	Basic Machine
J-A01868	NTX 2500 | 1500 <2nd Generation>
	Control
J-008071	Control F31iB5 with CELOS
J-003261	CELOS - ERGOline Touch
	Spindle
J-008478	(Spindle 1) through-spindle hole dia. 91 mm, 4,000min-1 (STD) (FANUC)
J-008610	(Spindle 2) throughh-spindle hole dia. 91 mm, 4,000min-1 (FANUC)
	Chuck for Main spindle
J-020603	(Hoofdspindel) KITAGAWA 12in. holle spanklauw B-212A821H
J-020335	(Hoofdspindel) holle cilinder set voor KITAGAWA, 12 in holle spanklauw B-212A821H
	Chuck for Counter spindle
J-020608	(Spindle 2) KITAGAWA 10in. Hollow Chuck BB210A821
J-020606	(Spindle 2) Hollow Cylinder set for KITAGAWA 10in. Hol ow Chuck BB210A821 (without chuck body)
	Equipment for Chucks
J-002276	Chuck foot switch (double) for Main and Counter spindle
	Tool Spindle
J-008483	Standard tool spindle, 12,000 min-1, 23/ 22.2 kW (FANUC)
J-020701	Capto C6
J-005482	Tool spindle full indexing specifications (STD)
	Tailstock
J-003188	Spindle 2 tailstock specifications
	Tool Magazine
J-009041	Tool storage capacity 76 tools (Capto C6)
	Coolant supply / Chip removal
J-G00428	Usable Coolant Type: Water-So uble Coolant
J-009045	Chip conveyor (right discharge, hinge type) (/1500)
J-004915	I/F voor hogedruk koelmiddelsysteem 70 bar, Knoll, eenvoudige besturing
J-003220	Coolant gun
J-004271	Perslucht uitblaasleiding voor
J-004572	Perslucht uitblaasleiding voor spanklauw,
J-005076	I/F voor olienevela fscheider
J-008274	Oil skimmer
J-EU1001	Knoll KF1100/700 compactfilterinstallatie 7,0 MPA-
	Measuring / Moni toring
J-017111	Manual in-machine tool presetter (removable type) (STD)

J-015384	EtherNet I/P interface
J-015385	Interface for Robot (EtherNet/IP), Need to select EtherNet/IP Interface
J-003356	Interface for Safety fence (electric Interface)
J-008878	Interface for Bar feeder (LNS) (multiple)
	General Options
J-001247	Ankers
J-002210	Multi dry filter
J-004844	W34089 ERGOline Screen protection sheet UPPER 1 piece (Spare)
J-004845	W34090 ERGOline Screen protection sheet LOWER 2 piece (Spare)
J-EU0007	SCHNEIDER Transformer 95 kVA
J-004471	Instelling in mm
	Technology Cycle
J-015571	Alternating speed
J-015572	MPC (Machine Protection Control)
	Options for Control
J-008018	Stroke limit check before movement
J-008094	Chuck, tailstock barrier
J-008619	Part program storage length 2 MB (5,120 m) in total + Registerable programs 1,000 in total
J-007791	Islands, open pockets
J-008657	Efficient Production Package (High speed canned cycle)
J-008021	Program restart
J-008241	Tool retract and recover
J-007760	Additional workpiece coordinate systems 48 sets
J-008244	Addition of optional block skip (soft key type 2-9)
J-G00618	X-Axis Direction JIS / ISO Standard
	Options for MAPPS / CELOS Control
J-015580	MAPPS Tool management system for NT
	Screen Text Language
J-000086	Screen display Dutch
	Speciale constructie
SK001	Through tool spindle air blow (Lubricator is added, spindle can rotate, switching with coolant)
SK002	Long tool stocker (3 tool、φ63mm×L600mm、C6, 8kg、above sub spindle/tail stock)
SK003	Design fee for special option
SK004	3D interference checking function(User specification)
SK005	Assembly fee for special option
	Options for MAPPS / CELOS Control
J-004769	DMG MORI Messenger
	Services
J-004965	3D Data Model (Skin model)

DMG MORI
NTX 2500 | 1500 2nd Generation

Basic Machine

J-A01868* NTX 2500 | 1500
Integrated Mill Turn Center
Tool spindle : 12,000/ 20,000 min-1
Axis travel X/ Y/ Z/ B : 675 (-125~+550)/ 300 (±150) / 1,562+164<for ATC> mm/ 240°(±120°)
[26.5 (-4.9~+21.6)/ 11.8 (±5.9)/ 61.4+6.4 <for ATC> in.]
Spindle 1 : 4,000 min-1
Bar work capacity : dia.80 [3.1]

Control

J-008071* Control F31iB5 with CELOS

J-003261* CELOS - ERGOline Touch
to facilitate machine operation incl. 21.5 " ERGOline Touch ® control with multi touch screens. Uniform management, documentation and visualization of order, process - and machine data.
Networkable with CAD / CAM
User friendly and productive
MAPPS system

Spindle

J-008478 Standard Spindle 1 turnMASTER
FANUC Spec.
Output : 18.5 / 18.5 / 15 (25%ED /50%ED /cont) kW
Maximum spindle speed: 4,000 min-1
Maximum torque : 599 / 505 / 409 (25%ED / 50%ED / cont) N·m
Spindle through hole diameter: φ9 B r work capacity: φ80 mm
adaptable.

J-008610 Standard Spindle 2 turnMASTER FANUC Spec.
Output : 18.5 / 18.5 / 15 (25%ED /50%ED /cont) kW
Maximum spindle speed: 4,000 min-1
Maximum torque : 599 / 505 / 409 (25%ED / 50%ED / cont) N·m
Spindle through hole diameter: φ91mm Bar work capacity: φ80 mm

3 years warranty for MASTER spindle.
*New quotation requests and products ordered on and after January 2018 are adaptable.

Chuck for Main spindle

J-020603 (Spindle 1) KITAGAWA 12-inch Hollow Chuck B-212A821H
Three jaw hydraulic chuck manufactured by Kitagawa Iron Works.
Chuck outer diameter: ϕ 304 mm (dia.11.97 inch.)
Through-hole diameter: ϕ 91 mm (dia.3.58 inch.)
Gripping diameter: Max. ϕ 304 mm (dia.11.97 inch.), Min. ϕ 34 mm (dia.1.34 inch.)
Jaw stroke (diameter): 10.6 mm (0.42 inch.)
Plunger stroke: 23 mm (0.91 inch.)
Max. allowable pull force: 55 kN (12.36 klbf)
Max. static gripping force: 144 kN (32.37 klbf)
Dynamic gripping force at max. speed: 48 kN (10.79 klbf)
Max. allowable speed: 3,300 min-1
Mass: 64 kg (140.8 lb.)

J-020335 (Spindle 1) Hollow Cylinder Set for KITAGAWA 12-inch Hollow Chuck B-212A821H

Kitagawa 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.

Chuck for Counter spindle

J-020608 (Spindle 2) KITAGAWA 10in. Hollow C 'c' BB210A821

J 020606 (Spindle 2) Hollow Cylinder set for chuck

Equipment for Chucks

J 002276	Chuck Foot Switch (Double) For Main And Counter Spindle Chuck unclamping and clamping are operated by separate foot switches to prevent mistakes. To activate a foot switch, you must first press the locking plate of the foot swtich forward to release the switch lock. Chuck unclamping and clamping are performed with two sets of double foot switches, one for the main spindle and one for the sub spindle.

Tool Spindle

J-008483	Standard tool spindle, 12,000 min-1, 23/ 22.2 kW (FANUC) compactMASTER Maximum spindle speed: 12,000 min-1 Output : 23/ 22.2 (40%ED /cont) kW Maximum torque : 116/ 89 (40%ED / cont) N ·m 3 years warranty for MASTER spindle. *New quotation requests and products ordered on and after January 2018 are adaptable.
J-020701	Capto C6
J-005482	Tool spindle full indexing specifications (Standard)

Tailstock

J-003188	Spindle 2 Tailstock Specification The specification to push a workpiece by the center mounted in the spindle 2 chuck. This allows you to machine the tip of the workpiece. When using spindle 2 as a tailstock, the motor equipped with a brake is installed as the spindle may be pushed back. *The center is not inc uded. Please purchase it separately.

Tool Magazine

J-009041	Tool storage capacity 76 tools (Capto C6)

Coolant supply / Chip removal

J-G00428	Usable coolant type: Water-soluble To avoid the risk of poor accuracy or machine trouble, do not use oil-based coolant. Please select oil-based coolant specific in case of using oil-based coolant.
J-009045	Chip conveyor (right discharge, hinge (/1500)

J-004915 Interface for Through-Spindle Coolant System (7 MPa (1,015 psi), Constant Pressure) (Separate Type) (Center Through)

Interface for mounting the high-pressure coolant system (separate type). Supplies high-pressure coolant to the tool tip from the center of the spindle through the retention knob and the tool. Effective for removing chips, cooling a machining point and prolonging a tool life. The high-pressure coolant command is issued by the M code or by pushing the button on the operation panel.

Max. discharge pressure: 7 MPa (1,015 psi)

This specification includes the following:

- Spindle for center-through coolant
- Machine-side piping dedicated to the coolant system.
- A set of electrical parts dedicated to the coolant system.
- Pump for drawing up coolant

*The high pressure coolant unit is not inc uded.

*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.

*Please prepare the center through tool and the retention knob separately.

J-003220 Coolant Gun

The magnet type coolant gun is attached to the machine front. Pressing the coolant gun button on the control panel activates the coolant pump, and depressing its trigger starts the coolant discharge. The coolant pump automatically stops in 2 minutes. It can be used for flushing away chips in the machining chamber.

J-004271 Air blow for tool tip (tool spindle)

The air blow removes chips adhering to tool tip.

The air blow is controlled by M codes i program. The air blow is turned on by and off by M459.

J-004572	Air blow for chuck (spindle 2) The air blow removes chips adhering to the chuck. This prevents loss of gripping accuracy caused by chips caught in the machine. The air blow for the spindle (chuck) is controlled by M codes in the program. It can also be turned on and off with the air blow button on the flat panel. ※ The spindle can be jogged during air blow (using the parameter settings).
J-005076	Mist Collector Interface (Duct Dia 200 mm (7.87 inch.) + Electric Parts For AFS1600) Interface for attaching the AFS1600 mist collector to collect dust and particles and to condense oil mist and smoke generated during the machining process. Includes the duct outlet from the machine body and a complete set of electrical components. Mist collector, duct hose, drain hose, stand, etc. not included. Please prepare separately.
J-008274	Oil Skimmer Removes oil that rises to the surface of the coolant in the coolant tank. Maintains coolant quality, slows coolant deterioration. Reduces cost of waste oil handling. Screw type skimmer, more effectively separates oil from coolant than conventional belt type. Deposits collected oil into drain container for manual disposal Not for oil-based coolants. (RIX)
J-EU1001	Knoll KF110/700 Filter system 7.0 MPa - 31 l/min - 5.5kW high pressure coolant pump - vario valve - paper filter - 700 l coolant tank with cleaning opening - float switch - electrical connection 3x400 V - hose assembly (5m) and interface cable (10m). Without flow switch. Standard machine option "KNOLL I/F" is essential for connection. This unit is not recommended for materials like brass - aluminum - cast iro and plastics. In this instance contact DMQ for a specific solution.

Measuring / Monitoring

J-017111	Manual in-machine tool presetter (p[illegible] type) (Standard)

Automation

J-004166 Signal lamp 4 colors (Red, yellow, green, blue)
Indicate machine status by the LED color. Mounted at top front of machine for visibility from distance. Bright LED lighting with 360 degree viewing angle. Low maintenance and low power consumption.
Color Specification (2 type):
<Type 1 (Standard)>
·Red: general error
·Yellow: intervention necessary (Machine Error)
·Green: automatic mode
·Blue: set-up mode
<Type 2>
·Red: general error
·Yellow: Program end (M02/M30)
·Green: automatic mode
*Does not include buzzer, can be ordered separately
l lamp 4 kleuren (rood, geel, groen, blauw)

J-009032 Automatic door
These specifications open and close the front door automatically.
The door is opened and closed with a manual button or an M code.
If the NC power is turned on when the door is closed, it automatically prepares for operation.

J-015384 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.

J-015385 Robot interface (EtherNet/IP)
Prepares I/O signals for exchanging workpiece between the machine and robot by EtherNet/IP protcol. (separate, stand-alone type)
Advantages of long-term unmanned operation and automatic workpiece s
*Robot system and cable between machine and robot are not included
*Requires EtherNet/IP option.
*The automatic door is not

J-003356 Safety Fence I/F (Electric I/F)
This is the signal to indicate the status of the safety fence door to the machine. When the machine receives the signal indicating that the safety fence door is closed, power is supplied even if the machine front door is open. When the safety fence I/F is used with the robot I/F, the spindle orientation can be executed by the command specified from the robot
*Safety fence and a cable between the safety fence and machine are not included.

J-008878 Bar Feeder Interface (LNS) (multiple)
The Bar feeder interface (I/F) is intended for connection to the bar feeder, which achieves higher productivity by the automatic bar stock feed.
To install any bar feeder other than the LNS-made, the I/F needs to be changed. Consult the DMG MORI Service Department.

General Options

J-001247 Dry Anchor
It is installed to prevent the machine movement caused by vibration n the operation or small earthquakes. Fork-cut anchors must be driven in before installation.

J-002210 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)

J-004844 ERGOline Screen Protection Sheet (Upper, 1 Piece) (Spare)
One transparent protection sheet for the ERGOline upper screen is included. It is an anti-glare film and protects the screen from soil or scratches.
Thickness: 150 µm

J-004845 ERGOline Screen Protection Sheet (Lower, 2 Pieces)
Two transparent protection sheets for th ERGOline lower screen are include n anti-glare film and protects the scr e soil or scratches.
Thickness: 150 µm

J EU0007 95 kVA three phase autotransformer with cabinet CLPB 50F- 1427T18001. Cable lugs of transformer cable might have to be replaced during installation.

J-004471 Instelling in mm

Technology Cycle

J-015571 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.

J-015572* MPC (Machine Protection Control)
Machine protection by quick shutdown

Options for Control

J-008018 Stroke limit check before movement
When beginning to move in each block during an automatic operation, it checks whether the end point enters a predefined prohibition zone. When the end point is specified to enter a prohibition zone, an alarm is displayed on the screen and the machine stops just after the start of the block. Note that the course of tool paths is not checked.

J-008094 Chuck, tailstock barrier
"This function prevents machine damage by checking the interference between chuck and tool or chuck and tailstock.
You should set tool's no entry zone from exclusive setting screen depending on the form of the chuck and tailstock beforehand.
If tool tip enter the no entry zone during machining, this function halts the tool movement and display alarm message.
To escape from the no entry zone, tool must be moved to opposite direction against intrusion direction."

Control unit:MSX-701,MSX-71

J-008619

Part program storage length 2 MB (5,120 m) in total + Registerable programs 1,000 in total
The storage capacity can be increased to 5,120 m (2 MB), and up to 1,000 programs can be registered.
・Control unit MSX-701(standard)
Program memory capacity total:128 KB / 320 m
Registered program amount total: 250 (standard)
・Control unit MSX-711(standard)
Program memory capacity total:256 KB / 640 m
Registered program amount total:500 (standard)
*Control unit:MSX-711 only

J-007791

Islands, open pockets
Islands
・Simplifies programming by minimizing input operations, even for complex pocket machining.
・Number of island shape definitions: 127.
Open pockets
・Optimizes tool path by eliminating paths with no machining allowance.
・Greatly reduces air cutting.
・Cycle time can be reduced by 30%.
Available only when milling specification is selected.

J-008657

High-Speed Canned Cycle
Inputting the canned cycle arguments by following the screen guidance allows complex machining, including helical thread cutting and trochoid shape, to be specified in one program line. It significantly reduces the programming time and creates optimum tool paths for the high-speed machining.

J-008021

Program restart
The program restart function allows the program to be restarted from a desired block if a tool is broken or for restarting the suspended operation after holidays.
To restart the program, specify the sequence number of the block or the block number to be restarted.
There are two restart methods: P-type and Q-type. When using the P-type method, operation can be restarted anywh
use the Q-type method, you mu the axes to the machining start p i
restarting the program.

J-008241 Tool Retract and Recover
It can replaces the tool damaged during machining or retracts the tool from a workpiece for checking the machining status. Also, the tool can efficiently be returned in place again for restarting the machining.

J-007760 Additional workpiece coordinate systems 48 sets
When the standard 6 sets of workpiece coordinate systems (G54 - G59) are not sufficient, up to 48 sets of workpiece coordinate systems can be added.

J-008244 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-G00618 X Axis Direction, JIS/ISO Compliant
The X-axis moves in the direction that is compliant with JIS/ SO.

Options for MAPPS / CELOS Control

J-015580 MAPPS Tool management system for NT

Screen Text Language

J-000086 Screen display Dutch
Language on MAPPS Screen: Dutch
Language on MAPPS Warning Screen: Dutch
Language on NC Screen: Dutch
Language on PC Screen: English

Speciale constructie

SK001 Through tool spindle air blow (Lubricator is added, spindle can rotate, switching with coolant)

The air blow circuit is added to the t ›o spindle through coolant circuit, cool blow can be switched.
The lubrication unit is added to the w circuit for protection the rotary un

This is different from oil shot, semi-dry.
The coolant and the air blow can not spout at once, because the same piping is used.
Dry air can't blow.Pleaase revise ODS in case of need the dry air blow.

SK002 Long tool stocker (3 tool、φ63mm×L600mm、C6、8kg、above sub spindle/tail stock

The long tool stocker that each tool in out type is installed above sub spindle/tail stock.

- Tool stock number： 3 tools
- Max. tool diameter： φ63 mm
- Max. tool length： L 600mm
- Max. tool weight： 8kg
- Max. tool moment： 7.84N・m(From gauge line)

SK003 Design fee for special option

SK004 3D interference checking function(User specification)

SK005 Assembly fee for special option

Options for MAPPS / CELOS Control

J-004769 DMG MORI Messenger

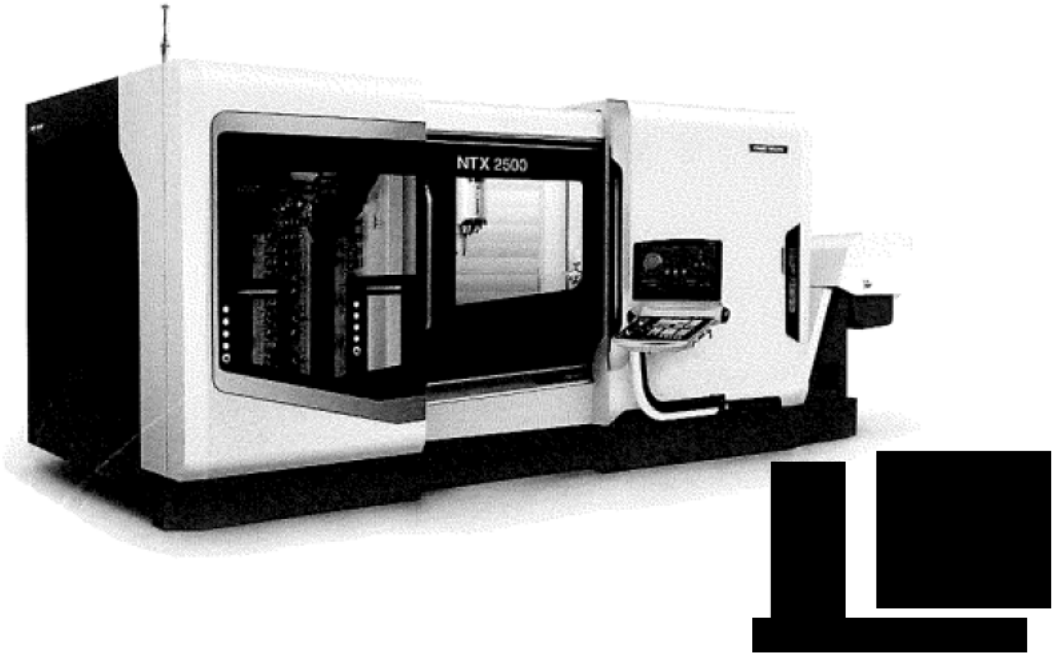
Services

J 004965 3D Machine Model Data
The 3D model data of the machine is provided.
The data can be used in the customer's CAD system for various applications such as simulation.
The following two types of 3D model data can be provided:
- Model for checking the outer shape of the machine (to be used to create the layout in the factory)
- Model for checking interference inside the machine (to be used to check machining programs and tool paths)
*The non-disclosure agreement needs to be concluded.
*For preventing the technical information from being leaked, the data to be provided is simplified. Information other than the machine outer shape and interference inside the machine is not included.

Sales company services

MNL005 In bedrijfstelling van uw mac

NTX 2500 | 1500 2nd Generation



Highlights

- Simultaneous 5-axis machining with the Direct Drive Motor (DDM) on the B-axis.
- The compactMASTER, the world's shortest tool spindle in its class (350 mm), ensures a wide machining envelop to increase productivity.
- Wide range of machining area with the X-axis stroke of 675 mm (-125 - ＋550 mm) and the Y-axis 300 mm (±150 mm)
- Y-axis stroke of ±40 mm of Turret 2 expands the machining range
- Smallest floor space of 16.5 m2 (5,825 × 2,830 mm) in its class for workpiece sizes of up to φ670 x 1,530 mm
- 6-face machining is available with Spindle 2 to complete the machining of components on one machine.