KL7000LY

HYUNDAI WIA Y axis CNC Turning Center

HYUNDAI WIA

Technical Leader

The Y-axis CNC Turning Center KL7000LY, designed by HYUNDAI WIA with years of expertise and the latest technology, is designed to maximize productivity by enhancing rigidity and accuracy of machining.

01 Basic Features

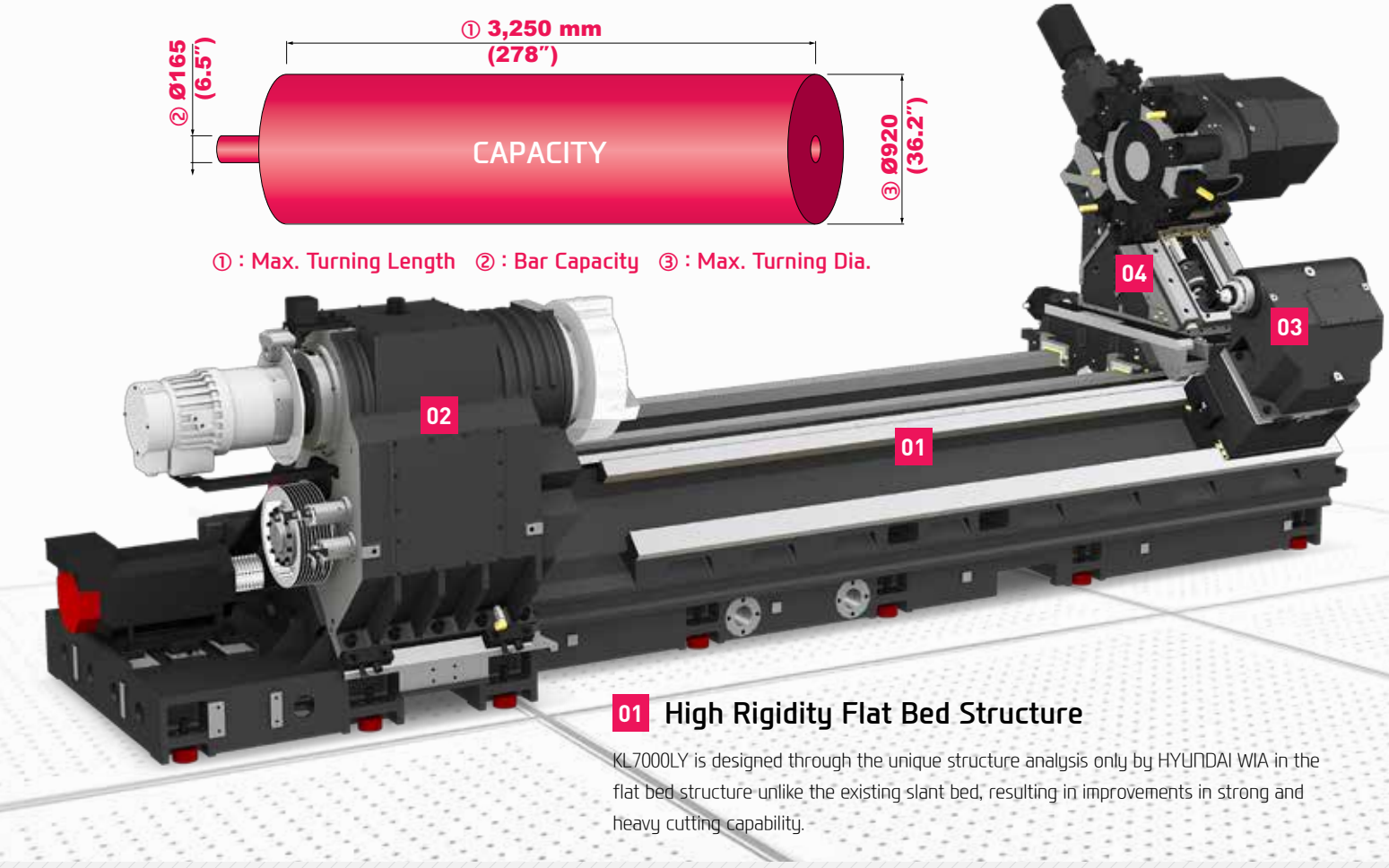
KL7000LY

High Productivity Y-axis CNC Turning Center

Next-generation large Y-axis machining CNC turning center

KL7000LY is the Y-axis machining equipment specifically developed for machining large components, and second to none in heavy cutting and intermittent machining capability by applying the whole axis box guide way design and gear type spindle driving method.

① : Max. Turning Length ② : Bar Capacity ③ : Max. Turning Dia.



01 High Rigidity Flat Bed Structure

KL7000LY is designed through the unique structure analysis only by HYUNDAI WIA in the flat bed structure unlike the existing slant bed, resulting in improvements in strong and heavy cutting capability.

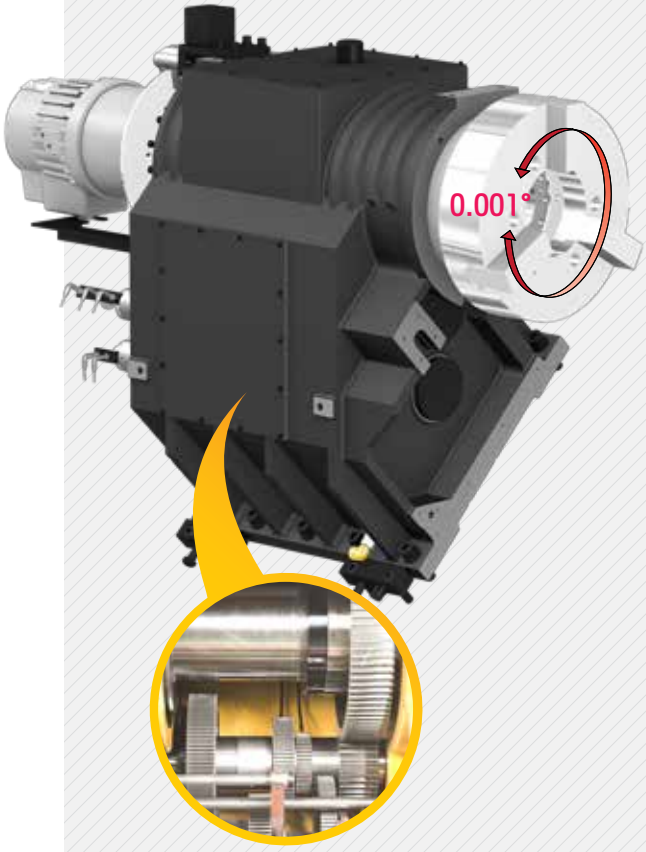
Powerful Cutting Capability & Large Working Area

- **Rapid Traverse Rate** (X/Y/Z axis) : 12/10/12 m/min (472/394/472 ipm)
- **Travel** (X/Y/Z axis) : 500/220/3,280 mm (19.7"/7.9"/129")
- **Max. Turning Dia.** : Ø920 (36.2")
- **Max. Turing Length** : 3,250 mm (278")

02 High-Precision Spindle

KL7000LY

Long Lasting High Accuracy & Excellent Performance
CNC Turning Center



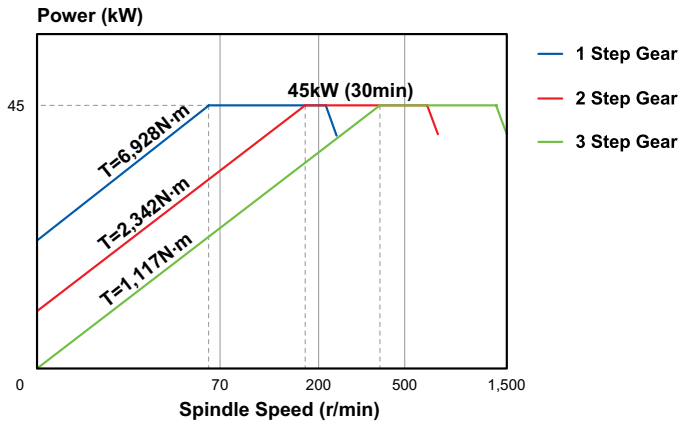
Main Spindle

- To accomplish stability even during heavy duty cutting, the spindle is designed with a combination of P4 level double cylindrical roller bearings and angular bearings.
- The spindle and the headstock are designed to maintain long time high accuracy.
- An advanced double locking device is applied which separates the spindle bearing and pulley. It prevents the release of spindle bearing pretension during heavy duty cutting, chuck cylinder operation, and belt pulley tension.

C-Axis Control

KL7000LY where milling is possible, provide C-axis control of 0.001°.
This enables various types of machining.

3 Step Gear 1,500rpm



Spindle Gear Box

Gear shift of spindle provide stability and high torque during low speed. (3 Step Gear)

MT#6 Built-In Tail Stock

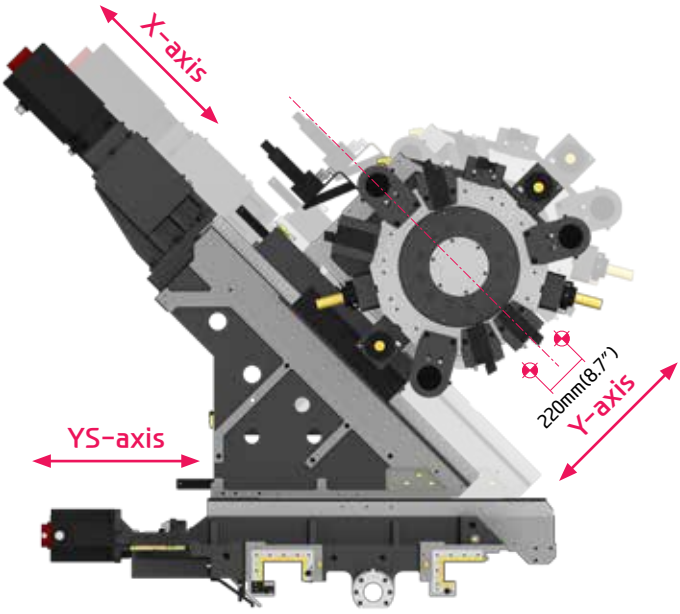
The built-in type tailstock ensures high accuracy even during heavy duty cutting. It can be controlled manually or automatically by program.

- **Quill Dia.** : Ø180 (7″)
- **Quill Travel** : 200 mm (7.9″)
- **Travel** : 3,100 mm (122″)

03 Y-axis Function

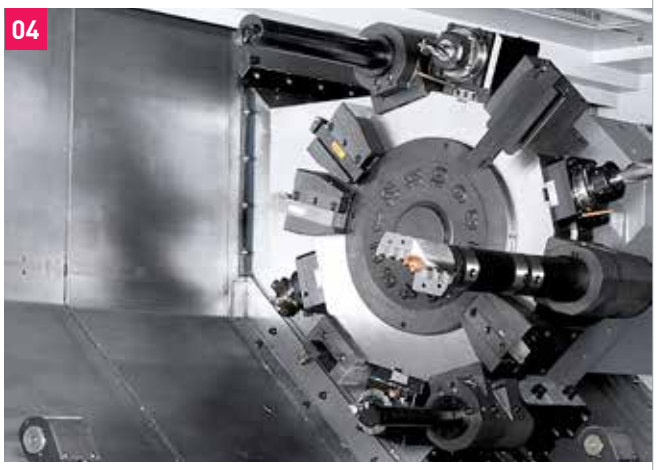
KL7000LY

High speed, High Accuracy, Highly Reliable
BMT Turret



Wedge Type Y-axis Structure

The wedge type Y-axis offers superior positional accuracy and is easy to program, which ensures increased productivity.



Mill Turret (BMT Turret)

Enlarged BMT85P turret enables the KL7000LY to perform high accuracy milling operations in a single set-up.

The BMT turret is driven by a high torque servo motor with a 0.3 second indexing time in either direction

- **Speed** (rpm) : 3,000 r/min
- **Torque** : 210 N·m(154.9 lbf·ft)

User Convenience

Steady Rest

{Steady rest contact dia. : Max. Ø510(Ø20.1")}

For long parts, such as shafts, the optional steady rest increases rigidity and minimizes vibration. When using the programmable hydraulic work rest provided as an option, the position of the work rest can be adjusted according to the shape of the product using the alignment pin connected to the turret. This enhances the efficiency of the machining operation.

Auto Q-Setter

Cutting tools are calibrated quickly and accurately with the addition of a Q-Setter.

Each tool tip is touched off automatically by program using a sensor that inputs the position automatically.

SPECIFICATIONS

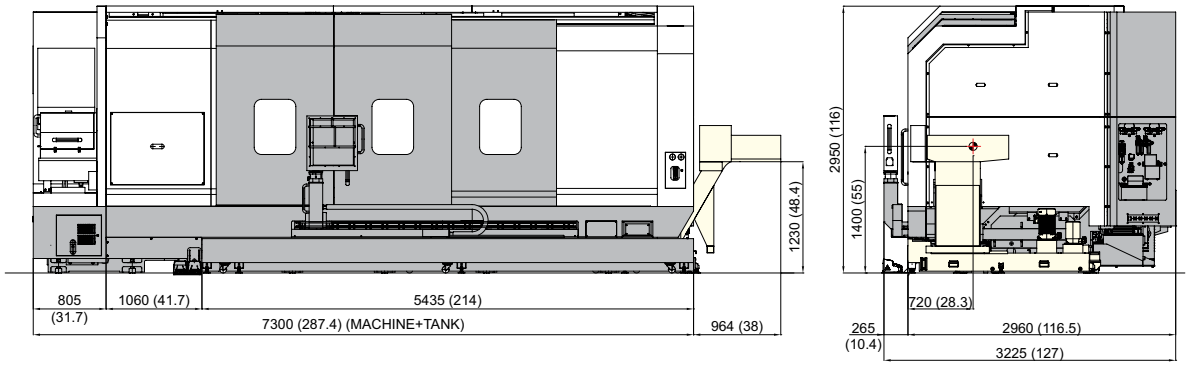
Specifications

ITEM			KL7000LY
CAPACITY	Max. Swing	mm(in)	Ø1,200 (47.2")
	Max. Turning Dia.	mm(in)	Ø920 (36.2")
	Max. Turning Length	mm(in)	3,250 (278")
	Bar Capacity	mm(in)	Ø165 (6.5")
SPINDLE	Chuck Size	inch	24"
	Spindle Bore	mm(in)	Ø181 (7.1")
	Spindle Speed (rpm)	r/min	1,500
	Motor (Max/Cont.)	kW(HP)	45/37 (60.3/50)
	Torque (Max/Cont.)	N·m(lbf·ft)	6,928/5,700 (5,110/4,204)
	Spindle Type	-	BELT+3STEP GEAR
	Spindle Nose	-	A1-15
FEED	Travel (X/Y/Z)	mm(in)	500 / 220 (±110) / 3,280 (19.7"/7.9"(±4.3")/129")
	Rapid Traverse Rate (X/Y/Z)	m/min(ipm)	12/10/12 (472/394/472)
	Slide Type	-	BOX GUIDE
TURRET	No. of Tool	ea	12
	Tool Size (OD/ID)	mm(in)	□ 32 / Ø80 (□ 1.3" / Ø3.1")
	Turret Indexing Time	sec/step	0.3
LIVE TOOL	Type	-	BMT 85P
	Milling Tool Speed (rpm)	r/min	3,000
	Motor (Max/Cont.)	kW(HP)	11/7.5 (14.7/10)
	Touque (Max/Cont.)	N·m(lbf·ft)	210 (154.9)
MACHINE	Floor Space (L×W×H)	mm(in)	7,300×3,225×2,950 (287.4"x127"x116")
	Weight	kg(lb)	23,500 (51,809)
NC	Controller	-	FANUC 32i-B

Specifications are subject to change without notice for improvement.

External Dimensions

unit : mm(in)



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