

### Standard Machine Specifications

		FJV-60/80	FJV-60/120	FJV-60/160
Stroke	X-axis (table left / right)	2000 mm (78.74")	3200 mm (125.98")	4200 mm (160.35")
	Y-axis (spindle head back / forth)	1400 mm (55.12")		
	Z-axis (spindle head up / down)	660 mm (25.98")		
Table	Distance from table top to spindle nose	160 mm ~ 820 mm (6.3" ~ 32.28")		
	Effective width between columns	1500 mm (59.06")		
	Table size	2240 mm × 1250 mm (88.19" × 49.21")	3000 mm × 1250 mm (118.11" × 49.21")	4000 mm × 1250 mm (157.48" × 49.21")
	Table load capacity (evenly distributed)	4000 kg (8818 lbs)	5000 kg (11023 lbs)	
	Table top surface	22 mm (0.87") T-slot × 9 140 mm (5.51") pitch		
Spindle	Spindle speed	35 rpm ~ 10000 rpm		
	Gear ranges	1-Stepless		
	Spindle taper	No.50		
	Spindle bearing ID	ø100 mm (ø3.94")		
	Spindle acceleration time to top speed	3.0 sec (0 rpm → 10000 rpm)		
Feedrate	Rapid traverse rate (X-axis)	40000 mm/min (1575 IPM)	32000 mm/min (1260 IPM)	22000 mm/min (866 IPM)
	Rapid traverse rate (Y-, Z-axes)	40000 mm/min / 30000 mm/min (1575 / 1181 IPM)		
	Cutting feedrate (X-, Y-, Z-axes)	1~30000 mm/min (0.03 ~ 1181 IPM)	1 mm/min ~ 19000 mm/min (0.03 ~ 748 IPM)	1 mm/min ~ 11000 mm/min (0.03 ~ 433 IPM)
Automatic tool changer	Tool shank	No.50		
	Tool magazine capacity	30		
	Max. tool diameter / length (from gauge line) / weight	ø125 mm / 380 mm / 20 kg (ø4.92" / 14.96" / 44 lbs)		
	Max. tool diameter with adjacent pockets empty	ø210 mm (ø8.27")		
	Tool selection method	Random selection / shortest path		
	Tool change time (chip-to-chip)	6.2 sec		
Motors	Spindle motor (30 min. rating [40 % ED] / cont. rating)	AC 37 kW (50 HP) / 30 kW (40 HP)		
	Flood coolant pump motor (50 Hz / 60 Hz)	730 W / 1210 W		
Power requirement	Required power capacity (30 min. / cont. rating)	74.70 kVA / 64.95 kVA	74.70 kVA / 64.95 kVA	75.26 kVA / 65.51 kVA
	Air source	0.49 MPa ~ 0.9 MPa (71 PSI ~ 131 PSI) / 1200 NL/min (42.38 ft <sup>3</sup> /min)		
Machine size	Machine height	3500 mm (137.8")		
	Floor space requirement	3988 mm × 6895 mm (157.01" × 271.46")	3988 mm × 9030 mm (157.01" × 355.51")	3988 mm × 11451 mm (157.01" × 450.83")
	Machine weight	26000 kg (57320 lbs)	31000 kg (68340 lbs)	35000 kg (77160 lbs)

### Standard and Optional Equipment

		FJV-60/80	FJV-60/120	FJV-60/160
Spindle	10000 rpm (No.50)	●	●	●
	10000 rpm (BBT-50, HSK-A100)	○	○	○
	7000 rpm (No.50, BBT-50, HSK-A100)	○	○	○
	18000 rpm (No.40, BBT-40, HSK-A63)	○	○	○
Table	Y-axis reference slot	○	○	○
	Auxiliary table	○	○	○
Tool magazine	30-tool chain-type magazine	●	●	●
	60-tool chain-type magazine	○	○	○
High accuracy	Ball screw core cooling (X-, Y-, Z-axes)	●	●	●
	Chiller unit	●	●	●
	Scale feedback (X-, Y-axes)	○	○	○
	Scale feedback (X-, Y-, Z-axes)	○	○	○
	Coolant temperature control	○	○	○

### Standard and Optional Equipment

		FJV-60/80	FJV-60/120	FJV-60/160
Setup	Automatic tool length measurement & tool breakage detection	●	●	●
	Laser tool measurement (up to ø210 mm)	○	○	○
	Mazak monitoring system B (optical) OMP60	○	○	○
	Preparation for Mazak monitoring system B	○	○	○
	Absolute position detection	●	●	●
	End cover window	○	○	○
	Remote manual pulse generator (wired)	●	●	●
	Remote manual pulse generator (wireless)	○	○	○
	Float-type coolant level gauge	●	●	●
	Factory automation	Preparation for hydraulic fixtures 2 ports × 2 M code (one side)	○	○
Preparation for hydraulic fixtures 2 ports × 4 M code (both sides)		○	○	○
Preparation for pneumatic fixtures 2 ports × 2 M code (one side)		○	○	○
Preparation for pneumatic fixtures 2 ports × 4 M code (both sides)		○	○	○
Fixture seating confirmation 1 port × M code		○	○	○
One additional axis (including servo motor amplifier)		○	○	○
2 pallet changer (with safety cover)		○	○	○
Print out function for workpiece measuring (without printer)		○	○	○
Angle tool for side face machining		○	○	○
Automatic power ON / OFF + warm-up operation		●	●	●
Coolant / Chip disposal	Coolant system	●	●	●
	Large capacity coolant tank (900 L) (238gal)	○	○	○
Chip disposal	Niagara coolant (requires large capacity coolant tank)	○	○	○
	High pressure coolant through spindle (7.0 MPa) (1015 PSI)	○	○	○
	Coolant through spindle 0.5 MPa (73 PSI) with cyclone filter	●	●	●
	Coolant through spindle 1.5 MPa (218 PSI) with cyclone filter	○	○	○
	Coolant for angle tool	○	○	○
	Cover coolant (requires large capacity coolant tank)	○	○	○
	Workpiece air blast	●	●	●
	Hand held coolant nozzle	○	○	○
	Oil skimmer (RB-200)	○	○	○
	Secondary coolant filter	○	○	○
	Fully enclosed cover	○	○	○
	Mist collector (G2000)	—	○ (2)	—
	Mist collector (G3000)	○	—	○ (2)
	Internal spiral conveyor (inverter system)	●	●	●
	Internal chip conveyor (hinge)	○	○	○
Inverter system for internal hinge type chip conveyor	○	○	○	
Preparation for chip conveyor (rear discharge)	●	●	●	
Chip conveyor (rear discharge, CONSEP)	○	○	○	
Chip conveyor (rear discharge, hinge, abrasion resistant)	○	○	○	
Inverter system for chip conveyor	○	○	○	
Chip pan	○	○	○	
Safety equipment	Operator door interlock	●	●	●
	ATC automatic recover function	●	●	●
	Automatic fire extinguisher	○	○	○
	Pressure switch for coolant through spindle	○	○	○