

# Standard Machine Specifications

		VARIAXIS i-500	VARIAXIS i-600
Stroke	X-axis travel (spindle head left/right)	350 mm (13.78")	510 mm (20.08")
	Y-axis travel (spindle head back/forth)	550 mm (21.65")	910 mm (35.83")
	Z-axis travel (spindle head up/down)	510 mm (20.08")	
	A-axis travel (table tilt)	-120° ~ +30°	
	C-axis travel (table rotation)	±360°	
Table	Distance from table top to spindle nose	50 mm ~ 560 mm (1.97" ~ 22.05") (table horizontal)	70 mm ~ 580 mm (2.76" ~ 22.83") (table horizontal)*1
	Table size	ø500 mm (ø19.69") × Width 400 mm (15.75")	ø600 mm (ø23.62") × Width 500 mm (19.69")
	Max. workpiece size	ø500 mm × 350 mm (ø19.69" × 13.78")	ø700 mm × 450 mm (ø27.56" × 17.72")
	Table load capacity (evenly distributed)	300 kg (661 lbs)	500 kg (1102 lbs)
	Table surface configuration	18 mm (0.71") T-slot × 5 80 mm (3.15") pitch	18 mm (0.71") T-slot × 5 100 mm (3.94") pitch
Milling spindle	Max. spindle speed	12000 rpm	
	Spindle taper	7/24 taper No. 40	
	Spindle bearing I.D.	ø80 mm (ø3.15")	
Feedrate	Rapid traverse rate (X, Y axis/Z axis)	60 m/min / 56 m/min (2362 IPM/2205 IPM)	
	Rapid traverse rate (A, C axis)	18000°/min	
	Cutting feedrate** (X, Y, Z axis)	56 m/min (2205 IPM)	
	Cutting feedrate** (A, C axis)	18000°/min	
	Simultaneously controlled axes	5	
	Min. indexing increment (A, C axis)	0.0001°	
	Indexing time (A axis) (clamp/unclamp time not included)	0.50 sec./90°	0.55 sec./90°
Automatic tool changer	Tool shank configuration	CAT No. 40	
	Tool storage capacity	30	
	Max. tool diameter/length (from gauge line)/weight	ø90 mm/300 mm/8 kg (ø3.54"/11.81"/17.64 lbs)	
	Max. tool diameter with adjacent tool pockets empty	ø130 mm (ø5.12")	
	Tool selection method	Random selection, shortest path	
	Tool change time (chipt to chip)	4.5 sec.	3.4 sec.
Motors	Spindle motor (40% ED/30-min/cont. rating)	22 kW (30 HP)/15 kW (20 HP)	
	Electrical power requirement (40% ED/30-min/cont. rating)	56.98 kVA/47.02 kVA	61.04 kVA/51.30 kVA
	Air supply	200 NL/min (7.06 ft <sup>3</sup> /min)	360 NL/min (12.7 ft <sup>3</sup> /min)
Coolant	Coolant tank capacity	300 L (79 gal)	500 L (132 gal)
Machine size	Height	2975 mm (117.13")	3187 mm (125.47")
	Width	2400 mm (94.49")	2200 mm (86.61")
	Length	3235 mm (127.36")	3980 mm (156.69")
	Machine weight	8000 kg (17637 lbs)	13000 kg (28660 lbs)

\*1 Specifications are different for 2-pallet changer

\*\*2 Limited feedrate with continuous movement

# Standard Machine Specifications

		VARIAXIS i-700	VARIAXIS i-700T
Stroke	X-axis travel (spindle head left/right)	630 mm (24.80")	
	Y-axis travel (spindle head back/forth)	1100 mm (43.31")	
	Z-axis travel (spindle head up/down)	600 mm (23.62")	
	A-axis travel (table tilt)	-120° ~ +30°	
	C-axis travel (table rotation)	±360°	
Table	Distance from table top to spindle nose	100 mm ~ 700 mm (3.94" ~ 27.56") (table horizontal)	
	Table size	ø700 mm (ø27.56") × Width 500 mm (19.69")	ø630 mm (ø24.80")
	Max. workpiece size	ø850 mm × 500 mm (ø33.46" × 19.69")	
	Table load capacity (evenly distributed)	700 kg (1543 lbs)	
	Table surface configuration	18 mm (0.71") T-slot × 5 100 mm (3.94") pitch	M16 × P2 tapped holes
Turning spindle	Turning table speed	—	1100 rpm
Milling spindle	Max. spindle speed	12000 rpm	18000 rpm
	Spindle taper	7/24 taper No. 40	
	Spindle bearing I.D.	ø80 mm (ø3.15")	ø70 mm (ø2.76")
Feedrate	Rapid traverse rate (X, Y axis/Z axis)	60 m/min/56 m/min (2362 IPM/2205 IPM)	60 m/min/56 m/min (2362 IPM/2205 IPM)
	Rapid traverse rate (A/C axis)	18000°/min/18000°/min	18000°/min/36000°/min
	Cutting feedrate** (X, Y, Z axis)	56 m/min (2362 IPM)	56 m/min (2362 IPM)
	Cutting feedrate** (A/C axis)	18000°/min/18000°/min	18000°/min/36000°/min
	Simultaneously controlled axes	5	
	Min. indexing increment (A, C axis)	0.0001°	
	Indexing time (A axis) (clamp/unclamp time not included)	0.55 sec./90°	0.75 sec./90°
Automatic tool changer	Tool shank configuration	CAT No. 40	
	Tool storage capacity	30	
	Max. tool diameter/length (from gauge line)/weight	ø90 mm/360 mm/8 kg (ø3.54"/14.17"/17.64 lbs)	
	Max. tool diameter with adjacent tool pockets empty	ø130 mm (ø5.12")	
	Tool selection method	Random selection, shortest path	
	Tool change time (chip to chip)	3.6 sec.	4.1 sec.
Motors	Spindle motor (40% ED/30-min/cont. rating)	22 kW (30 HP)/15 kW (20 HP)	30 kW (40 HP)/22 kW (30 HP)
	Electrical power requirement (40% ED/30-min/cont. rating)	62.70 kVA/52.95 kVA	78.9 kVA/67.6 kVA
	Air supply	360 NL/min (12.7 ft <sup>3</sup> /min)	450 NL/min (15.89 ft <sup>3</sup> /min)
Coolant	Coolant tank capacity	500 L (132 gal)	
Machine size	Height	3457 mm (136.10")	3455 mm (136.02")
	Width	2400 mm (94.49")	
	Length	4295 mm (169.09")	
	Machine weight	15000 kg (33069 lbs)	16000 kg (35273 lbs)

\*\* Limited feedrate with continuous movement

		VARIAXIS i-800	VARIAXIS i-800T
Stroke	X-axis travel (spindle head left/right)	730 mm (28.74")	
	Y-axis travel (spindle head back/forth)	850 mm (33.46")	
	Z-axis travel (spindle head up/down)	560 mm (22.05")	
	A-axis travel (table tilt)	-120° ~ +30°	-130° ~ +30°
	C-axis travel (table rotation)	±360°	
Table	Distance from table top to spindle nose	230 mm ~ 790 mm (9.06" ~ 31.10") (table horizontal)	
	Table size	ø800 mm (ø31.50") × Width 630 mm (24.80")	ø800 mm (ø31.50")
	Max. workpiece size	ø1000 mm × 375 mm (ø800 mm × 500 mm) (ø39.37" × 14.76" (ø31.50" × 19.69"))	
	Table load capacity (evenly distributed)	1000 kg (2205 lbs)	
	Table surface configuration	18 mm (0.71") T-slot × 5 100 mm (3.94") pitch	M16 × P2 tapped holes
Turning spindle	Turning table speed	—	800 rpm
Milling spindle	Max. spindle speed	10000 rpm	
	Spindle taper	7/24 taper No. 50	
	Spindle bearing I.D.	ø100 mm (ø3.94")	
Feedrate	Rapid traverse rate (X, Y, Z axis)	42 m/min (1654IPM)	42 m/min (1654IPM)
	Rapid traverse rate (A/C axis)	18000°/min/18000°/min	10800°/min/36000°/min
	Cutting feedrate** (X, Y, Z axis)	42 m/min (1654IPM)	42 m/min (1654IPM)
	Cutting feedrate** (A, C axis)	9000°/min	10800°/min
	Simultaneously controlled axes	5	
	Min. indexing increment (A-, C-axis)	0.0001°	
	Indexing time (A axis) (clamp/unclamp time not included)	0.76 sec./90°	0.72 sec./90°
Automatic tool changer	Tool shank configuration	CAT No. 50	
	Tool storage capacity	30	
	Max. tool diameter/length (from gauge line)/weight	ø125 mm/400 mm/20 kg (ø4.92"/15.75"/44.09 lbs)	
	Max. tool diameter with adjacent tool pockets empty	ø210 mm (ø8.27")	
	Tool selection method	Random selection, shortest path	
	Tool change time (chip to chip)	4.5 sec.	5.1 sec.
Motors	Spindle motor (40% ED/30-min/cont. rating)	37 kW (50 HP)/30 kW (40 HP)	
	Electrical power requirement (40% ED/30-min/cont. rating)	89.27 kVA/78.07 kVA	106.8 kVA/96.88 kVA
	Air supply	300 NL/min (10.59 ft <sup>3</sup> /min)	500 NL/min (17.66 ft <sup>3</sup> /min)
Coolant	Coolant tank capacity	400 L (106 gal)	
Machine size	Height	3515 mm (138.39")	3494 mm (137.60")
	Width	2695 mm (106.10")	2695 mm (106.10")
	Length	5440 mm (214.17")	5580 mm (219.69")
	Machine weight	19600 kg (43210 lbs)	20000 kg (44092 lbs)

\*\* Limited feedrate with continuous movement

# Standard Machine Specifications

		VARIAXIS i-1050	VARIAXIS i-1050T
Stroke	X-axis travel (spindle head left/right)	1200 mm (47.24")	
	Y-axis travel (spindle head back/forth)	1385 mm (54.53")	
	Z-axis travel (spindle head up/down)	900 mm (35.43")	
	A-axis travel (table tilt)	-150° ~ +130°	
	C-axis travel (table rotation)	±360°	
Table	Distance from table top to spindle nose	180 mm ~ 1080 mm (7.09" ~ 42.52") (table horizontal)	
	Table size	ø1050 mm (ø41.34") × Width 800 mm (31.50")	ø1050 mm (ø41.34")
	Max. workpiece size*1	ø1250 mm × 900 mm (ø49.21" × 35.43")	
	Table load capacity (evenly distributed)	2000 kg (4409 lbs)	
	Table surface configuration	18 mm (0.71") T-slot × 5 125 mm (4.92") pitch	M16 × P2 tapped holes
Turning spindle	Turning table speed	—	500 rpm
Milling spindle	Max. spindle speed	10000 rpm	
	Spindle taper	7/24 taper No. 50	
	Spindle bearing I.D.	ø100 mm (ø3.94")	
Feedrate	Rapid traverse rate (X, Y, Z axis)	40 m/min (1575 IPM)	
	Rapid traverse rate (A/C axis)	5400°/min/10800°/min	
	Cutting feedrate*2 (X, Y, Z axis)	40 m/min (1575 IPM)	
	Cutting feedrate*2 (A, C axis)	5400°/min	
	Simultaneously controlled axes	5	
	Min. indexing increment (A, C axis)	0.0001°	
	Indexing time (A axis) (clamp/unclamp time not included)	1.09 sec./90°	
Automatic tool changer	Tool shank configuration	CAT No. 50	
	Tool storage capacity	30	
	Max. tool diameter/length (from gauge line)/weight	ø125 mm/500 mm/20 kg (ø4.92"/19.69"/44.09 lbs)	
	Max. tool diameter with adjacent tool pockets empty	ø210 mm (ø8.27")	
	Tool selection method	Random selection, shortest path	
	Tool change time (chip to chip)	7.0 sec.	
Motors	Spindle motor (40% ED/30-min/cont. rating)	37 kW (50 HP)/30 kW (40 HP)	
	Electrical power requirement (40% ED/30-min/cont. rating)	111.04 kVA/101.11 kVA	111.71 kVA/101.79 kVA
	Air supply	480 NL/min (16.95 ft <sup>3</sup> /min)	500 NL/min (17.66 ft <sup>3</sup> / min)
Coolant	Coolant tank capacity	580 L (132 gal)	
Machine size	Height	4560 mm (179.53")	
	Width	3500 mm (137.8")	
	Length	7200 mm (283.46")	
	Machine weight	31000 kg (68343 lbs)	

\*1 Limited by A axis angle

\*2 Limited feedrate with continuous movement