

Standard Machine Specifications

	V-100N 160	V-100N 200	V-100N 240	V-140N 280	V-140N 360	V-140N 440
Column	Distance between columns			2750 mm (108.27")		
Stroke	X axis (table forward/backward)	4000 mm (157.48")	5000 mm (196.85")	6000 mm (236.22")	7000 mm (275.59")	9000 mm (354.33")
	Y axis (spindle head travel right/left)	3600 mm (141.73")			4600 mm (181.10")	
	Z axis travel (ram travel up/down)	710 mm (27.95")				
	W axis (cross rail up/down)	1250 mm (49.21")				
	B axis (positioning only)	-100° ~ 100°				
	C axis (positioning only)	±180°				
	Distance between spindle face and table top (B-axis: 0°)	1880 mm (74.02")				
Table	Table size	2100 mm x 3000 mm (82.68" x 118.11")	2100 mm x 4000 mm (82.68" x 157.48")	2100 mm x 5000 mm (82.68" x 196.85")	3100 mm x 6000 mm (122.05" x 236.22")	3100 mm x 8000 mm (122.05" x 314.96")
	Table load (evenly distributed)	43000 kg (94797 lbs)				
	Table surface configuration	24 mm (0.94") T-slot x 9 250 mm (9.84") pitch			24 mm (0.94") T-slot x 9 250 mm (9.84") pitch	
Spindle	Max. spindle speed	8000 rpm, 12000 rpm (selectable)				
	Spindle	8000 rpm No.50/12000 rpm HSK-A100				
	Ram size	ø450 mm (ø17.72")				
	Ram guide face	Roller guide				
	Min indexing increment (B axis, C axis)	0.0001°				
	Indexing time (B axis)	2.3 s (90°)				
	Indexing time (C axis)	3.0 s (180°)				
Feedrate	Rapid traverse rate (X, Y, and Z axes)	30, 30, 30 m/min (1181, 1181, 1181 IPM)			15, 30, 30 m/min (591, 1181, 1181 IPM)	
	Rapid traverse rate (W axis)	3 m/min (118 IPM)				
	Cutting feedrate (X, Y, Z axes)	8 m/min (315 IPM)				
Automatic tool changer	Tool magazine capacity	30				
	Max. tool diameter/length (from gauge line)/weight	ø125 mm/500 mm/25 kg (ø4.92"/19.69"/55 lbs)				
	Max. tool diameter when adjacent pockets empty	ø210 mm (ø8.27")				
	Tool selection method	Random selection/shortest path				
	Tool change time (chip-to-chip)	16.5 sec.				
Motors	Spindle motor (40% ED (30-min. rating)/cont.rating)	8000 rpm (40kW (54 HP)/30 kW (40 HP)), 12000 rpm (45 kW (60 HP)/37 kW (50 HP))				
Power requirement	Electrical power supply (40% ED (30-min. rating)/cont.rating)	105 kVA/96 kVA				
Machine size	Height	6650 mm (261.81")				
	Floor space requirement*	7916 mm x 10525 mm (311.65" x 414.3")	7506 mm x 13025 mm (295.51" x 512.80")	7506 mm x 14525 mm (295.51" x 571.85")	8440 mm x 16525 mm (332.28" x 650.59")	8440 mm x 21030 mm (332.28" x 827.95")
	Machine weight	59700 kg (131616 lbs)	65200 kg (143742 lbs)	70800 kg (156087 lbs)	86300 kg (190259 lbs)	106500 kg (234788 lbs)

* When ATC 60 tool magazine is equipped

V-140N turning table specifications

OPTION

	V-140N 280
Column	Distance between columns
Stroke	X axis (table forward/backward)
	Y axis (spindle head travel right/left)
	Z axis travel (ram travel up/down)
	W axis (cross rail up/down)
	B axis (positioning only)
	C axis (positioning only)
	U axis (turning table-positioning only)
	Distance between spindle face and table top (B-axis: 0°)
Turning table	Table size
	Max. workpiece size
	Table load (evenly distributed)
	Table surface configuration
Machine table	Table size
	Table load capacity (evenly distributed)
	Table surface configuration
Ram spindle	Max. spindle speed
	Spindle
	Ram size
	Ram guide face
	Min. indexing increment (B axis, C axis)
	Indexing time (B axis)
	Indexing time (C axis)
Turning table	Max. speed
	Torque (Cont. rating)
	Min. indexing increment (U axis)
	Max. positioning speed (U axis)
	Clamping torque
Feedrate	Rapid traverse rate (X, Y, and Z axes)
	Rapid traverse rate (W axis)
	Cutting feedrate (X, Y, and Z axes)
Automatic tool changer	Tool magazine capacity
	Max. tool diameter/length (from gauge)/weight
	Max. tool diameter when adjacent pockets empty
	Tool selection method
	Tool change time (chip-to-chip)
Motors	Spindle motor (40% ED (30-min. rating)/cont. rating)
	Turning table motor (cont. rating)
Power Requirement	Electrical power supply (40% ED (30-min. rating)/cont. rating)
Machine size	Height
	Floor space requirement
	Machine weight

Only 8000 rpm standard spindle is only available.
0.0001° indexing function for turning table (No contouring)