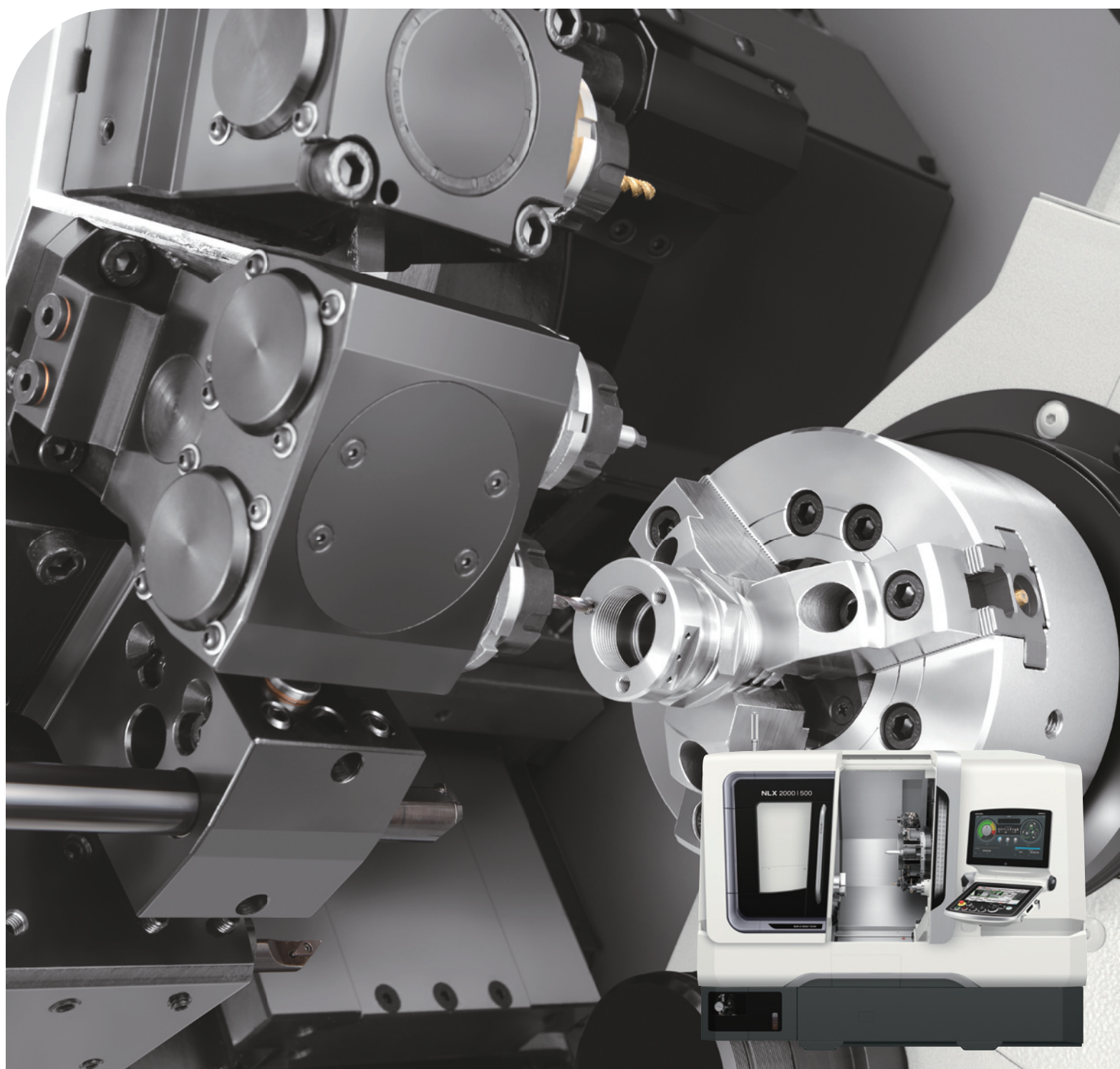


Rigid and Precise CNC Lathe

NLX 1500

NLX 2000

# 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

## Basic structure

Feature



### Slideways are used for all axes

NLX 1500 and NLX 2000 adopt slideways on all axes for improved damping characteristics and dynamic rigidity.

#### Travel

X-axis : **260** mm  
(10.2 in.)

Z-axis : **590** mm  
(23.2 in.)

Y-axis : **100** <±50> mm  
(3.9 <±2.0> in.)  
<Y-type>

Tailstock: **564** mm  
(22.2 in.)

#### Rapid traverse rate

X-axis : **30** m/min (1,181.1 ipm)

Z-axis : **30** m/min (1,181.1 ipm)

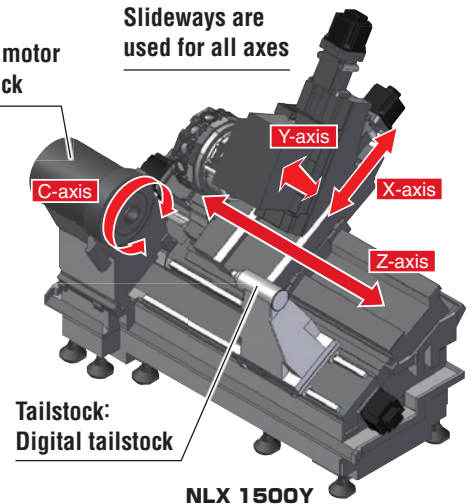
Y-axis : **10** m/min (393.7 ipm)  
<Y-type>

C-axis : **400** min<sup>-1</sup>

Tailstock: **7/20** m/min  
(275.6/787.4 ipm)  
<forward/retract>

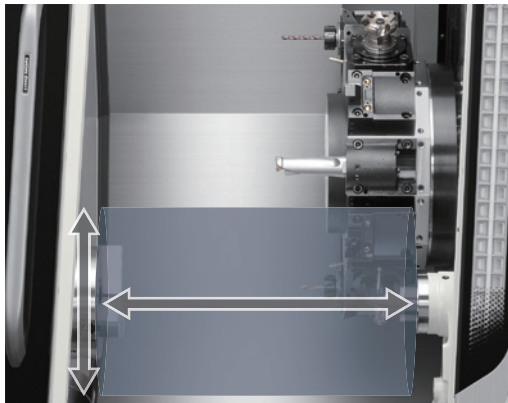
Built-in motor  
headstock

Slideways are  
used for all axes



NLX 1500Y

## Working area



A spacious work area with an overall compact machine size.

#### Max. turning diameter

**NLX 1500** **386** mm (15.1 in.)

**NLX 2000** **366** mm (14.4 in.)

#### Max. turning length

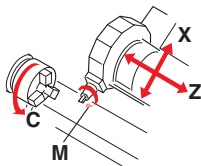
**NLX 1500** **515** mm (20.2 in.)

**NLX 2000** **510** mm (20.0 in.)

## Variations

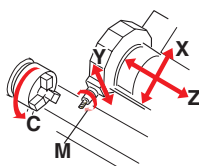
MC

Milling+C-axis control



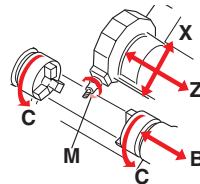
Y

Y-axis+Milling+  
C-axis control



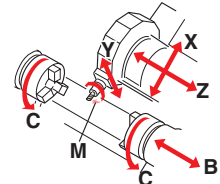
SMC

Spindle 2+Milling+  
C-axis control



SY

Spindle 2+Y-axis+  
Milling+C-axis control



### NLX 1500

MC

Y

SMC

SY

Distance between centers	<500>
Standard chuck size <spindle 1/spindle 2>	⑥ inches / ⑥ inches
Bar work capacity	52 mm (2.0 in.)* [34 mm (1.3 in.) <8,000 min <sup>-1</sup> >*]
Number of tool stations	12 [16] [20] tools
Travel <X-/Z-axis>	260/590 mm (10.2/23.2 in.)
Travel <Y-axis>	100 <±50> mm (3.9 <±2.0> in.)

[ ] Option

### NLX 2000

MC

Y

SMC

SY

Distance between centers	<500>
Standard chuck size <spindle 1/spindle 2>	⑧ inches / ⑥ inches
Bar work capacity	65 mm (2.5 in.)*
Number of tool stations	12 [10] [16] [20] tools
Travel <X-/Z-axis>	260/590 mm (10.2/23.2 in.)
Travel <Y-axis>	100 <±50> mm (3.9 <±2.0> in.)

[ ] Option

\* Depending on the chuck/cylinder used and its restrictions, it may not be possible to reach full bar work capacity.

## Spindle 1



### Sophisticated spindle labyrinth + Air purge for spindle

We have enhanced the labyrinth structure by taking the frequent use of high-pressure coolant into account. A spindle air purge is also equipped as standard to prevent coolant from infiltrating into the spindle, improving spindle durability.

#### Max. spindle speed

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

**NLX 2000** 5,000 min<sup>-1</sup>

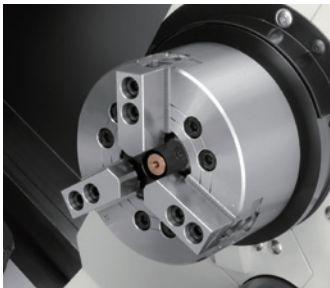
#### Standard chuck size

**NLX 1500** 6 inches

**NLX 2000** 8 inches

## Spindle 2

**SMC** **SY**



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>

#### Standard chuck size

**NLX 1500/NLX 2000** 6 inches

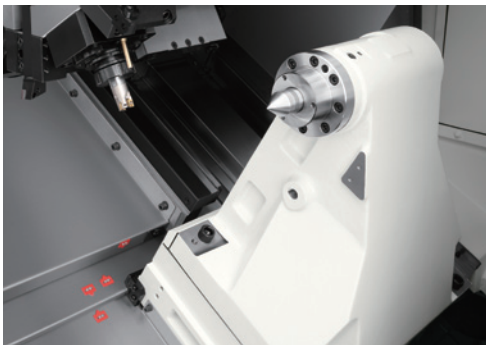
## Tailstock

**MC** **Y**



### 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

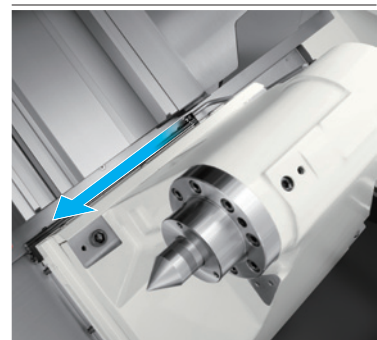
#### Setup time

Reduced by over 50%

#### Tailstock spindle operating time

Reduced by over 20%

### Chip flushing coolant



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

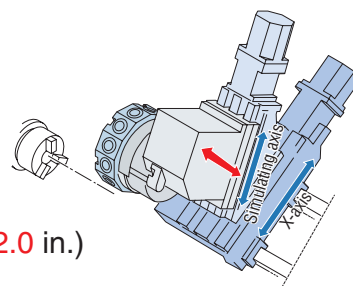
## Y-axis specifications

**Y**

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

±50 mm (±2.0 in.)





## Main features

## Turret

**BMT (Built-in Motor Turret) installed in the turret**

The turret with an optimum center of gravity location offers significantly improved tool tip rigidity.

**Max. rotary tool spindle speed**

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

**Number of tool stations**

**NLX 1500**

**12** tools

**16** tools **OP** **20** tools **OP**

**NLX 2000**

**12** tools

**10** tools **OP** **16** tools **OP**

**20** tools **OP**

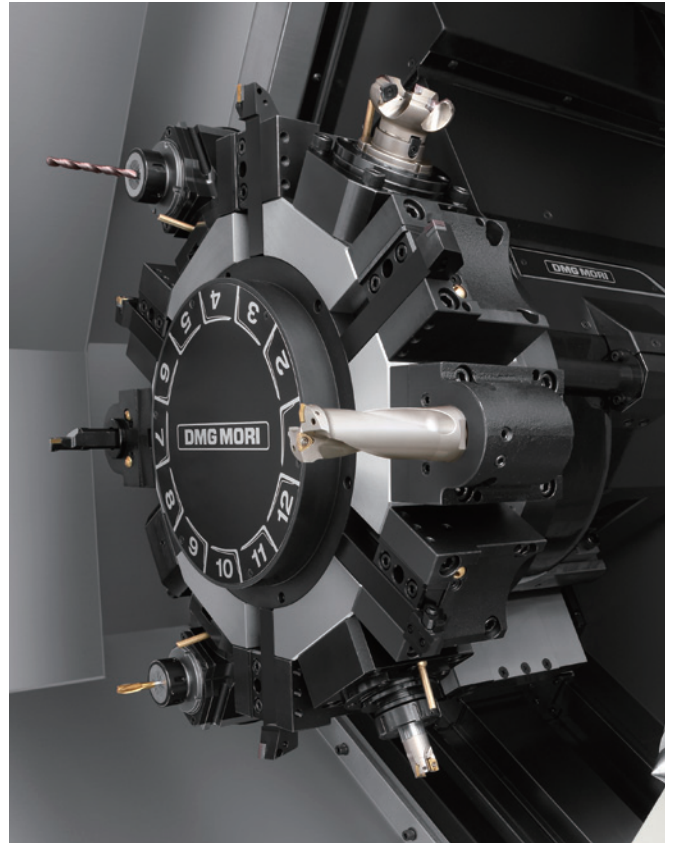
**Turret indexing time (1-station)**

**0.25** sec.

• Depending on the number and arrangement of tools, the turret indexing time may be longer.

**Overhang of O.D. cutting rotary tool**

**100** mm (**3.9** in.) **OP**

**“Mature” and “Evolved” BMT Technology**

**BMT**<sup>®</sup>  
Built-in Motor Turret

**Original technology**

- Improved milling power
- Improved milling accuracy
- Controls the turret's heat and vibration
- Reduced energy loss

**Displacement amount**

Previous model (5,000 min<sup>-1</sup>)

**3.05** μm

**NLX 2500** (10,000 min<sup>-1</sup>)

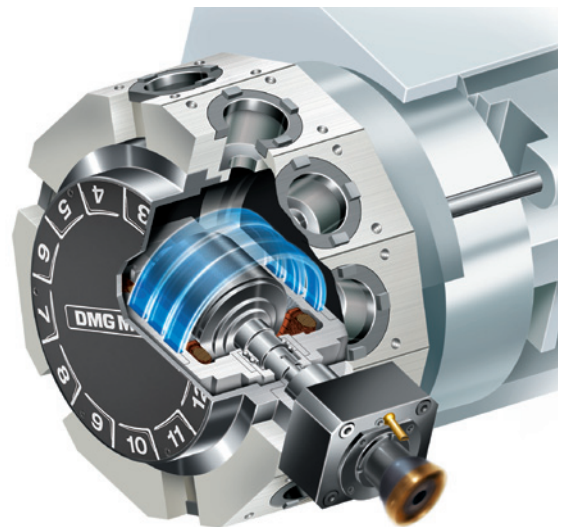
**0.43** μm

**Turret temperature increases**

Compared with conventional machine **1/10** or less

**Vibration amplitude**

Compared with conventional machine **1/3** or less





## Support for 20-station turret

OP

20-station turret specifications for long-term operation at night and complex machining

- 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.



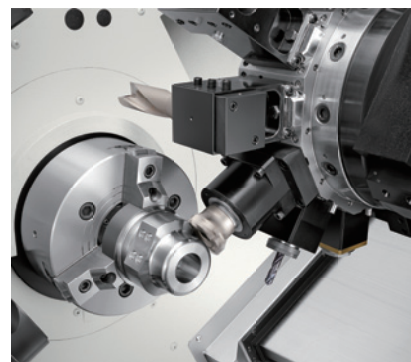
## High-precision, quick-change turret <Y, SY>

OP

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**  $\mu\text{m}/200\text{ mm}$  (7.9 in.)



## Rotary tool holders

OP

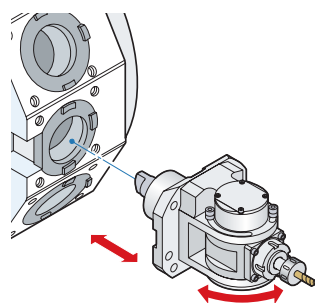
With conventional lathes, chattering occurred when the depth of cut was increased. The NLX Series, however, is equipped with rotary tool holders with improved rigidity, allowing deeper cutting than before.



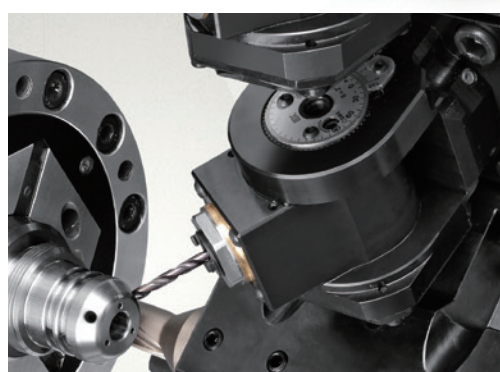
### Universal holder

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.



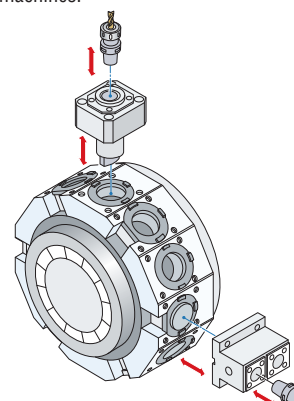
- Only suitable for the NL holder.



Inclined hole machining using a universal tool holder

### Capto-compatible holder

The Coromant Capto modular tooling system, with much faster tool-changing 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**  $\text{min}^{-1}$

### Max. rotary tool spindle torque

**NLX 1500/NLX 2000**

**29** N·m (21.4 ft·lbf) <3 min>

# High-precision equipment

## Thermal Displacement Control

Feature



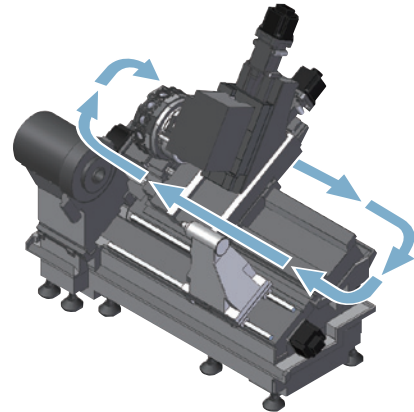
### Thorough Thermal Displacement Control

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)

OP

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.



## Direct scale feedback

OP

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



Resolution

0.01  $\mu\text{m}$ 

Magescale

High accuracy absolute scale

- High accuracy, high resolution
- Greater accuracy than optical scale
- Highly resistant to condensation and oil
- Vibration and impact resistant characteristics

### From the idea to the finished product

Simplifies every process from the idea to the finished product to facilitate operations.

- ▶ A wide variety of pre-installed applications
- ▶ 21.5" and 15.6" dual wide monitor
- ▶ New operating comfort with touch monitors

#### CELOS STATUS MONITOR

Here CELOS visualises the current condition of the machine regarding the process, provides important key figures about the current order and order progress and informs the operator with special icons and text messages about possible NC errors or imminent maintenance work

#### 21.5"

ERGOline® control panel with multi-touch monitor

Infinitely variable adjustment of the screen and the keyboard

#### MULTI-TOUCH-CONTROL PANEL

The combination of advanced software and hardware enables excellent usability and distinctive functionality.

#### SMARTkey®

Customised user authorisation. Individually adapted access privileges to the control system and the machine.  
NEW // with internal USB memory

Keys for the selection of operating mode

CELOS with 21.5" ERGOline Touch®

Release button for machine functions in operating mode

#### COMPATIBLE

Compatible with PPS and ERP systems.  
Can be networked with CAD / CAM products.  
Open to trendsetting CELOS APP extensions.

#### UNIFORM

Uniform, intuitive user interface for all high-tech machines from DMG MORI.

#### CONSISTENT

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



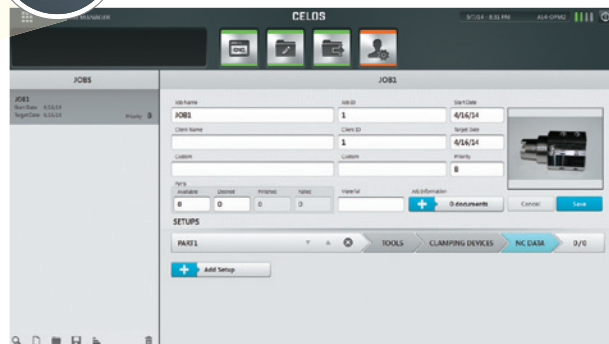
## CELOS APPs simplify fast and easy operation

### 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).



### JOB MANAGER



### WORKSHOP OF THE FUTURE

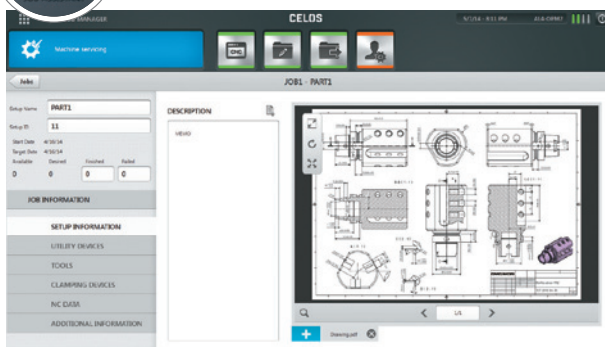
With its open structure and integration ability, CELOS offers unique opportunities for the expansion of functionality with targeted applications.

### 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.



### JOB ASSISTANT

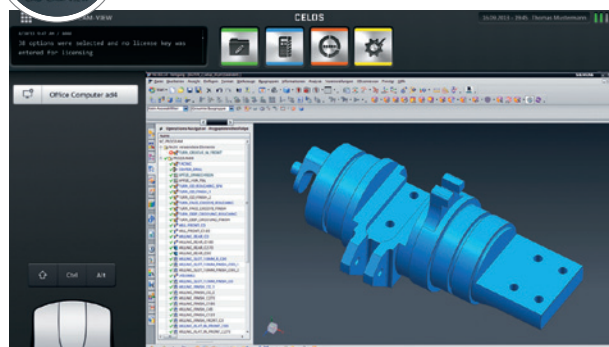


### Choosing and processing orders

- > 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



### CAD-CAM VIEW



### 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)

Item			NLX 1500MC   500	NLX 1500Y   500	NLX 1500SMC   500	NLX 1500SY   500
Capacity	Swing over bed	mm (in.)	923.8 (36.4) <interference with front cover 626 (24.6)>			
	Swing over cross slide	mm (in.)	755 (29.7)			
	Max. turning diameter	mm (in.)	386 (15.1)* <sup>1</sup> 366 (14.4)* <sup>2</sup> [278 (10.9) <20-station turret head>]			
	Standard turning diameter	mm (in.)	260 (10.2)* <sup>1</sup> 271 (10.6)* <sup>2</sup> [192 (7.5) <20-station turret head>]			
	Max. turning length	mm (in.)	515 (20.2)			
	Bar work capacity	mm (in.)	52 (2.0)* <sup>3</sup> [34 (1.3) <8,000 min <sup>-1</sup> >* <sup>3</sup> ]			
Travel	X-axis travel	mm (in.)	260 (10.2)			
	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 <sup>-1</sup>	6,000 [6,000 <high output>] [8,000 <high speed>]		Spindle 1: 6,000 [6,000 <high output>] [8,000 <high speed>] Spindle 2: 6,000 [8,000 <high speed>]	
	Type of spindle nose		JIS A2-5		Spindle 1, 2: JIS A2-5	
	Through-spindle hole diameter	mm (in.)	61 (2.4) [43 (1.7) <8,000 min <sup>-1</sup> >]		Spindle 1: 61 (2.4) [43 (1.7) <8,000 min <sup>-1</sup> >] Spindle 2: 43 (1.7)	
	Min. spindle indexing angle		0.001°			
	Spindle bearing inner diameter	mm (in.)	100 (3.9) [85 (3.3) <8,000 min <sup>-1</sup> >]		Spindle 1: 100 (3.9) [85 (3.3) <8,000 min <sup>-1</sup> >] Spindle 2: 85 (3.3)	
Turret	Number of tool stations		12 [16] [20]			
	Shank height for square tool	mm (in.)	20 ( <sup>3</sup> / <sub>4</sub> )/25 (1)			
	Shank diameter for boring bar	mm (in.)	40 (1½)/50 (2) [25 (1) <double boring holder>] [32 (1¼) <20-station turret head>]		Spindle 1: 40 (1½)/50 (2) [25 (1) <double boring holder>] Spindle 2: 32 (1¼) [25 (1) <20-station turret head>]	
	Tool shank diameter for rotary tool	mm (in.)	26 (1.0)			
	Turret indexing time	s	0.25			
	Max. rotary tool spindle speed	min <sup>-1</sup>	10,000 [10,000 <high torque>]			
Feedrate	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>	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>	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	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	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>	
		8,000 min <sup>-1</sup> kW (HP)	[11/7.5 (15/10) <25%ED/cont>]		Spindle 1, 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 Trifix): 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)
Power sources <standard>	Electrical power supply <cont>	I94333A01 kVA	21.5	24.8	25.7	29.0
	Compressed air supply	MPa (psi), 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>		0.5 (72.5), 250 (66.0) (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.)	220 (58.1)			
Machine size	Machine height <from floor>	mm (in.)	2,145 (84.4)			
	Floor space <width>depth>	mm (in.)	2,820×2,081 (111.0×81.9) [3,562×2,081 (140.2×81.9) <including chip conveyor>]			
	Mass of machine	kg (lb.)	4,900 (10,780)	5,000 (11,000)	5,300 (11,660)	5,400 (11,880)

[ ] Option JIS: Japanese Industrial Standard

\*1 When the shank height for a square tool is 20 mm (3/4 in.) and the tool overhang is 30 mm (1.2 in.).

\*2 When the shank height for a square tool is 25 mm (1 in.) and the tool overhang is 35 mm (1.4 in.).

\*3 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 &lt;air pressure: 0.7 MPa (101.5 psi), pressure dew point: 10 °C (50 °F) or below&gt;.

● 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.

● The information in this catalog is valid as of May 2014.

Machine specifications (NLX 2000)

Item			NLX 2000MC   500	NLX 2000Y   500	NLX 2000SMC   500	NLX 2000SY   500
Capacity	Swing over bed	mm (in.)	923.8 (36.4) <interference with front cover 626 (24.6)>			
	Swing over cross slide	mm (in.)	755 (29.7)			
	Max. turning diameter	mm (in.)	366 (14.4)* <sup>1</sup> 356 (14.0)* <sup>2</sup> [278 (10.9) <20-station turret head>]			
	Standard turning diameter	mm (in.)	271 (10.6)* <sup>1</sup> 275 (10.8)* <sup>2</sup> [192 (7.5) <20-station turret head>]			
	Max. turning length	mm (in.)	510 (20.0)			
	Bar work capacity	mm (in.)	65 (2.5)* <sup>3</sup>			
Travel	X-axis travel	mm (in.)	260 (10.2)			
	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.)	—			
Spindle	Max. spindle speed	min <sup>-1</sup>	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°			
	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 ( <sup>3</sup> / <sub>4</sub> ) <20-station turret head>]			
	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> ) <20-station turret head>]		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) <20-station turret head>]	
	Tool shank diameter for rotary tool	mm (in.)	26 (1.0)			
	Turret indexing time	s	0.25			
	Max. rotary tool spindle speed	min <sup>-1</sup>	10,000 [10,000 <high torque>]			
Feedrate	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>	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>	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	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 <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 Trifix): 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)
Power sources <standard>	Electrical power supply <cont>	94333A01 kVA	25.4	28.7	29.6	32.9
	Compressed air supply	MPa (psi), 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>		0.5 (72.5), 250 (66.0) (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.)	220 (58.1)			
Machine size	Machine height <from floor>	mm (in.)	2,145 (84.4)			
	Floor space <width×depth>	mm (in.)	2,820×2,081 (111.0×81.9) [3,562×2,081 (140.2×81.9) <including chip conveyor>]			
	Mass of machine	kg (lb.)	5,000 (11,000)	5,100 (11,220)	5,400 (11,880)	5,500 (12,100)

[ ] 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.).  
\*3 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.  
● 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.



## <Precautions for Machine Relocation>

**EXPORTATION:** All contracts are subject to export permit by the Government of Japan. Customer shall comply with the laws and regulations of the exporting country governing the exportation or re-exportation of the Equipment, including but not limited to the Export Administration Regulations. The Equipment is subject to export restrictions imposed by Japan and other exporting countries and the Customer will not export or permit the export of the Equipment anywhere outside the exporting country without proper government authorization. To prevent the illegal diversion of the Equipment to individuals or nations that threaten international security, it may include a "Relocation Machine Security Function" that automatically disables the Equipment if it is moved following installation. If the Equipment is so-disabled, it can only be re-enabled by contacting DMG MORI SEIKI or its distributor representative. DMG MORI SEIKI and its distributor representative may refuse to re-enable the Equipment if it determines that doing so would be an unauthorized export of technology or otherwise violates applicable export restrictions. DMG MORI SEIKI and its distributor representative shall have no obligation to re-enable such Equipment. DMG MORI SEIKI and its distributor representative shall have no liability (including for lost profits or business interruption or under the limited service warranty included herein) as a result of the Equipment being disabled.

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- The information in this catalog is valid as of May 2014. Designs and specifications are subject to changes without notice.
- 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.

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