www.dmgmori.com

NLX 1500

NLX 2000



Rigid and Precise CNC Lathe

## NLX 1500 / NLX 2000

# Launch of New Models with DMG MORI's New Design for the NLX Series, the Pre-eminent Best-selling Series of CNC Lathes

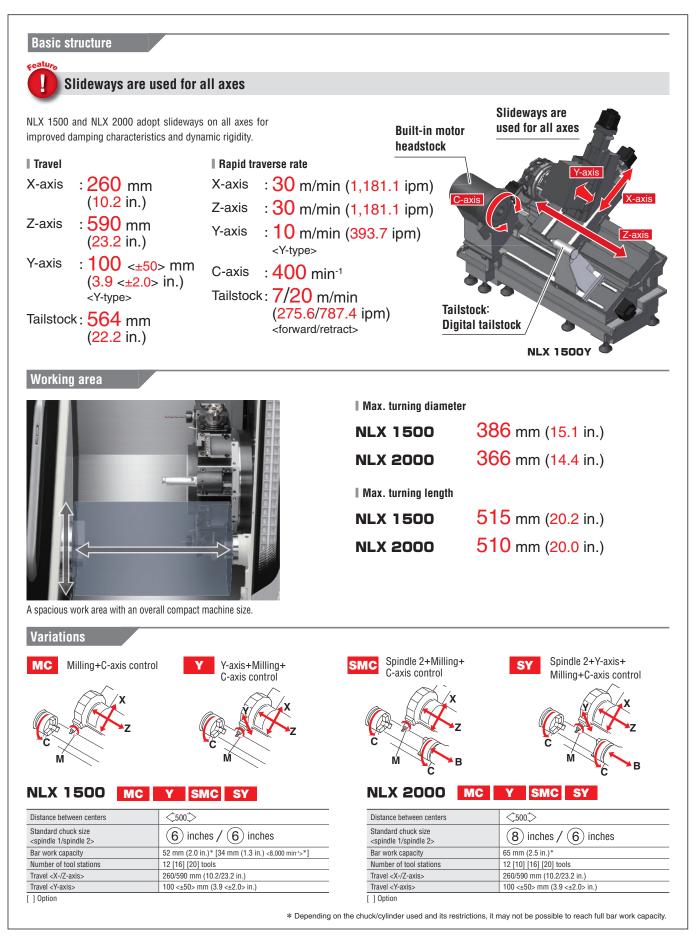
Having achieved even higher levels of reliability and durability by adopting unique new DMG MORI technologies one after another while inheriting features like high-rigidity slideway guides from previous models, the NLX Series has now evolved a step further.

The machines incorporate the latest CELOS user interface that is equipped with an intuitive touch panel and comprises the ideal menu options for every process,

along with ergonomic new-design covers to cope flexibly with all conceivable machine operation scenarios. This further refined NLX Series will spark innovations at all machining sites.



## Main features



#### Spindle 1



Sophistica	ted spindle labyrinth +	Air purge for spindle	
	abyrinth structure by taking the fi equipped as standard to preven	1 <b>0</b> 1	
Max. spindle speed		Standard chuck size	
NLX 1500	<mark>6,000</mark> min⁻¹	NLX 1500	6 inches
<b>NLX 2000</b> 5,000 min <sup>-1</sup>		NLX 2000	8 inches

Spindle 2



The SMC type that permits the entire sequence of machining from turning to secondary machining and back face machining with the combination of Spindle 2 and rotary tools, and the SY type that realizes multi-axis machining by adding the Y-axis are available.

#### Max. spindle speed

 NLX 1500/NLX 2000
 6,000 min<sup>-1</sup>

 I Standard chuck size
 6 inches

#### Tailstock

### Digital tailstock installed

The high-rigidity digital tailstock driven by a servo motor significantly reduces setup time.



- Fewer steps requiring operation of the tailstock
- Operating time reduced
- Variable pressure control using program instructions
- Simple operation using MAPPS

#### Setup time

Reduced by over 50%

Tailstock spindle operating time

Reduced by over 20%



SMC SY

MC

Chip flushing coolant is featured as standard at the base of the digital tailstock, improving chip processing capability.

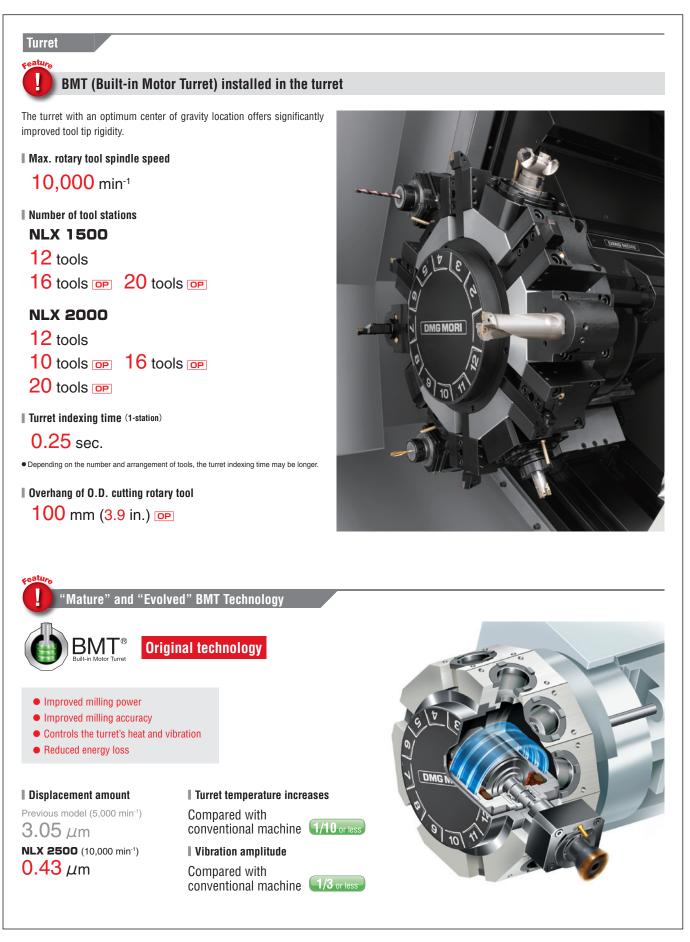
#### Y-axis specifications

The Y-axis is created by linking the feed of the X-axis and the simulating axes. We have made the axis unit compact and restricted the height of the machine.

Y-axis travel

 $\pm 50$  mm ( $\pm 2.0$  in.)

## Main features



#### Support for 20-station turret

OP

OP



- With the 20-station turret you can machine a wide range of workpieces, including those for which automation used to be difficult because they require many processes.
- By using a high-rigidity, compact tooling system, we have achieved machining ability and versatility which matches those of machining centers.

#### High-precision, quick-change turret <Y, SY>

This is a turret with the high-rigidity, high-accuracy quick-change specifications conforming to the VDI tooling system. It reduces setup time by substantially shortening tool mounting time.

#### Mounting repeatability

6 μm/200 mm (7.9 in.)





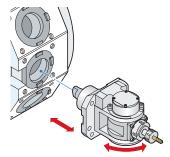
Rotary tool holders

OP

With conventional lathes, chattering occurred when the depth of cut was increased. The NLX Series, however, is equipped with rotary tool holders with improved rigidity, allowing deeper cutting than before.

#### Universal holder Consultation is required

This holder is suitable for inclined hole machining as it can adjust and set a tool to any required angle in advance. In the automatic operation mode machining can be performed right after turret indexing.



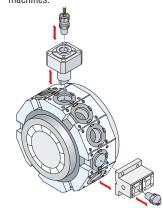
• Only suitable for the NL holder.



Inclined hole machining using a universal tool holder



The Coromant Capto modular tooling system, with much faster toolchanging time than conventional machines.



#### High-speed rotary tool spindle

A DDS motor that has no gear belt is used for the rotary tool spindle, delivering high-speed, high-efficiency machining.

Max. rotary tool spindle speed

NLX 1500/NLX 2000

10,000 min<sup>-1</sup>

Max. rotary tool spindle torque

#### NLX 1500/NLX 2000

29 N·m (21.4 ft·lbf) <3 min>

DDS: Direct Drive Spindle

## High-precision equipment

#### Thermal Displacement Control

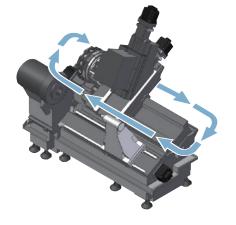
#### Thorough Thermal Displacement Control

There are a variety of factors leading to the thermal displacement that has a major influence on machining accuracy, including heat generation and changes in room temperature while the machine is operating, and coolant temperature rise. These machines implement DMG MORI's original thermal displacement control where each of these factors is thoroughly addressed from all angles.

#### Coolant circulation for casting parts

DMG MORI has developed a new technology to circulate coolant through the casting parts as a measure against thermal displacement that directly affects machining accuracy. Thermal displacement is caused by various factors including non-uniform expansion and contraction due to difference in thickness of the casting; uneven heat generation in the slideways; operating environment; and changes in ambient temperature due to season and time of day. The coolant circulation maintains a uniform temperature inside the casting parts, and minimizes deformation in the machine.

- Uniform thermal displacement
- Resistance to changes in ambient temperature
- High-accuracy long-term machining



#### Coolant cooling system (separate type)

Raised coolant temperature causes thermal displacement in the fixtures and workpiece, affecting the machining accuracy of the workpiece. Use this unit to prevent the coolant from heating up. When using oil-based coolant, the coolant temperature can become extremely high even with the standard coolant pump, so please be sure to select this unit.

When using oil-based coolant, please be sure to consult with our sales representative.

 While this unit is not the only way to completely control the temperature of the coolant, it makes a major contribution to preventing increases in the oil temperature.

#### OP



The absolute magnetic linear scale (full closed-loop control) made by Magnescale is effective for high-precision positioning, and is available as an option.

OP

Direct scale feedback



# CEL()S Uniform user i

Uniform user interface with touch operation



Compatible with PPS and ERP systems. Can be networked with CAD / CAM products. Open to trendsetting CELOS APP extensions. Uniform, intuitive user interface for all high-tech machines from DMG MORI.

Consistent administration, documentation and visualisation of order, process and machine data.

### **CELOS APPs simplify fast and easy operation**

#### CELOS – APP MENU: Central access to all available applications.

CELOS supports the user in daily practice with a process-oriented menu structure. Thanks to the touch functionality of the user gets to the "APP MENU" with one single touch. Similar to a smart phone or tablet PC, the user has got direct access to all available APPs, which are differentiated according to their application field and can be selected with a single touch via the "APP MENU". For instance, CELOS APPs like the "JOB MANAGER" or "JOB ASSISTANT" support machine operators with the network-integrated preparation, optimisation and systematic processing of production orders (with workpieces, equipment and NC programmes).



WORKSHOP OF THE FUTURE

With its open structure and integration ability, CELOS offers unique opportunities for the expansion of functionality with targeted applications.



#### Systematic planning, administration and preparation of orders

- > Machine-related creation and configuration of new orders
- > Structured saving of all production-related data and documents
- > Visualisation of orders, including NC programme, equipment, etc.



#### **Choosing and processing orders**

- > Menu-guided set-up of the machine and processing of production orders in the dialogue
- > Reliable error prevention thanks to work instructions with binding check list



#### Visualise workpieces and optimise programme data

- > Direct remote access to external CAD / CAM workstations
- > Central master data as basis for component visualisation
- > Immediate change options for machining steps,
- NC programmes and CAM strategies, directly in the control system

## Machine specifications (NLX 1500)

			NLX 1500Y   500			
Swing over bed	mm (in.)					
Swing over cross slide	mm (in.)					
Max. turning diameter	mm (in.)	386 (15.1)*1 366 (14.4)*2 [278 (10.9) <20-station turret head>]				
Standard turning diameter	mm (in.)	260 (10.2)*1 271 (10.6)*2 [192 (7.5) <20-station turret head>]				
Max. turning length	mm (in.)					
Bar work capacity	mm (in.)		52 (2.0)* <sup>3</sup> [34 (1.	,		
X-axis travel	mm (in.)					
Z-axis travel	mm (in.)	590 (23.2) [580 (22.8)		<pre>&gt; &lt;20-station turret head&gt;]</pre>		
Y-axis travel	mm (in.)	_	100 <±50> (3.9 <±2.0>)	_	100 <±50> (3.9 <±2.0>)	
Headstock 2 travel <b-axis></b-axis>	mm (in.)	-	_	624 (	(24.6)	
Max. spindle speed	min <sup>-1</sup>	6,000 [6,000 <high output="">] [8,000 <high speed="">]</high></high>		Spindle 1: 6,000 [6,000 <high output="">] [8,000 <high speed<br="">Spindle 2: 6,000 [8,000 <high speed="">]</high></high></high>		
Type of spindle nose		IIS A <sub>22</sub> 5		Spindle 1, 2: JIS A <sub>2</sub> -5		
Through-spindle hole diameter	mm (in.)			Spindle 1: 61 (2.4) [43 (1.7) <8,000 min <sup>-1</sup> >]		
Min, chindle indeving angle			0.00	Spindle 2: 43 (1.7)		
			0.00			
Spindle bearing inner diameter	mm (in.)			Spindle 1: 100 (3.9) [85 (3.3) <8,000 min <sup>-1</sup> >] Spindle 2: 85 (3.3)		
Shank height for square tool	mm (in.)		20 (3/4)	)/25 (1)		
Shank diameter for boring bar	mm (in.)	40 (11/2)/50 (2) [25 (1) <double boring="" holder="">] [32 (11/4) &lt;20-station turret head&gt;]</double>		Spindle 1: 40 (11/2)/50 (2) [25 (1) <double boring="" holder="">] Spindle 2: 32 (11/4) [25 (1) &lt;20-station turret head&gt;]</double>		
Tool shank diameter for rotary f	tool mm (in.)		26 (	1.0)		
Turret indexing time	S		0.			
Max. rotary tool spindle speed	min <sup>-1</sup>		10,000 [10,00	0 <high torque="">]</high>		
Rapid traverse rate	mm/min (ipm)	X, Z: 30,000 (1,181.1) Tailstock <forward retract="">: 7,000/20,000 (275.6/787.4) C: 400 min<sup>-1</sup></forward>	X, Z: 30,000 (1,181.1) Y: 10,000 (393.7) Tailstock <forward retract="">: 7,000/20,000 (275.6/787.4) C: 400 min<sup>-1</sup></forward>	X, Z, B: 30,000 (1,181.1) C: 400 min <sup>-1</sup>	X, Z, B: 30,000 (1,181.1) Y: 10,000 (393.7) C: 400 min <sup>-1</sup>	
 Tailstock travel	mm (in.)	564 (	(22.2)	-	_	
					_	
•				_		
· ·	indle drive motor 6,000 min <sup>-1</sup> kW (HP)		11/11/7.5 (15/15/10) [15/15/11 (20/20/15)]		Spindle 1: 11/11/7.5 (15/15/10) [15/15/11 (20/20/15)] Spindle 2: 11/7.5 (15/10) <25%ED/cont>	
<50%ED/30 min/cont>		L	. ,1			
	) min⁻¹ kW (HP)	-	<25%ED/cont>]	Spindle 2: 11/7.5 (1		
		-		Spindle 2: 11/7.5 (1	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick-	
8,000 Rotary tool spindle drive motor		[11/7.5 (15/10)	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1)	Spindle 2: 11/7.5 (1 Spindle 1, 2: [11/7.5 (	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifi) 10.7/6.1 (14.3/8.1)	
8,000 Rotary tool spindle drive motor <3 min/5 min/cont>	kW (HP)	[11/7.5 (15/10) 5.5/5.5/3.7 (7.5/7.5/5)	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>]	Spindle 2: 11/7.5 (1: Spindle 1, 2: [11/7.5 ( 5.5/5.5/3.7 (7.5/7.5/5)	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifib) 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4)	
8,000 Rotary tool spindle drive motor <3 min/5 min/cont> Feed motor Electrical power supply <cont></cont>	kW (HP) kW (HP)	[11/7.5 (15/10) 5.5/5.5/3.7 (7.5/7.5/5) X: 2.0 (2.7) Z: 3.0 (4) 21.5 0.5 (72.5), 100 (26.4) (when the first section of the first sectio	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4)	Spindle 2: 11/7.5 (1: Spindle 1, 2: [11/7.5 ( 5.5/5.5/3.7 (7.5/7.5/5) X, B: 2.0 (2.7) Z: 3.0 (4)	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifit 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) B: 2.0 (2.7) 29.0 the tool tip air blow is regularly used,	
8,000 Rotary tool spindle drive motor <3 min/5 min/cont> Feed motor Electrical power supply <cont></cont>	kW (HP) kW (HP) 194333A01 kVA (psi), L/min (gpm)	[11/7.5 (15/10) 5.5/5.5/3.7 (7.5/7.5/5) X: 2.0 (2.7) Z: 3.0 (4) 21.5 0.5 (72.5), 100 (26.4) (when the first section of the first sectio	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) 24.8 te tool tip air blow is regularly used, air	Spindle 2: 11/7.5 (1: Spindle 1, 2: [11/7.5 ( 5.5/5.5/3.7 (7.5/7.5/5) X, B: 2.0 (2.7) Z: 3.0 (4) 25.7 0.5 (72.5), 250 (66.0) (when th supply of more than 300 L/min (79.2	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifit 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) B: 2.0 (2.7) 29.0 the tool tip air blow is regularly used,	
8,000 Rotary tool spindle drive motor <3 min/5 min/cont> Feed motor Electrical power supply <cont> Compressed air supply MPa in</cont>	kW (HP) kW (HP) 194333401 kVA	[11/7.5 (15/10) 5.5/5.5/3.7 (7.5/7.5/5) X: 2.0 (2.7) Z: 3.0 (4) 21.5 0.5 (72.5), 100 (26.4) (when the first section of the first sectio	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) 24.8 te tool tip air blow is regularly used, air gpm) is separately required  <anr></anr>	Spindle 2: 11/7.5 (1: Spindle 1, 2: [11/7.5 ( 5.5/5.5/3.7 (7.5/7.5/5) X, B: 2.0 (2.7) Z: 3.0 (4) 25.7 0.5 (72.5), 250 (66.0) (when th supply of more than 300 L/min (79.2 58.1)	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifit 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) B: 2.0 (2.7) 29.0 the tool tip air blow is regularly used,	
8,000         Rotary tool spindle drive motor         <3 min/5 min/cont>         Feed motor         Electrical power supply <cont>         Compressed air supply       MPa         Coolant tank capacity</cont>	kW (HP) kW (HP) 194333A01 kVA (psi), L/min (gpm) L (gal.)	[11/7.5 (15/10) 5.5/5.5/3.7 (7.5/7.5/5) X: 2.0 (2.7) Z: 3.0 (4) 21.5 0.5 (72.5), 100 (26.4) (when the supply of more than 300 L/min (79.2	<25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) 24.8 re tool tip air blow is regularly used, air gpm) is separately required) <anr> 220 (</anr>	Spindle 2: 11/7.5 (1: Spindle 1, 2: [11/7.5 ( 5.5/5.5/3.7 (7.5/7.5/5) X, B: 2.0 (2.7) Z: 3.0 (4) 25.7 0.5 (72.5), 250 (66.0) (when the supply of more than 300 L/min (79.2 58.1) (84.4)	5/10) <25%ED/cont> 15/10) <25%ED/cont>] 5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifib 10.7/6.1 (14.3/8.1) <15%ED/cont>] X, Z, Y: 3.0 (4) B: 2.0 (2.7) 29.0 ne tool tip air blow is regularly used, gpm) is separately required) <anr< td=""></anr<>	
	Max. turning length Bar work capacity X-axis travel Z-axis travel Y-axis travel Headstock 2 travel <b-axis> Max. spindle speed Type of spindle nose Through-spindle hole diameter Min. spindle indexing angle Spindle bearing inner diameter Number of tool stations Shank height for square tool Shank diameter for boring bar Tool shank diameter for rotary to Turret indexing time Max. rotary tool spindle speed</b-axis>	Max. turning length       mm (in.)         Bar work capacity       mm (in.)         Sar work capacity       mm (in.)         X-axis travel       mm (in.)         Z-axis travel       mm (in.)         Y-axis travel       mm (in.)         Y-axis travel       mm (in.)         Y-axis travel       mm (in.)         Y-axis travel       mm (in.)         Headstock 2 travel <b-axis>       mm (in.)         Max. spindle speed       min<sup>-1</sup>         Type of spindle nose       Through-spindle hole diameter       mm (in.)         Min. spindle indexing angle       Spindle bearing inner diameter       mm (in.)         Number of tool stations       Shank height for square tool       mm (in.)         Shank diameter for boring bar       mm (in.)         Turret indexing time       s         Max. rotary tool spindle speed       min<sup>-1</sup>         Rapid traverse rate       mm/min (ipm)         Tailstock travel       mm (in.)         Tailstock spindle diameter       mm (in.)</b-axis>	Max. turning length       mm (in.)         Bar work capacity       mm (in.)         X-axis travel       mm (in.)         Z-axis travel       mm (in.)         Y-axis travel       mm (in.)         Headstock 2 travel <b-axis>       mm (in.)         Max. spindle speed       min<sup>-1</sup>         fold (2.4) [43 (1       flip         Min. spindle indexing angle       Imm (in.)         Spindle bearing inner diameter       mm (in.)         Shank height for square tool       mm (in.)         Shank diameter for boring bar       mm (in.)         Sumbar of tool stations       Imm (in.)         Shank diameter for rotary tool       mm (in.)         Turret indexing time       s         Max. rotary tool spindle speed       min<sup>-1</sup>         Rapid traverse rate       mm/min (ipm         <td< td=""><td>Standard turning diameter         mm (in.)         260 (10.2)*1 [192 (7.5) &lt;20-st           Max. turning length         mm (in.)         515 (           Bar work capacity         mm (in.)         52 (2.0)*3 [34 (1.           X-axis travel         mm (in.)         260 (10.2)*1 (3.9 &lt;42.0&gt;)           Y-axis travel         mm (in.)         -           V-axis travel         mm (in.)         -           Y-axis travel         mm (in.)         -           Y-axis travel         mm (in.)         -           Wax. spindle speed         min<sup>-1</sup>         6,000 [6,000 <high <high="" [8,000="" outputs-]="" speeds-]<="" td="">           Type of spindle nose         JIS A=5           Through-spindle hole diameter         mm (in.)         61 (2.4) [43 (1.7) &lt;8,000 min<sup>+</sup>&gt;]           Min. spindle indexing angle         0.00           Spindle bearing inner diameter         mm (in.)         100 (3.9) [85 (3.3) &lt;8,000 min<sup>+</sup>&gt;]           Number of tool stations         12 [16           Shank diameter for rotary tool         mm (in.)         20 (4/)           Shank diameter for rotary tool         mm (in.)         22 (2.0)           Shank diameter for rotary tool         mm (in.)         22 (1.)           Col shank diameter for rotary tool         mm (in.)         26 (           Tur</high></td><td>Standard turning diameter         mm (in.)         260 (10.2)*1         271 (10.6)*2           Standard turning length         mm (in.)         515 (20.2)           Bar work capacity         mm (in.)         52 (2.0)*3 (34 (1.3) «a.000 min 15*3)           Bar work capacity         mm (in.)         260 (10.2)           Zaxis travel         mm (in.)         200 (10.2)           Zaxis travel         mm (in.)         200 (10.2)           Y-axis travel         mm (in.)         -           Max. spindle speed         min<sup>-1</sup>         60.000 (6,000 -thigh output-)           Max. spindle nose         JIS A=5         Spindle 1: 6,000 (6,000 spindle 2: 6,000 [           Through-spindle nose         JIS A=5         Spindle 1: 6 (2.4) [           Min. spindle indexing angle         0.001*         Spindle 1: 6 (0.3) (3.9) (85 (3.3) -8,000 min*)         Spindle 1: 100 (3.9) [Spindle 2: 30 (1/4) (25 (1)           Shank height for square tool         mm (in.)         100 (3.9) [85 (3.3) -8,000 min*)         Spindle 1: 40 (1.4) [25 (1) -0000 (1.000 -000 (1.018 -1) (2.5 (1.0) (2.3 (2.5 (1.0) -000 (1.000 (1.000 -000 (1.000 -000 (1.181 -1) (2.100 (1.181 -1) (2.100 (1.181 -1) (2.100 (0.00 (2.5 6.787.4) (2.40 0 min<sup>-1</sup></td></td<></b-axis>	Standard turning diameter         mm (in.)         260 (10.2)*1 [192 (7.5) <20-st           Max. turning length         mm (in.)         515 (           Bar work capacity         mm (in.)         52 (2.0)*3 [34 (1.           X-axis travel         mm (in.)         260 (10.2)*1 (3.9 <42.0>)           Y-axis travel         mm (in.)         -           V-axis travel         mm (in.)         -           Y-axis travel         mm (in.)         -           Y-axis travel         mm (in.)         -           Wax. spindle speed         min <sup>-1</sup> 6,000 [6,000 <high <high="" [8,000="" outputs-]="" speeds-]<="" td="">           Type of spindle nose         JIS A=5           Through-spindle hole diameter         mm (in.)         61 (2.4) [43 (1.7) &lt;8,000 min<sup>+</sup>&gt;]           Min. spindle indexing angle         0.00           Spindle bearing inner diameter         mm (in.)         100 (3.9) [85 (3.3) &lt;8,000 min<sup>+</sup>&gt;]           Number of tool stations         12 [16           Shank diameter for rotary tool         mm (in.)         20 (4/)           Shank diameter for rotary tool         mm (in.)         22 (2.0)           Shank diameter for rotary tool         mm (in.)         22 (1.)           Col shank diameter for rotary tool         mm (in.)         26 (           Tur</high>	Standard turning diameter         mm (in.)         260 (10.2)*1         271 (10.6)*2           Standard turning length         mm (in.)         515 (20.2)           Bar work capacity         mm (in.)         52 (2.0)*3 (34 (1.3) «a.000 min 15*3)           Bar work capacity         mm (in.)         260 (10.2)           Zaxis travel         mm (in.)         200 (10.2)           Zaxis travel         mm (in.)         200 (10.2)           Y-axis travel         mm (in.)         -           Max. spindle speed         min <sup>-1</sup> 60.000 (6,000 -thigh output-)           Max. spindle nose         JIS A=5         Spindle 1: 6,000 (6,000 spindle 2: 6,000 [           Through-spindle nose         JIS A=5         Spindle 1: 6 (2.4) [           Min. spindle indexing angle         0.001*         Spindle 1: 6 (0.3) (3.9) (85 (3.3) -8,000 min*)         Spindle 1: 100 (3.9) [Spindle 2: 30 (1/4) (25 (1)           Shank height for square tool         mm (in.)         100 (3.9) [85 (3.3) -8,000 min*)         Spindle 1: 40 (1.4) [25 (1) -0000 (1.000 -000 (1.018 -1) (2.5 (1.0) (2.3 (2.5 (1.0) -000 (1.000 (1.000 -000 (1.000 -000 (1.181 -1) (2.100 (1.181 -1) (2.100 (1.181 -1) (2.100 (0.00 (2.5 6.787.4) (2.40 0 min <sup>-1</sup>	

## Machine specifications (NLX 2000)

	Item Swing over bed	mm (in.)	NLX 2000MC   500		NLX 2000SMC   500 with front cover 626 (24.6)>		
	Swing over cross slide	mm (in.)					
Capacity	Max. turning diameter	mm (in.)	[278 (10.9) <20-station turret nead>]				
	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.)					
	Bar work capacity	mm (in.)		65 (2	2.5)* <sup>3</sup>		
	X-axis travel	mm (in.)	260 (10.2)				
	Z-axis travel	mm (in.)	590 (23.2) [580 (22.8)		) <20-station turret head>]		
Travel	Y-axis travel	mm (in.)	_	100 <±50> (3.9 <±2.0>)	_	100 <±50> (3.9 <±2.0>)	
	Headstock 2 travel <b-axis></b-axis>	mm (in.)		_	624	(24.6)	
					Spindle 1: 5,000 [5,000 <high output="">]</high>		
	Max. spindle speed	min <sup>-1</sup>	5,000 [5,000 <high output="">]</high>		Spindle 2: 6,000 [5,000 <through-spindle (2.9="" 73="" diameter:="" hole="" in.<="" mm="" td=""></through-spindle>		
	Type of spindle nose		JIS A2-6		Spindle 1: JIS A2-6 Spindle 2: JIS A2-5 [JIS A2-6 <through-spindle (2.9="" 73="" diameter:="" hole="" ir<="" mm="" td=""></through-spindle>		
Spindle	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			0.00	)1°		
	Spindle bearing inner diameter	mm (in.)	120 (4.7)		Spindle 1: 120 (4.7) Spindle 2: 85 (3.3) [120 (4.7)		
	Number of tool stations			12 [10]	[16] [20]		
Turret	Shank height for square tool	mm (in.)		25 (1) [20 (3/4) <20			
	Shank diameter for boring bar	mm (in.)	50 (2) [32 (1 <sup>1</sup> / <sub>4</sub> ) <double boring="" holder="">] [32 (1<sup>1</sup>/<sub>4</sub>) &lt;20-station turret head&gt;]</double>		Spindle 1: 50 (2) [32 (1 <sup>1</sup> / <sub>4</sub> ) <double boring="" holder="">] Spindle 2: 32 (1<sup>1</sup>/<sub>4</sub>) [25 (1) &lt;20-station turret head&gt;]</double>		
	Tool shank diameter for rotary too	ol mm (in.)		26 (			
	Turret indexing time	s			25		
	Max. rotary tool spindle speed	min <sup>-1</sup>		10,000 [10,00			
Feedrate	Rapid traverse rate n	ım/min (ipm)	X, Z: 30,000 (1,181.1) Tailstock <forward retract="">: 7,000/20,000 (275.6/787.4) C: 400 min<sup>-1</sup></forward>	X, Z: 30,000 (1,181.1) Y: 10,000 (393.7) Tailstock <forward retract="">: 7,000/20,000 (275.6/787.4) C: 400 min<sup>-1</sup></forward>	X, Z, B: 30,000 (1,181.1) C: 400 min <sup>-1</sup>	X, Z, B: 30,000 (1,181.1) Y: 10,000 (393.7) C: 400 min <sup>-1</sup>	
	Tailstock travel	mm (in.)	564	(22.2)	-	_	
ailstock	Tailstock spindle diameter	mm (in.)		(3.1)	_		
	Taper hole of tailstock spindle	,	Live center <mt4> [8</mt4>	Suilt-in center <mt3>]</mt3>	_		
Motor	Spindle drive motor <15%ED/30 min/cont>	kW (HP)	15/15/11 (20/20/15) [22/22/15 (30/30/20)]		Spindle 1: 15/15/11(20/20/15) [22/22/15 (30/30/20)] 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) [12-station VDI quick- change turret (Sauter Trifix): 10.7/6.1 (14.3/8.1) <15%ED/cont>]	5.5/5.5/3.7 (7.5/7.5/5)	5.5/5.5/3.7 (7.5/7.5/5) [12-station VDI quick- change turret (Sauter Trifi 10.7/6.1 (14.3/8.1) <15%ED/cont>]	
	Feed motor	kW (HP)	X: 2.0 (2.7) Z: 3.0 (4)	X, Z, Y: 3.0 (4)	X, B: 2.0 (2.7) Z: 3.0 (4)	X, Z, Y: 3.0 (4) B: 2.0 (2.7)	
	Electrical power supply <cont></cont>	194333A01 KVA	25.4	28.7	29.6	32.9	
ower sources standard>	Compressed air supply MPa (ps	i), L/min (gpm)	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></anr>				
ank capacity	Coolant tank capacity	L (gal.)		220 (	58.1)		
Machine size	Machine height <from floor=""></from>	mm (in.)		2,145			
	Floor space <width×depth></width×depth>	mm (in.)			81 (140.2×81.9) <including chip="" conveyor="">]</including>		
	Mass of machine	kg (lb.)	5,000 (11,000)	5,100 (11,220)	5,400 (11,880)	5,500 (12,100)	
1 For O.D. cutting 2 For O.D. cutting 3 Depending on th Max. spindle spee ANR: ANR refers t Power sources, m	panese Industrial Standard tool with an overhang of 35 mm (1.4 in.). tool with an overhang of 40 mm (1.6 in.). e chuck/cylinder used and its restrictions d: depending on restrictions imposed by to a standard atmospheric state; i. e., tem achine size: the actual values may differ upply: please be sure to supply clean cor	the workpiece cl perature at 20 °C rom those spec	amping device, fixture and tool use C (68 °F), absolute pressure at 101 ified in the catalogue, depending of	d, it may not be possible to rotate a .3 kPa (14.7 psi) and relative humid n the optional features and peripher	ity at 65%. al equipment.		

For details, please check the compressor specifications.
The information in this catalog is valid as of May 2014.

## DMG MORI

## 2-year warranty, twice the peace of mind.

For machines delivered outside of Japan, parts relating to machine breakdown will be guaranteed free for 2 years from the date of installation, and labor costs to repair will be free for 1 year. Please contact our sales representative for details.

Phone: +81-52-587-1811



#### <Precautions for Machine Relocation>

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The machines shown in the catalog may differ from the actual machines. The location and the size of the nameplates may also differ from the actual machines, or the nameplates may not be attached to some machines.

• DMG MORI SEIKI is not responsible for differences between the information in the catalog and the actual machine.

#### DMG MORI SEIKI CO., LTD. Nagoya Head Office

2-35-16 Meieki, Nakamura-ku, Nagoya City, Aichi 450-0002, Japan

□ 18th floor, Shinagawa Intercity Tower A, 2-15-1 Konan Minato-ku, Tokyo 108-6018, Japan Phone: +81-3-5460-3570 Tokvo Branch Nara No. 1 Plant 🔄 362 Idono-cho, Yamato-Koriyama City, Nara 639-11813, Japan Nara No. 2 Plant 📄 106 Kita-Koriyama-cho, Yamato-Koriyama City, Nara 639-1183, Japan 🗌 201 Midai, Iga City, Mie 519-1414, Japan Phone: +81-743-53-1121 Phone: +81-743-53-1125 Nara Campus Nara No. 1 Plant Iga Campus Phone: +81-595-45-4151 🗆 488-19 Suzumi-cho, Funabashi City, Chiba 274-0052, Japan Phone: +81-47-410-8800 Chiba Campus

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