3 SPECIFICATIONS

3-1 Standard Machine Specifications

3-1-1 Standard machine specification list

Note : The figures indicated on the machine plates shall be applied if different from the manual.

Item			Unit	Specification
				INTEGREX e-1550 V/10
Capacity	Max. workpiece diameter		mm (")	ϕ2000 (ϕ78.74)
	Max. workpiece height		mm (")	1440 (56.69) (Option: □1000 (□39.37) pallet with tapped holes)
	X-axis stroke (table back & forth)		mm (")	1875 (73.82)
	Y-axis stroke (spindle right/left motion)		mm (")	1550 (61.02)
	Z-axis (vertical spindle motion)		mm (")	1345 (52.95)
	Distance between B-axis rotation center and pallet center	X-axis: Home	mm (")	1775 (69.88)
		X-axis: Minus stroke end	mm (")	-100 (3.94)
	Distance between spindle nose and pallet center (B-axis = +90°)	X-axis: Home	mm (")	1475 (58.07)
	Distance between B-axis rotation center and pallet top		mm (")	100 to 1445 (3.94 to 56.89) (Option: □1000 (□39.37) pallet with tapped holes)
	Distance between spindle nose and pallet top (B-axis = 0°)		mm (")	–200 to 1145 (–7.87 to 45.08) (Option: □1000 (□39.37) pallet with tapped holes)
	Pallet load (evenly loaded)		kgf (lbs)	5000 (11023) [including pallet weight]
Milling spindle	Milling spindle nose type		–	7/24 taper, No. 50
	Milling spindle speed		min^{-1} (rpm)	35 to 10000
	Number of milling spindle speed shifts		–	2 (electric)
	I.D. of milling spindle bearing		mm (")	100 (3.94)
	Milling spindle motor (AC inverter motor)	30 min. rating	kW (HP)	37 (50)
		Cont. rating	kW (HP)	30 (40)
Feedrate (**Note 1**)	Rapid traverse rate		mm/min (IPM)	40000 (1574.8)
	Maximum cutting feedrate		mm/min (IPM)	40000 (1574.8)
Table	Turning spindle speed		min^{-1} (rpm)	5 to 600
	Number of turning spindle speed shifts		–	2 (electric)
	Turning spindle bearing I.D.		mm (")	457.2 (18.00)
	Turning spindle motor (AC inverter motor)	30 min. rating	kW (HP)	37 (50)
		Cont. rating	kW (HP)	30 (40)
	Pallet change time		s	25
	Pallet change repeatability (**Note 2**)		mm (")	0.006 mm (0.00024) or under
	Mutual difference of pallet changes (Z-axial accuracy) (**Note 2**)		mm (")	0.015 (0.0006) or under
	Table indexing		–	0.001° × 360000 positions
	Table indexing time		s/90°	4.05

Item			Unit	Specification
				INTEGREX e-1550 V/10
	Height of pallet top from floor level		mm (")	1475 (58.07) (Option: □1000 (□39.37) pallet with tapped holes)
ATC & tool magazine	Tool storage capacity	Standard	tools	40
		Option	tools	80 and 120
	Tool selection system		–	Automatic shortest selection of fixed pocket address
	Tool shank type		–	MAS BT 50, CAT 50 (DIN 50)
	Pull stud type		–	Yamazaki ANSI type
	Maximum tool diameter	With adjacent tools	mm (")	ϕ135 (ϕ5.31)
		Without adjacent tools	mm (")	ϕ260 (ϕ10.24)
	Maximum tool length from taper reference face		mm (")	650 (25.59)
	Maximum tool weight (includes tool holder and pull stud)		kgf (lbs)	30 (66) Max. moment: 29.4 N-m (3.0 kgf-m or 21.7 ft-lbs)
	Tool change time (chip-to-chip) MAS standard Vertical: B-axis 90° Horizontal: B-axis 0° Tool weight less than 20 kgf (44 lbs) [ ]: 20 to 30 kgf (44 to 66 lbs) **Note 3**: EIA	Milling vertical → Milling vertical	s	11.3 [12.1] sec
Tanks	Lubricating oil tank capacity			3 L (0.79 US gal.) × 2
	Spindle cooling fluid tank capacity			70 L (18.49 US gal)
	Hydraulic unit tank capacity			46 L (12.15 US gal.)
	Coolant tank capacity			900 L (237.78 US gal.)
Accuracy (**Note 2**)	Positioning accuracy in two directions used with pitch error offset function		mm (")	X, Y, and Z axes: 0.020 (0.00079)
	Positioning repeatability in one direction		mm (")	X, Y, and Z axes: 0.006 (0.00024)
	Positioning repeatability in two directions		mm (")	X, Y, and Z axes: 0.010 (0.00039)
	Positioning accuracy of B-axis clamping (every 5°) in two directions		s	14
	Positioning repeatability of B-axis clamping (every 5°) in one direction		s	4
	Positioning repeatability of B-axis clamping (every 5°) in two directions		s	4
	Positioning accuracy of B-axis unclamping in two directions		s	14
	Positioning repeatability of B-axis unclamping in one direction		s	4
	Positioning repeatability of B-axis unclamping in two directions		s	8
	Positioning accuracy of C-axis (table) in two directions		s	14
	Positioning repeatability of C-axis (table) positioning in one direction		s	4
	Positioning repeatability of C-axis (table) positioning in two directions		s	8

Item			Unit	Specification
				INTEGREX e-1550 V/10
Machine size	Machine dimensions (2-PC, 40-tool magazine spec.)	Height (from floor level)	mm (")	4605 (181.3)
		Width	mm (")	6640 (261.42)
		Depth	mm (")	9550 (376.0)
	Weight (40-tool magazine)		kgf (lbs)	45000 (99208)
Power Source	Voltage (3 phases)	By destination	V	200/220 ± 10% 380/400/415/440 ± 10% 460/480 ± 10%
	Frequency		Hz	50/60 (± 1%)
	Capacity	30 min. rating	kVA	119.9
		Continuous rating	kVA	110.1
Air Source	Pressure		MPa (PSI)	0.5 to 0.9 (73 to 131)
	Capacity (standard specifications)		L/min (ft^3/min)	700 (24.7) (equivalent to 7.5 kW (10 HP) compressor) Dew point of air: Lower than –17°C (1.4°F)

Note 1: The average axis feed rate (rapid traverse + cutting feed) of each axis during operation must be under 15 m (16.4 yd)/min per hour.

Note 2: The accuracy measuring method is in conformity with ISO 230-2.

Note 3: EIA: Program of the shortest tool path from a tool change start point in MAS