Price List

NLX 2500 | 700 2nd Generation

Highlights

- Slideways are used for all axes
- Coolant circulation inside the castings and Ball screw core cooling controls thermal displacement
- The performance of the left spindle and the right spindle (option) are equivalent. (Right spindle 10-inch specification)
- With BMT (Built-in motor turret) and milling capability equivalent to a machining center.
- Max. turning length 708 mm (27.8 inch)
- Bar work capacity dia. 105 mm (4.13 inch) (Left spindle / Right spindle 10-inch specification)
- Y-axis travel: ±60 mm (2.36 inch)
- Overhang cutting rotary tool : 100 mm (3.97 inch) (for O・D and right spindle)
- Solution for Chips, Coolant and Mist (In-machine SUS cover, zero sludge coolant tank (Option), zeroFOG mist collector (Option))
- Various automated systems

Investment summary

Machine and Options				
Basic Machine				
NLX 2500 | 700 <2nd Generation>	J-A02175	1	217,000.00	USD
Control				
Fanuc_F31iB_Plus with CELOS X	J-014902	1	0.00	USD
CELOS X - ERGOline X (MAPPS)	J-013093	1	0.00	USD
Spindle				
(Left Spindle) Through-Spindle Hole Dia. 115 mm (4.53-inch) (Spindle Speed 5,000 min-1, 30 / 22 kW) (Standard) (FANUC)	J-023139	1	0.00	USD
Options for Spindle				
Clamping pressure adjustment at the control for Left Spindle (Standard)	J-025531	1	0.00	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
Equipment for Chucks				
Chuck foot switch (double pedal) for Left Spindle (Standard)	J-025533	1	0.00	USD
Chuck cylinder stroke check (linear position monitoring) (Left Spindle) (Standard)	J-014488	1	0.00	USD
Chuck inching function for Left Spindle (Standard)	J-025535	1	0.00	USD
Options for Turret				
12-Station Bolt-Tightened Turret (BMT60), Rotary tool spindle 13 / 10 kW, 86 / 56 Nm, 12,000 min-1 (Standard) (FANUC)	J-023146	1	0.00	USD
Turret Y-axis Specification	J-023145	1	0.00	USD
Overhang of O.D. Cutting Rotary Tool: 100 mm (3.94 inch.)	J-023168	1	0.00	USD
Tailstock				
Tailstock (Live Center MT5 Specification, Need to select Live center) (Standard)	J-016111	1	0.00	USD
Coolant supply / Chip removal				
Usable Coolant Type: Water-Soluble Coolant	J-G00428	1	0.00	USD
Chip Conveyor (Right Discharge, Hinge Type) (/700)	J-023174	1	9,380.00	USD
High-pressure coolant system (800/ 1,100 W)	J-002147	1	355.00	USD
Interface for Super-High-Pressure Coolant System (7 MPa (1,015 psi), Variable Pressure, ChipBLASTER)	J-023312	1	4,580.00	USD
Without Coolant chiller (Prepared by customer) (SK-OP)	J-026312	1	0.00	USD
Air blow for tool tip (SK-OP)	J-003273	1	1,530.00	USD
Chip Flushing Coolant for Bed Cover	J-026805	1	2,000.00	USD
Mist collector zeroFOG #1 (Built-in)	J-026801	1	8,710.00	USD

* further description see attachment

Double Slide Seals	J-023169	1	0.00	USD
Coolant Level sensor (upper limit, lower limit forecast and lower limit detection) (Standard)	J-022043	1	0.00	USD
Measuring / Monitoring				
Manual in-machine tool presetter (Swing type) (STD)	J-017110	1	0.00	USD
Automation				
Signal lamp 4 colors (Red, yellow, green, blue)	J-004166	1	495.00	USD
Left Workpiece unloader (left side take-out, receiver type)	J-023172	1	16,850.00	USD
Interface for EtherNet/IP (SK-OP)	J-015384	1	850.00	USD
Interface for bar feeder (EtherNet/IP Interface, TYPE5) (Connector type) (SK-OP)	J-056318	1	1,550.00	USD
Voltage of Bar feeder Interface : 400 V	J-056321	1	0.00	USD
General Options				
Ball Screw Core Cooling for X,Y,Z-axis (Standard)	J-023199	1	0.00	USD
Multi dry filter (SK-OP)	J-002210	1	635.00	USD
Manual pulse generator (separate type)	J-026800	1	2,210.00	USD
Voltage of Customer Factory 400 V	J-014887	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
Keyway broaching (FANUC) (SK-OP)	J-012929	1	1,020.00	USD
Options for Control				
Efficient Production Package (High speed canned cycle)	J-008657	1	2,650.00	USD
Addition of optional block skip (soft key type 2-9)	J-008244	1	835.00	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			**279,770.00**	**USD**

Services				
Packing / Transport / Installation				
Peak season surcharge (Sea freight)	J-009752	1	0.00	USD
Special constructions services				
DMFS FFP Costing	SK001	1	17,854.00	USD
DMFS Price Federal Compliance	SK002	1	11,903.00	USD
Sales company services				
SV1: Standard Machine Installation	Z-COST01	1	0.00	USD
DMG MORI Precision Protection Program	Z-COST05	1	16,787.00	USD
DMG MORI Connect	Z-COST06	1	1,000.00	USD
EG1: Standard Machine Training	Z-COST07	1	0.00	USD
Price services			**47,544.00**	**USD**

Price machine and options	**279,770.00**	**USD**
Price services	**47,544.00**	**USD**

* further description see attachment

Total price	**327,314.00 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 2nd Generation

Machine and Options			USD	USD
Basic Machine				
NLX 2500 | 700 <2nd Generation>	J-A02175*	1		217,000.00
Control				
Fanuc_F31iB_Plus with CELOS X Control unit: Fanuc F31iB Plus Operation system: CELOS (MAPPS X)	J-014902*	1		0.00
CELOS X - ERGOline X (MAPPS) It is a machine operation panel with 21.3-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-013093	1		0.00
Spindle				
(Left Spindle) Through-Spindle Hole Dia. 115 mm (4.53-inch) (Spindle Speed 5,000 min-1, 30 / 22 kW) (Standard) (FANUC) turnMASTER Max. spindle speed: 5,000 min-1 Spindle nose type: JIS A2-8 Through-spindle hole diameter: Φ115 mm (dia.4.53 inch.) Spindle drive motor: 30 / 22 / 22 kW (40.2 / 29.5 / 29.5 HP) (15%ED / 40%ED / cont) Spindle torque: 844 / 700 / 618 Nm (662.5 / 516.32 / 455.8 ft·lbf) (15%ED / 40%ED / cont) MASTER series spindle: Covered by a 3-year warranty service	J-023139	1		0.00

* further description see attachment

Options for Spindle

Clamping pressure adjustment at the control for the Left Spindle (Standard) The input pressure (hydraulic pressure) of the chuck cylinder is set in the NC program or on the screen. The minimum pressure that can be set is 0.8 MPa, and the maximum pressure is limited by the combination of chuck cylinder and chuck. However, if the maximum pressure exceeds 4.0 MPa, the maximum pressure is limited to 4.0 MPa. (Depending on the hydraulic control equipment) There is one pressure setting, and its value applies to both clamping and unclamping. If a chuck cylinder is to be arranged by the customer, be sure to use a chuck cylinder with a mechanism to prevent the workpiece from falling out when the hydraulic pressure is shut off (pilot check mechanism, check valve). In the event of hydraulic pressure shutdown due to power failure, etc., the chuck may not be able to maintain its gripping force, resulting in workpiece scattering, machine damage, and personal injury. It is necessary to unclamp the chuck after switching the chucking pressure.	J-025531	1	0.00

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

Equipment for Chucks

Chuck foot switch (double pedal) for Left Spindle (Standard) This switch is used to open and close the chuck with the foot. Push the lock release plate of each chuck foot switch forward to release the lock and step on the pedal. Two foot switches are used for opening and closing operation of the left spindle chuck.	J-025533	1	0.00
Chuck cylinder stroke check (linear position monitoring) (Left Spindle) The position of the chuck cylinder is read with the linear sensor and displayed as a number. The chuck clamping/unclamping position can be set on the screen for each workpiece.	J-014488	1	0.00
Chuck inching function for Left Spindle Inching operation of chuck opening/closing is possible. If a chuck cylinder is to be arranged by the customer, be sure to use a chuck cylinder with a mechanism to prevent the workpiece from falling out when the hydraulic pressure is shut off (pilot check mechanism, check valve). In the event of hydraulic pressure shutdown due to power failure, etc., the chuck may not be able to maintain its gripping force, resulting in workpiece scattering, machine damage, and personal injury.	J-025535	1	0.00

* further description see attachment

Options for Turret

12-Station Bolt-Tightened Turret, Rotary tool spindle 13 / 10 kW, 86 / 56 Nm, 12,000 min-1 (Standard) (FANUC) In-house 12 station turret. Please refer to the axis travel diagrams and turret interference diagrams for the movable region. BMT (Built-In Motor Turret) is installed, and the oil jacket cooling suppresses heat generation to implement excellent machining accuracy. Number of tool stations: 12 Turret indexing time (1 station): 0.79 seconds Method for mounting tool on turret: Bolt-tightened BMT60 Rotary tool spindle output: 13 / 10 kW (17.5 / 13.5 HP) (10 min / cont) Rotary tool spindle torque: 86 / 56 Nm (63.5 / 41.4 ft·lbf) (10 min / cont)	J-023146*	1	0.00
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: ± 60 mm (± 2.37 inch.) Rapid traverse rate: 15 m/min	J-023145	1	0.00
Overhang of O.D. Cutting Rotary Tool: 100 mm (3.94 inch.)	J-023168	1	0.00

* further description see attachment

Tailstock

Tailstock (Live Center MT5 Specification, Need to select Live center) (Standard) The highly-rigid servomotor-driven digital tailstock specification Taper hole of tailstock spindle : MT5 (live center) Tailstock thrust force : 0.67 to 5.88 kN (NLX2500/700, NLC2500/700) Tailstock thrust force : 1.00 to 5.88 kN (NLX2500/700 2nd Gen.) Tailstock thrust force : 1.07 to 9.80 kN (NLX2500/1250, NLX3000) Tailstock thrust force : 1.02 to 8.82 kN (NLX4000) <Highlights> - Fewer steps requiring operation of the tailstock. - Variable pressure control using program instructions - Drastic reduction of setup time - Improved chip discharge with the base plate equipped with chip flush coolant as standard *The standard live center specification are suitable for light workpiece and high speed rotation. For heavy cutting, the built-in center specification is recommended. *The live center is not included. Please order it if necessary.	J-016111	1	0.00

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
Chip Conveyor (Right Discharge, Hinge Type) (/700) Chips are conveyed on the hinged plates and discharged to the right side of the machine. The hinged plate is effective in discharging long chips. Not suitable for minute powdery chips generated in machining castings and gun metals, etc. as their chips may flow into coolant tank. Suitable for conveying chips such as steels (long, short), aluminum (long), SUS (long, short), brass (long), copper (long), etc.. Chip conveying capacity : short chip : not transportable : long chip : 390 L/h (102.96 gph) *No filtration function for chips.	J-023174	1	9,380.00

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
Interface for Super-High-Pressure Coolant System (7 MPa (1,015 psi), Variable Pressure, ChipBLASTER) Interface for mounting the high-pressure coolant system (built-in 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-023312	1	4,580.00
Without Coolant chiller (Prepared by customer) Collant chiller is highly recommended, and it is to be prepared by the customer. The coolant chiller chills coolant in the coolant tank according to a the machine body temperature. Controlling the coolant temperature suppresses the rise in temperature of the workpiece and tools and achieves the stable machining accuracy. This specification is prepared only with pipe bore size Rc2 on the coolant tank. The coolant chiller, supply pump, hose and electrical components set are not included. Please arrange them separately. We recommend that the specifications be the same as or higher than the following. - Cooling capacity: 5220 / 5800W - Control temperature: ± 0.2 °C - Tank capacity: 170 L (44.9 gal) - Synchronous control with machine (The G1/4 hole for temperature sensor are prepared on the bed)	J-026312	1	0.00

* further description see attachment

Air Blow for Tool Tip Air is blown to the tool tip for removing chips adhering to it. The air blow to the tool tip is effective in removing debris during in-machine measurement or removing chips during dry machining. For this specification, the air blow function is provided at the coolant discharge port on the turret. Air/coolant switching is controlled by the M codes.	J-003273	1	1,530.00
Chip Flushing Coolant for Bed Cover It flushes away chips accumulated on the top face of the bed cover, and the chip conveyor collects them. It is controlled by the different M codes from those for the turret coolant. For the rear discharge specification, the same M codes as that for the chip chute flush are used. The separate coolant tank is not necessary.	J-026805	1	2,000.00

* further description see attachment

Mist collector zeroFOG #1 (Built-in) The mist collector collects, coolant mist and oily fumes generated during machining using the pre-filter and final filter. Final filter is toolless and easy to replace. When the final filter reaches the replacement time, an alert is displayed on the screen. For FANUC or MITSUBISHI spec., the mist collector can be started/stopped by M-code command or ON/OFF button on the machine operation panel. For SIEMENS spec., the mist collector is automatically turned on and off in conjunction with the program. (factory default). The operation mode of the mist collector can be changed on the Custom screen. Refer to the operation manual for details on operation modes and how to change them. When the total operating time of zeroFOG exceeds 15 minutes, the mist suction is automatically stopped temporarily and the primary filter is cleaned by compressed air for 15 seconds to prevent clogging of the primary filter. Therefore, when using zeroFOG, an additional pneumatic source flow rate of 400 L/min is required only once every 15 minutes for 15 seconds. After the cleaning operation is completed, the mist suction operation starts again. * When the machine is painted in a specified color, the resin cover around the outer circumference of the zeroFOG is also painted in the same color. Finishing appearance: Orange peel painting. The replacement intervals for the filters and the cleaning interval for the demister differ depending on the mist concentration inside the machining chamber. Filter Replacement Interval - Water-miscible coolant specification: 1000 hours - Oil-based coolant specification: 300 to 500 hours (with Final Filter Set for High-concentration Fine Mist (#1: 5462094, #2: 5517065)) Demister Replacement Interval: 1000 hours	J-026801	1	8,710.00
Double Slide Seals Supporting the X, Y and Z axes.	J-023169	1	0.00

* further description see attachment

Coolant Level sensor (upper limit, lower limit forecast and lower limit detection) It monitors the fluid level in the coolant tank. (Detecting the upper and lower limits and and lower limit forecast) Upper limit・lower limit：Alarm Lower limit forecast：Display warning message Only for MAPPS spec. The alarm processing method when the lower limit is detected by the Coolant Level sensor can be changed on the screen. The details that can be changed are as follows. <Alarm processing method when the lower limit is detected> - Feed hold and Spindle stop - Start lock In addition, when “Feed hold and Spindle stop” is selected as the alarm processing method, the timing can be changed. The details that can be changed are as follows. <Timing of feed hold and spindle stop> - Immediate stop - Non-cutting stop In addition, when “Non-cutting stop” is selected for the timing of feed hold and spindle stop, the allowable time until the non-cutting stop can be set.	J-022043	1	0.00

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

* 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
Left Workpiece unloader (left side take-out, receiver type) The workpiece is taken to the left side of the machine by the bucket. The workpiece is also discharged to the left side of the machine by the conveyor located in front of the left spindle. These functions enable unmanned operation. Please let us know regarding chip removal methods. For example, the through spindle coolant system when you select the collet chuck specifications and so on. *The workpiece ejector in right spindle and air blow in the spindle are not included. Please select as necessary. Applicable workpiece diameter: up to Φ105 mm Max. workpiece length: 200 mm Max. weight capacity: 4 kg	J-023172	1	16,850.00

* 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, TYPE5) (Connector type) 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.) *Please remove the short-circuit connector when installing machine at the customer's factory. <Connectors prepared by DMG MORI> HARTING CONNECTOR: ■POWER and SAFETY signal 0933 024 2716 0930 024 0251 0930 000 9901	J-056318	1	1,550.00
Voltage of Bar feeder Interface : 400 V	J-056321	1	0.00

General Options

Ball Screw Core Cooling for X,Y,Z-axis (Standard) The axis core cooling is adopted inside the ball screws against heat by axis feed, and the manifold for oil branching is attached (the X-axis only). The coolant from the oil controller flows into the ball screw through the manifold and returns to the oil controller through the manifold again. The amount of heat generated on the ball screw is reduced by passing the coolant inside the ball screw.	J-023199	1	0.00

* further description see attachment

Multi Dry Filter It removes moisture and oil content from the compressed air supplied from the compressor. It prevents the pneumatic device malfunctions caused by the moisture and oil in the air. The auto-drain and the filter (IN / OUT) are equipped with gages respectively. - Filter Unit: T105A-1000MSP (Maeda Shell) *This specification is for the "main air supply port" only. If a multi-dry filter is also required for the "sub-air supply port" of a model with two supply ports, an additional quote is required.	J-002210	1	635.00
Manual Pulse Generator (Separate Type) Separate type hand-held handle switch improves the operability at the setup. The separate type handle switch is connected to the operation panel with a curled cord. It can be attached to a desired place on the machine using the magnet on the back side. The separate type handle switch equipped with the high-intensity white LED as standard can also be used as a hand-held light to illuminate the workpiece machining face or the dark area where the machine light does not reach. *There is no Manual Pulse Generator on the operation panel.	J-026800	1	2,210.00
Voltage of Customer Factory 400 V This machine is shipped with voltage set to 400 V specification. Direct machine connection admissible for TN-S system only, then transformer is not needed. When use TT or IT system, transformer is necessary for conversion. (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, frequency and power supply system of the customer's factory.	J-014887	1	0.00
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

* further description see attachment

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
Keyway broaching This function enables to program for keyway grooving with simple programming guidance. Regarding machining possibility including machining accuracy, please contact DMG MORI sales staff *Additional necessary NC option : none	J-012929	1	1,020.00

Options for Control

High-speed Canned Cycle The screen guidance induces input of the canned cycle arguments. The high-speed cutting can be specified in one program line. - The machining time is reduced by the high-speed machining. - The cycle that simplifies complicated programming of high speed machining programming are newly added. - The programming time is shortened. - The optimum tool paths are automatically created for the high-speed machining. - The shapes which require perplexing programs are supported. - The manual-less screen guidance method is adopted. The number of pattern: 21 patterns The number of patterns for programming from the interactive machining menu: 15 patterns	J-008657	1	2,650.00

* further description see attachment

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-008244	1	835.00
X-axis Direction, JIS/ISO-compliant The X-axis movement direction is compliant with the JIS/ISO standard.	J-G00618	1	0.00
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	**279,770.00**

Services			USD	USD
Packing / Transport / Installation				
Peak season surcharge (Sea freight)	J-009752	1		0.00
Special constructions services				
DMFS FFP Costing	SK001	1		17,854.00
DMFS Price Federal Compliance	SK002	1		11,903.00
Sales company services				
SV1: Standard Machine Installation	Z-COST01	1		0.00
DMG MORI Precision Protection Program	Z-COST05	1		16,787.00

* further description see attachment

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			**47,544.00**

Price machine and options	**279,770.00**
Price services	**47,544.00**
Total price	**327,314.00**

* further description see attachment

Attachment

Technical Description

J-A02175

Basic machine NLX 2500 | 700

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.)	945 (37.2) <Interfere with front cover: 660 (26.0)>
Swing over cross slide	mm (in.)	760 (29.9)
Maximum turning diameter:		
- For 35 mm (1.4in.) overhang of O.D. cutting tool	mm (in.)	366 (14.4)
- For 40 mm (1.5in.) overhang of O.D. cutting tool	mm (in.)	356 (14.0)
- 20-station turret	mm (in.)	[278 (10.9)]
Standard turning diameter:		
- 12-station turret for 35 mm (1.4 in.) overhang of O.D. cutting tool	mm (in.)	271 (10.7)
- 12-station turret for 40 mm (1.5 in.) overhang of O.D. cutting tool	mm (in.)	275 (10.8)
- 10-station turret for 35 mm (1.4 in.) overhang of O.D. cutting tool	mm (in.)	[330 (13.0)]
- 10-station turret <For 40 mm (1.5 in.) overhang of O.D. cutting tool>	mm (in.)	[335 (13.2)]
- 20-station turret	mm (in.)	[192 (7.6)]
Maximum turning length <Tailstock spec.>	mm (in.)	658.8 (26.2)
Maximum turning length <Right spindle Through-spindle hole diameter 45 mm (1.8 in.) spec.>	mm (in.)	[708.6 (27.9)]
Maximum turning length <Right spindle Through-spindle hole diameter 83 mm (3.3 in.) spec.>	mm (in.)	[686.6 (27.0)]
Maximum turning length <Right spindle Through-spindle hole diameter 115 mm (4.5 in.) spec.>	mm (in.)	[666.6 (26.2)]
Bar work capacity:		
- Standard	mm (in.)	105 (4.1)

Travel

X-axis	mm (in.)	260 (10.2)
Z-axis	mm (in.)	795 (31.3)
Y-axis	mm (in.)	[±60 (±2.3)]
Right Spindle <Z3-axis>	mm (in.)	[734 (28.9)]

Left Spindle

Maximum spindle speed		
- Standard	min^{-1}	5,000
- High output & High torque	min^{-1}	[3,000]
Type of spindle nose		JIS A_2-8
Through-spindle hole diameter	mm (in.)	115 (4.5)
Spindle bearing inner diameter	mm (in.)	160 (6.2)
Minimum spindle indexing increment	deg.	0.001

Right Spindle (Option)

Maximum spindle speed:		
- Through-spindle hole diameter 45 mm (1.7 in.)	min^{-1}	[7,000]
- Through-spindle hole diameter 83 mm (3.2 in.)	min^{-1}	[5,000]
- Through-spindle hole diameter 115 mm (4.5 in.)	min^{-1}	[5,000]
Type of spindle nose:		
- Through-spindle hole diameter 45 mm (1.7 in.)		[JIS A_2-5]
- Through-spindle hole diameter 83 mm (3.2 in.)		[JIS No.5 straight]
- Through-spindle hole diameter 115 mm (4.5 in.)		[JIS No.8 straight]
Spindle bearing inner diameter:		
- Through-spindle hole diameter 45 mm (1.7 in.)	mm (in.)	[100 (3.9)]
- Through-spindle hole diameter 83 mm (3.2 in.)	mm (in.)	[130 (5.1)]
- Through-spindle hole diameter 115 mm (4.5 in.)	mm (in.)	[160 (6.2)]
Minimum spindle indexing increment	deg.	[0.001]

Turret

Number of tool stations	tools	10 [12] [20]
Shank height for square tool:		
- Standard	mm (in.)	25 (1.0)
- 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)]
- 20-station Turret	mm (in.)	[32 (1.3)]
Turret Indexing time (Tool to Tool)	sec	0.79
Maximum rotary tool spindle speed	min^{-1}	12,000

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)	15,000 (585)
- Z3-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], [MT3]

Motors

Left Spindle drive motor:		
- Standard <15%ED / cont>	kW (HP)	30 / 22 (40 / 29.3)
- High output & High torque <10%ED / cont>	kW (HP)	[36 / 25 (48 / 33.3)]
Right Spindle drive motor:		
- Through-spindle hole diameter 45 mm (1.8 in.) <10%ED / cont>	kW (HP)	[11 / 7.5 (15 / 10)]
- Through-spindle hole diameter 83 mm (3.2 in.) <40%ED / cont>	kW (HP)	[23 / 20 (30.6 / 26.6)]
- Through-spindle hole diameter 115 mm (4.5 in.) <15%ED / cont>	kW (HP)	[32 / 25 (42.6 / 33.3)]
Rotary tool spindle drive motor:		
- 10, 12-station bolt-tightened turret specification <10 min / cont>	kW (HP)	13 / 10 (17.4 / 13.4)
- High torque 10,12-station bolt-tightened turret specification <10 min / cont>	kW (HP)	[15 / 15 (20.1 / 20.1)]
- 20-station bolt-tightened turret specification <10 min / cont>	kW (HP)	[13 / 10 (17.4 / 13.4)]
- 12-station VDI quick-change turret (Sauter Trifix) specification <25%ED / cont>	kW (HP)	[15 / 12 (20.1 / 16.1)]
Feed motor:		
- X-axis	kW (HP)	4.3 (5.8)
- Z-axis	kW (HP)	4.6 (6.2)
- Tailstock	kW (HP)	4.6 (6.2)
- Y-axis	kW (HP)	4.3 (5.8)
- Z3-axis	kW (HP)	[4.6 (6.2)]

Tank Capacity

Coolant tank capacity	L (gal.)	687 (151.1)

Machine Size

Machine height	mm (in.)	2,242 (88.3)
Floor space <width x depth>:		
- Standard	mm (in.)	4,249 x 2,109 (167.3 x 83.0)
- Right disposal conveyor	mm (in.)	[4,249 x 2,109 (167.3 x 83.0)]
Mass of machine		
- Y-Axis specification	kg (lb.)	8,200 (18,078)
- Y-Axis + Right Spindle specification	kg (lb.)	[8,400 (18,519)]

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NC Unit F31iB5 plus

Controlled axis

Controlled axis	X, Z, Y, C, Z3, T
Simultaneously controllable axes	X, Z, Y, C
Least input increment	X, Z, Y, Z3 : 0.001 mm (0.0001 in.) C : 0.0001°
Max. command value	±99,999.999 mm (±9,999.9999 in.)
Inch/metric conversion	G20/G21
Machine lock	
Stored stroke check 1	
Chamfering ON/OFF	
Backlash compensation	±9999 pulses
Rapid traverse/cutting feed backlash compensation	
Stored pitch error compensation	

Operation

Dry run	
Single block	
Jog feed	0 - 5,000 mm/min <20 steps>
Manual return to reference position	
Manual handle feed	Manual pulse generator 1 unit x 1, x 10, x 50, x 100 (Per pulse)

Interpolation functions

Nano interpolation	
Positioning	G00 “Linear interpolation type positioning is possible”
Exact stop mode	G61
Polar coordinate interpolation	G12.1, G13.1 (G112, G113)
Cylindrical interpolation	G7.1 (G107)
Helical interpolation	Circular interpolation + Linear interpolation <max. 2 axes>
Thread cutting/synchronous feed	
Multiple thread cutting	
Retract during thread cutting cycle	
Continuous thread cutting	
Variable lead thread cutting	G34
Return to reference position	G28
Reference position return check	G27
Return to second reference position	G30
3rd/4th reference position return	

Feed functions

Rapid traverse override	F0 - 100% (20 steps)
Feed per minute	
Feed per revolution	
Tangential speed constant control	
Feedrate override	0-200% <10% increments>
Feedrate override cancel	M48, M49

Program input

Optional block skip	1 block
Program name	32 arbitrary characters
Sequence number	8-digit N code
Absolute / incremental programming	X (U), Z (W), C (H), Y (V), Z3
Decimal point programming/Electronic calculator type decimal point programming	Electrical calculator type decimal point programming is changeable using parameter.
Diameter / Radius programming (X-axis)	Radius programming is possible with parameters
Dynamic diameter / Radius switching	
Plane selection	G17, G18, G19
Rotary axis designation	
Rotary axis roll-over	
Coordinate system setting	G50
Work coordinate system	G52 - G59
Chamfering/Corner R	
Programmable data input	G10
Sub-program call	Up to 10 nestings
Custom macro common variables <in total>	600 sets <#100 - #199, #500 - #999>
Single canned cycle	
Multiple canned cycle	
Multiple canned cycle II	Pocket profile, zigzag thread cutting
Hole machining canned cycle	
F15 format	

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>
Spindle orientation <Left Spindle>	
Multiple-spindle control	

Tool function/Tool offset function

Tool function	T4-digit
Number of tool offsets	200 sets
Y-axis offset	
Tool nose radius compensation	G40 – G42
Corner circular interpolation	G39
Tool geometry offset/Tool wear offset	
Tool offset measurement direct input	
Tool offset measurement direct input B	In-machine presetter

Editing function

Part program storage length	4Mbyte
Number of stored programs	1,000 programs
Program storage area	6 GB
Program protect	
Background editing	

Setting and display

Status display	
Clock function	
Actual position display	
Program display	Program name 32 arbitrary characters
Parameter setting display	
Alarm display	
Alarm history display	
Operator message history display	
Operation history display	
Running time display/No. of parts display	
Actual feedrate display	
Display of actual spindle speed and T code	
Operation panel: Display section	21.3-inch TFT color LCD

Data input/output

I/O interface	USB, Network drive

Standard Equipment

Spindle specification

- Spindle drive motor is 32 / 22 / 22 kW (42.9 / 29.5 / 29.5 HP) <15% ED / 40% ED / cont.> and max. spindle speed is 5,000 min^{-1}.
- Oil chiller Spindle cooling specifications

Tailstock

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

Turret

- Turret tool attachment method is 12-station bolt-tightened type and turret indexing time is 0.79 sec a station.
- Rotary tool spindle drive motor is 13 / 10 kW (17.4 / 13.4 HP) <10 min / cont.> and max. rotary tool spindle speed is 12,000 min^{-1}.
- Overhang of O.D. cutting rotary tool is 100 mm (3.9 in.).

Coolant

- Coolant system <350 W, 50 Hz/550 W, 60 Hz>
- Coolant Float Switch (upper limit, lower limit forecast and lower limit detection)

Measurement

- Manual in-machine tool presetter <left spindle>, Swing 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 cylinder stroke check (linear position monitoring)
- Chuck foot switch <double> <controlled by pedal>
- LED worklight
- Air purge <spindle>
- Hand tools

J-023146

12-Station Bolt-Tightened Turret, Rotary tool spindle 13 / 10 kW, 86 / 56 Nm, 12,000 min-1 (Standard)

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

(Tailstock specification)

Coolant nozzle pipe	P40145	2
Boring bar sleeve	T20094 (φ20) [T20095 (φ3/4")]	1
Boring bar sleeve	T20096 (φ25) [T20097 (φ1")]	1
Boring bar sleeve	T20098 (φ32) [T20099 (φ1 1/4")]	1
O.D. cutting tool holder	T00186 (□25) [T00202 (□1")]	1
O.D. cutting tool holder (Extension)	T00385 (□25) [T00386 (□1")]	2
Boring bar holder	T10097 (φ40) [T10101 (φ1 1/2")]	3

(Right Spindle specification)

Coolant nozzle pipe	P40145	2
Boring bar sleeve	T20094 (φ20) [T20095 (φ3/4")]	1
Boring bar sleeve	T20096 (φ25) [T20097(φ1")]	1
Boring bar sleeve	T20098 (φ32) [T20099 (φ1 1/4")]	1
Boring bar sleeve	T20122 (φ25) [T20123 (φ1")]	1
O.D. cutting dual-tool holder	T00184 (□25) [T00199 (□1")]	1
O.D. cutting tool holder	T00186 (□25) [T00202 (□1")]	1
Cut-off tool holder	T00197 (□25) [5210822 (□1")]	1
O.D. cutting tool holder (Extension)	T00385 (□25) [T00386 (□1")]	2
Boring bar holder	T10096 (φ32) [T10100 (φ1 1/4")]	1
Boring bar holder	T10097 (φ40) [T10101 (φ1 1/2")]	3