

Standard Machine Specifications

		INTEGREX i-500V/5	INTEGREX i-630V/6	INTEGREX i-630V/6S	INTEGREX i-800V/8	INTEGREX i-800V/8S
Stroke	X-axis (table forward / backward)	1100 mm (43.31")	1425 mm (56.1")	1425 mm (56.1")	1700 mm (66.93")	
	Y-axis (spindle head travel right / left)	800 mm (31.5")	1050 mm (41.34")	1050 mm (41.34")	1500 mm (59.06")	
	Z-axis (spindle head travel up / down)	900 mm (35.43")	1050 mm (41.34")	1050 mm (41.34")	1150 mm (45.28")	
	B-axis (spindle head tilt)	150° (-30° ~ +120°)	150° (-30° ~ +120°)	150° (-30° ~ +120°)	150° (-30° ~ +120°)	
	C-axis (table rotate)	360° (Cont.)	360° (Cont.)	360° (Cont.)	360° (Cont.)	
	Distance between B-axis rotation center and pallet center (X-axis at home)	1020 mm (40.16")	1395 mm (54.92")	1395 mm (54.92")	1690 mm (66.54")	
	Distance between B-axis rotation center and pallet center (X-axis at -end)	-80 mm (-3.15")	-30 mm (-1.18")	-30 mm (-1.18")	-10 mm (-0.39")	
	Distance between spindle end and pallet center (B-axis = +90°) (X-axis at home)	771 mm (30.35")	1045 mm (41.14")	1045 mm (41.14")	1340 mm (52.76")	
	Distance between B-axis rotation center and pallet top face*1	100 mm ~ 1000 mm (3.94" ~ 39.37")	100 mm ~ 1150 mm (3.94" ~ 45.28")	100 mm ~ 1150 mm (3.94" ~ 45.28")	100 mm ~ 1250 mm (3.94"~49.21")	165 mm ~ 1315 mm (6.50" ~ 51.77")
Distance between spindle end and pallet top face (B-axis = 0°)*1	-149 mm ~ 751 mm (-5.87" ~ 29.57")	-250 mm ~ 800 mm (-9.84" ~ 31.5")	-250 mm ~ 800 mm (-9.84" ~ 31.5")	-250 mm ~ 900 mm (-9.84" ~ 35.43")	-185 mm ~ 965 mm (-7.28" ~ 37.99")	
Capacity	Max. machining diameter	ø730 mm (ø28.74")	ø1050 mm (ø41.34")	ø1250 mm (ø49.21")	ø1500 mm (ø59.06")	ø1700 mm (ø66.93")
	Max. workpiece size*1	ø730 mm × 1000 mm (ø28.74" × 39.37")	ø1050 mm × 1000 mm (ø41.34" × 39.37")	ø1250 mm (ø49.21") (X-axis minus stroke end : ø1050 mm (ø41.34") × 1400 mm (55.12"))	ø1500 mm (ø59.06") (X-axis minus stroke end : ø1100 mm (ø43.31") × 1500 mm (59.06"))	ø1700 mm (ø66.93") (X-axis minus stroke end : ø1100 mm (ø43.31") × 1665 mm (65.55"))
	Max. workpiece weight (evenly distributed)*1	700 kg (1543 lbs)	1500 kg (3307 lbs)	1500 kg (3307 lbs)	2500 kg (5511 lbs)	3020 kg (6658 lbs)
	Max. load (including pallet)	880 kg (1940 lbs)	1750 kg (3858 lbs)	1750 kg (3858 lbs)	3000 kg (6614 lbs)	3500 kg (7716 lbs)
Table	Max. speed*2	1000 rpm	550 rpm	550 rpm	500 rpm	
	Rapid traverse rate (C-axis)	100 rpm	50 rpm	50 rpm	50 rpm	
	Min. indexing angle increment (C-axis)	0.0001°	0.0001°	0.0001°	0.0001°	
	Indexing time	0.9 s / 90°	1.6 s / 90°	1.6 s / 90°	2.1 s / 90°	
Milling spindle	Max. spindle speed	12000 rpm	10000 rpm	10000 rpm	10000 rpm	
	Spindle taper	No.40	No.50	No.50	No.50	
	Spindle bearing ID	ø80 mm (ø3.15")	ø100 mm (ø3.94")	ø100 mm (ø3.94")	ø100 mm (ø3.94")	
	Spindle acceleration	3.2 s [0 ~ 12000 rpm]	5.6 s [0 ~ 10000 rpm]	5.6 s [0 ~ 10000 rpm]	4.9 s [0 ~ 10000 rpm]	
	Rapid traverse rate (B-axis)	50 rpm	30 rpm	30 rpm	30 rpm	
	Min. indexing angle increment (B-axis)	0.0001°	0.0001°	0.0001°	0.0001°	
Feedrate*3	Rapid traverse rate (X-, Y-, Z-axis)	50000 mm/min (1969 IPM)	52000 mm/min (2047 IPM)	52000 mm/min (2047 IPM)	52000 mm/min (2047 IPM)	
	Cutting feedrate (X-, Y-, Z-axis)	50000 mm/min (1969 IPM)	52000 mm/min (2047 IPM)	52000 mm/min (2047 IPM)	52000 mm/min (2047 IPM)	
Automatic tool changer	Tool shank	CAT-40	CAT-50	CAT-50	CAT-50	
	Pullstud	ANSI	ANSI	ANSI	ANSI	
	Tool magazine capacity	40	43	43	43	
	Max. tool diameter / Length (from guage line) / weight	ø95 mm / 400 mm / 12 kg (ø3.74" / 15.75" / 26 lbs)	ø125 mm / 500 mm / 30 kg (ø4.92" / 19.69" / 66 lbs)	ø125 mm / 500 mm / 30 kg (ø4.92" / 19.69" / 66 lbs)	ø125 mm / 650 mm / 30 kg (ø4.92" / 25.59" / 66 lbs)	
	Max. tool diameter with adjacent tool pockets empty	ø150 mm (ø5.91")	ø250 mm (ø9.84")*4	ø250 mm (ø9.84")*4	ø250 mm (ø9.84")*4	
	Tool selection method	Random selection / shortest path	Random selection / shortest path	Random selection / shortest path	Random selection / shortest path	
	Tool change time (chip-to-chip)	5.2 s	8.5 s	8.5 s	11.0 s	
Automatic pallet changer	Number of pallets	2	2	—	2	—
	Pallet change time	10 s	11.5 s	—	21 s	—
	Change system	Rotary type	Rotary type	—	Rotary type	—
Motors	Table motor	AC 30 / 22 kW (40 / 30 HP) [30 min. / Cont. rating]	AC 37 kW (50 HP) [Cont. rating]	AC 37 kW (50 HP) [Cont. rating]	AC 45 kW (60 HP) [Cont. rating]	
	Milling spindle motor	AC 22 / 18.5 kW (30 / 25 HP) [15 min. / Cont. rating]	AC 37 / 30 kW (50 / 40 HP) [40 % ED (30 min. rating) / Cont. rating]	AC 37 / 30 kW (50 / 40 HP) [40 % ED (30 min. rating) / Cont. rating]	AC 37 / 30 kW (50 / 40 HP) [40% ED (30 min. rating) / Cont. rating]	
Electrical and air requirements	Electrical power supply (30 min. / cont. rating)	73.5 kVA / 61.8 kVA	120.90 kVA / 110.97 kVA (50 Hz) 122.79 kVA / 112.86 kVA (60 Hz)	120.90 kVA / 110.97 kVA (50 Hz) 122.79 kVA / 112.86 kVA (60 Hz)	97.77 kVA / 88.63 kVA (50 Hz) 100.09 kVA / 90.35 kVA (60 Hz)	
	Air supply (pressure / flow rate)	0.5 MPa / 700 L/min (70 PSI / 24.72 ft³/min)	0.5 MPa / 600 L/min (70 PSI / 21.19 ft³/min)	0.5 MPa / 500 L/min (70 PSI / 17.66 ft³/min)	0.5 MPa / 800 L/min (73 PSI / 28.25 ft³/min)	
Tank capacity	Coolant tank capacity	1060 L (280 gal)	1400 L (370 gal)	1400 L (370 gal)	1400 L (370 gal)	
Machine size	Machine height	3485 mm (137.20")	3753 mm (147.76")	3753 mm (147.76")	3983 mm (156.81")	
	Floor space requirement	3990 mm × 7485 mm (157.09"×294.69")	5073 mm × 7703 mm (199.72" × 303.25")	4868 mm × 6978 mm (191.65" × 274.72")	5696 mm × 8770 mm (224.25" × 345.28")	5509 mm × 8337 mm (216.89" × 328.23")
	Machine weight	23000 kg (50705 lbs)	32650 kg (71980 lbs)	31450 kg (69334 lbs)	39250 kg (86530 lbs)	35250 kg (77712 lbs)
CNC		MAZATROL SmoothX	MAZATROL SmoothX	MAZATROL SmoothX	MAZATROL SmoothX	

\*1 i-500V/5 : with □500 mm (□19.69") tapped pallet (option), i-630V/6 and i-630V/6 S : with □630 mm (□24.8") tapped pallet (option), i-800V / 8 : with □800mm (□31.50") tapped pallet (option) and

i-800V / 8S : with ø1000mm (ø39.37") bolt-on tapped pallet.

\*2 Max. speed of the main spindle is limited according to the specifications of the round pallet and chuck. When equipped with square pallet, the spindle speed is limited to 50 rpm.

\*3 Limited feedrate with continuous movement.

\*4 When adjacent pockets are empty and pockets next to them have tools less than ø240 mm (ø9.45"), maximum tool diameter is ø260 mm (ø10.24").

# Standard and Optional Equipment

		● : Standard ○ : Option — : N/A				
		i-500V/5	i-630V/6	i-630V/6S	i-800V/8	i-800V/8S
Milling spindle	12000 rpm (CAT-40)	●	—	—	—	—
	12000 rpm (CAPTO C6)	○	—	—	—	—
	10000 rpm (CAT-50)	—	●	●	●	●
	10000 rpm (BBT-50, HSK T-100, CAPTO C8)	—	○	○	○	○
	5000 rpm (CAT-50, HSK T-100, CAPTO C8)	—	○	○	○	○
	15000 rpm (BBT-50, HSK T-100)	—	○	○	○	○
Table	Taper cones	●	●	●	●	○
	Bolt-on	—	—	—	—	●
Pallet	□500 mm (□19.69") tapped pallet with location bore	○	—	—	—	—
	□630 mm (□24.8") tapped pallet with location bore	—	○	○	—	—
	□800 mm (□31.5") tapped pallet with location bore	—	○	○	○	—
	□1000mm (□39.37") tapped pallet with location bore	—	—	—	○	—
	ø610 mm (ø24.02") tapped pallet with location bore	○	—	—	—	—
	ø800 mm (ø31.5") tapped pallet with location bore	—	○	○	—	—
	ø1000mm (ø39.37") tapped pallet with location bore	—	—	—	○	○
	ø1250mm (ø49.21") tapped pallet with location bore	—	—	—	—	○
	ø800 mm (ø31.5") pallet with location bore (without tapped holes)	—	○	○	—	—
	ø610 mm (ø24.02") 4-jaw independent chuck	○	○	○	—	—
	ø1000mm (ø39.37") 4-jaw independent chuck	—	—	—	○	○
	ø1250 mm (ø49.21") 4-jaw independent chuck	—	—	—	—	○
	ø610 mm (ø24.02") 3-jaw scroll chuck	○	—	—	—	—
	ø800 mm (ø31.50") 3-jaw scroll chuck	—	—	—	○	○
	ø1000 mm (ø39.37") 3-jaw scroll chuck	—	—	—	○	○
	ø800 mm (ø31.5") face plate with jaws	—	○	○	—	—
ø1000 mm (ø39.37") face plate with jaws	—	—	—	○	○	
ø1250 mm (ø49.21") face plate with jaws	—	—	—	—	○	
Tool magazine	40	●	—	—	—	—
	43	—	●	●	●	●
	80, 120	○	—	—	—	—
	80, 120, 160	—	○	○	○	○
	TOOL HIVE 180, 204, 240, 288, 312, 348	○	○	○	○	○
	TOOL TECH 206, 276, 348	—	○	○	○	○
Pallet changer	2 pallet changer	●	●	—	●	—
Set up	Automatic tool length measurement & tool breakage detection	○	○	○	○	○
	Laser milling tool measurement system	○	○	○	○	○
	Tool eye (automatic)	○	○	○	○	○
	Tool breakage detection (detection in ATC area)	—	○	○	○	○
	Magazine operation panel for tool ID	○	○	○	○	○
	External machine steps and platform	●	●	○	●	○
	Preparation for Mazak monitoring system B (RMP600)	●	●	●	●	●
	Wireless touch sensor (RMP600)	○	○	○	○	○
	Remote manual pulse generator (wired)	○	●	●	●	●
	Remote manual pulse generator (wireless)	○	○	○	○	○
Manual pallet rotation at 2 pallet changer loading station	●	●	—	●	—	
Automation	Preparation for PALLETECH	○	○	—	○	—
	Automatic power ON / OFF + warm up operation	●	●	●	●	●
Coolant / chip disposal	Flood coolant	●	●	●	●	●
	Coolant through milling spindle (0.8 MPa) (71 PSI)	○	○	○	○	○
	Coolant through milling spindle (1.5 MPa) (213 PSI)	○	○	○	○	○
	Superflow coolant system (7.0 MPa) (996 PSI)	○	○	○	○	○
	Niagara coolant	○	○	○	○	○
	Secondary coolant filter for aluminum	○	○	○	○	○
	Hand held coolant nozzle (set up area)	○	○	—	○	—
	Mist collector	○	○	○	○	○
	Oil skimmer (RB-200)	○	○	○	○	○
	Magnetic separator for cast iron	○	○	○	○	○
Chip conveyor (CONSEP)	○	○	○	○	○	
High accuracy	Ball screw core cooling (X, Y, Z axes)	●	●	●	●	●
	Chiller unit	●	●	●	●	●
	Hydraulic unit temperature control	○	○	○	○	○
	Coolant temperature control	○	○	○	○	○
	Scale feedback (X, Y, Z axes)	○	○	○	○	○

Above specifications are for North American market.  
Standard and optional equipment vary by market.