

Standard Machine Specifications

		HORIZONTAL CENTER NEXUS 6000-II		HORIZONTAL CENTER NEXUS 6800-II	
				Standard	Hard metal package
Stroke	X-axis (column travel left / right)	800 mm		1050 mm	
	Y-axis (spindle head travel up / down)	800 mm		900 mm	
	Z-axis (pallet forward / backward)	800 mm		980 mm	
	Distance from pallet center to spindle	150 ~ 950 mm		100 ~ 1080 mm	
	Distance from pallet top to spindle center	100 ~ 900 mm		100 ~ 1000 mm	
Table	Pallet size	500 × 500 mm		630 × 630 mm	
	Max. workpiece dimension	ø 900 × 1000 mm		ø 1050 × 1300 mm	
	Pallet load capacity (evenly distributed)	1000 kg		1500 kg	
	Pallet top surface	M16×P2, Tapped 25 places, pitch 100 mm		M16×P2, Tapped 25 places, pitch 125 mm	
	Minimum indexing angle increment	1°		1°	
	Indexing time	1.9 sec / 90°		1.9 sec / 90°	
Spindle	Max. spindle speed	10000 rpm		10000 rpm	6000 rpm
	Spindle gear ranges	2 (electric)		2 (electric)	2 (electric)
	Spindle taper	No. 50		No. 50	HSK A-100
	Spindle bearing size (I.D.)	ø 100 mm		ø 100 mm	ø 120 mm
	Spindle acceleration time to top speed	3.0 sec (0 → 10000 rpm)		3.0 sec (0→10000 rpm)	3.5 sec (0→6000 rpm)
Feedrate	Rapid traverse rate (X, Y, Z-axis) **	60 m/min		60 m/min	
	Cutting feedrate (X, Y, Z-axis) **	1 ~ 60000 mm/min		1 ~ 60000 mm/min	
	Axis acceleration / deceleration	0.7 G		0.8 G	
Automatic tool changer	Tool shank	CAT No.50		CAT No.50	HSK A-100
	Tool magazine capacity	43		43	
Automatic pallet changer	Maximum tool dia. / length (from gauge line) / weight	ø 125 mm / 500 mm / 30 kg		ø 125 mm / 630 mm / 30 kg	
	Maximum tool diameter (when adjacent pockets empty)	ø 250 mm*2		ø 250 mm*2	
	Tool selection method	Random selection / shortest path		Random selection / shortest path	
	Tool change time (chip-to-chip)	3.5 sec		4.2 sec	
	Number of pallets	2		2	
Motors	Spindle motor (30 min. rating / cont. rating)	AC 37 / 30 kW (50 / 40 HP)		AC 37 / 30 kW (50 / 40 HP)	
	Coolant pump motor (50 Hz / 60 Hz)	730 W / 1210 W		730 W / 1210 W	
Electrical and air requirement	Electrical power supply (30 min. rating / cont. rating)	89.30 / 79.38 kVA		92.44 / 82.51 kVA	105.08 / 95.10 kVA
	Air supply pressure (pressure / volume)	0.5 MPa ~ 0.9 MPa / 350 L/min		0.5 MPa ~ 0.9 MPa / 350 L/min	
Machine size	Height	3350 mm		3400 mm	
	Required floor space <including coolant tank and chip conveyor(rear discharge)>	2820 × 6755 mm		3301 × 6795 mm	
	Machine weight	14700 kg		19000 kg	21000 kg
Sound	Equivalent continuous sound Pressure level at operator position (dependent on equipment options)	Less than 80 dB (A)			

*1 Limited feedrate with continuous axis movement

*2 Max. tool diameter can be ø 260 mm when adjacent pockets are empty and the pockets next to them have tools less than ø 240 mm

*3 Max. tool diameter can be ø 260 mm when adjacent pockets are empty and the pockets next to them have tools less than ø 360 mm

		HORIZONTAL CENTER NEXUS 8800-II		HORIZONTAL CENTER NEXUS 10800-II		HORIZONTAL CENTER NEXUS 12800-II	
		Standard	Hard metal package	Standard	Hard metal package	Standard	Hard metal package
		1400 mm		1700 mm		2200 mm	
		1200 mm		1400 mm		1600 mm	
		1325 mm		1525 mm		1850 mm	
		100 ~ 1425 mm		150 ~ 1675 mm		250 ~ 2100 mm	
		100 ~ 1300 mm		100 ~ 1500 mm		100 ~ 1700 mm	
		800 × 800 mm		1000 × 1000 mm		1250 × 1250 mm	
		ø 1450 × 1450 mm		ø 2050 × 1600 mm		ø2400 mm × 2000 mm	
		2200 kg		3000 kg		6000 kg	
		M16 × P2, Tapped 25 places, pitch 160 mm		M20, Tapped 81 places, pitch 100 mm		M20, Tapped 81 places, pitch 125 mm	
		1°		0.001°		0.001°	
		3.2 sec / 90°		2.4 sec / 90°		3.6 sec / 90°	
		10000 rpm	6000 rpm	10000 rpm	6000 rpm	10000 rpm	6000 rpm
		2 (electric)	2 (electric)	2 (electric)	2 (electric)	2 (electric)	2 (electric)
		No. 50	HSK A-100	No. 50	HSK A-100	No. 50	HSK A-100
		ø 100 mm	ø 120 mm	ø 100 mm	ø 120 mm	ø 100 mm	ø 120 mm
		3.0 sec (0→10000 rpm)	3.3 sec (0→6000 rpm)	3.0 sec (0→10000 rpm)	3.3 sec (0→6000 rpm)	3.0 sec (0→10000 rpm)	3.3 sec (0→6000 rpm)
		60 m/min		52 m/min		43 m/min	
		1 ~ 60000 mm/min		1 ~ 52000 mm/min		1 ~ 43000 mm/min	
		0.5 G		0.4 G		X,Y-axis : 0.35 G Z-axis : 0.3 G	
		CAT No.50	HSK A-100	CAT No.50	HSK A-100	No.50	HSK A-100
		60		80		80	
		ø 125 mm / 630 mm / 30 kg		ø 135 mm / 650 mm / 30 kg		ø135 mm / 800 mm / 30 kg	
		ø 250 mm*2		ø 260 mm		ø260 mm*3	
		Random selection / shortest path		Random selection / shortest path		Random selection / shortest path	
		5.0 sec		5.7 sec		6.8 sec	
		2		2		2	
		Rotary type		Rotary type		Shuttle type	
		13.0 sec		25 sec		48 sec	
		AC 37 / 30 kW (50 / 40 HP)		AC 37 / 30 kW (50/40 HP)		AC 37 / 30 kW (50/40 HP) AC 56/45 kW (75/60 HP)	
		730 W / 1210 W		730 W / 1210 W		730 W / 1210 W	
		98.68 / 88.75 kVA	107.35 / 97.36 kVA	107.84 / 97.86 kVA	116.04 / 106.06 kVA	117.60 / 107.68 kVA	160.86 / 147.17 kVA
		0.5 MPa ~ 0.9 MPa / 350 L/min		0.5 MP ~ 0.9 MPa / 350 L/min		0.5 MPa ~ 0.9 MP / 700 L/min	
		3726 mm		4052 mm		4451 mm	
		3881 × 7966 mm		6081 × 8868 mm		7047 mm × 10826 mm	
		30000 kg	30500 kg	45000 kg	45500 kg	57500kg	
		Less than 80 dB (A)					