

Price List

CMX 1100 V



cmx-1100-v.dmgmori.com

Highlights

- Solution-based machine for every shop floor
- Varieties of standard options and custom-design specifications available
- Automation systems such as robot systems and APC available
- The largest Y-axis travel in its class of 560 mm, covering a wide range of workpieces
- Equipped with a high-performance spindle of up to 15,000 min-1 as standard for high-speed machining
- Wide work envelope in space-saving design
- Cutting-edge design for superior workability

Investment summary

Machine and Options					
Basic Machine					
CMX 1100 V <USA 1>	J-A02325	1	138,500.00	USD	
Control					
Fanuc_F0iMF	J-022368	1	0.00	USD	
SLIMline	J-009889	1	0.00	USD	
Spindle					
High-Speed Spindle 15,000 min-1, 15/ 11 kW	J-022341	1	0.00	USD	
Options for Spindle					
Spindle Taper 7/24 Taper #40 (two-face contact)/ Grip CAT <CAT40 two-face contact>	J-022342	1	0.00	USD	
Preparation for Center Through-spindle coolant system	J-007251	1	0.00	USD	
Retention Knob: Special (Center-Through) (7/24 Taper #40)	J-022343	1	0.00	USD	
Tool Magazine					
Tool storage capacity 30 tools (STD)	J-EC3163	1	0.00	USD	
Tool magazine door	J-022344	1	0.00	USD	
Coolant supply / Chip removal					
Usable Coolant Type: Water-Soluble Coolant	J-G00428	1	0.00	USD	
Chip conveyor (left discharge, inner pan scraper type + drum filter)	J-022345	1	0.00	USD	
Interface for Through-Spindle Coolant System (7 MPa, Constant Pressure) (Mount on Coolant Tank)	J-022346	1	0.00	USD	
Additional coolant system for tool tip	J-022347	1	0.00	USD	
Measuring / Monitoring					
In-machine measuring system (spindle, table) (RENISHAW) + W Setter (tool setter + workpiece setter) (tool length + diameter)	J-022352	1	0.00	USD	
Automation					
Signal lamp 4 colors (Red, yellow, green, blue)	J-022353	1	0.00	USD	
General Options					
Operation Panel with Long Arm	J-008252	1	0.00	USD	
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	
Options for Control					
Part program storage length 2 MB (5,120 m) in total + Registerable programs 1,000 in total	J-022359	1	0.00	USD	
AI contour control II	J-022363	1	0.00	USD	
Screen Text Language					
Screen display English	J-000080	1	0.00	USD	
Price machine and options					138,500.00 USD

Services				
Special constructions services				
DMFS FFP Costing	SK003	1	8,868.00	USD
DMFS Price Federal Compliance	SK004	1	5,913.00	USD
Sales company services				
SV1: Standard Machine Installation	Z-COST01	1	0.00	USD
DMG MORI Precision Protection Program	Z-COST05	1	8,310.00	USD
DMG MORI Connect	Z-COST06	1	1,000.00	USD
EG1: Standard Machine Training	Z-COST07	1	0.00	USD
Price services				24,091.00 USD
Price machine and options				138,500.00 USD
Price services				24,091.00 USD
Total price				162,591.00 USD

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 NETservice

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

YouTube video



DMG MORI Manufacturing USA

CMX 1100 V

Machine and Options	USD	USD
Basic Machine		
CMX 1100 V	J-A02325*	1
Vertical-Machining center		138,500.00
Travel X/ Y/ Z: 1,100/ 560/ 510 mm 43.3/ 22.0/ 20.1 in.		
Working surface: 1,400 x 560 mm 55.1 x 22.0 in.		
Control		
Control F0iMF (CMX V) Control unit: FANUC F0iMF	J-022368*	1
SLIMline DMG MORI operating system equipped with MAPPS. The large 15-inch display can reduce the number of switching of the screen as it provides the four-way split screen and allows user to see more information at once. It is also possible to customize the content of the four-way split screen. "Addition of USB port (x 1)" must be arranged separately to read DXF files from a USB memory device.	J-009889	1
Spindle		
High-Speed Spindle 15,000 min-1, 15/11 kW Spindle speed: 15,000 min-1 Output: 15/13/11 kW (20/17.33/15 HP) (25%ED/30min/cont) Torque: 119/70/57 Nm (87.76/51.62/42.04 ft·lbf) (25%ED/30min/cont)	J-022341	1
Options for Spindle		
Spindle Taper 7/24 Taper #40 (Two-face Contact)/Grip CAT <CAT40 Two-face Contact> This specification uses the spindle No. 40 7/24 taper (two-face contact) /Grip CAT tool holder. The grip type and retention knob type of ATC are specified separately.	J-022342	1
		0.00

Center Through-Spindle Coolant System J-007251 1 0.00
It can supply coolant through the holes of the
spindle and tool.

The coolant supply path to the tool tip is a
center-through type. Effective for removing chips,
cooling a machining point and prolonging a tool
life.

*Coolant pump is not included.

Retention Knob: Special (Center-through) (7/24 J-022343 1 0.00
Taper #40)

The spindle collet applicable to the special
(center-through) retention knob is installed.

*Tool retention knob is not included.

*The through-spindle coolant specification
requires a dedicated retention knob.

Tool Magazine

Tool Storage Capacity 30 Tools (STD) J-EC3163 1 0.00

Ring-type magazine

Tool capacity: 30 tools

Technical random address type

Max. tool diameter

- With adjacent tools: $\Phi 80$ mm (dia.3.15 inch.)

- Without adjacent tools: $\Phi 125$ mm (dia. 4.92
inch.)

Max. tool length: 300 mm (11.81 inch.)

Max. tool weight: 8 kg (17.6 lb.)

Max. tool moment (from gage line): 12 Nm (8.85
ft·lbf)

*Please refer to the separate tool restriction
diagram for other restrictions.

Tool Magazine Door J-022344 1 0.00

Door is equipped in magazine cover so customer
can set up tools from magazine.

In case of the tool exchange from spindle, each
tool has to be brought in and out with ATC.

Therefore this specification is effective when many
tools are exchanged at one time.

Coolant supply / Chip removal

Applicable Coolant Type: Water-Soluble Coolant J-G00428 1 0.00

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.

Chip Conveyor (Left Discharge, Inner Pan Scraper Type + Drum Filter)	J-022345	1	0.00
Install the chip conveyor on the front side of the machine. The discharge direction is left side. Chips accumulated on the inner pan in the conveyor are scraped up by the scraper and discharged out of the machine. The built-in drum filter with a backwash system can reduce the frequency of cleaning inside the tank. The pump is dedicated to filter cleaning.			
- long chips (aluminum, steel): 505 L/h (133.32 gph) (low speed), 1,515 L/h (399.96 gph) (high speed)			
- short chips(cast iron): 113 L/h (29.83 gph) (low speed), 339 L/h (89.49 gph) (high speed)			
Chip discharge port height: 956 mm (37.64 inch.)			
Through-Spindle Coolant System I/F (7 MPa (1,015 psi), Constant Pressure) (Mount on Coolant Tank)	J-022346	1	0.00
I/F for mounting the super-high-pressure coolant system (mount on coolant tank type). The electrical components and coolant piping are included. It supplies high-pressure coolant to the tool tip through the hole in the spindle and tool, which is effective in 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)			
*The high pressure coolant unit is not included.			
*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.			
Additional Coolant System for Tool Tip	J-022347	1	0.00
Two coolant nozzles are added to the rear side of the spindle. The orientation of the additional nozzles can be adjusted.			

Measuring / Monitoring

In-machine Measuring System (Spindle + Table) J-022352 1 0.00
(RENISHAW) + W Setter (Tool Setter + Workpiece
Setter) (tool length + diameter)

This specification is a set of Renishaw touch sensor "spindle (OMP40) and table (OTS)". Mounting the touch sensor on the spindle makes it possible to position the workpiece, as well as to measure the position of the fixture and workpiece. The coordinate values of the workpiece read by the sensor are transmitted using an infrared beam to the NC unit via the receiver installed inside the machine. Also, touch sensor on the table makes it possible to measure tool length, tool diameter and detect tool breakage automatically. Direct air blow to the sensor prevents measurement of tools with chips or coolant adhering to them. Further, with using spindle touch sensor, it's possible to do manual easurement of base surface, base hole/groove and coordinates rotation. With using table touch sensor, it is possible to do manual measurement of tool length and diameter.

- Measuring direction: +X, -X, +Y, -Y, +Z

*Depending on the shape of the workpiece or fixture, communication with the receiver may be interrupted and there is a possibility that it can not be received. We will also consider change and addition to the mounting location of the receiver, change to the radio signal transmission type, so please consult in advance.

Automation

Signal Lamp 4 Colors (Red, Yellow, Green, Blue) J-022353 1 0.00
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.

General Options

Operation Panel with Long Arm J-008252 1 0.00
Swiveling area of the long arm control panel becomes larger than short arm. It is possible to swivel the operation panel to the inside of the machine more. The distance from spindle to control panel decreases. When you swivel the control panel to the right side of the machine, it does not protrude forward from the front door. Interference can be avoided when placing roller conveyor and work truck close to front of machine.

Voltage of Customer Factory 220 V J-G00951 1 0.00
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.

Frequency 60 Hz J-G00961 1 0.00
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.

Setting Unit, Inch J-004472 1 0.00
The unit to be used for the screen display and program commands is set to "inch".
Turning: "Inch" specification for the turret

Options for Control

Part Program Storage Length 2 MB (5,120 m) in J-022359 1 0.00
Total + Registerable Programs 1,000 in Total
The storage capacity of CNC can be increased to 2 MB (5,120 m) to register up to 1,000 programs.

AI Contour Control II J-022363 1 0.00
This function is designed for high speed machining with minute division programs for molds. This function can suppress delays by acceleration/deceleration and in servo system which get larger as feedrate increases, making it possible to decrease errors in machining shape. As it is excellent in program read-ahead, even machining with a long program can be performed smoothly. It realizes smooth acceleration/deceleration over multiple blocks and machining at higher speeds, with read-ahead for acceleration/deceleration before interpolation.

Screen Text Language

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

Price machine and options	138,500.00
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Services		USD	USD
Special constructions services			
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DMFS Price Federal Compliance	SK004	1	5,913.00
Sales company services			
SV1: Standard Machine Installation	Z-COST01	1	0.00
DMG MORI Precision Protection Program	Z-COST05	1	8,310.00
DMG MORI Connect	Z-COST06	1	1,000.00
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			
EG1: Standard Machine Training	Z-COST07	1	0.00

Price services	24,091.00
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Price machine and options	138,500.00
Price services	24,091.00

Total price	162,591.00
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Attachment

Technical Description

J-A02325

Basic machine CMX 1100 V

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.

Travel

X-axis travel <longitudinal movement of table>	mm (in.)	1,100 (43.3)
Y-axis travel <cross movement of saddle>	mm (in.)	560 (22.0)
Z-axis travel <vertical movement of spindle head>	mm (in.)	510 (20.1)
Distance from table surface to spindle gauge plane	mm (in.)	120 – 630 (4.7 – 24.8)

Table

Distance from table surface to floor surface:

- Standard	mm (in.)	850 (33.5)
Table working surface	mm (in.)	1,400 x 560 (55.1 x 22.0)
Table loading capacity	kg (lb.)	1,000 (2,200)
Table surface configuration <T slots width x pitch x No. of T slots>		18 mm x 100 mm x 5 (0.7 in. x 4 in. x 5)

Spindle

Max. spindle speed:

- High speed	min ⁻¹	15,000
Number of spindle speed ranges		1
Type of spindle taper hole		No. 40
Spindle bearing inner diameter: - Standard	mm (in.)	65 (2.56)

Feedrate

Rapid traverse rate:

- X-axis	mm/min (ipm)	36,000 (1,417.3)
- Y-axis	mm/min (ipm)	36,000 (1,417.3)
- Z-axis	mm/min (ipm)	30,000 (1,181.1)
Cutting feedrate <When using look-ahead control>	mm/min (ipm)	X, Y, Z: 1 - 20,000 (0.04 – 787.4)
Jog feedrate	mm/min (ipm)	0 – 5,000 (0 – 196.9) <20 steps>

ATC

Type of tool shank	BT40
Tool storage capacity	30
Max. tool diameter <With adjacent tools>	mm (in.) 80 (3.1)
Max. tool diameter <Without adjacent tools>	mm (in.) 125 (4.9)
Max. tool length	mm (in.) 300 (11.8)
Max. tool mass	kg (lb.) 8 (17.6)
Max. tool mass moment <from spindle gage line>	N·m (ft·lbf) 12 (8.9)
Method of tool selection	Technical memory random
Tool changing time:	
- Tool-to-tool <max. tool mass: less than 4 kg (8.8 lb.)>	s 1.32
- Tool-to-tool <max. tool mass: 4 - 8 kg (8.8 - 17.6 lb.)>	s 1.46
- Cut-to-cut <DIN> <Adjacent/Farthest>	s 3.76/3.76
- Cut-to-cut <MAS>	s 3.74

Motors

Spindle drive motor:

- High speed <25%ED/cont>	kW (HP)	15/11 (20/15)
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Feed motor:

- X-axis	kW (HP)	1.8 (2.4)
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- Y-axis	kW (HP)	1.2 (1.6)
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- Z-axis	kW (HP)	1.8 (2.4)
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Coolant pump motor <50 / 60 Hz>	kW (HP)	0.8/1.1 (1.1/1.5)
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Tank capacity

Coolant tank capacity:

- Left discharge type chip conveyor L (gal.) 330 (87.1)

Machine size

Machine height:

- Left discharge type chip conveyor mm (in.) 2,937 (115.6)

Floor space <width x depth>:

- Left discharge type chip conveyor mm (in.) 3,818 x 2,742
(150.3 x 108.0)

Mass of machine kg (lb.) 5,500 (12,100)

J-022368

NC Unit F0iMF

Controlled axes

Controlled axes	X, Y, Z, MG
Simultaneously controlled axes	4 axes
Least input increment	0.001 mm (0.0001 in.)
Max. command value	$\pm 999,999.999$ mm (99,999.9999 in.)
Inch / metric conversion	
Machine lock	
Overtravel	
Stored stroke limit	

Operation

Dry run	
Single block	
Jog feed	0 – 5,000 mm/min (0 – 197.0 ipm) <20 steps>
Manual reference position return	
Manual pulse handle feed	Manual pulse generator: 1 unit x1, x10, x50, x100 (per pulse)
Z-axis neglect	
Sequence number comparison and stop	

Interpolation functions

Positioning	
Single direction positioning	
Exact stop check mode	
Exact stop check	
Helical interpolation	Optional 2 axes and other 1 axis
Automatic reference position return	
Reference position return check	
Return from reference position	
2nd reference position return	
Cylindrical interpolation	
Feed per revolution	

Feed functions

Cutting feedrate	1 – 6,000 mm/min (0.04 – 236.2 ipm) {1 – 20,000 mm/min (0.04 – 787.4 ipm) <when using look-ahead control>}
Rapid traverse override	0 – 100% <20 steps>
Feed per minute	
Tangential speed constant control	
Feedrate override	0 – 200% <10% increments>
Override cancel	
High-precision control <look-ahead control>	

Program input

Optional block skip	Soft key type
Addition of optional block skip	4 digits
Program number	
Absolute / incremental programming	Decimal point programming or electronic calculator type decimal point programming can be set using parameters
Decimal point programming	
Plane selection	
Coordinate system setting	
Automatic coordinate system setting	
Workpiece coordinate system selection	
Workpiece coordinate system preset	
Local coordinate system setting	
Machine coordinate system selection	
Offset amount program input	Up to 10 nestings
Sub-program	
Hole machining canned cycle	48 sets
Additional workpiece coordinate systems	
Programmable data input	
F10/11 format	
Programmable mirror image	
Polar coordinate command	
Custom macro common variables <in total>	600 variables
Scaling	
Coordinate system rotation	
Automatic corner override	

Miscellaneous function / Spindle speed function

Miscellaneous function (M function)	4-digit M code
Auxiliary function lock	
Spindle orientation	
Spindle speed function (S function)	5-digit S code
Spindle speed override	50 – 150% (10% increments)
Synchronous tapping	

Tool function / Tool offset function

Tool function (T function)	4-digit T code
Number of tool offsets	400 sets
Tool offset memory C	D/H code, geometry / wear
Tool length offset	
Tool position offset	
C Cutter radius offset C	

Mechanical error compensation

Backlash compensation
Rapid traverse / cutting feed backlash compensation
Pitch error compensation
Stored pitch error compensation

Editing

Background editing

Operation and display

Current position display
Parameter setting display
Alarm history display
Help function
Operation history display
Operator's message history display
Running time / Parts count display
Trouble shooting
Abnormal load detection
Self-diagnosis

Includes alarm display, I/O signal diagnosis and ladder diagram

Data input / output

I/O interface
Program storage area
(Storage area for user data including NC program)

Network drive, USB memory
50 MB

Standard Equipment

Table

- T-slot table

Spindle

- Max. spindle speed 15,000 min⁻¹
- Type of tool shank BT40
- Type of retention knob – Special (Center-Through) (7/24 Taper #40)
- Tool storage capacity is 30 tools.

Coolant

- Coolant system

Safety features

- Full cover
- Door interlock system <incl. mechanical lock>
- Low air pressure detecting switch

Others

- Automatic power-off system
- T-nuts for table slots
- Leveling block
- LED worklight
- ATC shutter
- Hand tools