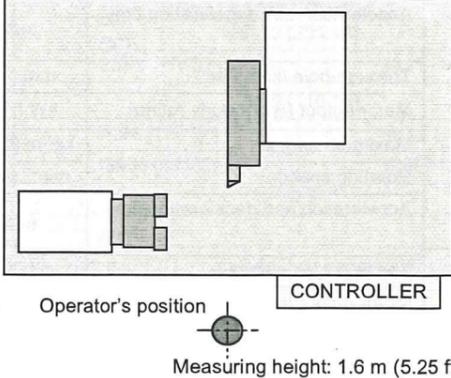


3. Specifications of INTEGREG 400-III/IIIS (1000U/1500U)

Item	Unit	INTEGREG 400-III		INTEGREG 400-IIIS		
		1000U	1500U	1000U	1500U	
Capacity	Chuck size	12		Main spindle: 12 2nd spindle: 10		
	Maximum swing	φ760 [φ30]				
	Swing over cross slide	φ760 [φ30]				
	Swing during Y-axis process	φ760 to φ660 [φ30 to φ26]				
	Maximum machining diameter	φ760 [φ30]				
	Bar work capability (*1)	φ102 [φ4.02]		Main spindle: φ102 [φ4.02] 2nd spindle: φ77 [φ3.03]		
	Maximum machining length	1034 [40.71]	1524 [60.00]	1067 [42.00]	1524 [60.00]	
Maximum support weight (*2)	kgf [lbs]	Chuck work: 650 [1430] Shaft work: 1000 [2200]		Main spindle Chuck work: 650 [1430] 2nd spindle Chuck work: 400 [880]		
Main spindle	Rotating speed (*3)	min ⁻¹ (rpm) 35 to 3300				
	Acceleration and deceleration time (*4)	sec 2.8 (0 → 2550 min ⁻¹ (rpm))				
	Through-hole diameter	mm [in.] φ112 [φ4.41]				
	Motor output (Half-hourly rating)	kW [HP] 30 [40]				
	Maximum torque	kgf·m [ft·lbs] 122.3 [884]				
Secondary spindle	Rotating speed	—		35 to 4000		
	Acceleration and deceleration time (*5)	—		sec 2.7 (0 → 3400 min ⁻¹ (rpm))		
	Through-hole diameter	—		mm [in.] φ88 [φ3.46]		
	Motor output (Half-hourly rating)	—		kW [HP] 26 [34.6]		
Tailstock	Maximum torque	—		kgf [ft·lbs] 51.0 [369]		
	Spindle hole type	MT No. 5				
	Movement stroke	mm [in.] 1055 [41.5] 1545 [60.83]		—		
Maximum thrust power	kgf [lbs] 1019 [2242]					
Milling head	Type	Single spindle with ATC unit				
	Tool shank type (milling/turning)	KM63/CAPTO C6/BT40/CAT.40				
	Tool size	O. D. turning	mm [in.] □25 [□1]			
		I. D. turning	φ40 [φ1.5]			
		Milling tool (Max.)	φ125 × 400 L [φ4.92 × 15.75 L]			
	90° indexing time	sec 0.5				
	Motor output (20%ED)	kW [HP] 18.5 [24.6]				
	Maximum torque (20%ED)	kgf·m [ft·lbs] 12.2 [88.2]				
	Milling spindle speed	min ⁻¹ (rpm) 15 to 12000				
	Acceleration and deceleration time	sec 1.8 (0 → 12000 min ⁻¹ (rpm))				
Orientation time (12000 → 0)	sec 2.1					
Feed axes	Rapid feed rate	X/Z	m/min [IPM] 38/38 [1496/1496]			
		Y	26 [1023]			
		W	6 [236]	30 [1181]		
	Movement stroke	X	mm [in.] 630 [24.8]			
		Z	1095 [43.11]	1585 [62.40]	1067 [42.00] 1585 [62.40]	
		Y	230 [9.06]			
W	1055 [41.50]	1545 [60.83]	1117 [43.98]	1530 [60.24]		
Others	Coolant tank capacity	L [gal (US)] 382 [101] 444 [117]		382 [101] 444 [117]		
	Power requirement (continuous)	kVA 51.3		88.7		
	Air pressure	MPa [PSI] 0.5 [71]				
	Total air capacity	L/min (ANR) [ft ³ /min] 500 [17.5] or more				

Item	Unit	INTEGREG 400-III		INTEGREG 400-IIIS		
		1000U	1500U	1000U	1500U	
Machine dimensions & weight (40-tool magazine; excl. oil pan)	Machine dimensions	Height of centers	1120 [44.09]			
		Length	4110 [161.81]	4912 [193.39]	4345 [171.06]	5110 [201.18]
		Width	2171 [85.47]	2196 [86.46]	2671 [105.16]	2696 [106.14]
		Height	2798 [110.16]			
	Floor space required	m ² [ft ²]	8.92 [96.01]	10.79 [116.14]	11.60 [124.86]	13.78 [148.33]
Weight (including oil pan)	kgf [lbs]	12300 [27060]	12800 [28160]	12800 [28160]	13300 [29260]	
Noise level (L _{WA})	dB	79.5				
Unconfirmed level (K)		4				
Measuring conditions	1. Spindle speed: 2640 min ⁻¹ (During workpiece gripping by chuck) 2. Feed axis to be driven. 3. Turret to be indexed. 4. Chip conveyor to be ON. 5. Tailstock not to be used.					
Measuring method	EN-12415/12417/12478, ISO230-5					
Noise	Measuring position	 <p>(Note) The main sources of the noise air-conducted from the machine will include the following: - Spindle drive - Feed axis drive - Turret index unit - Chip conveyor</p>				
Remarks: The figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the work-force include the characteristics of the work room, the other sources of noise, etc. i.e. the number of machines and other adjacent processes, and the length of time for which an operator is exposed to the noise. Also the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.						

(*1) Bar work capability on the main spindle refers to the following chuck.

B212A815X: φ102 mm (φ4.02 in.)

B210A815X: φ77 mm (φ3.03 in.)

(*2) The values include chuck weight.

(*3) Rotating speed is limited by the types of chuck.

12" hollow chuckMax. 3000 min⁻¹ (rpm)

(*4) For a combination of B212A815X + F2511HS-15Y:

Time required for an acceleration from 0 to 85% of the maximum speed (3000 min⁻¹)

(*5) For a combination of B210A815E + Y1225R:

Time required for an acceleration from 0 to 85% of the maximum speed (4000 min⁻¹)

