

Machine specifications (NL2000)

Item			NL2000/500	NL2000MC/500	NL2000Y/500	NL2000S/500	NL2000SMC/500	NL2000SY/500
Capacity	Swing over bed	mm (in.)	923.8 (36.4) <interference with front cover 579.8 (22.8)>					
	Swing over cross slide	mm (in.)	755 (29.7)					
	Max. turning diameter	mm (in.)	366 (14.4)* ¹ 356 (14.0)* ² [278 (10.9) <20-station turret head>]					
	Standard turning diameter	mm (in.)	271 (10.6)* ¹ 275 (10.8)* ² [192 (7.5) <20-station turret head>]					
	Max. turning length	mm (in.)	510 (20.0)					
	Bar work capacity	mm (in.)	65 (2.5)					
Travel	X-axis travel	mm (in.)	260 (10.2) <183+77 (7.2+3.0)>* ¹ 260 (10.2) <178+82 (7.0+3.2)>* ²					
	Z-axis travel	mm (in.)	590 (23.2) [580 (22.8) <20-station turret head>]					
	Y-axis travel	mm (in.)	—	100 <±50> (3.9 <±2.0>)		—		100 <±50> (3.9 <±2.0>)
	Headstock 2 travel <B-axis>	mm (in.)	—			624 (24.6)		
Spindle	Max. spindle speed	min ⁻¹	5,000 [5,000 <high output>]			Spindle 1: 5,000 [5,000 <high output>] Spindle 2: 6,000 [5,000 <through-spindle hole diameter: 73 mm (2.9 in.)>]		
	Type of spindle nose		JIS A2-6			Spindle 1: JIS A2-6 Spindle 2: JIS A2-5 [JIS A2-6 <through-spindle hole diameter: 73 mm (2.9 in.)>]		
	Through-spindle hole diameter	mm (in.)	73 (2.9)			Spindle 1: 73 (2.9) Spindle 2: 43 (1.7) [73 (2.9)]		
	Min. spindle indexing angle		—	0.001°		—	0.001°	
	Spindle bearing inner diameter	mm (in.)	120 (4.7)			Spindle 1: 120 (4.7) Spindle 2: 85 (3.3) [120 (4.7) <through-spindle hole diameter: 73 mm (2.9 in.)>]		
Turret	Number of tool stations		12 [10] [16] [20]					
	Shank height for square tool	mm (in.)	25 (1) [20 (¾/4) <20-station turret head>]					
	Shank diameter for boring bar	mm (in.)	50 (2) [32 (1¼/4) <double boring holder>] [32 (1¼/4) <20-station turret head>]			Spindle 1: 50 (2) [32 (1¼/4) <double boring holder>] Spindle 2: 32 (1¼/4) [25 (1) <20-station turret head>]		
	Tool shank diameter for rotary tool	mm (in.)	—	26 (1.0)		—	26 (1.0)	
	Turret indexing time	s	0.2 [0.25 <20-station turret head>]	0.25		0.2 [0.25 <20-station turret head>]	0.25	
	Max. rotary tool spindle speed	min ⁻¹	—	6,000 [6,000 <high torque>]		—	6,000 [6,000 <high torque>]	
Feedrate	Rapid traverse rate	mm/min (ipm)	X, Z: 30,000 (1,181.1) Tailstock: 7,000 (275.6)	X, Z: 30,000 (1,181.1) Tailstock: 7,000 (275.6) C: 400 min ⁻¹	X, Z: 30,000 (1,181.1) Y: 10,000 (393.7) Tailstock: 7,000 (275.6) C: 400 min ⁻¹	X, Z, B: 30,000 (1,181.1) C: 400 min ⁻¹	X, Z, B: 30,000 (1,181.1) Y: 10,000 (393.7) C: 400 min ⁻¹	
Tailstock	Tailstock travel	mm (in.)	564 (22.2)			—		
	Tailstock spindle diameter	mm (in.)	80 (3.1)			—		
	Taper hole of tailstock spindle		Live center <MT4> [Built-in center <MT3>]			—		
Motor	Spindle drive motor <50%ED/30min/cont>	kW (HP)	15/15/11 (20/20/15) [18.5/18.5/18.5/15 (24.7/24.7/24.7/20) <25%ED/50%ED/30 min/cont>]			Spindle 1: 15/15/11 (20/20/15) [18.5/18.5/18.5/15 (24.7/24.7/24.7/20) <25%ED/50%ED/30 min/cont>] Spindle 2: 11/7.5 (15/10) <25%ED/cont>		
	Rotary tool spindle drive motor <3 min/5 min/cont>	kW (HP)	—	5.5/5.5/3.7 (7.5/7.5/5)		—	5.5/5.5/3.7 (7.5/7.5/5)	
	Feed motor	kW (HP)	X, B: 2.0 (2.7) Z: 3.5 (4.7)		X, Z, Y: 3.5 (4.7) B: 2.0 (2.7)	X, B: 2.0 (2.7) Z: 3.5 (4.7)		X, Z, Y: 3.5 (4.7) B: 2.0 (2.7)
Power sources <standard>	Electrical power supply <cont>	I94029B01 kVA	20.5	24.2	31.5	31.5		35.9
	Compressed air supply	MPa (psi), L/min (gpm)	— (a compressed air supply may be needed, depending on options and peripheral equipment)			0.5 (72.5), 100 (26.4) (when the tool tip air blow is regularly used, air supply of more than 300 L/min (79.2 gpm) is separately required) <ANR>		
Tank capacity	Coolant tank capacity	L (gal.)	235 (62.0)					
Machine size	Machine height <from floor>	mm (in.)	2,120 (83.5)					
	Floor space <width×depth>	mm (in.)	2,705×1,922 (106.5×75.7)			2,705×2,000 (106.5×78.7)		
	Mass of machine	kg (lb.)	5,400 (11,880)	5,500 (12,100)	5,700 (12,540)	5,500 (12,100)	5,600 (12,320)	5,800 (12,760)
Noise data	A-weighted, time-average radiated sound pressure level	dB	60—71 (Measurement uncertainty is 4 dB)					

[] Option JIS: Japanese Industrial Standard
*1 For O.D. cutting tool with an overhang of 35 mm (1.4 in.).
*2 For O.D. cutting tool with an overhang of 40 mm (1.6 in.).
● Bar work capacity: depending on the chuck/cylinder used and its restrictions, it may not be possible to reach full bar work capacity.
● Max. spindle speed: depending on restrictions imposed by the workpiece clamping device, fixture and tool used, it may not be possible to rotate at the maximum spindle speed.
● ANR: ANR refers to a standard atmospheric state; i. e., temperature at 20 °C (68 °F), absolute pressure at 101.3 kPa (14.7 psi) and relative humidity at 65%.
● Power sources, machine size: the actual values may differ from those specified in the catalogue, depending on the optional features and peripheral equipment.
● Compressed air supply: please be sure to supply clean compressed air <air pressure: 0.7 MPa (101.5 psi), pressure dew point: 10 °C (50 °F) or below>.
● A criterion capacity to select a compressor is 90 L/min (23.8 gpm) per 0.75 kW (1 HP). However, this figure may differ depending on the type of compressors and options attached.
For details, please check the compressor specifications.
● Noise data: the values were measured at the front of the NL2000SY/500 with a maximum spindle speed of 5,000 min⁻¹. Please contact your sales representative for details.
● The information in this catalog is valid as of January 2012.