

i-CUT450T

HYUNDAI WIA Tapping Center

Technical Leader

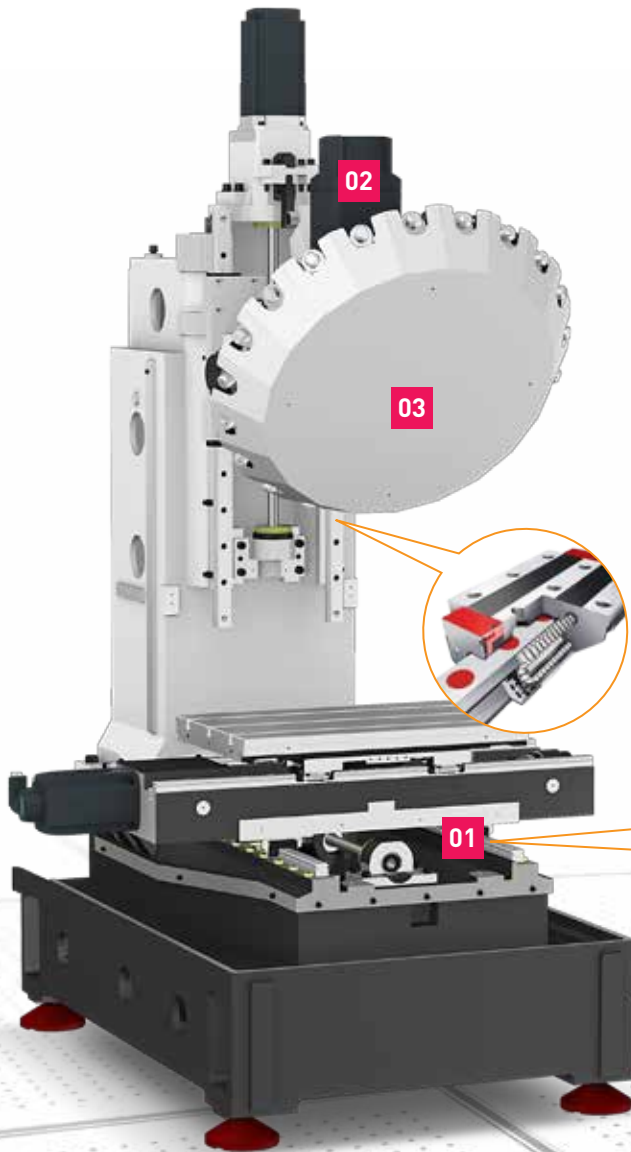
The tapping center i-CUT450T, designed by Hyundai WIA with years of expertise and the latest technology, has X-axis travel of 700mm (27.6") and Y-axis travel of 450mm (17.7"). This enables a wide range of machining from IT parts to small vehicle components.



01
i-CUT450T

Basic Features

High Speed & Productivity Tapping Center



01 LM Guideway

High speed axis movement is achieved by the use of LM guideways. This reduces non-cutting time and machining time for greater productivity. (Z-Axis : Roller LM Guide)

In particular, high level of precision is maintained by minimization of stick slip and surface abrasion, which may often occur in the typical slides.

Reduction of non-cutting time by fast rapid speed

- ⊙ Rapid Traverse Rate (X/Y/Z axis) : **48/48/56** m/min (**1,890/1,890/2,205** ipm)
- ⊙ Travel (X/Y/Z axis) : **700/450/330** mm (**27.6"/17.7"/13"**)
- ⊙ Spindle Speed : **12,000 [15,000]** rpm ⊙ Spindle Driving Method : **Direct**

02

i-CUT450T

High-Precision Spindle

Long Lasting High Accuracy & Excellent Performance

02



Main Spindle

The spindle is designed with angular contact ball bearings to increase rigidity and to prevent thermal displacement. Due to the maximum spindle speed of **15,000rpm(Opt.)**, various types of machining are possible.

While in reverse rotation, Double Speed Return function reduces processing time.

Rigid Tapping

Rigid tapping, which is provided as standard, maximizes productivity by rapid and accurate tap machining. Also, the machining accuracy is superb, and lifespan of tap tools is increased.

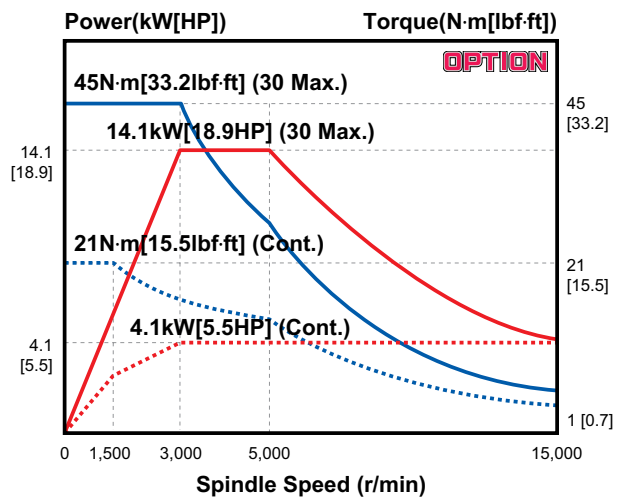
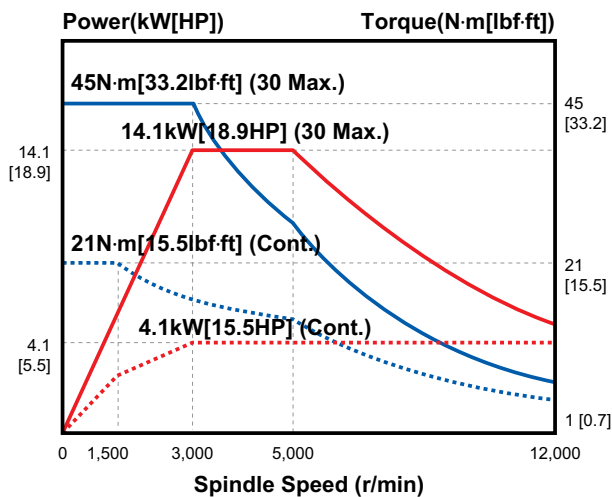
Through Spindle Coolant **OPTION**

Through Spindle Coolant is exceedingly useful when drilling deep holes. It helps increase the lifetime of the tool, while decreasing cycle time.



20 bar (290 psi)

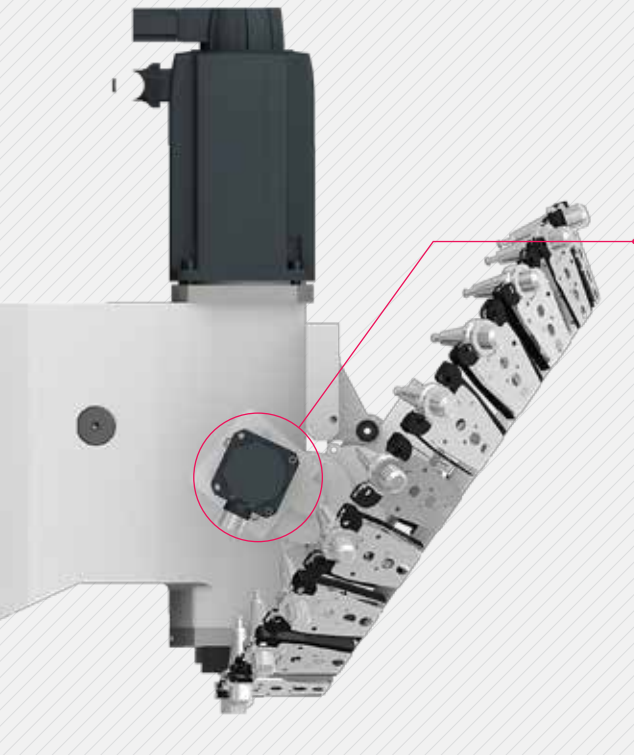
Spindle Output/Torque Diagram



ATC & Magazine

High Productivity Achieved with High Rigidity, Accuracy Machining

03



Magazine & ATC

The 14 tool turret type magazine is provided as standard and 21 tool turret type magazine is provided as an option.

Due to the decrease of tool change time, non-cutting time is minimized.

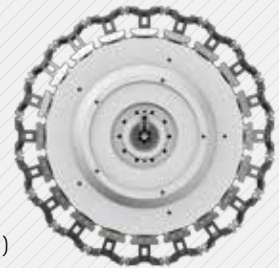
(Tool to Tool: 1.06sec, Chip to Chip: 1.6sec)

Servo ATC

Servo motor is applied on the ATC to reduce tool change time. Also, accurate tool positioning control increases cutting stability.

Turret Type ATC

- No. of Tools : 14 [21] EA
- Max. Tool Weight : 3 kg (6.6 lb)
- Tool Selection Method : Fixed Address
- Tool Change Time(T-T/C-C) : 1.06/1.6 [2.1] sec



HYUNDAI-iTROL (HYUNDAI Intelligent Control)

Smart System operation preparation

When power is on, HYUNDAI-iTROL gives the worker instructions to do warm-up. HYUNDAI-iTROL also informs the worker of machine problems beforehand by showing current machine status.



Quick & Easy Machining Support

The three essential operations for machining are program check, tool measurement and coordinates system setup.

HYUNDAI-iTROL provides three operations in consecutive order to prevent error and to enable quick and easy setup.



Tool & Spindle Monitoring

Tool and spindle monitoring can be easily done with a simpler operation. This helps with tool management, spindle protection and factory automation.



Energy Saving & ECO System

You can use energy saving function (ECO) and machining optimization function (SMART) with the MCP button.



SPECIFICATIONS

Specifications

[] : Option

ITEM			i-CUT450T
TABLE	Table Size	mm(in)	850×460 (33.5"×18.1")
	Maximum Load Capacity	kg(lb)	200 (441)
SPINDLE	Spindle Taper	-	BIG PLUS #30
	Spindle RPM	r/min	12,000 [15,000]
	Spindle Power Output (Max./Cont.)	kW(HP)	14.1/4.1 [14.1/4.1] (18.9/18.9 [18.9/18.9])
	Spindle Torque (Max./Cont.)	N·m(lbf·ft)	45/21 [45/21] (33.2/15.5 [33.2/15.5])
	Spindle Driving Method	-	DIRECT
FEED	Travel (X/Y/Z)	mm(in)	700/450/330 (27.6"/17.7"/13")
	Rapid Traverse Rate (X/Y/Z)	m/min(ipm)	48/48/56 (1,890/1,890/2,205)
	Slide Type	-	X/Y-Axis : LM GUIDE, Z-Axis : ROLLER LM GUIDE
ATC	Number of Tools	EA	14 [21]
	Tool Shank	-	BBT30
	Max. Tool Dia. (W.T / W.O)	mm(in)	Ø80/Ø80 (Ø3.1"/Ø31")
	Tool Selection Method	-	FIXED ADDRESS
	Tool Change Time (T-T/C-C)	sec	1.06/1.6 [2.1]
MACHINE	Floor Space (L×W)	mm(in)	2,140×2,246 (84.3"×88.4")
	Height	mm(in)	2,392 (94.2")
	Weight	kg(lb)	3,800 (8,377.5)
PC	Controller	-	HYUNDAI-ITROL

Specifications are subject to change without notice for improvement.

External Dimensions

unit : mm(in)

