

2a. Specifications

2a.1 Machine Specification

Item		Unit	HI-TECH 450 Series		
			HT450A (YSMC)	HT450B (YSMC)	HT450C (YMC)
Capacity	Swing over bed	mm(inch)	Ø700 (27.56")		
	Swing over Saddle	mm(inch)	Ø550 (21.65")		
	Max. cutting diameter	mm(inch)	Ø420 (16.54")		Ø500 (MC Ø420) (19.69", MC16.54")
	Standard turning diameter	mm(inch)	Ø295 (MC : Ø254) (15.55", MC10")	Ø295 (MC : Ø254) (15.55", MC10")	Ø308 (MC : Ø254) (12.33", MC10")
	Max. turning length	mm(inch)	760 (MC : 637) (29.92", MC25.08")	737 (MC : 614) (29.02", MC24.17")	673 (MC : 550) (26.49", MC21.65")
Travel	X-axis travel	mm(inch)	280 (11.02") [SMC X 260(10.23)]		
	Y-axis travel	mm(inch)	120 (±60)(4.72")		
	Z-axis travel	mm(inch)	790 (31.1")		
	B-axis travel	mm(inch)	690 (27.16")	670(26.37")	-
Feed	X/Y/Z/B	m/min	20/10/24/16		20/10/24
Spindle	Chuck size	inch	10 (sub : 8")	12 (sub : 8")	15
	Max. spindle speed	min ⁻¹	3,500 (sub : 4,000)	2,500 (sub : 4,000)	1,800
	Type of spindle nose	ASA	A2 #8 (sub : A2 #6)		A2 #11
	Through spindle hole dia.	mm(inch)	Ø90 (sub : Ø62) (3.54", sub2.44")	Ø105 (sub : Ø62) (4.13", sub2.44")	Ø132 (5.20")
	Min. spindle indexing angle	deg	0.001 (sub : 0.001)		
	Spindle bearing inner dia.	mm	Ø140 (sub : Ø100)	Ø160 (sub : Ø100)	Ø180
Turret	Number of tool stations	ea	12		10 (MC : 12)
	Shank height for square tool	mm(inch)	ø25 (1")		
	Shank dia. for boring bar	mm(inch)	Ø50 (1.97")		
	Turret indexing time	sec	0.25		
	Max. rotary tool speed	min ⁻¹	5,000		
Tail stock	Tailstock travel	mm(inch)	750 (29.53")		
	Quill dia.	mm(inch)	Ø100 (3.94")		
	Taper hole	MT	MT # 5 (Live Center)		
	Quill stroke	mm(inch)	120 (4.72")		
Motor	Spindle motor(30min/cont)	kW	22 / 18.5 (Sub : 7.5/5.5)		
	X-axis feed motor	kW	4.0 (5.5)		
	Y-axis feed motor	kW	4.0 (5.5)		
	Z-axis feed motor	kW	4.0 (5.5)		
	B-axis feed motor	kW	1.6 (2.2)		-
	Rotary tool spindle motor	kW	3.7 / 2.2		
	Coolant pump motor	kW	2.2		
Power	Electrical power supply	kVA	Std./MC/YMC:50, SMC/YSMC:5535		
Coolant	Coolant tank capacity	ℓ(gal)	190 (50.2)		
Dimension	Machine height	mm(inch)	1,875 (Y:2,205) [73.82"(Y:86.81)]		
	Floor space	mm(inch)	3,500 x1,970(Y:2,045) [137.80" x 75.56"(Y:80.51")]		
	Mass of machine	Kg(lb)	Std. 5,500(12,125)/MC 6,000/YMC 6,500/YSMC7,500(16,535)		