

# Mazak VC-Ez 16x

## VERTICAL 5-AXIS MACHINING CENTER

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### MAZATROL SmoothEz5 CNC



- 15" capacitive touch-screen display with full keyboard.
- EIA/G-code and MAZATROL programming languages standard.
- Dual Core 800MHz NC with 512MB of DDR3-SDRAM.
- SMOOTH Machining Configuration (SMC) capabilities.
- Newly designed LAUNCHER screen.
- Enhanced MAZATROL features plus the addition of QUICK MAZATROL.

Designed and built in Kentucky, the VC-Ez16x gives shops affordable access to Mazak reliability, accuracy and five axis performance. The VC-Ez 16x can also be configured with a range of coolant, spindle, tool changer, and chip management options that expand their functionality to provide full access to DONE IN ONE® capabilities for single-setup machining.

## FEATURES

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- Standard 12000 RPM integral grease packed spindle (15K air-oil spindle OPT)
- Hybrid MX Roller Guide System improves rigidity, accuracy and reliability.
- Standard 30 tool magazine (50 tool magazine optional)
- 400Ø MM standard table
- NEW SmoothEZ5 5-axis controller
- Large compliment of coolant options including thru-spindle and a coolant gun.

# VC-Ez 16x specifications

Spindle	Standard #40 12000 rpm	Spindle speed		rpm	40 to 12000 (Electric two steps)
		Main motor (AC inverter motor)	5 min. rating	kW (HP)	18.5 (24.8)
			30 min. rating 40% ED	kW (HP)	11 (14.7)
			Cont. rating	kW (HP)	7.5 (10)
	Optional #40 15000 rpm	Spindle speed			40 to 15,000 (Electric two steps)
		Main motor (AC inverter motor)	10% ED	kW (HP)	22 (29.5)
			30 min rating	kW (HP)	11 (14.7)
Cont. rating	kW (HP)		7.5 (10)		
Feed control	Rapid traverse	X/Y/Z axis	mm/min	32000 (1260)	
		B/C axis	deg/min	10800	
	Cutting feed rate	X/Y/Z axis	mm/min	1 to 8000 (.04 to 315)	
		C axis	deg/min	2880	
	Number of axes controlled simultaneously			--	5 axes (5 axes of X/Y/Z/B/C)
	Indexing time (clamp / unclamp time not included)	B axis	--	0.6 s/90deg	
C axis		--	0.55 s/90deg , 1.05 s/180deg		
Table	Table size		mm (in)	Ø400 (Ø15.75")	
	Table Surface (tap holes)	Hole diameter	mm (in)	5/8-11 UNC	
		Pitch x No. of holes	--	80mm (3.15") x16	
	Table surface height (from the surface of machine base)		kg (lbs)	230 (507.06)	
ATC and tool storage	Magazine Capacity		--	30 tools standard (50 tools opt)	
	Tool Selection method		--	Random selection by magazine pocket number Automatic shorter path selection	
	Tool Shank	Retention Knob type		--	CAT BT-No.40 CAT BBT-No.40 (OP) MAS BT-No.40 (OP) MAS BBT-No.40 (OP) YAMAZAKI ANSI type
		Maximum tool diameter	When adjacent tool exists	mm (in)	Ø75 (2.95)
			When no adjacent tool exists		30tool - Ø150 (5.91) / 50tool - Ø127 (5)
		Maximum tool length (from the taper reference edge)		mm (in)	305 (12)
	Maximum Tool Mass (tool shank and retention knob included)		kg (lbs)	8 (17.64) { A tool of 5 kg (11.02lbs) or more requires the heavy tool designation.}	
Dimensions and Capacity	Max workpiece size	Dia., Length x Width		mm (in)	Ø460 (Ø18.11")
		Height		mm (in)	485 (19.09")
	Maximum load on pallet (uniformly distributed)		kg (lbs)	230 (507.06)	
	X axis travel		mm (in)	705 (27.76")	
	Y axis travel		mm (in)	410 (16.14")	
	Z axis travel		mm (in)	410 (16.14")	
	B axis travel (Table tilting) [Indexing units of 0.0001deg]		DEG	-110° ~ +40° (axis control)	
	C axis travel (Table rotation) [Indexing units of 0.0001deg]		DEG	±360° (axis control)	
	Distance from the spindle nose to top of the pallet (positioned at B=0deg)		mm (in)	115 to 525 (4.53" to 20.67")	
	Distance from the spindle nose to top of the pallet (positioned at B= +/- 90 deg)		mm (in)	160 to 570 (6.30" to 22.44")	
Machine size	Machine Dimensions Including coolant tank (standard spec)	Height from floor		mm (in)	2864.2 (112.76)
		Width		mm (in)	3071.5 (120.93)
		Length		mm (in)	3341.4 (131.55)
Mass of machine without coolant tank (standard spec)		kg (lbs)	30 tool ATC - 8700 (19200) 50 tool ATC - 9000 (19840)		
Power Supply	Voltage (3-phase)		V	AC 200/220/230 +/- 10%	
	Frequency		Hz	60 +/- 1%	
	Power capacity (standard spec) (12000 rpm spindle)	30 min rating	kVA	30 tool ATC 22.44 / 50 tool ATC 22.94	
		continuous rating	kVA	31 tool ATC 17.37 / 50 tool ATC 17.87	
	Power capacity (optional spec) (15000 rpm spindle)	30 min rating	kVA	32 tool ATC 22.71 / 50 tool ATC 23.21	
continuous rating		kVA	33 tool ATC 17.60 / 50 tool ATC 18.10		
Air Source	Pressure		Mpa (psi)	0.5 (73) or more 1.0 (143) or less	
	Capacity		L/min (ANR)	320 (11.3)	

All specifications are subject to change without notice