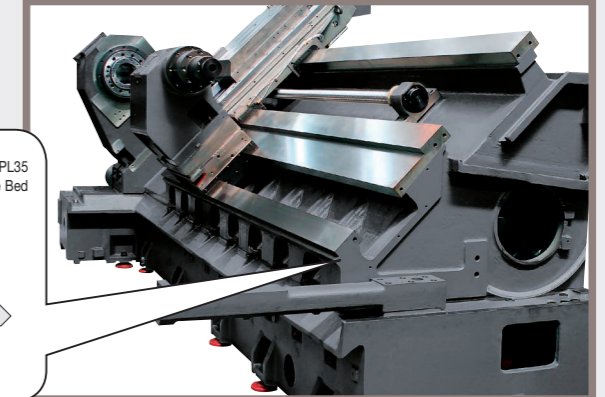
Machine Structure

Rigid 45 degree Slant Bed

45 degree slant torque tube design bed and wide guide slide way ensure long term rigidity and machining accuracy.

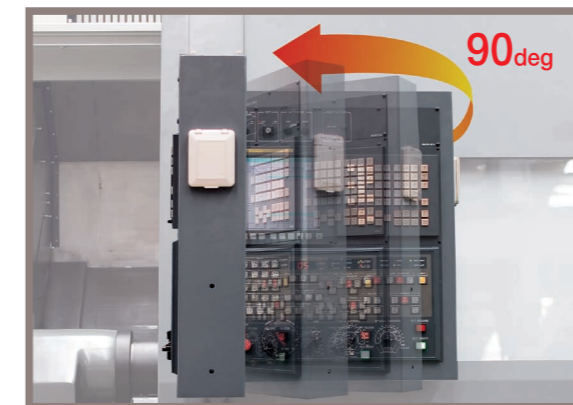


Featuring superior workability and chip-discharging capability, the bed is designed in a single tube structure boasting strong durability even in heavy-duty cutting.

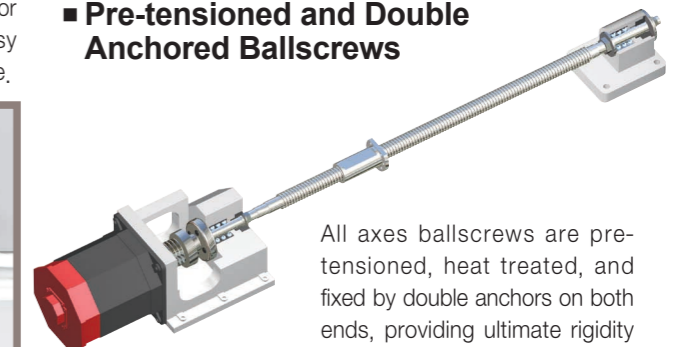


Swivel Operation Panel

Swivel operation panel of 8,4 inch color TFT LCD monitor can turn to 90 degree, providing operators with easy access to the control panel while working on the machine.



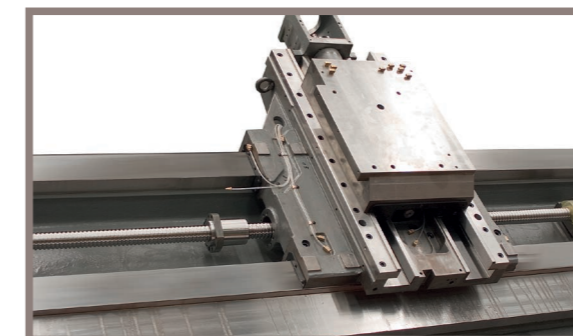
Pre-tensioned and Double Anchored Ballscrews



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

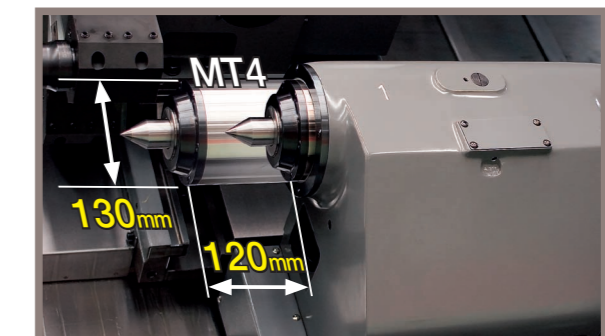
Programmable Tailstock (carriage direct-coupled)

The programmable tailstock body mounted is on wide guide ways to ensure rigid work piece support.



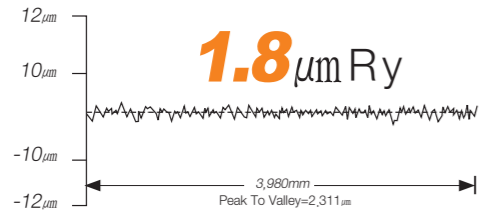
Hexahedral Slide Way Frame

Wide integral way is machined from the casting, induction hardened and precision ground to ensure long-term rigidity and machining accuracy and heavy-duty machining.

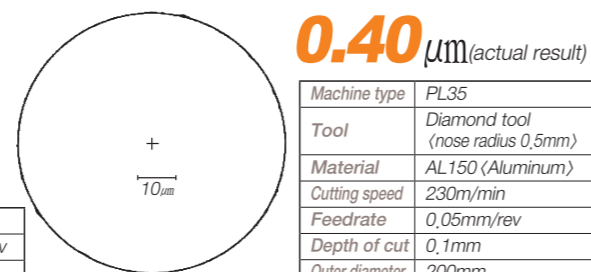


■ High Precision

■ Surface Roughness (O.D. cutting)



■ Roundness



Machine type	PL35
Tool	Diamond tool (nose radius 0.5mm)
Material	AL150 (Aluminum)

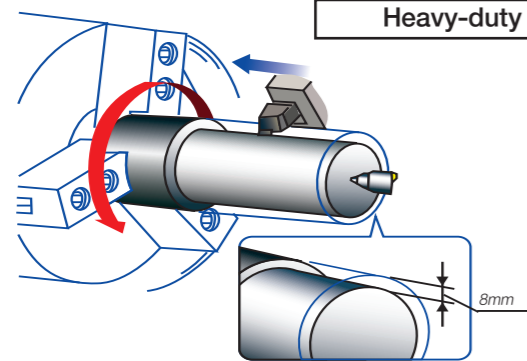
Cutting speed	230m/min
Feedrate	0.05mm/rev
Depth of cut	0.1mm
Outer diameter	200mm

Machine type	PL35
Tool	Diamond tool (nose radius 0.5mm)
Material	AL150 (Aluminum)
Cutting speed	230m/min
Feedrate	0.05mm/rev
Depth of cut	0.1mm
Outer diameter	200mm
Filter	1-50

■ Processing Speed

■ Turning Performance (material:SM45C) PL35/1500

Heavy-duty cutting (O.D) (25mm × 25mm qualified tool)

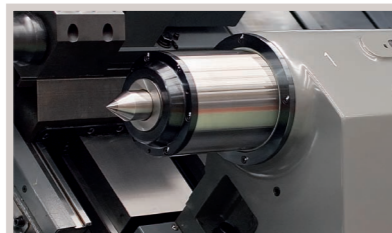


Spindle speed
370 rpm
Cutting speed
150 m/min
Depth of cut
8 mm <Spindle Load 60%>
Feedrate
0.4 mm/rev

■ Accessories



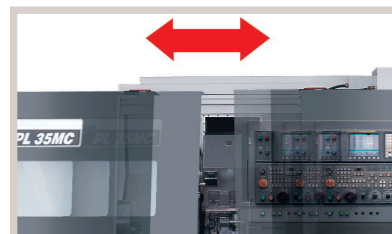
Automatic Lubricator (Standard)



Programmable Tailstock (Standard)



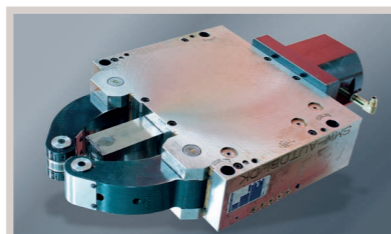
Tool Presetter (Option)



Auto Door (Option)

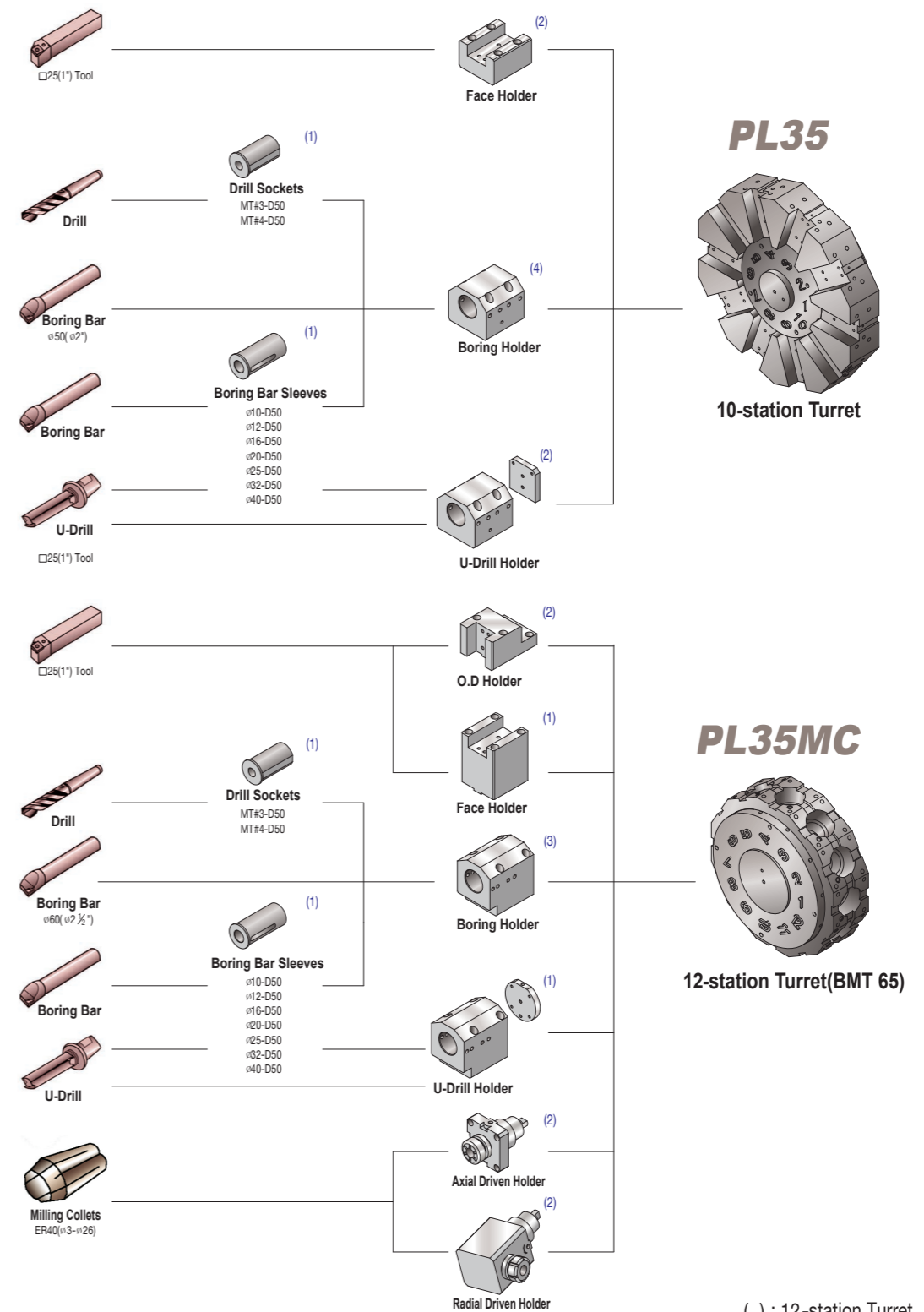


Chip Conveyor (Option)



Steady Rest (Option)

■ Tooling System

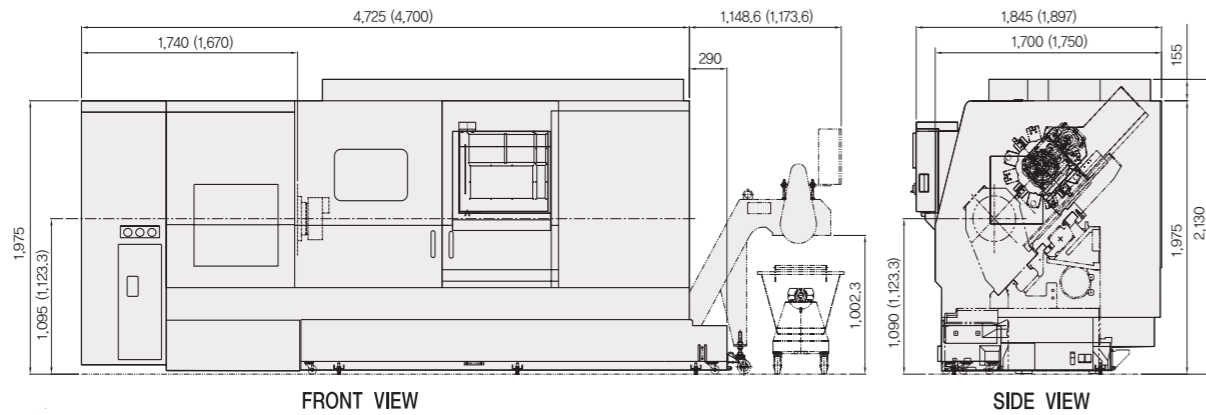


Machine Dimensions

() : PL 35MC

PL35

Unit : mm

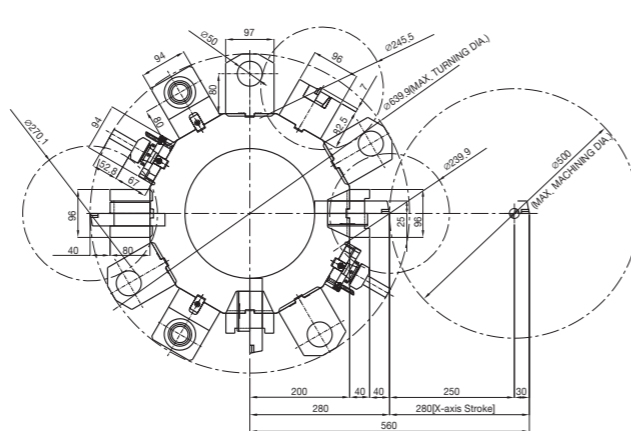
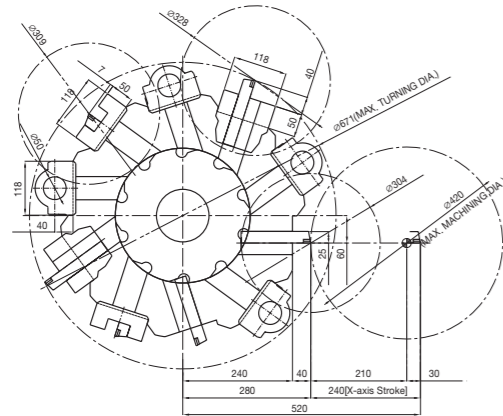


Turret Head Interference

STD TURRET (STD 10 station)

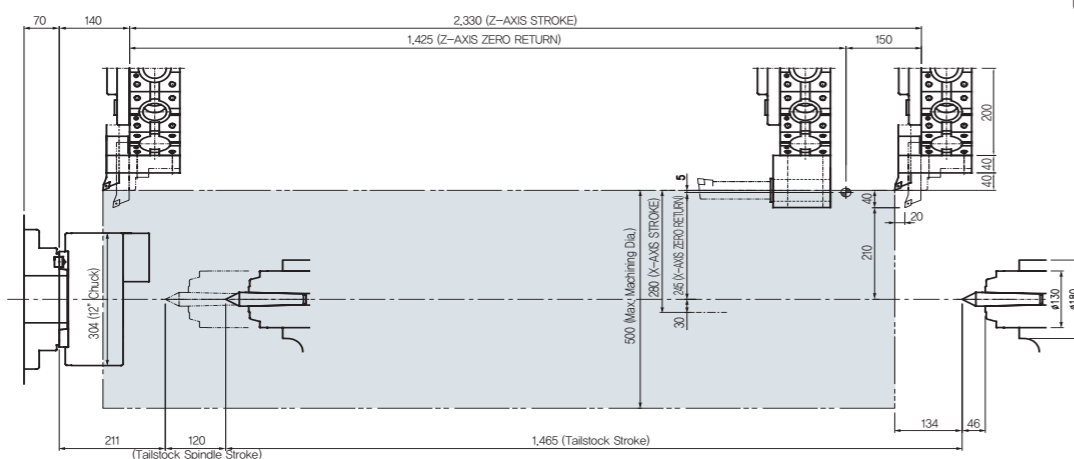
MILL TURRET (BMT 65)

Unit : mm



Work Range

Unit : mm



Major Specifications

DESCRIPTION		PL35/750	PL35/1500	PL35MC/1500	
CAPACITY	Swing over bed	mm	∅ 600	∅ 680	
	Cross slide over Swing	mm	∅ 425	∅ 505	
	Recom. turning diameter	mm	420	500	
	Max. machining diameter	mm	780	1,530	1,500
	Bar working diameter	mm	∅ 89 (∅ 91)		∅ 91
TRAVELS	X-axis travel	mm	240	275	
	Z-axis travel	mm	855	1,605	1,575
MAIN SPINDLE	Spindle speed	rpm	2,500		
	Spindle nose	ASA	A2-8		
	Spindle through hole diameter	mm	105		
	Min. spindle indexing angle(C-Axis)	deg	-		0,001
TURRET (STD.)	Number of tool stations [option]	ea	10 [12]		
	Shank size for square tool	mm	□ 25		
	Shank diameter for boring bar	mm	∅ 50		
TURRET (MC)	Number of tool stations	ea	-	-	12(BMT65)
	Shank size for square tool	mm	-	-	□ 25
	Shank diameter for boring bar	mm	-	-	∅ 50
	Indexing time	sec	-	-	0,25
	Rotary tool spindle speed	rpm	-	-	4,000
FEED RATE	Rapid traverse (X/Z)	m/min	12 / 15		
	Feed per revolution	m/rev	0,0016~500		
MOTOR	X axis feed motor	kW	3	4	
	Z axis feed motor	kW	4	7	
	Spindle drive motor(cont./30min)	kW	18,5 / 22		
	Rotary tool spindle motor(cont./30min)	kW	-	-	3,7 / 5,5
TAILSTOCK	Tailstock travel	mm	2,200	3,000	2,200
	Quill diameter	mm	∅ 130		
	Quill bore taper	MT	MT-4(BUILT-IN)		
	Quill travel	mm	120		
ELECTRIC POWER SUPPLY	kVA/V	42 / 220		45 / 220	
REQUIRED FLOOR SPACE(L × W)	mm	3,620 × 1,845	4,990 × 1,845	4,990 × 1,897	
MACHINE WEIGHT	kg	8,000	9,000	9,300	
CONTROLLER		Fanuc Oi-TD			

• Figures in inches are converted from metric measurements.

• Design and specifications subject to change without notice.

Standard Accessories

- COOLANT SYSTEM
- BUILT-IN WORK LIGHT
- SPLASH GUARD
- HAND TOOLS
- 12" HYDRAULIC CHUCK
- SOFT JAW 3 SETS
- TOOL HOLDERS
- LEVELING BLOCK
- PROGRAMMABLE TAILSTOCK
- DOOR INTERLOCK

Optional Accessories

- HARD JAW 1 SET
- CHIP CONVEYOR WITH BUCKET
- AIR BLOW UNIT
- 15" HYDRAULIC CHUCK(Big-Bore)
- STEADYREST:SLU-4
- TOOL PRESETTER
- OIL SKIMMER
- GUN COOLANT