

**TAKISAWA®**

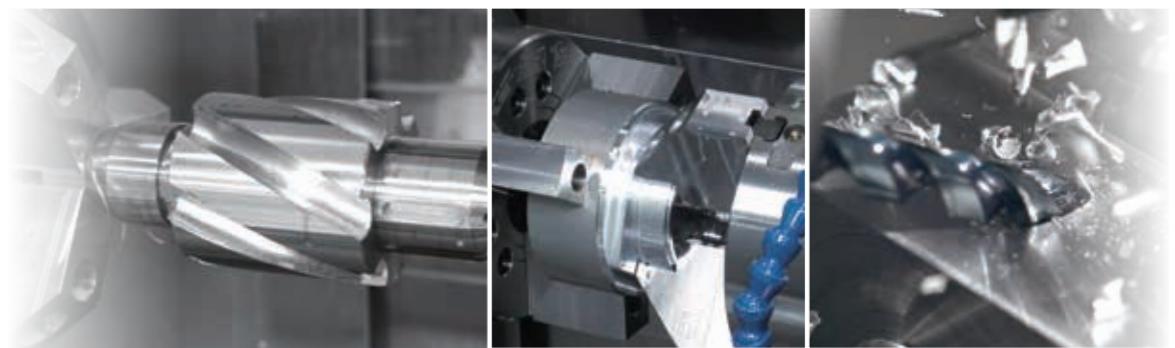
Multi-Tasking Machine

# **TMX-4000**

# **TMX-2000**

Productive  
Multi-tasking Cells

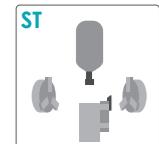
# TMX-Series



# Capability • Performance

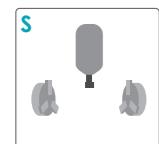
## Axis Configuration

Configuration of up to 9 control axes can execute turning process and milling process continuously.



**TMX-4000ST** : 9-Axes

X1/Z1/Y/B/C1/C2/A/X2/Z2  
Left Spindle + Tool Spindle +  
Right Spindle + Lower Turret



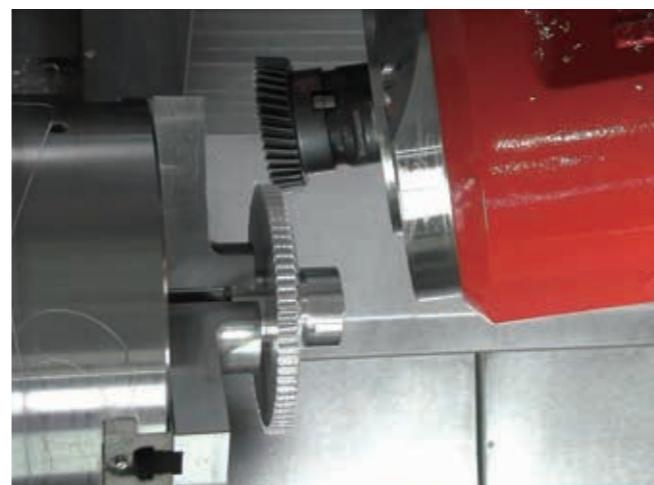
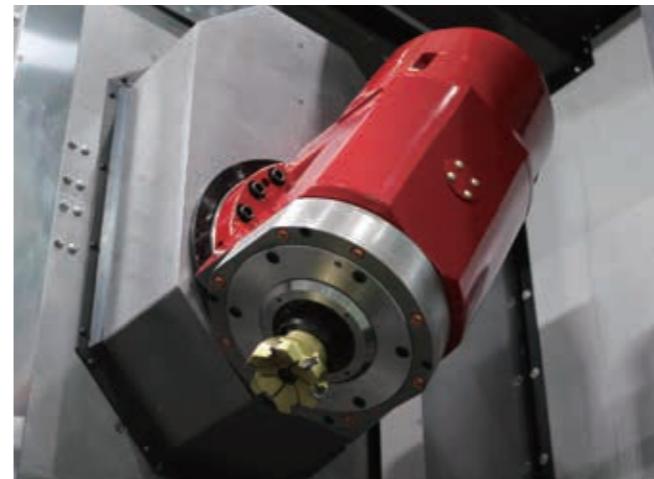
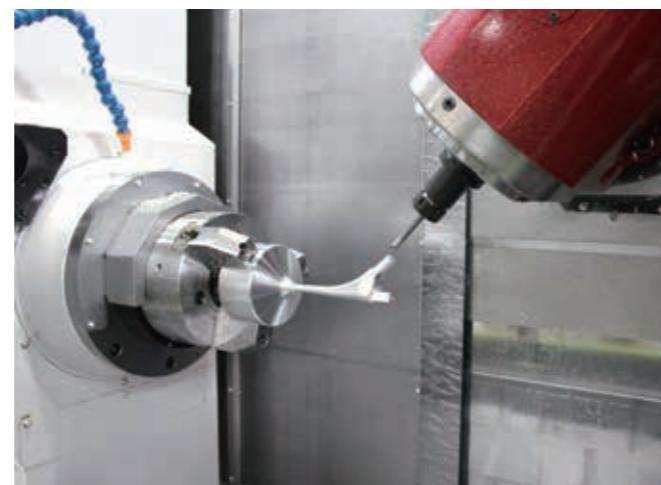
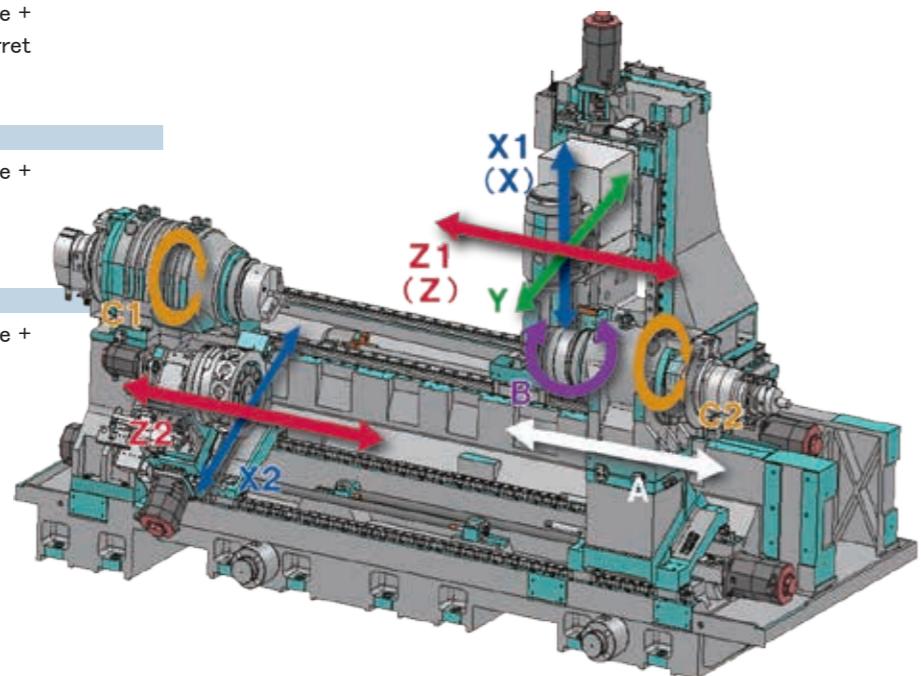
**TMX-2000S** : 7-Axes

X/Z/Y/B/C1/C2/A  
Left Spindle + Tool Spindle +  
Right Spindle



**TMX-2000** : 6-Axes

X/Z/Y/B/C1/A  
Left Spindle + Tool Spindle +  
Tailstock

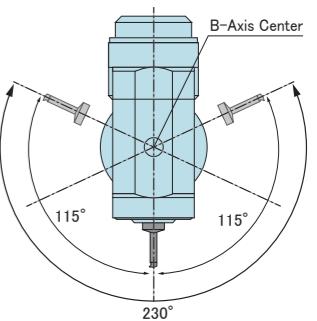


## Tool Spindle

Built-in Motor Tool Spindle : Max. Spindle Speed 12000 min<sup>-1</sup>  
TMX-4000 : 97 N·m torque and 22kW output (S3/S6 25%),  
TMX-2000 : 60 N·m torque and 15kW output (S2 30min) is actuated by switching the winding thus it deals with facemills and small diameter endmills.

## B-Axis

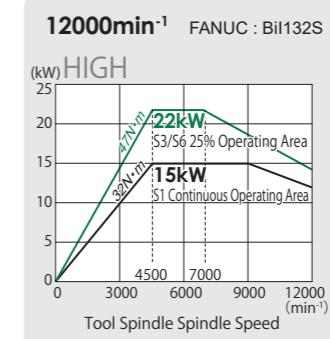
TMX-4000 uses a direct drive motor for rotation and a diaphragm brake for clamping, achieving high speed and high accuracy (minimum indexing accuracy 0.0001°).  
TMX-2000, Large diameter of 291mm coupling. The minimum index angle is 1° .



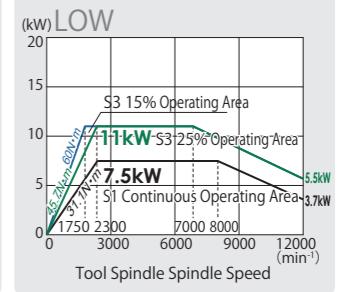
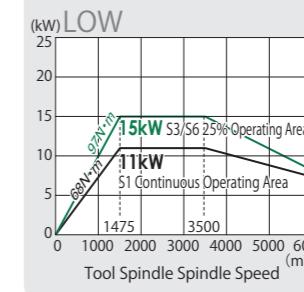
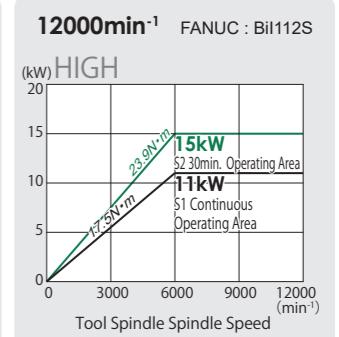
	Travel (Swivel Range)
B-Axis	230° ( $\pm 115^\circ$ )

## Tool Spindle

### TMX-4000



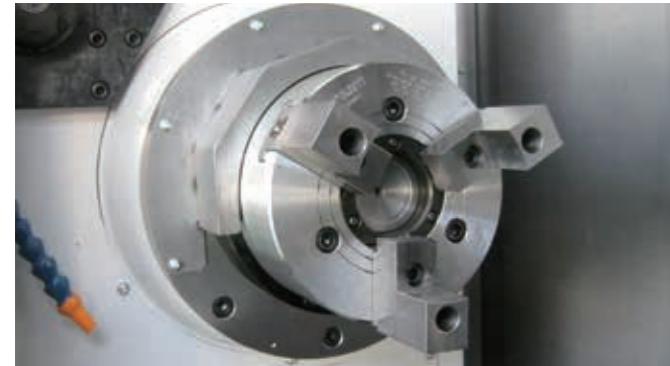
### TMX-2000



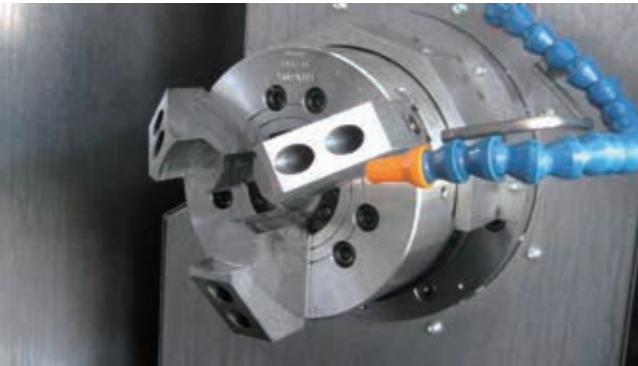
# Capability • Performance

## Headstock

**Winding Change Built-in Motor is Adopted for Both Left and Right Spindles**



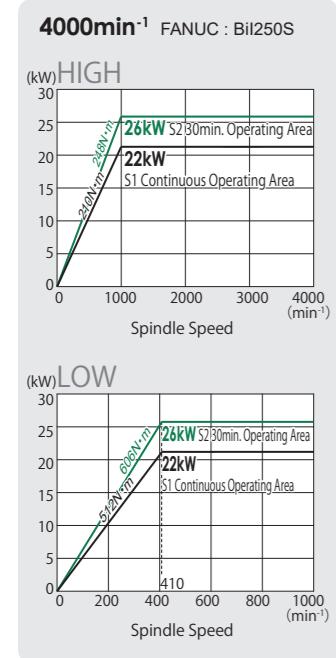
Items	TMX-4000ST	TMX-2000, (S)
Spindle Nose	A2-8	A2-6
Inner Diameter of Bearing	φ140mm	φ120mm
Bar Capacity	φ80mm	φ65mm
Spindle Speed	4000min <sup>-1</sup>	5000min <sup>-1</sup>
Spindle Motor	26/22kW	15/11kW
The Minimum Index Angle of Spindle (C-axis)	0.0001°	0.001°



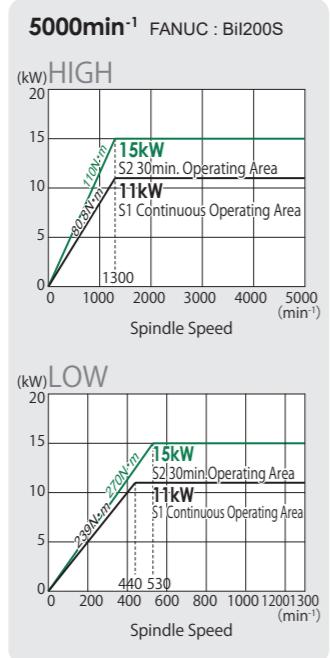
Items	TMX-4000ST	TMX-2000S
Spindle Nose	A2-8	A2-6
Inner Diameter of Bearing	φ140mm	φ100mm
Bar Capacity	φ80mm	φ51mm
Spindle Speed	4000min <sup>-1</sup>	5000min <sup>-1</sup>
Spindle Motor	22/15kW	11/7.5kW
The Minimum Index Angle of Spindle (C-axis)	0.0001°	0.001°

## Left Spindle

### TMX-4000

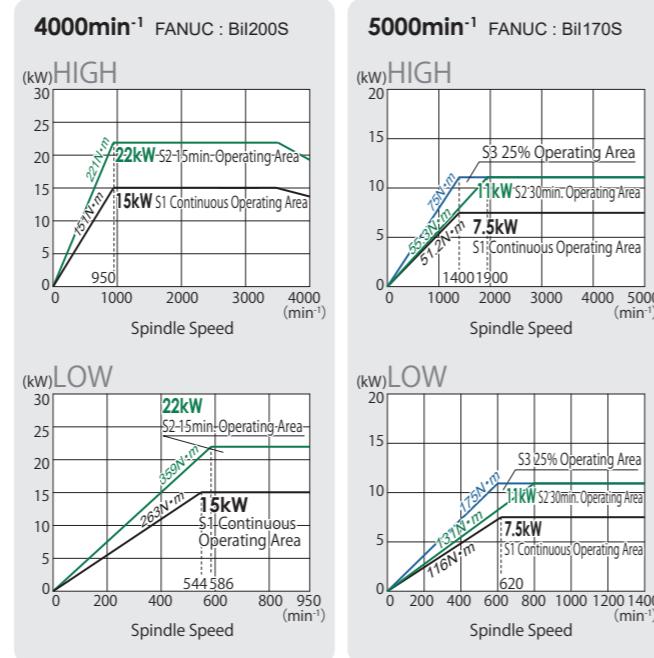


### TMX-2000

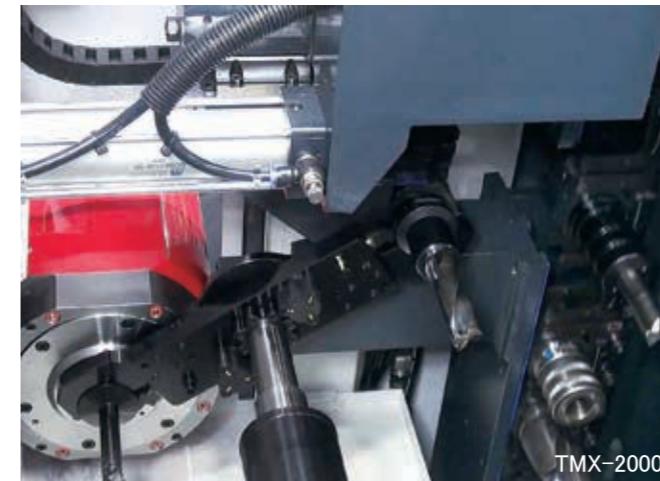
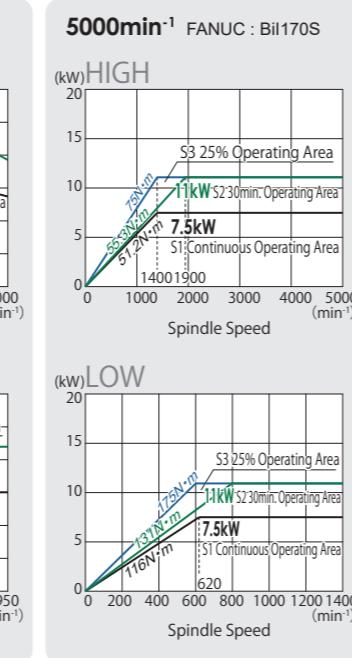


## Right Spindle

### TMX-4000



### TMX-2000

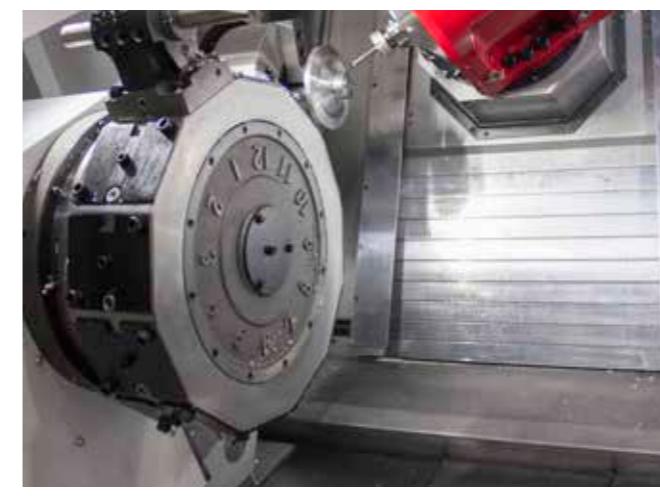
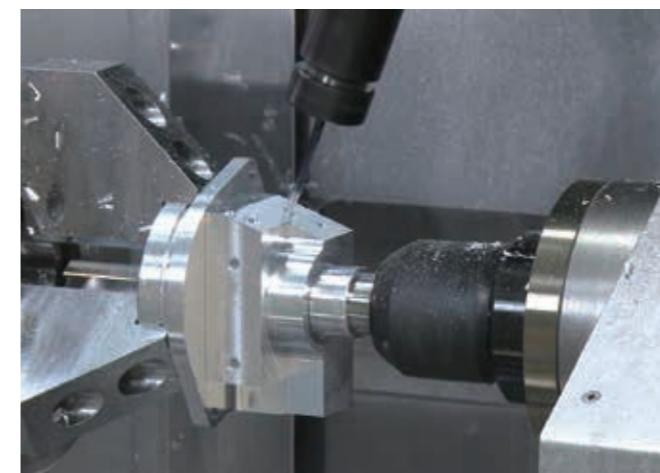


## ATC

Items	TMX-4000	TMX-2000
Tool Max. Diameter	125mm (without Adjacent Tool)	
Tool Max. Weight	10kg	6kg
Tool Max. Length	400mm	300mm
Tool Storage Standard	40pics (Chain Type)	
Capacity Optional	80, 120	80
ATC Time		2 sec

## NC Servo Tailstock (For TMX-2000)

Tailstock Travel : 620mm(+400)  
Quill Taper : MT No.5



## Lower Turret (For TMX-4000)

The turret is the 12-Station all-holder type.

	Travel	Rapid Traverse Rate
X2-Axis	225mm	20m/min
Z2-Axis	1500mm	40m/min

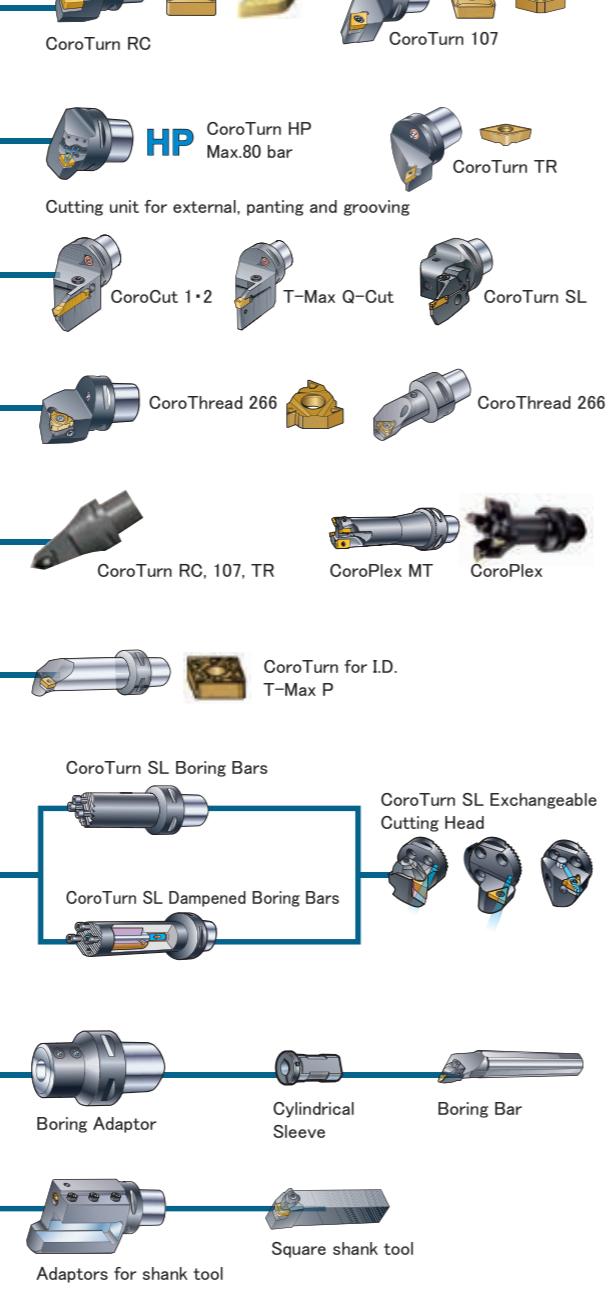
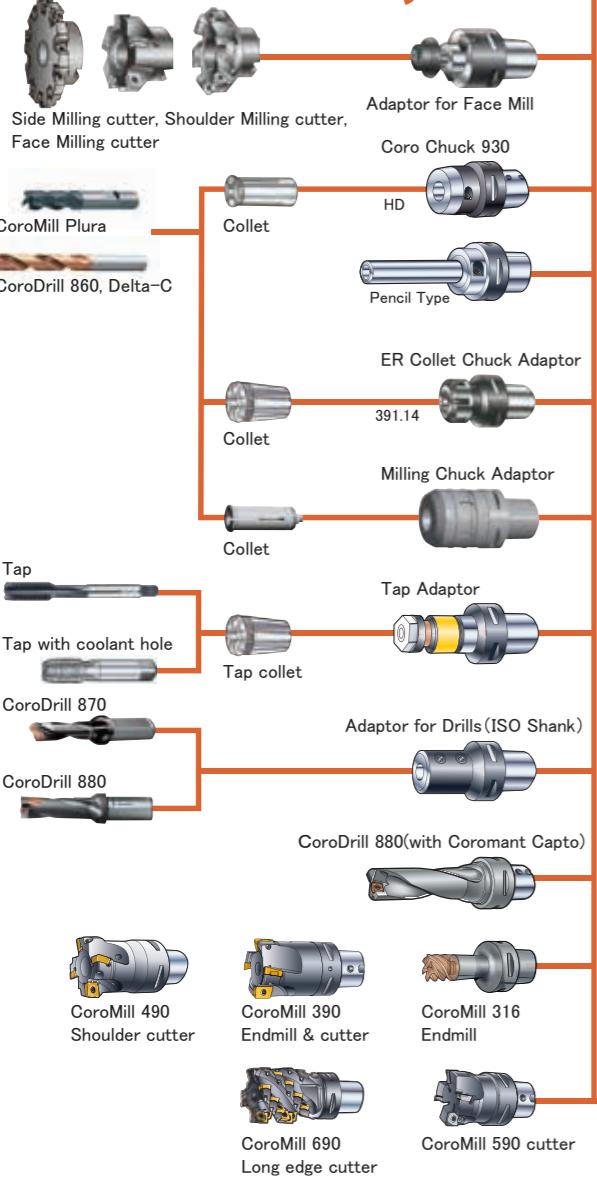
# Tooling System

Tooling System SANDVIK CAPTO C6  
(More Detail : Please Consult to SANDVIK)



## Turning Tool

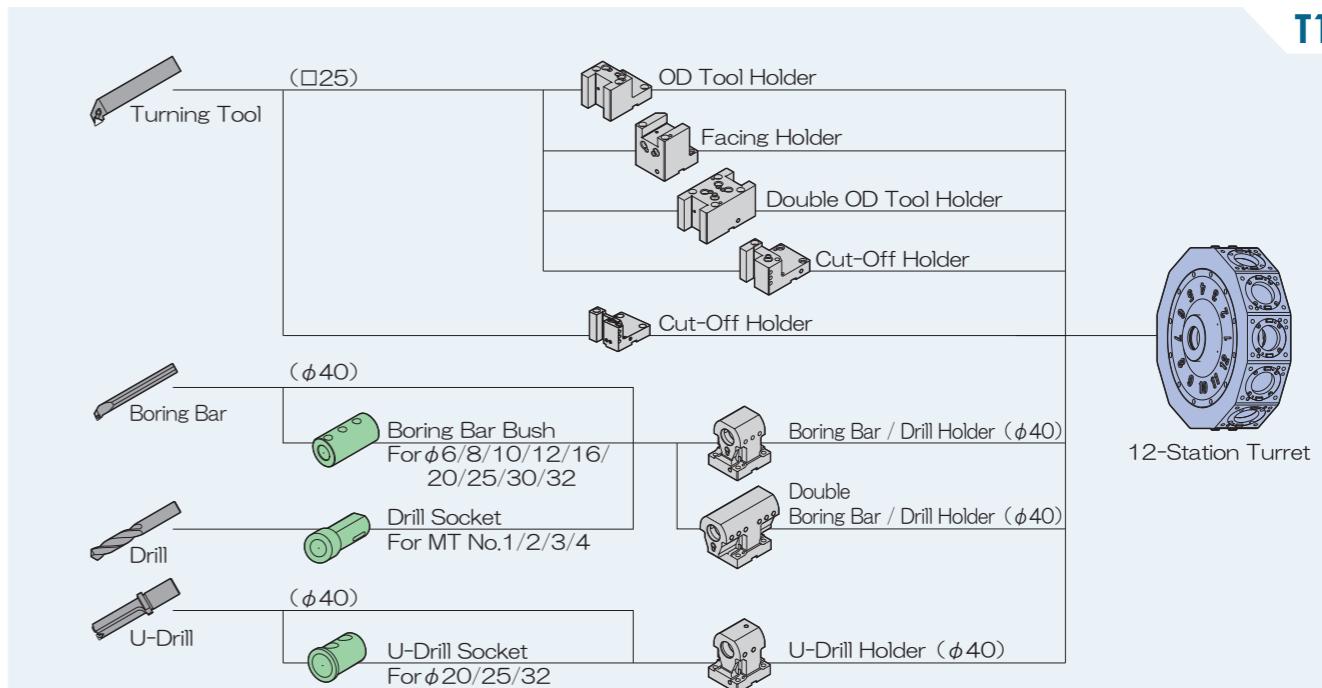
### Rotary Tool



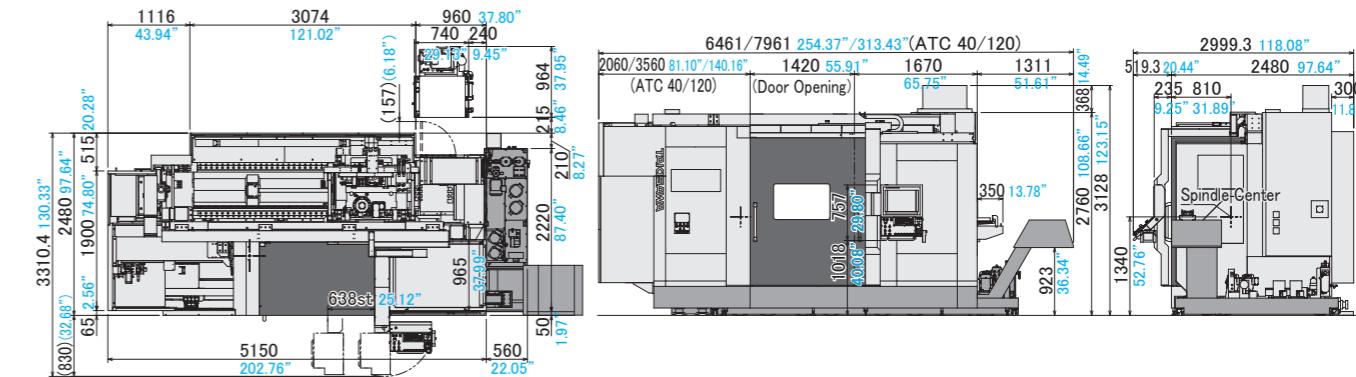
# Tooling System • Machine Dimensions

Unit : mm inch

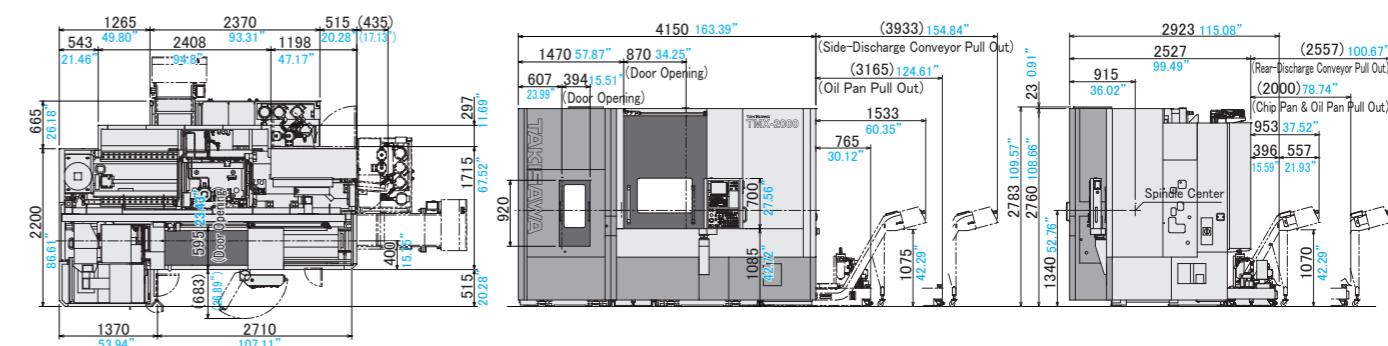
## Lower Turret (For TMX-4000ST)



## TMX-4000ST



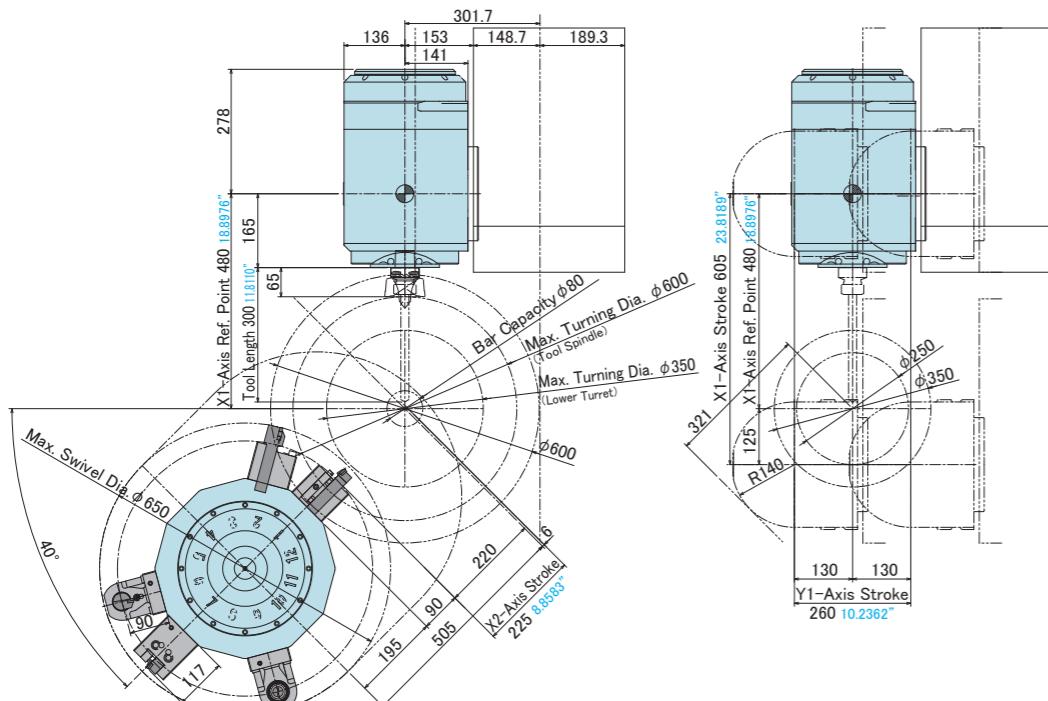
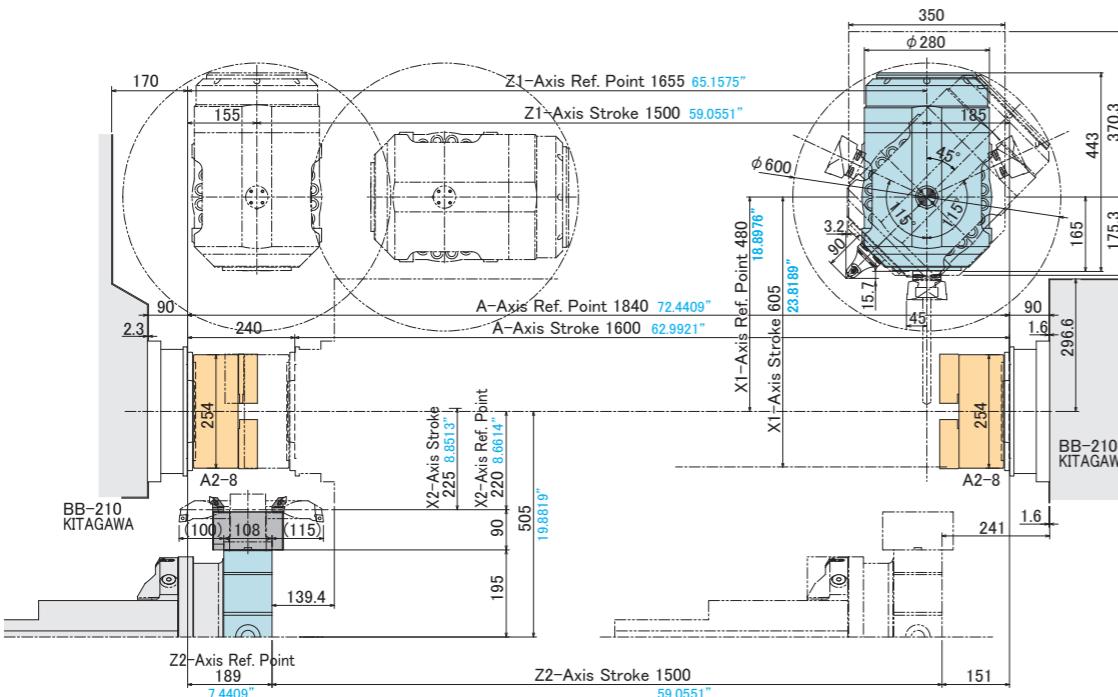
## TMX-2000



# Interference • Travel Range

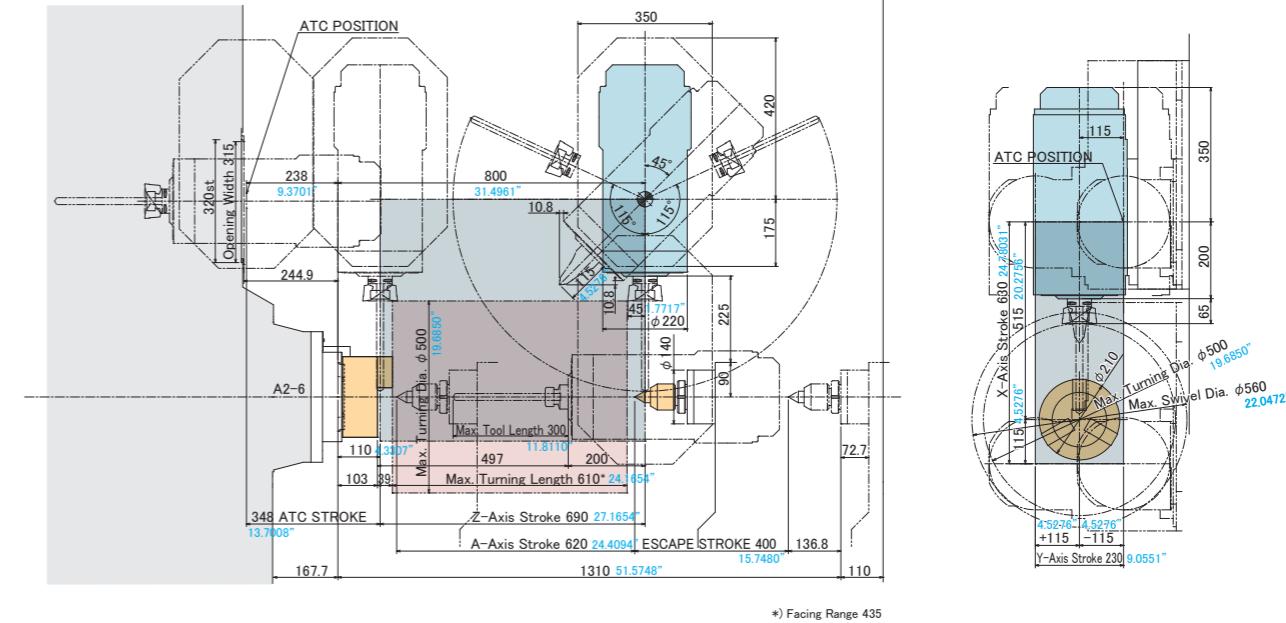
Unit : mm inch

**TMX-4000ST**



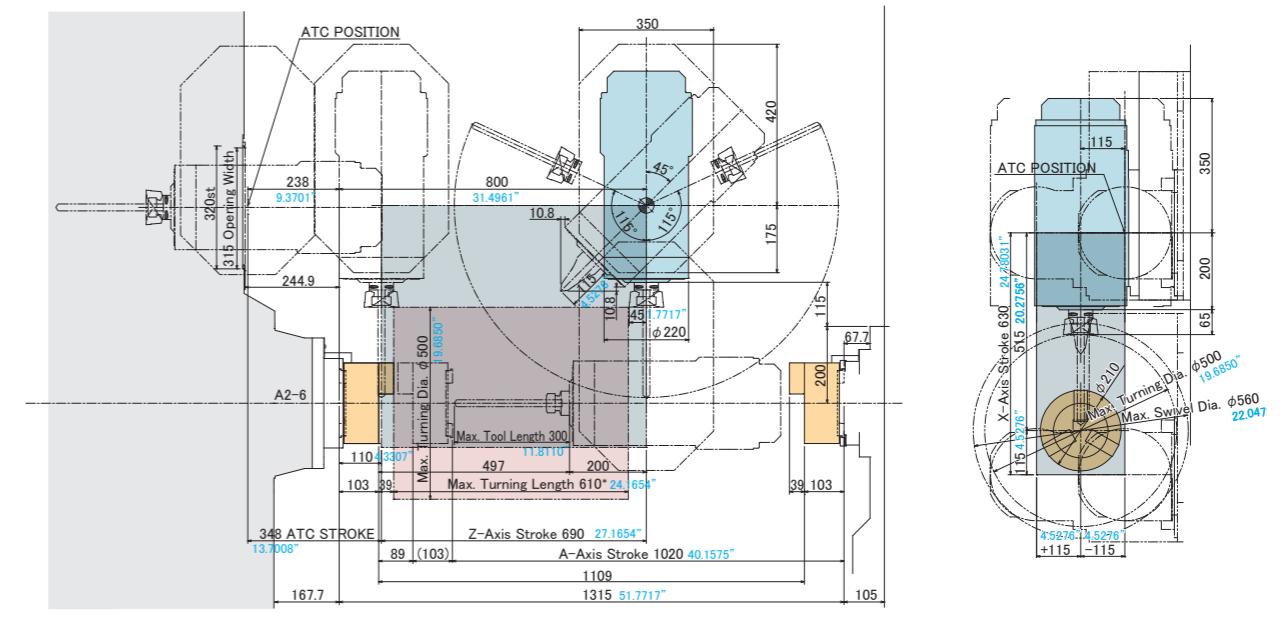
with Tailstock

TMX-2000



with Right Spind

TMX-2000S



# Consistent Support at Shop Floor

**iHMI** FANUC  
Human-Machine Interface

[Standard on TMX-4000]

Comfortable and easy operation along work flow!!

Consistently supports operation by functions necessary for "Planning", "Machining", and "Improvement" processes on site!



Touch Type Operation Panel 15 inch (Standard) 19 inch (Option)

Supports operation by careless mistake prevention function.



Supports operation by careless mistake prevention function.

Prevention of careless mistakes!

Coordinate system/path selection indicator equipped.



## NC Operation

All tasks required for machining such as operating, editing, setup can be performed.

## Individual Tool Settings

The tool information provided by Machining Cloud and the tool compensation measured by the tool pre-setter can be imported.

## Data Logger/Maintenance Information Management

Maintenance Manager monitors the state of a maintenance target, and notifies alarms and maintenance timings for efficient preventive maintenance of machinery.

## Calendar

Calender allows you to register, check, and edit schedule. You can receive a notification about your schedule from the information center at the specified time.

## SERVO Viewer

SERVO Viewer observes information, such as the position, speed, or torque of the feed axis or spindle, and displays it in waveform.

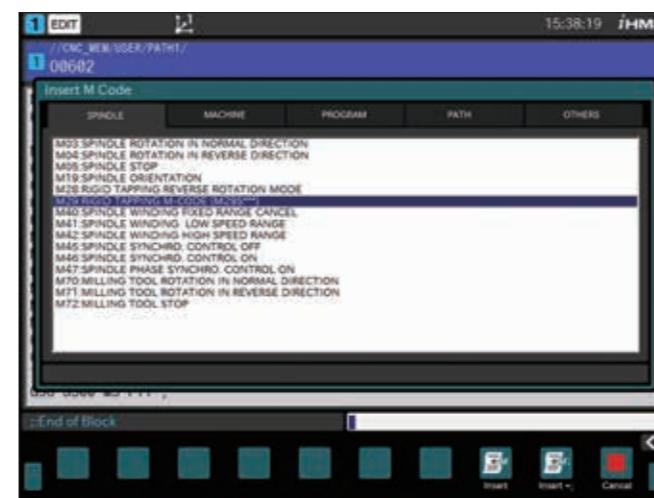
## Manual Viewer

You can read various manuals.

## Memo Function

Memo Function allows you to draw lines, paste memos, and insert images to "whiteboard".

## iHMI Machining Program Creation Support



Programming support function is provided as standard.

Programming can be performed comfortably.

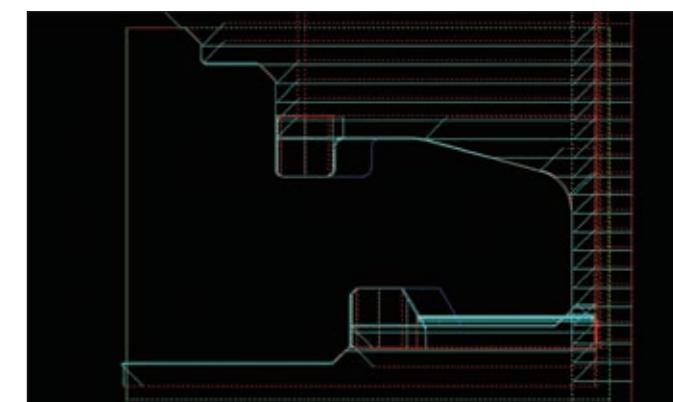
Displaying Images on Program List Inserting M Codes

Inserting Fixed Sentences Sentence Structure Check

Tool Information on Sliding Display Setup for Machining

(Stylizing MDI Command)

## FANUC iCAP T (Panel iH Pro)



CAD data, in addition to familiar symbolic key input (2D/3D DXF and IGES formats are supported) is available.

Supports milling including slant surface in addition to turning.

Reduces programming time with automatic process definition.

Adapted for one system or 2 system lathe.

Input Blank Figure

Input Parts Figure

Decide Machine Process  
(Automatic Process Definition)

Create NC Program

## FANUC Machine Collision Avoidance (PANEL iH Pro)



The machine collision avoidance function detects a collision beforehand to safely stop the machine by performing a simulation based on the 3D machine model and the preview position of the machine.

You can define the blanks and jigs. You can use standardized shapes and also model files (such as STL and DXF) created in CAD as blanks and jigs.

## TAKISAWA Maintenance Software



It can switch to various screens instantly from the vertical soft key.

# Supporting Programming

TAKISAWA  
Original  
Software

**TiwaP-I**

[Standard on TMX-2000]

## Reducing a lead time:

Inclined drilling and milling combined machining can be programmed easily using the interactive function.



Takisawa original software **TiwaP-I** completely supports the **Input** **Confirmation** **Operation**

### Input

Easy Programming by Dialogue Conversation

Tiwap-I is based on Process Registration type Programming involving step by step Process

### Confirmation

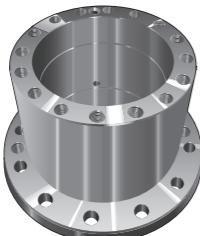
Machining Simulation

Cutting Detail will be Simulated by "3D Animated Cartoon" or "Tool Trace display"

### Operation

Automatic Operation

Interactive programs can run directly on the Tiwap-I screen without converting into NC programs.



Utilizing G code knowledge, **TiwaP-I** creates a program of complicated processes.

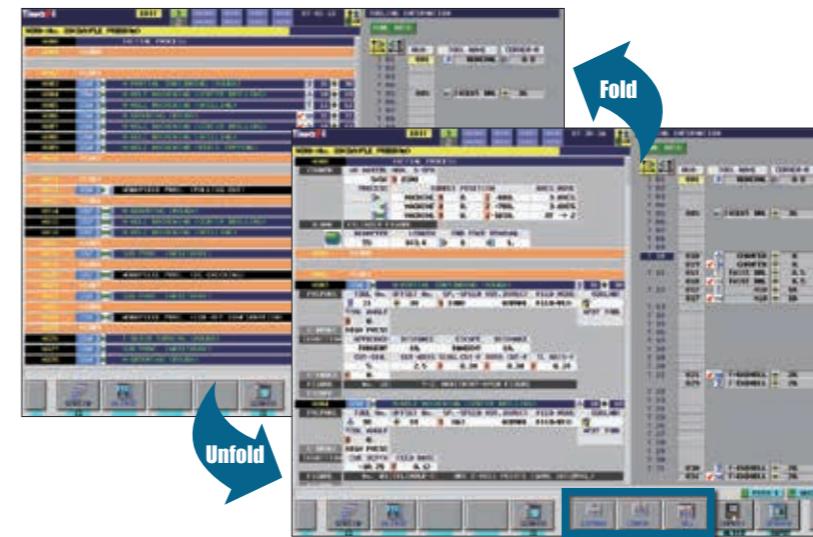
Further, Tiwap-I enables the interactive program to perform machining in cooperation with an NC program<sup>\*1</sup>.

- ① NC program<sup>\*1</sup> can be called (set) in the interactive (Tiwap-I) program.
- ② NC program<sup>\*2</sup> converted into NC statements by interactive operation (Tiwap-I) can be called (set) in the NC program edited manually.

\*1: File name to which NC programs edited manually or created by CAD/CAM have been registered.



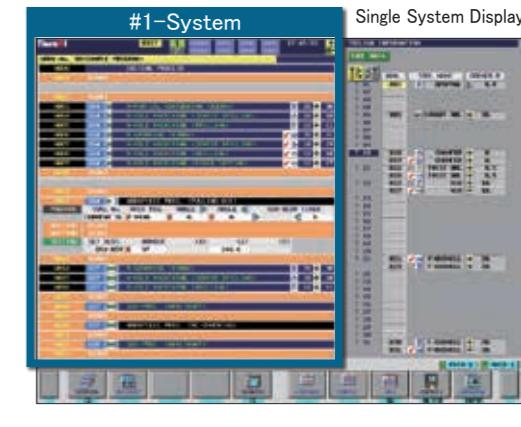
## Easy to See



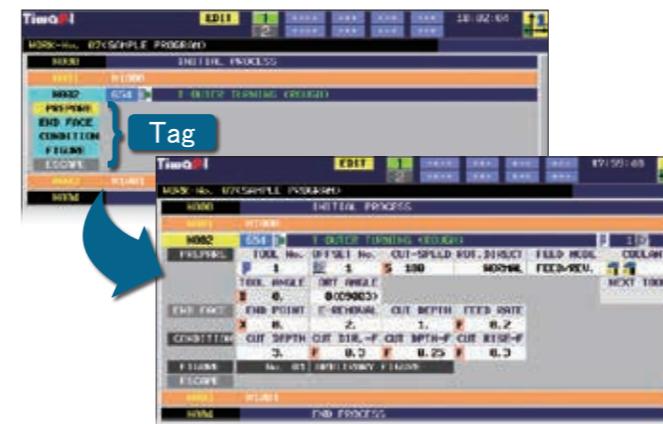
Takisawa's original "Process fold /unfold function" and lucid icons improve visibility. Operator-friendly and easy to see screen is realized.

The main screen is operator-friendly, because machining programs are displayed not only in "single system display" but also in "both system display".

- ◇ Single System Display = The program of the selected system is displayed.
  - ◇ Both System Display = The programs of the both systems are displayed.
- When the same synchronization numbers appear in both systems, they are displayed on the same line (indicating synchronization). Therefore, you can understand the flow of a whole program between the systems at one view.



## Easy to Use

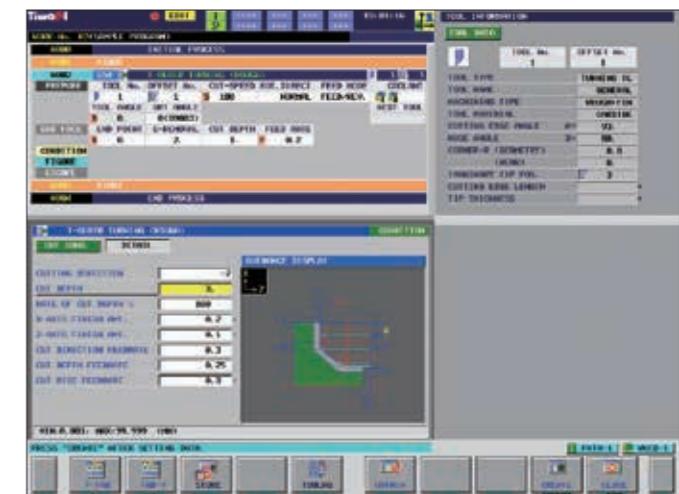


By "Reliable Guide Function" Process Tag will be made automatically. Process can be completed by just setting processing data to the "Tag" which automatically made through.

During preparing Program, "Reliable Guide Function" provides good support.

### ► "Reliable Guide Function"

The tag will be arranged in the optimum order automatically by interacting with the machine and selecting the required program.



It is easy for beginners to use interactive data inputting with guiding Figures & Icons. Symbolic soft key on the exclusive window helps inputting complicated arbitrary shapes.

# Machine Specifications

# Machine Optional Accessories

Items		TMX-4000ST	TMX-2000	TMX-2000S
Chuck Size	inch	10+10	8	8+8
Machine Composition	Right Spindle	●	—	●
	Tailstock	NC Servo	—	●
	Lower Turret	T12	●	—
Capability • Capacity	Max. Turning Diameter	mm inch	500 <b>19.6850"</b>	500 <b>19.6850"</b>
	Max. Turning Length *1	mm inch	1500 <b>59.0551"</b>	610 <b>24.0157"</b>
	Bar Capacity *2	mm inch	80 <b>3.15"</b>	65 <b>2.56"</b>
	X1(X)-Axis Travel	(Tool Spindle)	mm inch	605 <b>23.8189"</b>
	Y-Axis Travel	(Tool Spindle)	mm inch	280 <b>10.2362" (±130)</b>
	Z1(Z)-Axis Travel	(Tool Spindle)	mm inch	1500 <b>59.0551" (ATC+223 8.7795")</b>
Travel	A-Axis Travel	(Right Spindle, Tailstock)	mm inch	1600 <b>62.9921" (ATC+348 13.7008")</b>
	B-Axis Swivel Range	(Tool Spindle)	deg	230 (±115)
	B-Axis Min. Index Angle	(Tool Spindle)	deg	0.0001
	C-Axis Swivel Range			360
	X2-Axis Travel	(Lower Turret)	mm inch	225 <b>8.8513"</b>
	Z2-Axis Travel	(Lower Turret)	mm inch	1500 <b>59.0551"</b>
Left Spindle	Chuck Size	inch	10	8
	Spindle Speed *3	min <sup>-1</sup>	4000	5000
	Min. Index Angle	deg	0.0001	0.001
	Spindle Nose (Nom. Code)		A2-8	A2-6
	Through-Hole Diameter	mm inch	91 <b>3.58"</b>	77 <b>3.03"</b>
	Bearing Inside Diameter	mm inch	140 <b>5.51"</b>	120 <b>4.72"</b>
Right Spindle	Chuck Size	inch	10	—
	Spindle Speed	min <sup>-1</sup>	4000	—
	Min. Index Angle	deg	0.0001	0.001
	Spindle Nose (Nom. Code)		A2-8	—
	Through-Hole Diameter	mm inch	91 <b>3.58"</b>	—
	Bearing Inside Diameter	mm inch	140 <b>5.51"</b>	—
Tool Spindle	Type of Turret		Tool Spindle with ATC	Tool Spindle with ATC
	Number of Attachable Tool		1	1
	Spindle Speed	min <sup>-1</sup>	12000	12000
	Type of Tool Shank		CAPTO C6	CAPTO C6
	Bearing Inside Diameter	mm inch	75 <b>2.95"</b>	75 <b>2.95"</b>
Lower Turret	Type of Turret		12-Station Turret	—
	Number of Attachable Tool		12	—
Tailstock (NC Servo Type)	Tailstock Travel	mm inch	—	620 <b>24.41" (+400 15.74")</b>
	Quill Taper			MT No.5
ATC MG.	Tool Storage Capacity		40 <b>80 120</b>	40 <b>80</b>
	Max. Tool Diameter (without Adjacent Tool)	mm inch	90 <b>3.54" (125 4.92")</b>	90 <b>3.54" (125 4.92")</b>
	Max. Tool Length from Gage Line	mm inch	400 <b>15.75"</b>	300 <b>11.81"</b>
	Max. Tool Weight	kg lbs.	10 <b>22</b>	6 <b>13.2</b>
	ATC Time (TtoT)	sec	2	2
	Magazine Selection Method		Bidirectional	Bidirectional
Rapid Traverse Rate	X1/Y/Z1(X/Y/Z)-Axis (Tool Spindle)	m/min ipm	40/40/40 <b>1574.8"/1574.8"/1574.8"</b>	40/40/40 <b>1574.8"/1574.8"/1574.8"</b>
	X1/Z1-Axis (Lower Turret)	m/min ipm	20/40 <b>787.40"/1574.8"</b>	—
	A-Axis (Right Spindle, Tailstock)	m/min ipm	30 <b>1181.10"</b>	20 <b>787.4"</b>
Motors	Left Spindle Motor	kW HP	26/22 <b>34.7/29.3</b> (S2 30 min/continuous)	15/11 <b>20/14.7</b> (S2 30 min/continuous)
	Right Spindle Motor	kW HP	22/18 <b>29.3/20</b> (S2 15 min/continuous)	— (S2 30 min/continuous)
	Tool Spindle Motor	kW HP	15/11 <b>20/14.7</b> (S3/S6 25%/continuous)	11/7.5 <b>14.7/10</b> (S3 25%/continuous)
	(X1/Y1/Z1) (X/Y/Z)	kW HP	5.5/3/3 <b>7.3/4/4</b>	3/3/3 <b>4/4/4</b>
	For Feed Axes (X2/Z2)	kW HP	2.5/2.5 <b>3.3/3.3</b>	—
	(A)	kW HP	2.5 <b>3.3</b>	2.5 <b>3.3</b>
	Hydraulic Pump Motor	kW HP	2.2 <b>2.9</b>	2.2 <b>2.9</b>
	Coolant Pump Motor	kW HP	0.52×2, 0.4×2 <b>0.7×2, 0.5×2</b>	0.52, 0.4 <b>0.7, 0.5</b>
Required Power	Electric Power	kVA	120	45
	Air Pressure Source	MPa	0.4	0.4
Tank Capacity	Hydraulic Unit Tank	L gal	20 <b>5.28</b>	20 <b>5.28</b>
	Spindle Cooling Unit	L gal	70 <b>18.48</b>	24 <b>6.34</b>
	Lubricant Tank (Grease)	L gal	0.7 <b>0.18</b>	0.7 <b>0.18</b>
	Coolant Tank	L gal	540 <b>142.56</b>	420 <b>110.88</b>
Machine Size	Machine Height	mm inch	3128 <b>123.15"</b>	2783 <b>109.57"</b>
	Floor to Spindle Center Height	mm inch	1340 <b>52.76"</b>	1340 <b>52.76"</b>
	Required Floor Space	mm×mm	5710×3000	4150×2923
		inch×inch	<b>224.80"×118.11"</b>	<b>163.39"×115.08"</b>
	Machine Weight	kg lbs.	17000 <b>37400</b>	13700 <b>30140</b>

Red is Optional.

Items	TMX-4000ST	TMX-2000	TMX-2000S
Tool Setter (Removable Type)	○	○	○
Automatic Tool Setter (for Tool Spindle)	○	—	—
In-machine parts catcher + In-machine conveyor	R	○	—
In-machine Unloader + In-machine Conveyor	R	○	—
Chuck Open/Close Footswitch with Locking Mechanism	L R	● ●	● ●
Hydraulic Chuck, Chuck Plate, Draw Bar *2	L R	● ●	○ ○
Hydraulic Cylinder *2	L R	● ●	— ●
Chuck Auto Open/Close M-Function (Pressure Switch)	L R	● ●	— ●
Chuck Stroke OT Check	L R	● ●	○ ○
Spindle Air Purge	L R	● ●	— ●
Chuck Airblow	L R	○ ●	○ ●
Spindle Above Coolant	L R	● ●	— ○
Tool Magazine (Tool Spindle)	40 80 120	○ ○ —	○ ○ —
Long Tool	X1, Y, Z1 X2 Z2	● ● ○	○ — —
Linear Scale	X2 Z2	● ○	— —
12-Station Turret	Bolted	●	—
Rests (Turret Installed)	○	—	—
Double OD Tool Holder	1 Piece	●	—
Facing Holder	1 Piece	●	—
Boring Bar / Drill Holder	1 Piece	●	—
Boring Bar Bush	○	—	—
Cut-Off Holder	○	—	—
Outside Turning Holder	○	—	—
Work Pusher	Turret Installed	○	—
Chip Pan	Rear	— ●	● ●
Chip Conveyor	CE, Side- Discharge CE, Rear- Discharge	● —	○ ○
Chip Bucket	○	○	○
Auto Door	○	○	○
Powered Door	○	○	○
Air Main Pressure Check	●	○	○
Air Pressure Release 3 Port Valve	●	○	○
Hydraulic Unit	●	●	●
Hydraulic Main Pressure Check	●	○	○
Spindle Cooling Unit	●	●	●
Automatic Grease Lubricating Unit	●	●	●
Automatic Lubricant Unit (Lower Turret)	●	—	—
Oil-Water Separator	●	—	—
Lubricant Collection Box	●	—	—
Coolant Pump (Tool Spindle Through)	1.5MPa	1.0MPa	1.0MPa
High Pressure Coolant Pump (Tool Spindle Through)	7.0MPa	○	○ *4
Coolant Pump (Tool Spindle Outside)	520W	●	● ●
Coolant Pump (Lower Turret)	520W	●	— —
Chip Flow Unit	400W	(2 pic) (1 pic)	(2 pic)
Coolant Cooling Unit	○	○	○

Items	TMX-4000ST	TMX-2000	TMX-2000S
Signal Tower Light	3-Color, Lighting	○	○
Counter (TMX-4000ST is NC Display)	●	○	○
Lighting Apparatus	LED	●	●
Leveling Plate Set	Turret Installed	●	— —
Auto Power-Off System	●	○	○
Bar Feeder Interface	○	○	○
Trans (Standard for CE)	○	○	○
Robot Interface	○	○	○
Instruction Manual	●	●	●

● : Standard ○ : Optional ◎ : Special — : None

\*1) Max. turning length is different according to chuck type.  
TMX-2000 is when turning length is more than 435mm, end facing range has limit.

\*2) Showing max ability when hollow chuck is used.  
By default, the following hydraulic chuck/cylinder are provided.

	TMX-4000ST	TMX-2000	TMX-2000S
Left Spindle	Right Spindle	Left Spindle	Right Spindle
Hydraulic Chuck	H3KT-10	HO1MA10S-A8-J	BB-208
Hydraulic Chuck	CITA165X25-CD	HH4CB-125	SS1666K SS1452K

\*3) Spindle speed varies according to chuck type.

\*4) Permissible pressure for the coolant unit of the standard machine is 1.0MPa. If the coolant exceeding this value is required, it is estimated additionally.

In general, if high pressure coolant pump is used, appropriate coolant controller must be used together. Using high pressure coolant pump without installing the coolant controller allows the coolant temperature to rise extremely, thus reducing the machine precision.

# TMX Series

## NC Unit Specifications

FANUC : 31i-B, 31i-B5, 32i-B

\* Please contact our sales persons for further information.

### Composition

Specifications·Contents	TMX-4000ST	TMX-2000S	TMX-2000
	31i-B	32i-B	

#### [NC Unit]

Screen (10.4" color LCD/MDI)	-	●	
31i-B LCD (Integrate Type)	●	○ *1	
15" PANEL iH	○	○ *1	
31i-B LCD (Separate Type)	○	○ *1	
19" PANEL iH Pro	○	○ *1	
31i-B5 LCD (Integrate Type)	○	○ *1	
15" PANEL iH	○	○ *1	
31i-B5 LCD (Separate Type)	○	○ *1	
19" PANEL iH Pro	○	○ *1	
Number of Control Axes (#1 System + #2 System)	5+4	7	6
Simultaneous Number of Control Axes (#1 System + #2 System)	31i-B : 4+4 31i-B5 : 5+5	4	4

#### [Software]

iHMI	●	○ *1
iHMI Process Cycle	●	○ *1
Tiwap-1	○	●
RAKU-RAKU Monitor 3	○	○
Measurement Monitor 3 *2	○	○
FANUC iCAPT *3	○	○ *1
Machine Collision Avoidance *3	○	○ *1

#### [Safety Devices]

Front Door Interlock	●	●
Front Door Locking Mechanism	●	○
Dual Check Safety	●	CE
Control Panel Breaker with Tripper	●	●

### Main Function List

Specifications·Contents	TMX-4000ST	TMX-2000S	TMX-2000
<b>[Controlled Axes]</b>			
Least Input Increment *4			
Max. Programmable Dimension (TMX-4000ST : ±99999.9999, TMX-2000 : ±999999.999)	●	●	●
Cs Contouring Control	●	●	●
Increment System C *5	●	○	○
Synchronous/Composite Control (C, A-Axis)	●	-	-
Inch/Metric Conversion	○	○	○
Interlock	●	●	●
Machine Lock *6	○	○	○
Emergency Stop	●	●	●
Stored Stroke Check 1	●	●	●
Stored Stroke Check 2, 3 *7	○	○	○
Stored Limit Check Before Move	○	○	○
Chuck and Tail Stock Barrier *8	○	○	○
Mirror Image (Each Axis)	▲	▲	▲
Chamfering ON/OFF	●	●	●
Unexpected Disturbance Torque Detection Function *9	○	○	○
Position Switch	●	○	○
<b>[Operation]</b>			
Automatic Operation (Memory)	●	●	●
MDI Operation	●	●	●

Specifications·Contents	TMX-4000ST	TMX-2000S	TMX-2000
DNC Operation *10	○	○	○
DNC Operation with Memory Card *10 *11	○	○	○
Program Number Search	●	●	●
Sequence Number Search	●	●	●
Sequence Number Comparison and Stop	○	○	○
Program Restart	◎	◎	◎
Tool Retract and Recover	○	○	○
Wrong Operation Prevention	●	●	●
Retraction for Rigid Tapping	●	○	○
Buffer Register	●	●	●
Dry Run	●	●	●
Single Block	●	●	●
Manual Continuous Feed (JOG)	●	●	●
Manual Reference Position Return	●	●	●
Reference Position Setting without DOG	●	●	●
Manual Handle Feed, 1 Unit	●	●	●
3-dimensional Manual Feed	5	○	○
Manual Handle Retrace	○	○	○

#### [Interpolation Functions]

Nano Interpolation	●	●	●
Positioning (G00)	●	●	●
Linear Interpolation (G01)	●	●	●
Circular Interpolation (G02/03)	●	●	●
Dwell (G04)	●	●	●
Polar Coordinate Interpolation	●	●	●
Cylindrical Interpolation	●	●	●
Helical Interpolation	●	●	●
Thread Cutting, Synchronous Cutting	●	●	●
Multi Threading	●	●	●
Thread Cutting Retract	●	●	●
Continuous Threading	●	●	●
Variable Lead Thread Cutting	○	○	○
Circular Thread Cutting	○	○	○
Polygon Machining with Two Spindles	○	○	○
Skip (G31) *12	○	○	○
High-speed Skip	5	○	○
Torque Limit Skip	●	●	○
Reference Position Return (G28)	●	●	●
2nd Reference Position Return (G30)	●	●	●
3rd, 4th Reference Position Return	●	●	●
Balanced Cutting	○	-	-

#### [Feed Functions]

Rapid Traverse Override (0%, F0.25%, 50%, 100%)	●	●	●
Feed Per Minute	●	●	●
Feed Per Revolution	●	●	●
Constant Tangential Speed Control	●	●	●
Cutting Feedrate Clamp	●	●	●
Automatic Acceleration/Deceleration	●	●	●
Rapid Traverse Bell-Shaped Acceleration/Deceleration	●	●	●
Bell-shaped Acceleration/Deceleration After Cutting Feed Interpolation	5	○	○
Linear Acceleration/Deceleration Before Cutting Feed Interpolation	○	○	○
Feedrate Override (15 Steps)	●	●	●
Jog Override (15 Steps)	●	●	●
Override Cancel	●	●	●
Manual per Revolution Feed	▲	▲	▲
AI Contour Control I	○	○	○
AI Contour Control II	5	○	○
Bell-type Acceleration/Deceleration Before Look Ahead Interpolation	○	○	○
Jerk Control *14	○	○	○

#### [Program Input]

Program Code	●	●	●
Label Skip	●	●	●
Parity Check	●	●	●
Control In/Out	●	●	●
Optional Block Skip, 1 Piece	●	●	●
Optional Block Skip (2 to 9 Pieces)	○	○	○
Program File Name 32 Characters	●	●	●
Sequence Number N8 Digits	●	●	●
Absolute/Incremental Programming	●	●	●
Decimal Point Programming/Pocket Calculator Type Decimal Point Programming	●	●	●
Diameter/Radius Programming (X-Axis)	●	●	●
Plane Selection G17,G18,G19	●	●	●

Specifications·Contents	TMX-4000ST	TMX-2000S	TMX-2000
Rotary Axis Designation	●	●	●
Rotary Axis Rollover	●	●	●
Coordinate System Setting (G50) *15	●	●	●
Workpiece Coordinate System	●	●	●
Workpiece Coordinate System Preset	●	●	●
Addition of Workpiece Coordinate System 48-pairs	○	○	○
Direct Drawing Dimension Programming *16	○	○	○
G-Code System A	●	●	●
G-Code System B/C *15	○	○	○
Chamfering/Corner R *17	●	●	●
Programmable Data Input (G10)	●	●	●
Sub Program Call (10 Levels)	●	●	●
Custom Macro	●	●	●
Additional Custom Macro Common Variables	●	●	●
Canned Cycle	●	●	●
Multiple Repetitive Cycles	●	●	●
Multiple Repetitive Cycles II	●	○	○
Canned Cycle for Drilling	●	●	●
Circular Dnterpoltion by R Programming	●	●	●
Automatic Corner Override	5	○	○
3D Coordinate System Conversion	●	●	●
Coordinate System Shift	●	●	●
Direct Input of Coordinate System Shift	●	●	●
Embedded Macro	○	○	○
Real Time Custom Macro	○	○	○
Program Coordinate System Changing Function			

# TMX-Series

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Japanese laws prohibit this machine from being used to develop or manufacture "weapons of mass destruction" or "conventional arms", as well as from being used to process parts for them.  
Export of the product may require the permission of governmental authorities of the country from where the product is exported.  
Should you wish to resell, transfer or export the product, please notify Takisawa Machine Tool Co., Ltd. or our distributor in advance.

\*The appearance, specifications, and relevant software of the product are subject to change for improvement without notice.

\*Please make an inquiry to our sales representatives for details of the product.

NC66E1910FN1000A



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JQA-2010

(Headquarters)



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