Price List

NLX 2500 | 700

Highlights

- Slideways are used for all axes
- Coolant circulation inside the castings controls thermal displacement
- With BMT (Built-in Motor Turret), milling capability is comparable to machining centers
- Y-axis travel: ±50 mm (Y axis spec.)
- Max. turning length 705 mm
- Right Spindle max. spindle speed: 6,000 min-1 (Right Spindle Spec.)

Investment summary

Machine and Options				
Basic Machine				
NLX 2500 | 700 <Premium Design> - Milling Specification	J-A01439	1	133,000.00	USD
Control				
Mitsubishi_M730UM with CELOS	J-006140	1	0.00	USD
CELOS - ERGOline Touch	J-003261	1	0.00	USD
Spindle				
(Left Spindle) High-output Spindle 26/26/22 kW, 4,000min-1	J-063348	1	2,640.00	USD
(Right Spindle) Standard Spindle 11/7.5 kW, 6,000min-1	J-016104	1	23,200.00	USD
Chuck for Left spindle (Main spindle)				
(Left Spindle) KITAGAWA 10in. Hollow Chuck BR10A821 (Through-spindle hole diameter : 81 mm) (SK-OP)	J-013368	1	2,320.00	USD
(Left Spindle) KITAGAWA Hollow Cylinder set for KITAGAWA 10in. Hollow Chuck BR10A821 / BR10-21A (Bar work capacity dia. 80 mm (3.14 inch)) (without chuck body)	J-013383	1	5,960.00	USD
Chuck for Right spindle (Counter spindle)				
(Right Spindle) KITAGAWA 6in. Hollow Chuck BR06A521E (Through-spindle hole diameter : 53 mm)	J-013419	1	1,820.00	USD
(Right Spindle) HOWA Solid Cylinder set for KITAGAWA 6in. Hollow Chuck BR06A521E (without chuck body)	J-013426	1	5,190.00	USD
Options for Turret				
Turret : Y-axis	J-016112	1	16,750.00	USD
Rotary tool spindle 40/ 14 Nm, 10,000 min-1	J-020756	1	0.00	USD
12-station bolt-tightened turret (standard specification) (Y, SY, SMC)	J-016106	1	0.00	USD
Overhang of O.D. cutting rotary tool: 100 mm (limited Y-axis travel)	J-002560	1	860.00	USD
Tailstock				
Right Spindle tailstock specifications (SK-OP)	J-063506	1	1,930.00	USD
Coolant supply / Chip removal				
Usable Coolant Type: Water-Soluble Coolant	J-G00428	1	0.00	USD
Interface for Chip conveyor (right discharge)	J-063416	1	600.00	USD
High-pressure coolant system (800/ 1,100 W)	J-002147	1	355.00	USD
Interface for Super-high-pressure coolant system (7.0 MPa, Variable Pressure Steps, ChipBLASTER)	J-063424	1	3,440.00	USD
Without Coolant chiller	J-014458	1	0.00	USD
Interface for Mist collector (duct only, dia. 150 mm)	J-005079	1	655.00	USD
Measuring / Monitoring				
Manual in-machine tool presetter (Swing type) (STD)	J-017110	1	0.00	USD
Manual in-machine tool presetter (removable type) (Right Spindle)	J-017114	1	0.00	USD
Automation				
Signal lamp 4 colors (Red, yellow, green, blue)	J-004166	1	495.00	USD

* further description see attachment

Standard workpiece unloader (built-in type)	J-020288	1	0.00	USD
Right Spindle workpiece ejector (SK-OP)	J-020210	1	0.00	USD
Interface for EtherNet/IP (SK-OP)	J-015384	1	850.00	USD
Interface for Bar feeder (EtherNet/IP Interface)with terminal block for power supply, TYPE5	J-020320	1	1,050.00	USD
Voltage of Bar feeder Interface : 220 V	J-056320	1	0.00	USD
General Options				
Voltage of Customer Factory 220 V	J-G00951	1	0.00	USD
Frequency 60 Hz	J-G00961	1	0.00	USD
Setting Unit inch	J-004472	1	0.00	USD
Technology Cycle				
Alternating speed	J-015571	1	840.00	USD
Options for Control				
Addition of optional block skip (soft key type 2-9)	J-008201	1	350.00	USD
X-Axis Direction JIS / ISO Standard	J-G00618	1	0.00	USD
Screen Text Language				
Screen display English	J-000080	1	0.00	USD
Price machine and options			**202,305.00**	**USD**

Services				
Options for MAPPS / SIEMENS / CELOS Control*				
IoTconnector (SK-OP)	J-011731	1	0.00	USD
NETservice (SK-OP)	J-011732	1	0.00	USD
Machine Data Connector (MDC) (SK-OP)	J-011734	1	0.00	USD
Special constructions services				
DMFS FFP Costing	SK001	1	12,927.00	USD
DMFS Price Federal Compliance	SK002	1	8,618.00	USD
Sales company services				
SV1: Standard Machine Installation	Z-COST01	1	0.00	USD
DMG MORI Precision Protection Program	Z-COST05	1	12,139.00	USD
DMG MORI Connect	Z-COST06	1	1,000.00	USD
EG1: Standard Machine Training	Z-COST07	1	0.00	USD
Price services			**34,684.00**	**USD**

Price machine and options	**202,305.00**	**USD**
Price services	**34,684.00**	**USD**
Total price	**236,989.00**	**USD**

* further description see attachment

DMG MORI Connect

Streamline your production process while maximizing output and machine lifecycle.
2 years of service included during standard machine warranty.

DMG MORI Messenger Cloud

- Real time monitoring and history analysis platform
- Convenient web access from PCs and mobile devices
- Simple data exports for in-depth evaluation and reporting

DMG MORI NET*service*

- Remote diagnosis supported by DMG MORI service experts
- Immediate and direct support minimizes downtime and service costs
- Secure encrypted connection

YouTube video

* further description see attachment

DMG MORI
NLX 2500 | 700

Machine and Options			USD	USD
Basic Machine				
NLX 2500 | 700 - Milling Specification	J-A01439*	1		133,000.00
Control				
Control M730UM with CELOS (NLX2500) Control unit: Mitsubishi M730UM Operation system: CELOS (MAPPS V)	J-006140*	1		0.00
CELOS - ERGOline Touch It is a machine operation panel with 21.5-inch multi touch screen, which realizes comfortable operability. It documents, visualizes and centrally manages the order, process and machine data, allowing the networking with CAD/CAM and also the function extension using applications. The user-friendly, highly-productive MAPPS system is installed.	J-003261*	1		0.00
Spindle				
(Left Spindle) High-Output Spindle 26/26/22 kW, 4,000 min-1 The NLX 2500 adopts a highly reliable spindle designed to minimize thermal displacement. The advanced spindle labyrinth structure and the spindle air purge adopted for the machine (option for the 2-axis turning specification) achieves the highly durable spindle by preventing coolant from entering the spindle. Max. spindle speed: 4,000 min-1 Spindle nose type: JIS A2-8 Through-spindle hole diameter: Φ 91 mm (dia.3.58 inch.) Min. spindle indexing angle: 0.001° Spindle drive motor: 26/26/22 kW (34.7/34.7/30 HP) (25% ED/50% ED/cont) Spindle torque: 709/500/409 Nm (522.93/368.78/301.66 ft·lbf) (10 min/30 min/cont)	J-063348	1		2,640.00

* further description see attachment

(Right Spindle) Standard Spindle 11/7.5 kW, 6,000 min-1 The Right Spindle specification enables continuous machining of both surfaces. The combination of rotary tools and the Y-axis function enables integrated machining from turning to secondary/back face machining, and multi-axis machining, allowing for process integration. Max. spindle speed: 6,000 min-1 Spindle nose type: JIS A2-5 Through-spindle hole diameter: Φ 43 mm (dia.1.69 inch.) Min. spindle indexing angle: 0.001° Spindle drive motor: 11/7.5 kW (15/10 HP) (25% ED/cont) Spindle torque: 77.8/53.1 Nm (57.38 / 39.16 ft·lbf) (25% ED/cont) Air blow for chuck (right spindle): included as standard.	J-016104	1	23,200.00

Chuck for Left spindle (Main spindle)

(Left Spindle) KITAGAWA 10-inch Hollow Chuck BR10A821 Three-jaw hydraulic chuck manufactured by Kitagawa Iron Works. Chuck outer diameter: Φ254 mm (dia.10 inch.) Through-hole diameter: Φ81 mm (dia. 3.18 inch.) Gripping diameter: Max. Φ254 mm (dia.10 inch.), Min. Φ31 mm (dia.1.22 inch.) Jaw stroke (diameter): 8.8 mm (0.35 inch.) Plunger stroke: 19 mm (0.75 inch.) Max. allowable pull force: 49 kN (11.01 klbf) Max. static gripping force: 123 kN (27.64 klbf) Dynamic gripping force at max. speed: 44 kN (9.88 klbf) Max. allowable speed: 4,500 min-1 Mass: 40.9 kg (89.99 lb.) *The data above are information on the chuck body. Since it may be limited by this machine specification, please check the contents of the mounted cylinder set for details. Attention! Please pay attention to the maximum clamping force of the chuck.	J-013368	1	2,320.00

* further description see attachment

(Left Spindle) KITAGAWA Hollow Cylinder set for KITAGAWA 10in. Hollow Chuck BR10A821 / BR10-21A (Bar work capacity dia. 80 mm (3.14 inch)) (without chuck body) Hollow cylinder and draw bar are included as a set. Chuck is not included. Please see the chuck-cylinder combination diagram for the combination with chuck and the specification. Attention! Please pay attention to the maximum clamping force of the chuck.	J-013383	1	5,960.00

Chuck for Right spindle (Counter spindle)

(Right Spindle) KITAGAWA 6-inch Hollow Chuck BR06A521E Three-jaw hydraulic chuck manufactured by Kitagawa Iron Works. Chuck outer diameter: Φ170 mm (dia.6.69 inch.) Gripping diameter: Max. Φ170 mm (dia.6.69 inch.), Min. Φ16 mm (dia.0.63 inch.) Jaw stroke (diameter): 5.5 mm (0.22 inch.) Plunger stroke: 12 mm (0.47 inch.) Max. allowable pull force: 23 kN (5.16 klbf) Max. static gripping force: 58.5 kN (13.14 klbf) Dynamic gripping force at max. speed: 22.5 kN (5.05 klbf) Max. allowable speed: 6,000 min-1 *The data above are information on the chuck body. Since it may be limited by this machine specification, please check the contents of the mounted cylinder set for details. Attention! Please pay attention to the maximum clamping force of the chuck.	J-013419	1	1,820.00
(Right Spindle) HOWA Solid Cylinder set for KITAGAWA 6in. Hollow Chuck BR06A521E (without chuck body) Solid cylinder and draw bar are included as a set. Chuck is not included. Please see the chuck-cylinder combination diagram for the combination with chuck and the specification. Attention! Please pay attention to the maximum clamping force of the chuck.	J-013426	1	5,190.00

* further description see attachment

Options for Turret

Turret Y-axis Specification It moves the turret in the Y-axis direction. In combination with the rotary tool spindle and right spindle, it implements process integration for workpieces with complicated shapes. Please refer to the turret interference diagrams for the movable region. Travel: ± 50 mm (± 1.97 inch.) Rapid traverse rate: 10 m/min (393.7 ipm)	J-016112	1	16,750.00
Rotary Tool Spindle 40/14 Nm (29.5/10.33 ft·lbf), 10,000 min-1 Rotary tool spindle for the 10/12-station in-house bolt-tightened turret specification. BMT (Built-In Motor Turret) is installed with the milling specification, and the cooling jacket suppresses heat generation to implement excellent machining accuracy. Rotary tool machining ability: drill Φ 26 mm (dia.1.02 inch.), tap M20 Rotary tool spindle output: 5.5/5.5/3.7 kW (7.5/7.5/5 HP) (3 min/5 min/cont) Rotary tool spindle torque: 40/30/14 Nm (29.5/22.13/10.33 ft·lbf) (3 min/5 min/cont)	J-020756	1	0.00
12-Station Bolt-Tightened Turret (Standard Specification) (Y, SY, SMC) In-house 12 station turret. Please refer to the axis travel diagrams and turret interference diagrams for the movable region. Number of tool stations: 12 Shank height for square tool: 25 mm (0.98 inch.) Shank diameter for boring bar: Left spindle side dia. 50 mm (dia. 1.97 inch.) Right spindle side dia. 32 mm (dia.1.26 inch.) Turret indexing time (1 station): 0.27 seconds Method for mounting tool on turret: Bolt-tightened BMT60	J-016106*	1	0.00

* further description see attachment

Overhang of O.D. Cutting Rotary Tool: 100 mm (3.94 inch.) (Y-axis Travel Restriction) The specification to increase the overhang of O.D. cutting rotary tool from 50 mm (1.97 inch.) to 100 mm (3.94 inch.). The machining chamber rear cover is partially modified to prevent interference of the rotary tool. *The Y-axis stroke is restricted for the use in combination with the Y-axis specification. (See Turret Interference Diagrams) *Please consult DMG MORI when using this specification with the 20 station turret, as the interference with the right spindle chuck may occur. *Please consult DMG MORI when using this specification with the 20-station turret, as the Z-axis stroke may changes.	J-002560	1	860.00

Tailstock

Right Spindle Tailstock Specification The specification to push a workpiece by the center mounted in the Right Spindle chuck. This allows you to machine the tip of the workpiece. When using Right Spindle as a tailstock, the motor equipped with a brake is installed as the spindle may be pushed back. *The center is not included. Please purchase it separately.	J-063506	1	1,930.00

Coolant supply / Chip removal

Applicable Coolant Type: Water-Soluble Coolant If the oil-based coolant is used with the water-soluble coolant specification, it may cause poor accuracy, machine troubles or fire. It is necessary to select the oil-based coolant specification for using the oil-based coolant.	J-G00428	1	0.00
Interface for Chip Conveyor (Right Discharge) I/F to install the hinge- or scraper-type conveyor. The discharge port is on the right side of the machine. The chip conveyor is not included. Please purchase it separately. The in-machine chip tray is included.	J-063416	1	600.00
High-Pressure Coolant System (800/1,100 W) It improves the chip removing performance in cutting and the tool/workpiece cooling capability. The pump for supplying coolant to the turret is changed to the high-pressure specification (output: 800/1,100 W (50/60 Hz)). Max. pump pressure: 0.8 MPa (116 psi)	J-002147	1	355.00

* further description see attachment

Interface for Super-High-Pressure Coolant System (8 Steps Pressure) (Separate Type)(Auto-Switching from/to Standard Coolant Pump) Interface for mounting the high-pressure coolant system (separate type). The electrical components and coolant piping are included. The predefined 8 steps of pressure can be selected by the M-code. Max. discharge pressure: 7 MPa (1,015 psi) *The high pressure coolant unit is not included. *Please prepare the power source supplied to the high pressure coolant unit separately. *When using the high-pressure coolant system, the machining accuracy may be influenced by a rise in the coolant temperature. Select the coolant chiller and mist collector to reduce the influence on the machining accuracy.	J-063424	1	3,440.00
Without Coolant chiller If the coolant chiller is not selected, the units (spindle, tool post) inside the machine might be heated by the coolant, and thermal displacement might cause defective machining dimensions. Please select “Coolant Chiller” which is recommended option.	J-014458	1	0.00
Mist Collector Interface (Duct Only, Φ150 mm (dia.5.91 inch.)) I/F for mounting the mist collector that collects, absorbs and dehydrates mist, dust particles and oily fumes generated during machining using the filter. This specification includes the duct from the duct hose outlet to the machine body only. The mist collector, duct hose, drain hose, stand, fixture and electrical components set are not included.	J-005079	1	655.00

Measuring / Monitoring

Manual In-machine Tool Presetter (Swing type) (Standard) It simplifies the complicated setup work at the tool change. The position of the tool nose is measured precisely by just bringing the tool nose into contact with the sensor, and the measured value is fed back to NC. The Tool Presetter can be tilted to the chuck cover side when not used.	J-017110	1	0.00
Manual in-machine tool presetter (removable type) (Right Spindle)	J-017114	1	0.00

* further description see attachment

Automation

Signal Lamp 4 Colors (Red, Yellow, Green, Blue) The machine status is indicated by the LED color. It is mounted at top front of machine so that it is visible from a distance. The power-saving, maintenance-free LEDs with a viewing angle of 360 degree is adopted. The color specification can be selected from the following two types: <Type 1> - Red: Various alarms - Yellow: Program end (M02/M30) - Green: Automatic mode operation <Type 2 (Standard)> - Red: Various alarms - Yellow: The cycle start prohibited - Green: Automatic mode operation - Blue: During Operation mode 2/3 being selected *Buzzer function is not included. Please select the "Signal Lamp Buzzer" specification separately.	J-004166	1	495.00
Standard Workpiece Unloader (Built-in Type) This device automatically receives the completed workpiece and carries it outside the machine. Unmanned consecutive operation is possible by combining it with a bar feeder (separate option). Can be operated in conjunction with the workpiece conveyor (separate option). Max workpiece diameter: 80 mm (3.15 inch.) Max workpiece length: 200 mm (7.87 inch.) Max workpiece mass: 3 kg (6.6 lb.) Manual mode operation method): by soft key. Automatic mode operation method: by M-code. *Can only be operated with door closed. *With workpiece length 20 mm (0.79 inch.) or less, the workpiece may not unload properly. For such workpieces, consult with DMG MORI in advance.	J-020288	1	0.00
Right Spindle Workpiece Ejector It is an option for Right Spindle specifications, and ejects a workpiece by pneumatically actuating a shaft inside right spindle. The end block can be replaced by the customer.	J-020210	1	0.00

* further description see attachment

EtherNet/IP I/F I/F for exchanging control signals between the machine and peripheral equipment using the EtherNet/IP communication protocol. It is necessary for connecting the peripheral equipment that supports EtherNet/IP. The wiring is saved compared to normal hard wiring communication as the control signals are exchanged via the EtherNet communication. This specification includes I/F for receiving and executing emergency stop signals transmitted from peripheral equipment via separate non-LAN cable. *The LAN cable between the machine and peripheral equipment is not included. *When the machine is shipped, the circuit is short-circuited if there is no external device connected. Please make sure to remove the jumper wire when installing machine at the customer's factory.	J-015384	1	850.00

* further description see attachment

Interface for Bar Feeder (EtherNet/IP Interface) With Terminal Block for Power Supply, TYPE5 The connection I/F using EtherNet/IP, for the bar feeder which automatically supplies bar stock to improve the productivity. Bar feeder body is not included in this specification. (Caution) It is necessary to arrange the guide bush or guide pipe by separate quotation. *Because the guide bush is solid, please machining it according to the inner diameter required by the customer. *When arranging the guide pipe, specify the pipe inner diameter in advance. *In automated machine operations using the bar feeder, the machine door or shutter is not opened or closed for long hours. As a result, a temperature inside the machine can rise, affecting machining accuracy. So the mist collector is recommended that can prevent the temperature from rising. *When using a bar feeder that cannot discharge the remaining material inside the bar feeder equipment, please arrange a workpiece unloader separately because it is necessary to discharge the remaining material into the machine. (Although DMGMORI do not recommend it, when discharging the remaining material by dropping it onto chip conveyor without a workpiece unloader, please cut down the remaining material as much as possible before dropping it onto chip conveyor. (If the remaining material is too long, it may get caught in chip conveyor and cause chip conveyor to break prematurely.) *When the machine is shipped, the circuit is short-circuited if there is no external device connected. Please make sure to remove the jumper wire when installing machine at the customer's factory.	J-020320	1	1,050.00
Voltage of Bar feeder Interface : 220 V	J-056320	1	0.00

General Options

Voltage of Customer Factory 220 V This machine is shipped with voltage set to 220 V specification. (Caution) IF the setting is incompatible, there is a possibility of trouble such as operation abnormality and alarm occurrence. Be sure to check the supply voltage and frequency of the customer's factory.	J-G00951	1	0.00

* further description see attachment

Frequency 60 Hz This machine is shipped with frequency set to 60 Hz specification. (Caution) IF the setting is incompatible, there is a possibility of trouble such as operation abnormality and alarm occurrence. Be sure to check the supply voltage and frequency of the customer's factory.	J-G00961	1	0.00
Setting Unit, Inch The unit to be used for the screen display and program commands is set to "inch". Turning: "Inch" specification for the turret	J-004472	1	0.00

Technology Cycle

Alternating Speed It can suppress regenerative chattering by fluctuating spindle speed. The cycle is automatically calculated only by setting the fluctuation width in the guidance screen. *Regenerative chatter is created by excitation resulting from the fluctuation in chip thickness. In general, the spindle speed needs to be adjusted as a countermeasure for keeping the chip thickness constant. This function is not available when left and right spindles are synchronized(M34 or M35 command)	J-015571	1	840.00

Options for Control

Addition of Optional Block Skip (Soft Key Type 2-9) 8 optional block skip functions are added. The switches for enabling/disabling them is added on the operation panel. (How to Use) By programming a slash “/” and the number (/n (n=2 to 9)) following it at the beginning of a block and turning on the optional block skip switch with the same number as programmed on the screen or machine operation panel, the information of the block is ignored in the DNC or memory operation. Turning off the optional block skip switch n enables the information of the block with n. Namely, the block including /n can be skipped by the operator’s selection.	J-008201	1	350.00
X-axis Direction, JIS/ISO-compliant The X-axis movement direction is compliant with the JIS/ISO standard.	J-G00618	1	0.00

* further description see attachment

Screen Text Language

Screen display English Language on MAPPS Screen: English Language on MAPPS Warning Screen: English Language on NC Screen: English Language on PC Screen: English	J-000080	1	0.00

Price machine and options	**202,305.00**

Services			USD	USD
Options for MAPPS / SIEMENS / CELOS Control*				
IoTconnector The IoTconnector allows the use of online services of DMG MORI (e.g. NETservice)	J-011731*	1		0.00
NETservice A software installed on IoTconnector for qualified support by Internet-based remote diagnostics	J-011732*	1		0.00
Machine Data Connector (MDC) A software installed on IoTconnector for uniform machine data interface as an integrated function of the DMG MORI Connectivity Hardware	J-011734*	1		0.00
Special constructions services				
DMFS FFP Costing	SK001	1		12,927.00
DMFS Price Federal Compliance	SK002	1		8,618.00
Sales company services				
SV1: Standard Machine Installation	Z-COST01	1		0.00
DMG MORI Precision Protection Program	Z-COST05	1		12,139.00
DMG MORI Connect A 2-year subscription of DMG MORI connectivity software: + Messenger Cloud - Machine monitoring through web application + NETservice 4.0 - Remote service by DMG MORI Hotline via CELOS APP *NETservice is only available on machines with IoTconnector	Z-COST06	1		1,000.00
EG1: Standard Machine Training	Z-COST07	1		0.00

Price services	**34,684.00**

Price machine and options	**202,305.00**
Price services	**34,684.00**

* further description see attachment

Total price	**236,989.00**
	==========

* further description see attachment

Attachment

Technical Description

J-A01439

Basic machine NLX 2500 | 700 - Milling Specification

The specifications below apply to a basic machine without additional options. Specifications in square brackets [ ] are values or features for a machine with additional options.

Capacity

Swing over bed	mm (in.)	920 (36.2) <Interfere with front cover: 589 (23.2)>
Swing over cross slide	mm (in.)	742 (29.2)
Maximum turning diameter:		
- For 35mm(1.4in.) overhang of O.D. cutting tool	mm (in.)	366 (14.4)
- For 40mm(1.5in.) overhang of O.D. cutting tool	mm (in.)	356 (14.0)
- 16-station turret	mm (in.)	[348 (13.7)]
- 20-station turret	mm (in.)	[278 (10.9)]
Standard turning diameter:		
- For 35mm(1.4 in.) overhang of O.D. cutting tool	mm (in.)	330 (12.9)
- For 40mm(1.5in.) overhang of O.D. cutting tool	mm (in.)	335 (13.1)
- 12-station turret <For 35mm(1.4 in.) overhang of O.D. cutting tool>	mm (in.)	[271 (10.7)]
- 12-station turret <For 40mm(1.5in.) overhang of O.D. cutting tool>	mm (in.)	[275 (10.8)]
- 16-station turret	mm (in.)	[206 (8.1)]
- 20-station turret	mm (in.)	[192 (7.6)]
Maximum turning length	mm (in.)	705 (27.7)
Bar work capacity:		
- Standard	mm (in.)	80 (3.1)
- Through-spindle hole diameter 111 mm (4.3 in.)	mm (in.)	[90 (3.5)] [102 (4.0)]

Travel

X-axis	mm (in.)	260 (10.2)
Z-axis	mm (in.)	795 (31.3)
Y-axis	mm (in.)	[±50 (±2.0)]
Right Spindle <B-axis>	mm (in.)	[734 (28.9)]

Left Spindle

Maximum spindle speed		
- Standard	min^{-1}	4,000
- High output	min^{-1}	[4,000]
- Through-spindle hole diameter 111 mm (4.3 in.)	min^{-1}	[2,500]
Type of spindle nose		JIS A_2-8
Through-spindle hole diameter	mm (in.)	91 (3.5) [111 (4.3)]
Spindle bearing inner diameter	mm (in.)	140 (5.5)
Minimum spindle indexing increment	deg.	0.001

Right Spindle (Option)

Maximum spindle speed:		
- Standard	min^{-1}	[6,000]
- Through-spindle hole diameter 73 mm (2.8 in.)	min^{-1}	[5,000]
Type of spindle nose:		
- Standard		[JIS A_2-5]
- Through-spindle hole diameter 73 mm (2.8 in.)		[JIS A_2-6]
Through-spindle hole diameter:		
- Standard	mm (in.)	[43 (1.6)]
- Through-spindle hole diameter 73 mm (2.8 in.)	mm (in.)	[73 (2.8)]
Spindle bearing inner diameter:		
- Standard	mm (in.)	[85 (3.3)]
- Through-spindle hole diameter 73 mm (2.8 in.)	mm (in.)	[120 (4.7)]
Minimum spindle indexing increment	deg.	[0.001]

Turret

Number of tool stations	tools	10 [12] [16] [20]
Shank height for square tool:		
- Standard	mm (in.)	25 (1.0)
- 16, 20-station Turret	mm (in.)	[20 (0.8)]
Diameter of boring bar shank part:		
- Standard	mm (in.)	50 (2.0) <Right Spindle side: 32 (1.3)>
- Double boring bar holder	mm (in.)	[32 (1.3)]
- 16-station Turret	mm (in.)	[25 (1.0)]
- 20-station Turret	mm (in.)	[32 (1.3)]
Turret Indexing time	sec	0.27
Maximum rotary tool spindle speed	min^{-1}	10,000

Feedrate

Rapid traverse rate:		
- X-axis	mm/min (ipm)	30,000 (1,181.1)
- Z-axis	mm/min (ipm)	30,000 (1,181.1)
- Tailstock	mm/min (ipm)	Retract: 20,000 (787.4) Extend: 7,000 (275.6)
- Y-axis	mm/min (ipm)	[10,000 (393.7)]
- B-axis	mm/min (ipm)	[30,000 (1,181.1)]

Tailstock

Tailstock travel	mm (in.)	734 (28.9)
Taper hole of tailstock spindle:		
- Live center		MT5
- Built-in center		[MT4]

Motors

Left Spindle drive motor:		
- Standard <25%ED/50%ED/cont>	kW (HP)	18.5/18.5/15 (24.7/24.7/20)
- High output <10 min/30 min/cont>	kW (HP)	[26/26/22 (34.7/34.7/30)]
- Through-spindle hole diameter 111 mm (4.3 in.) <30 min/cont >	kW (HP)	[22/18.5 (30/24.7)]
Right Spindle drive motor:		
- Standard <25%ED/cont>	kW (HP)	[11/7.5 (15/10)]
- Through-spindle hole diameter 73 mm (2.8 in.) <25%ED/cont>	kW (HP)	[11/7.5 (15/10)]
Rotary tool spindle drive motor:		
- 10-station bolt-tightened turret specification <3 min/5 min/cont>	kW (HP)	5.5/5.5/3.7 (7.5/7.5/5)
- 12-station bolt-tightened turret specification <25%ED/100%ED>	kW (HP)	[5.5/4.2 (7.5/5.6)]
- 10-station bolt-tightened turret, 16-station VDI turret, and 20-station bolt-tightened turret specifications <3 min/5 min/cont>	kW (HP)	[5.5/5.5/3.7 (7.5/7.5/5)]
- 12-station VDI quick-change turret (Sauter Trifix) specification <15%ED/100%ED>	kW (HP)	[10.7/6.1 (14.3/8.1)]
Feed motor:		
- X-axis	kW (HP)	2.0 (2.7)
- Z-axis	kW (HP)	3.0 (4.0)
- Tailstock	kW (HP)	2.0 (2.7)
- Y-axis	kW (HP)	[3.0 (4.0)]
- B-axis	kW (HP)	[2.0 (2.7)]

Tank Capacity

Coolant tank capacity	L (gal.)	366 (96.6)

Machine Size

Machine height	mm (in.)	2,200 (86.6)
Floor space <width x depth>:		
- Standard	mm (in.)	3,347 x 2,106 (131.8 x 82.9)
- Right disposal conveyor	mm (in.)	[3,981 x 2,106 (156.7 x 82.9)]
Mass of machine		
- Milling specification	kg (lb.)	5,820 (12,804)
- Y-Axis specification	kg (lb.)	[6,140 (13,508)]
- Right Spindle specification	kg (lb.)	[6,040 (13,288)]
- Y-Axis + Right Spindle specification	kg (lb.)	[6,360 (13,992)]

J-006140

NC Unit M730UM

Controlled axis

Controlled axis	X, Z, C, B, 5
Simultaneously controllable axes	X, Z, C
Least input increment	0.001 mm (0.0001 in.)
Least command increment	0.001 mm (0.0001 in.)
Max commandable value	±99,999.999 mm (±9,999.9999 in.)
Inch/metric conversion	
Machine lock	
Chuck and tailstock barrier	Only works in automatic operation
Chamfering ON/OFF	
Backlash compensation	±9999 pulses
Rapid traverse/cutting feed backlash compensation	
Stored pitch error compensation	
Stored stroke check 3 <Prohibited area to enter: inside of set area>	

Operation

Dry run	
Single block	
Jog feed	0 - 5,000 mm/min (0 - 196.85 ipm) <20 steps>
Manual return to reference position	
Manual handle feed	x1, x10, x50, x100

Interpolation functions

Positioning	Linear interpolation type positioning is possible
Thread cutting/synchronous feed	
Multiple thread cutting	
Retract during thread cutting cycle	
Continuous thread cutting	
Variable lead thread cutting	
Return to reference position	
Reference position return check	
Return to second reference position	
3rd/4th reference position return	
Polar coordinate interpolation	
Cylindrical interpolation	
Helical interpolation	Circular interpolation + Linear interpolation <max. 2 axes>

Feed functions

Rapid traverse override	0 – 5,000 mm/min (0 – 197.0 ipm) <20 steps>
Feed per minute	
Feed per revolution	
Constant tangential feedrate control	Interpolation in cutting feed
Feedrate override	0-200% <10% increments>
Feedrate override cancel	

Program input

Optional block skip	1 block
Program display	32 arbitrary characters (specify 8 or less numerical characters for the subprograms)
Sequence number	5-digit N code
Decimal point programming/Electronic calculator type decimal point programming	Electrical calculator type decimal point programming is changeable using parameter.
Diameter specification <X-axis>	
Plane selection	
Rotary axis roll-over	
Work coordinate system	
Chamfering/Corner R	
Programmable data input	
Sub-program call	Up to 8 nestings
Custom macro common variables <in total>	200 sets <#100 - #199, #500 - #599>
Interruption type custom macro	
Single canned cycle	
Multiple repetitive cycle	
Multiple repetitive cycle II	Pocket profile, zigzag thread cutting
F15 format	
Absolute/incremental command	X(U), Z(W), C(H)

Miscellaneous function/spindle speed function

Miscellaneous function	M4-digit
Auxiliary function lock	
Multiple miscellaneous function commands	3 commands <Standard Only for Limited M Codes>
Spindle speed function	S5-digit
Constant surface speed control	
Spindle override	50-150% <10% increments>
Load monitoring function	
Spindle orientation <Left Spindle>	Without lock
Multiple-spindle control	
Synchronous tapping <Turning spindle>	
Synchronous tapping <for rotary tool spindle>	

Tool function/Tool offset function

Tool function	T4-digit
Number of tool offsets	80 sets
Tool nose radius compensation	
Automatic tool nose radius offset	
Tool geometry offset/Tool wear offset	
Tool life management	80 sets
Tool offset measurement direct input	
Tool offset measurement direct input B	In-machine presetter
Tool management system	

Editing function

Background editing
Undo/Redo function <MAPPS>
Line no. display <MAPPS>

Setting and display

Status display
Clock function
Position read-out, position display
Parameter setting display
Self-diagnosis function
Message list display
Message history display
Trouble shooting
Running time display/No. of parts display
Actual cutting feedrate display
Display of actual spindle speed and T code

Operation panel: Display section	21.5-inch + 15.6-inch TFT color LCD

Regular interval maintenance screen

Data input/output

I/O interface	USB, Network drive
6GB Program storage area	Files up to 10 MB in size can be edited

Standard Equipment

Spindle specification

- Spindle drive motor is 18.5/18.5/15 kW (24.7/24.7/20 HP) <25% ED/ 50% ED/ cont.> and max. spindle speed is 4,000 min^{-1}.
- Oil chiller Spindle cooling specifications - Fan cooler

Tailstock

- Tailstock spindle - Live center specifications: MT5 <without center>

Turret

- Turret tool attachment method is 10-station bolt-tightened type and turret indexing time is 0.27 sec a station.
  This time is measured when the number of tools attached to the turret is half the number of tool stations. The turret indexing time may be longer depending on the number and arrangement of tools.
- Rotary tool spindle drive motor is 5.5/5.5/3.7 kW (7.5/7.5/5 HP) <3 min/5 min/cont.> and max. rotary tool spindle speed is 10,000 min^{-1}.
- Overhang of O.D. cutting rotary tool is 50 mm (2.0 in.).

Coolant

- Coolant system <350 W, 50 Hz/550 W, 60 Hz>

Measurement

- Manual in-machine tool presetter <left spindle>, Pivoting type

Safety features

- Full cover
- Impact resistant viewing window
- Door interlock system <incl. mechanical lock>
- Footswitch with lock device
- Low hydraulic pressure detecting switch

Others

- Automatic power-off system
- Chuck foot switch <single> <controlled by pedal>
  Double foot switch is obliged to use with EN regulation compliance machine for security reason.
- LED worklight
- Air purge <spindle>
- Hand tools

J-003261

CELOS to facilitate machine operation.

Can be networked with CAD / CAM products.
Open to forward-looking CELOS APP extensions.
Uniform interface for all the new high-tech machines from DMG MORI SEIKI.
Integrated management, documentation and visualization of order, process - and machine data.

Screen / Panel:	21.5 "ERGOline Touch ® control with multi touch screen Multi touch machine control panel for pioneering operating comfort Stepless adjustment of screen and machine control panel Display of access permission
SMARTkey ®:	Personalized authorization of the operator. Customized access rights to the control and the machine. Internal USB memory
APP SELECTOR:	Central selection mask for direct access by means of intuitive touch control and access to all available applications, divided into five major groups: Production, Accessories, Support, Monitoring, Configuration
APPs "Production":	
CONTROL:	MAPPS system with touch screen operation 6 function window-set for easy access to the machine information. Machine operation scene-based automatic window-set change allows users to access the necessary information for each operation easily
JOBMANAGER:	Systematic planning, managing and preparing orders Machine-related creation and configuration of new orders Structured storage of all production-relevant data and documents Simple visualization of jobs including NC programs and resources
JOB ASSISTANT:	complete jobs / processing of orders Menu driven set-up of the machine and processing of Production orders in the dialog Reliable error prevention through notes with binding acknowledgement function
APPs " accessories":	

TECH CALCULATOR:	calculating of technology data, dimensions and values Material - and process-dependent calculation process optimized Data for example for speed, feed, or spindle load Standards-conforming discovery defined dimensions, Providing data/dimensions as required by the standards for example, for Fits or thread Scientific calculator
CAD-CAM-VIEW:	visualizing of workpieces and optimizing of program data Direct remote access to external CAD/CAM-computer Central master data as the basis of the part visualization Immediate change options for processing steps NC programs and CAM strategies directly to the control
DOCUMENTS:	Digital library of full-text search Clear library structure for easy and quick orientation Digital storage of all machine-relevant manuals, Documentations and customer data Full text search and bookmark feature for recurring Lookup fields
ORGANIZER:	Calendar, and memo functions User-defined messaging functions Individual messages with SMART key ® Identification
APPs " support":	
NETSERVICE:	Qualified support through Web-based remote diagnosis Remote communication with the service of DMG MORI SEIKI directly at the control unit Online troubleshooting and technical support via Internet Highest data security through VPN access
MACHINE CHECK:	Controlled maintenance and repair of the machine Process-based login system for maintenance with control function Preventative service and maintenance planning
APPs "Monitoring":	
STATUS MONITOR:	Machine status in real time Visualization of machine condition (spindle load,...) Displaying job information with quantity, lot size and Term to maturity Maintenance messages and warnings Energy return feed display
APPs " configuraton":	
ENERGY SAVING:	Automated energy management Categorized balance display for different machine States (Hold, ready for operation, processing) Programmatic Shutdown, WarmUp and StandBy functions for Machine, pneumatic, screen and lighting of workroom Utilization - and time-based process analysis as base of the Consumption optimization

SETTINGS: Individualization and personalization
SMART key ® -based user and rights management
Individual APP customization
General system settings

J-016106

12-station bolt-tightened turret (standard specification) (Y, SY, SMC)

The number of standard sets as follows. Please refer to the tooling system diagram for details.
*[ ] inch specification

(Tailstock specification)

O.D. cutting holder	T00186 (□25) [T00202 (1"×1")]	1
O.D. cutting holder (Extension)	T00385 (□25) [T00386 (1"×1")]	2
Boring bar holder(height:80)	T10097 (φ40) [T10101 (dia.1 1/2")]	3
Boring bar sleeve	T20098 (φ32) [T20099 (dia.1 1/4")]	1
Boring bar sleeve	T20096 (φ25) [T20097 (dia.1")]	1
Boring bar sleeve	T20094 (φ20) [T20095 (dia.3/4")]	1
Pipe	P40145	2

(Right Spindle specification)

O.D. cutting holder	T00186 (□25) [T00202 (1"×1")]	1
O.D. cutting holder (Extension)	T00385 (□25) [T00386 (1"×1")]	2
O.D. cutting double holder	T00184 (□25) [T00199 (1"×1")]	1
Cut-off holder	T00197 (□25) [T00198 (1"×1")]	1
Boring bar holder	T10096 (φ32) [T10100 (dia.1 1/4")]	1
Boring bar holder(height:80)	T10097 (φ40) [T10101 (dia.1 1/2")]	3
Boring bar sleeve	T20122 (φ25) [T10123 (dia.1")]	1
Boring bar sleeve	T20098 (φ32) [T20099 (dia.1 1/4")]	1
Boring bar sleeve	T20096 (φ25) [T20097 (dia.1")]	1
Boring bar sleeve	T20094 (φ20) [T20095 (dia.3/4")]	1
Pipe	P40145	2

J-011731

IoTconnector
The **IoT***connector* enables to use the DMG MORI online services (eg **NET***service*). Thanks to an integrated firewall, the machine is protected against attacks despite the online connection. In addition, the **IoT***connector* receives security updates via an integrated DEVICE MANAGEMENT.

J-011732

NETservice
The NETservice stands for a couple of new features for optimal remote service support. Besides of an interactive remote desktop feature for a direct view on HMI and control, direct file transfer of service related files the experts of DMG MORI can be involved in a single or multi-user-conference. A chat and whiteboard functionality complete the conference functionality.
Your customer benefits at a glance:
- Fast support through access to CELOS, IPC and NC
- Intuitive operation
- High transparency thanks to logging of all service activities
- Deposit of individual user profiles and rights
- Chat functionality for communication between customer and service

The usage of NETservice is free of charge for the duration of the machine warranty and ends automatically. NETservice after Warranty is subject to monthly costs. The DMG MORI Service is able to create a suitable offer.
Requirements of usage:
- Requires IoTconnector
- Requires Internet connection to the machine.

J-011734

Machine Data Connector (MDC)
Uniform machine data interface as an integrated function of the DMG MORI Connectivity Hardware independent of the machine controller, the machine signals are available as a signal output through one of the following protocols:
+ MQTT (MQTT client)
+ MTConnect (MTConnect Agent Version 1.4.0.3)
+ OPC-UA (DMG MORI OPC-UA Server Configuration)

The used protocol is to be configured at machines with CELOS (Version 6) through the App "Connector Management"
Updates for the software function of the Machine Data Connector will be provided directly to the DMG MORI Connectivity Hardware via DMG MORI Device Management. An Internet connection of the DMG MORI Connectivity Hardware is required for this update function.
The following signals are available:
- Machine Serial Number
- Operating hours
- Power On Time
- Controller Mode
- Status Stack Light
- Number of active alarms
- Notifications (Alarm/Warnings)
- Part Program Name
- Current Program Execution Time
- Spindle Override
- Desired Parts
- Feed Override
- Number of active Tool
- Rapid Override
- Execution State
- Part Counter
- Part Counter overall

- Additive DMG MORI machines (powder nozzle or powder bed) have a different signal set because of their machine technology.

Delivery:

- Software“ Machine Data Connector“ as integrated function of DMG MORI Connectivity Hardware
- Manual