TAKISAWA®

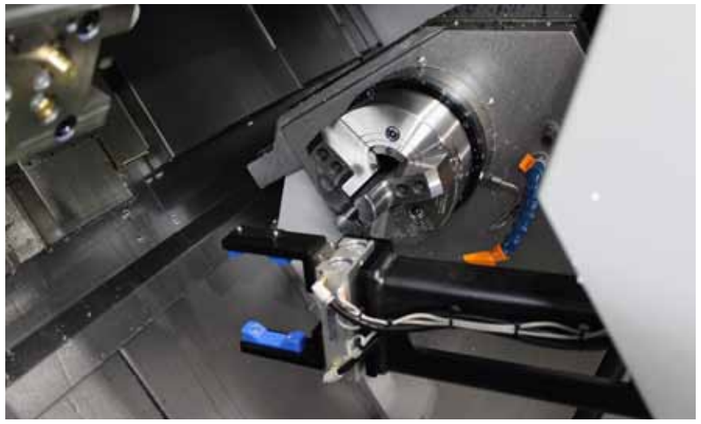
Multi-Tasking Machine

TM-4000

CNC Multitasking Lathe with
upper/lower Y-axes specialized for bar machining.

TM-4000

Highly productive compact machine.
Bar capacity: φ 82 mm. Multi-Tasking CNC lathe with upper/lower Y-axes optimum for bar workpieces.
In-machine workpiece discharge is automated, and automatic discharge is enabled without considering floor space.



Composition			TM-4000Y2 (Standard Model)	TM-4000Y	TM-4000
Items	Upper Turret	Y-Axis	●	●	–
		Milling	●	●	●
	Lower Turret	Y-Axis	●	–	–
		Milling	●	●	●
	C-Axis (Left)		●	●	●
	C-Axis (Right)		●	●	●

● :Standard　– :None

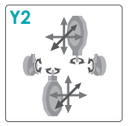
Photo includes options.

The contents of the catalog are subject to change for improvement without notice. Please make confirmation from our sales representatives when entering into the contract.

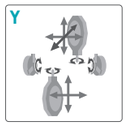
The Definitive Structure

Axis Configuration

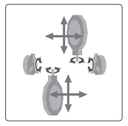
Configuration of up to 9 control axes can execute turning process and milling process continuously.



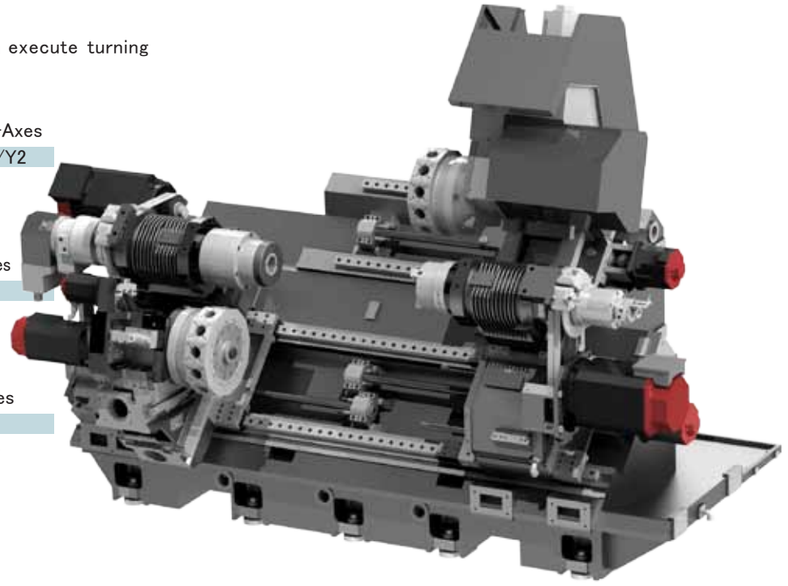
TM-4000Y2 (Standard) : 9-Axes
X1/Z1/Y1/C1/C2/A/X2/Z2/Y2
Left Spindle + Upper Turret +
Right Spindle + Lower Turret



TM-4000Y (Standard) : 8-Axes
X1/Z1/Y1/C1/C2/A/X2/Z2
Left Spindle + Upper Turret +
Right Spindle + Lower Turret



TM-4000 (Standard) : 7-Axes
X1/Z1/C1/C2/A/X2/Z2
Left Spindle + Upper Turret +
Right Spindle + Lower Turret

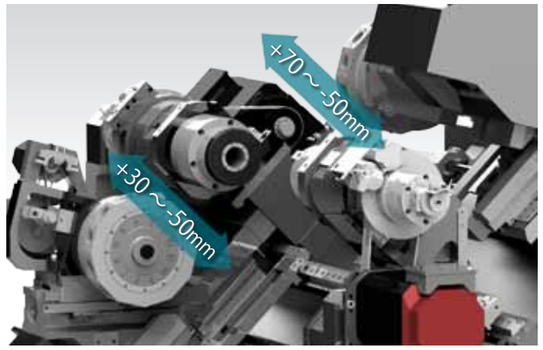


Highly Rigid Slant Bed Structure

The highly rigid 45° slant bed structure, rectangular slideways on the X- and Y-axes, and high-performance roller guides on the Z- and A-axes are provided.

Upper/Lower Y-Axis

The Y1-axis range is +70 to −50 mm, and the Y2-axis range is +30 mm to −50 mm. The plus side of the Y1-axis is increased by 40% compared to our former machine.
It sufficiently covers the ϕ82 mm bar machining range. Corresponding to various workpieces with its wide machining range.



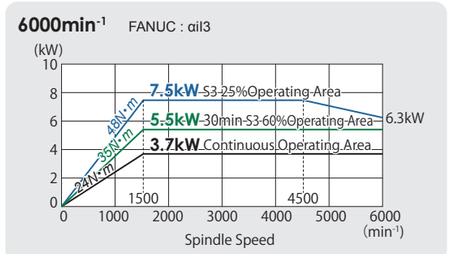
Capability • Performance

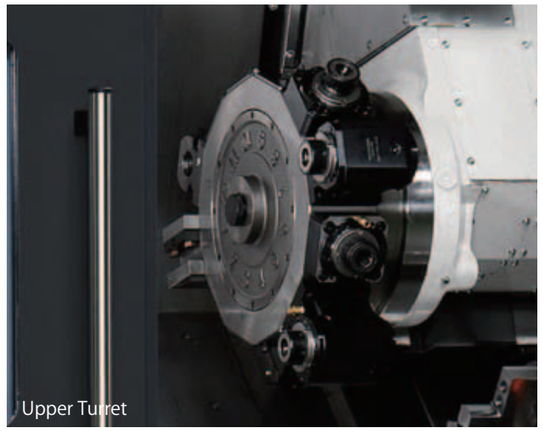
Stronger Milling Motor 7.5kW, 12-Station Milling Turret

Powerful turret with 7.5kW milling motor.
All holder type employing bolt tightening system. Powerful holders taking advantage of 7.5 kW motor achieve great milling capability.
The tool mounting capacity is 12 tools, and up to 24 tools is possible on the upper and lower turrets.

Type of Turret	T12
Number of Attachable Tools	12
Height of Square Tool Shank	25
Diameter of Boring Bar Shank	40
Diameter of Rotary Tool Shank	20

Rotary Tool

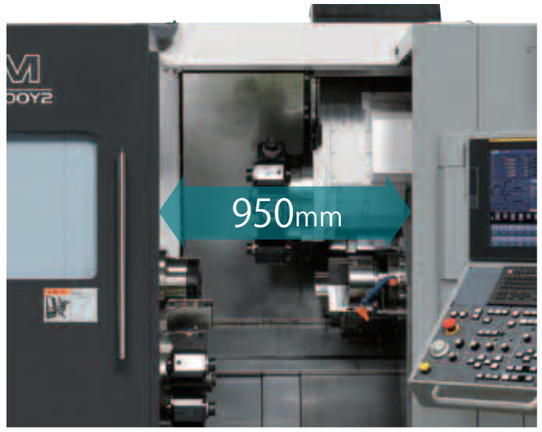




The machine is compact, but enables a wide range of machining.

Realizing bar machining of ϕ82 mm within the size of compact 8″ class machine. The maximum machining length is 800 mm.
The compact size and process integration of the upper/lower Y-axis increase the productivity per unit area.
The large-opening front door remarkably improves setup workability.
It also facilitates workpiece changing with a crane.

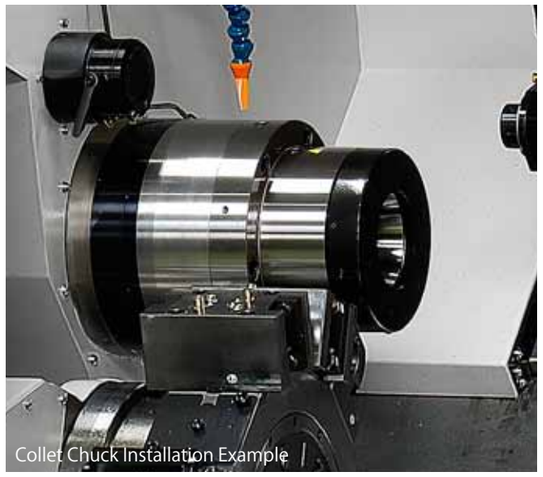
Door Opening Width : 950mm



The contents of the catalog are subject to change for improvement without notice. Please make confirmation from our sales representatives when entering into the contract.

Capability • Performance

High power & high torque motor spindle!


Collet Chuck Installation Example


Servo-driven Right Headstock

The left spindle and right spindle use belt drive type high-power wide range spindle motors.
The right headstock is servo-driven and can also be used as a tailstock by torque control. Teaching in arbitrary positions is possible. The servo motor is equipped with a brake as standard, so it is safe even in emergency.

Left Spindle	Motor	18.5/15kW
	Spindle Speed	4200min^{-1}
Right Spindle	Motor	15/11kW
	Spindle Speed	5000min^{-1}
	A-Axis Travel	900mm

φ94mm Hole Through Spindle

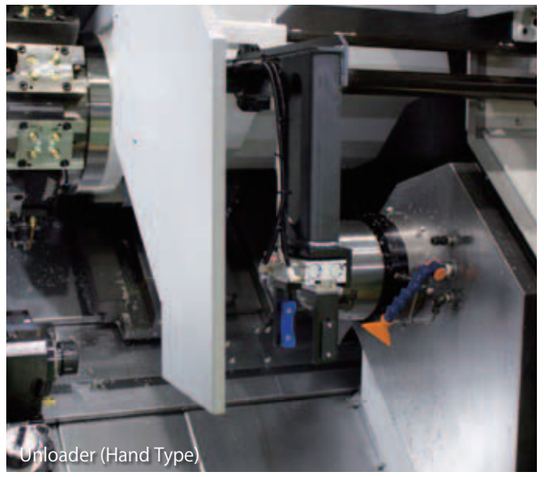
Large spindle-through hole supports bar machining.
Automatic machining can be realized by installing optional bar feeder.

Left Spindle	Through-Hole Diameter	94mm
	Bar Capacity	82mm *
Right Spindle	Through-Hole Diameter	77mm

*) Please note the bar capacity follows types of chucks and cylinders.

Optional

Supporting Turnkey


Unloader (Hand Type)


Discharge Conveyor

Supporting automation with in-machine unloader and discharge conveyor. Finished workpieces can be discharged quickly and exactly. Automatic workpiece transfer can be achieved without concerning installation area.

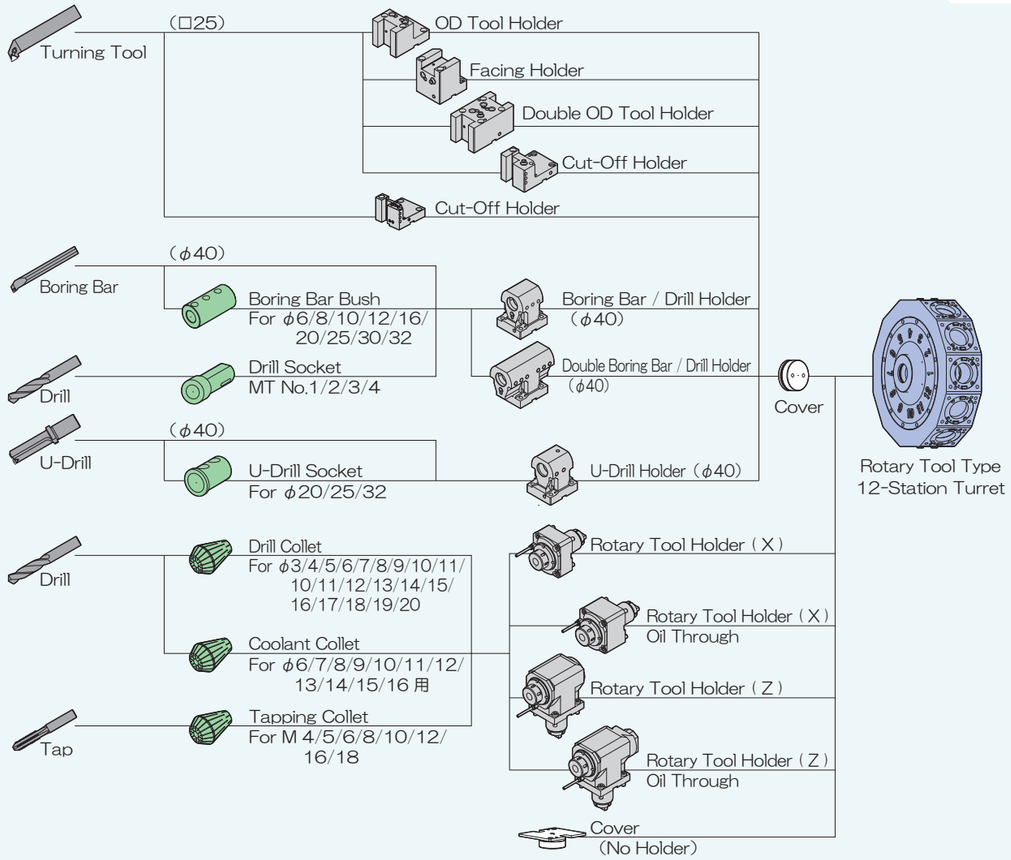
Target Workpiece
Max. Diameter : φ80mm, Max. Length : 200mm,
Max. Weight : 3kg

Bar Feeder Installation Example

BK105L
(φ8-105mm, L1600mm)

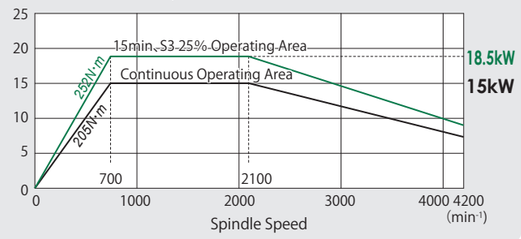
Tooling System • Output Diagram

T12M



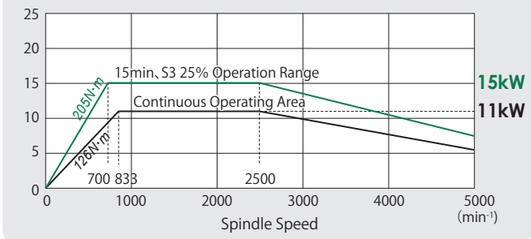
Left Spindle

4200min^{-1} FANUC : βiIP30



Right Spindle

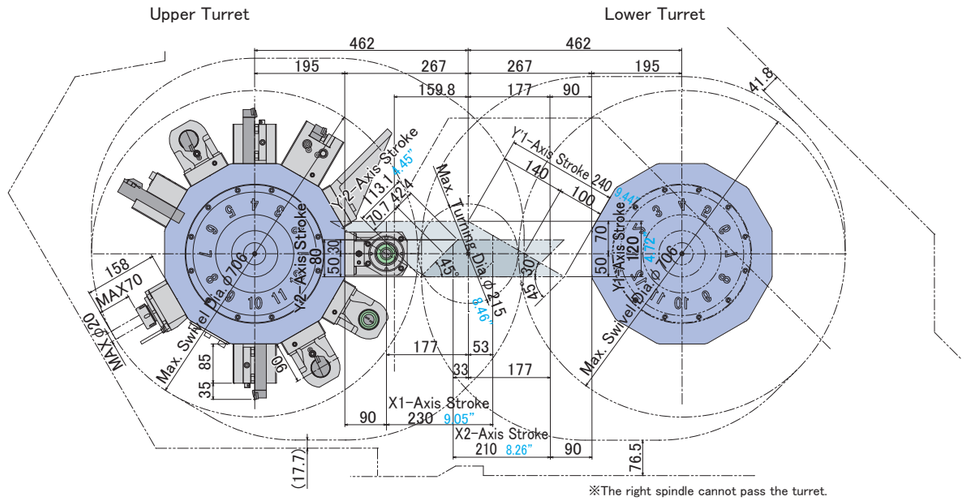
5000min^{-1} FANUC : βiIP22



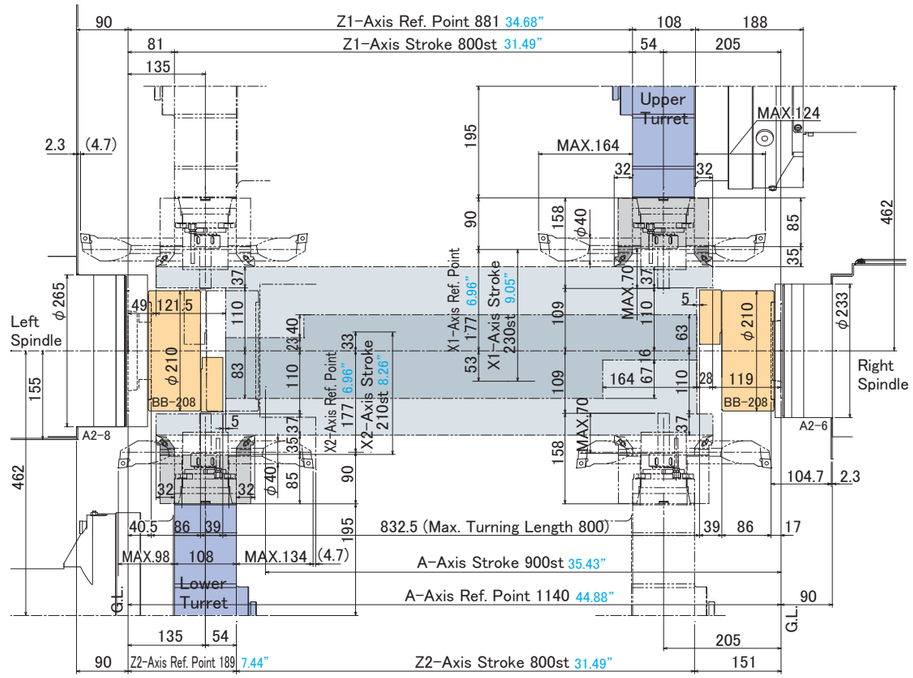
Interference • Travel Range

Unit : mm inch
Ranges depends on chuck type.

Items		TM-4000Y2	TM-4000Y	TM-4000
Machine Composition	Upper Turret Y-Axis (Y1-Axis)	●	●	-
	Lower Turret Y-Axis (Y2-Axis)	●	-	-



※The right spindle cannot pass the turret.

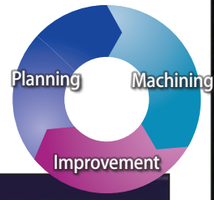


Consistent Support at Shop Floor

i HMI FANUC Human-Machine Interface

Comfortable and easy operation along work flow!!

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

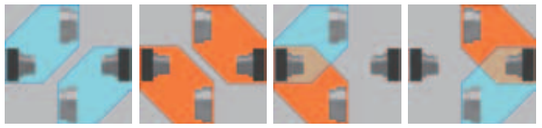


Home Screen

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

Supports operation by careless mistake prevention function.

Prevention of careless mistakes! Coordinate system/path selection indicator equipped.
The handle feed direction display screen can always be called with the key switch.



Coordinate System/Path Selection Indicator

Handle Feed Direction Display

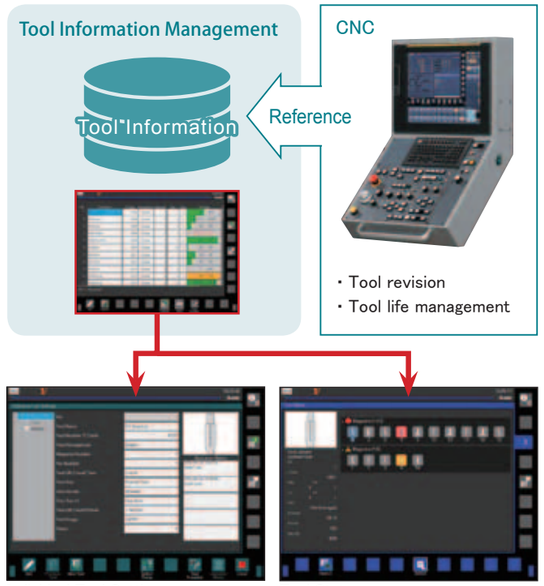
NC Operation

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

Programing　Setup　Machining

Tool Information Management

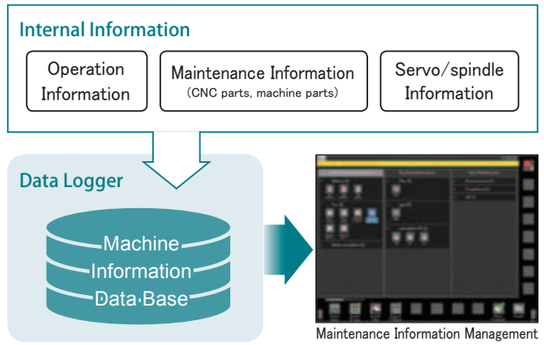
You can perform tool revision, life management together.



Individual Tool Settings　Tool Status

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.



Maintenance Information Management

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.

Manual Viewer

You can read various manuals.

Memo Function

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

SERVO Viewer

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

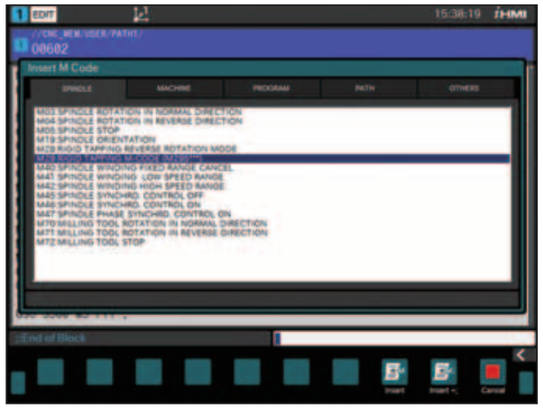
The contents of the catalog are subject to change for improvement without notice. Please make confirmation from our sales representatives when entering into the contract.

Consistent Support at Shop Floor

i HMI 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)

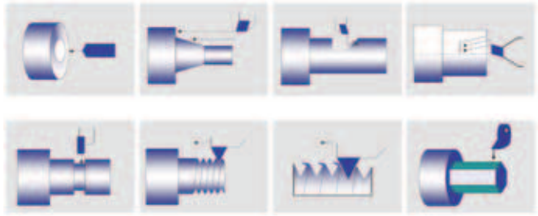


M Code List

Process Cycle • Measurement Cycles

From a program editing screen, you can make a turning cycle and a milling cycle.

Select a Machining Cycle Category
↓
Enter Cutting Condition
↓
Select Geometry Cycle
↓
Enter Geometry Cycle Data
↓
Save the Geometry Data



Machining Cycle Category

Turning Cycle Input Screen

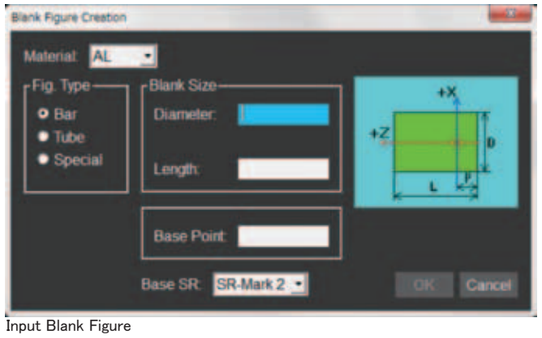
Turning (Outer Rough) Details Input Screen

FANUC Conversational Programming for Lathe

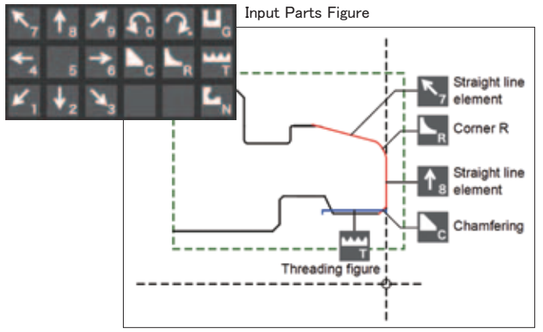
(PANEL iH Pro)

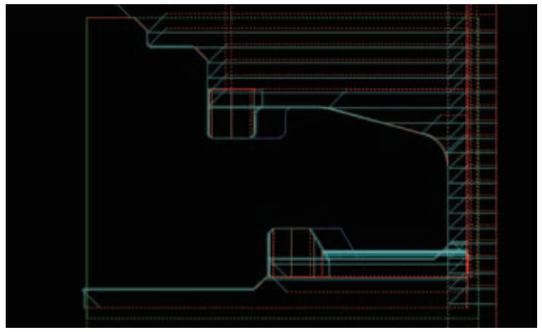
CAD data, in addition to familiar symbolic key input (2D/3D DXF and IGES formats are supported) is available.
Supports milling including slant surface in addition to turning.
Reduces programming time with automatic process definition.
Adapted for one system or 2 system lathe.

Input Blank Figure
↓
Input Parts Figure
↓
Decide Machine Process
(Automatic Process Definition)
↓
Create NC Program



Input Blank Figure





Decide Machine Process (Automatic Process Definition)

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.
Select a tool from tool information management.

Perfect Dialogue Program Processor

Takisawa Original Software

TiwaP-I

Knowledge of the G-codes is not necessary to create programs. Anyone can easily create programs.

TiwaP-I is Takisawa Original Software Which is Easy for

"Input"

Easy Programming by Dialogue Conversation

TiwaP-1 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

The arrangement of machining spindles and processes is automatically recognized to execute the spindle control and C-axis zero point return operation efficiently.

Stored Number of Program — 99

Available for max 999 Process on each program (incl. last process) and available max 99 Cutting Configurations.

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

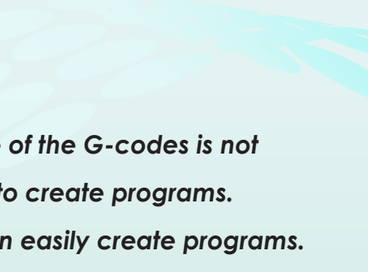
COOPERATION

Further, TiwaP-I enables the interactive program to perform machining in cooperation with an NC program*1.

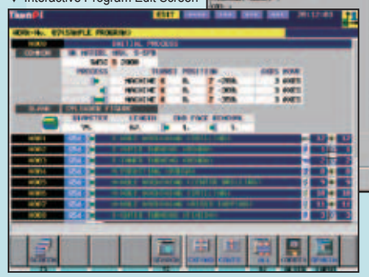
① NC program*1 can be called (set) in the interactive (TiwaP-1) program.
② NC program*2 converted into NC statements by interactive operation (TiwaP-1) can be called (set) in the NC program edited manually.

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

▼ NC Program Edit Screen

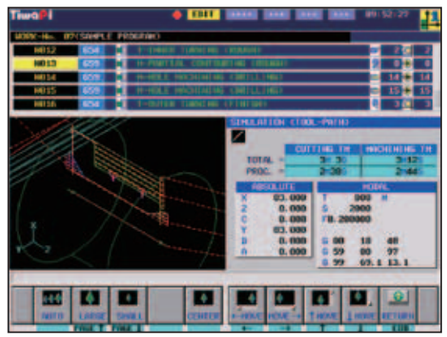


▼ Interactive Program Edit Screen



Machining Simulation

Tool passes can be certainly checked before test cuttings by "3D Animation" or "Tool Tracking".

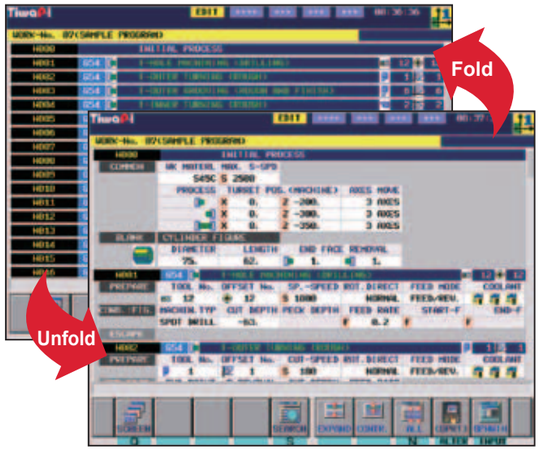


Feature of TiwaP-I

Easy to See

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

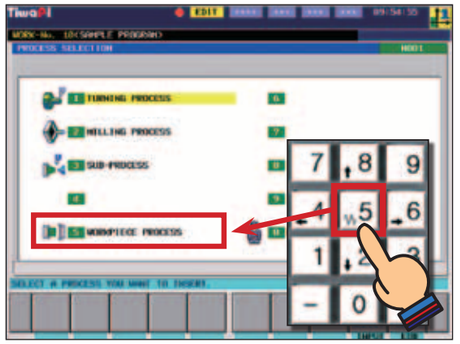
▼【Folder Display for all Process】
All the flows of Process can be checked on the screen.



▲【Elaborate Process display function】
All processing data can be checked and seen on the screen.

Speed Up

When inserting a new processing data through interactivity, there are less items to enter due to Takisawa Standard Initial Value & Tooling/Material Data.



Example) When selecting "workpiece process" just press numeric key "5".

In case of new workpiece programing, the number of input items is decreased due to automatic cutting data setting.

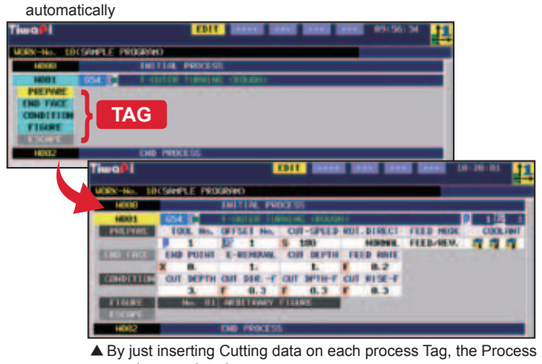
Easy to Use

During preparing Program, "Reliable Guide Function" provides support

▶ "Reliable Guide Function"
The tag will be arranged in the optimum order automatically by interacting with the machine and selecting the required program.

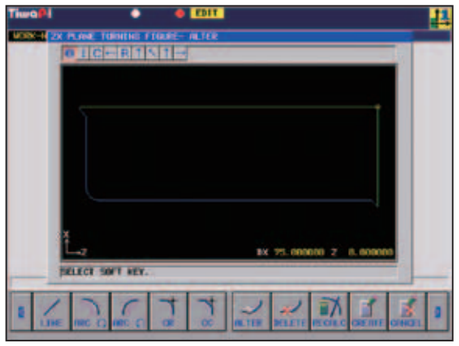
It is easy for beginners to use interactive data inputting with guiding Figures & Icons. Symbolic soft key on the exclusive window helps inputting complicated arbitrary shapes.

▼ By "Reliable Guide Function" Process Tag will be made automatically



▲ By just inserting Cutting data on each process Tag, the Process can be completed.

Suitable Cutting Data can be selected from reference Data Bank



A certain shaped window with a built-in intersection point that contains an automatic calculation.

Takisawa Standard Initial Value can be customized with your know-how.

▶「Tooling Data & Cutting Parameter」
Cutting parameters (cutting speed, feed rate, and depth of cut) are automatically selected and suggested to the operator by the combination of work piece and the material of inserted tool.
It is a great assist for set-up programs.

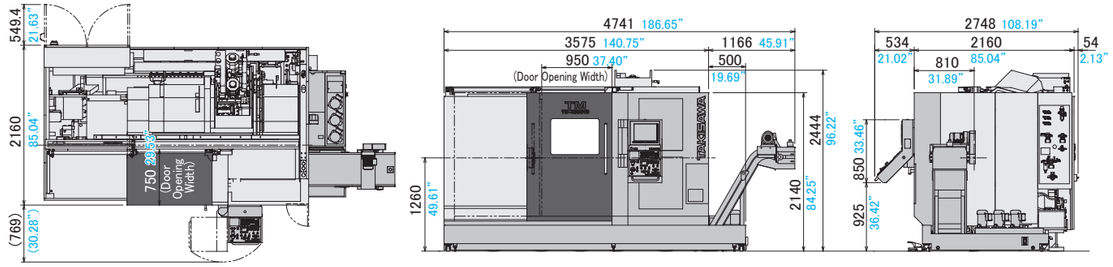
Machine Specifications

Items			TM-4000Y2	TM-4000Y	TM-4000
Machine Composition	Upper Turret Y-Axis (Y1-Axis)		●	●	–
	Lower Turret Y-Axis (Y2-Axis)		●	–	–
	Right Spindle		●	●	●
Capability・Capacity	Standard Turning Diameter	mm inch	215 8.46″		
	Max. Turning Diameter	mm inch	215 8.46″		
	Max. Turning Length	mm inch	800 31.5″		
	Bar Capacity *1	mm inch	82 3.23″		
Travel	Upper Turret (X1/Y1/Z1)	mm inch	230/120 (−50 ～ +70)/800 9.05″/4.72″/31.49″		230/−/800 9.05″/−/31.49″
	Lower Turret (X2/Y2/Z2)	mm inch	210/80 (−50～+30)/800 8.26″/3.14″/31.49″	210/−/800 8.26″/−/31.49″	
	A-Axis Travel (Right Spindle)	mm inch	900 35.43″		
Spindle (Left Spindle/ Right Spindle)	Spindle Speed	min^{-1}	4200/5000		
	Type of Spindle Nose		A2-8/A2-6		
	Through-Hole Diameter	mm inch	94/77 3.7″/3.03″		
	Inner Diameter of Bearing	mm inch	140/120 5.51″/4.72″		
Turret (Upper, Lower)	Type of Turret		Bolt Tightening Type		
	Number of Attachable Tools		12		
	Height of Square Tool Shank	mm inch	25 1″		
	Diameter of Boring Bar Shank	mm inch	40 1.5″		
Rotary Tool (Upper, Lower)	Number of Rotary Tools		12		
	Spindle Speed	min^{-1}	6000		
	Maximum Tool Shank Diameter	mm inch	20 0.75″		
	Tool Spindle Taper Hole		AR32		
Feedrate	Upper Turret (X1/Y1/Z1)	m/min ipm	22/12/30 866.14″/472.44″/1181.10″		22/−/30 866.14″/−/1181.10″
	Lower Turret (X2/Y2/Z2)	m/min ipm	20/12/30 787.40″/472.44″/1181.10″	20/−/30 787.40″/−/1181.10″	
	Right Spindle (A)	m/min ipm	30 1181.10″		
Motors	Left Spindle (S3 25%/continuous)	kW HP	18.5/15 24.7/20		
	Right Spindle (S3 25%/continuous)	kW HP	15/11 20/14.7		
	Rotary Tool Motor (S3 25%/continuous)	kW HP	7.5/3.7 10/4.9		
	Feed Axis (X1/Y1/Z1)	kW HP	2.5/2.5/2.5 3.3/3.3/3.3		2.5/−/2.5 3.3/−/3.3
	Feed Axis (X2/Y2/Z2)	kW HP	2.5/1.2/2.5 3.3/1.6/3.3	2.5/−/2.5 3.3/−/3.3	
	Feed Axis (A)	kW HP	2.5 3.3		
	Hydraulic Pump Motor	kW HP	1.5 2.0		
	Coolant Pump Motor	kW HP	0.4 × 3 0.5 × 3		
Required Power	Electric Power	kVA	50		
Tank Capacity	Coolant Tank	L gal	420 110.88		
Machine Size	Machine Height	mm inch	2444 96.22″		
	Height form Floor to Spindle Centerline	mm inch	1260 49.61″		
	Depth form Front to Spindle Centerline	mm inch	810 31.89″		
	Required Floor Space *2	mm × mm inch × inch	4741 × 2748 186.65″ × 108.19″		
	Machine Weight	kg lbs.	9370 20614	9330 20526	9280 20416

●:Standard −:None

■ Machine Dimensions

Unit : mm inch



Accessories

Items		TM-4000Y2	TM-4000Y	TM-4000
Y-Axis	Upper Turret	●	●	–
	Lower Turret	●	–	–
C-Axis Milling	Upper/Lower Turret	●	●	●
Chuck Open/Close Footswitch		●	●	●
Hollow Hydraulic Chuck *1		○	○	○
Chuck Plate		●	●	●
Hydraulic Chuck Cylinder *1	Left Spindle	●	●	●
	Right Spindle	●	●	●
Chuck Auto Open/Close M-Function		●	●	●
Spindle Air Purge		●	●	●
Chuck Airblow	Left Spindle	○	○	○
	Right Spindle	●	●	●
Spindle Above Coolant		●	●	●
Rotary Tool Type 12-Station Turret	Bolted	●	●	●
	VDI	○	○	○
Turret Air Purge		●	●	●
Rotary Tool Holder for X-Axis Milling		○	○	○
Rotary Tool Holder for Z-Axis Milling		○	○	○
Collet		○	○	○
OD Tool Holder		○	○	○
Double OD Tool Holder	Upper/Lower Turret Each 2 Pieces	●	●	●
Boring Bar / Drill Holder	Upper/Lower Turret Each 4 Pieces	●	●	●
Boring Bar Bush		○	○	○
Cut-Off Holder		○	○	○
Facing Holder		○	○	○
Turret Cover	Upper/Lower Turret Each 6 Pieces	●	●	●
Work Pusher	Turret Installed	○	○	○
Tool Setter	Shared by Right and Left Spindles	○	○	○
In-machine Unloader *4 + In-machine Conveyor	Right Spindle	○	○	○

Items		TM-4000Y2	TM-4000Y	TM-4000
Chip Conveyor	CE, Side-Discharge	●	●	●
Chip Bucket		○	○	○
Auto Door		○	○	○
Powered Door		○	○	○
Pneumatic device		●	●	●
Pneumatic pressure switch		●	●	●
Hydraulic Unit		●	●	●
Hydraulic Pressure Switch		●	●	●
Automatic lubrication unit		●	●	●
Oil-Water Separator		●	●	●
Lubricant Collection Box *3		●	●	●
Coolant Pump	400W, 3 Units	●	●	●
High Pressure Coolant Pump Unit (1MPa)		○	○	○
Coolant Cooling Unit		○	○	○
Signal Tower Light	3-Color, Lighting	○	○	○
Counter		○	○	○
Lighting Apparatus	LED	●	●	●
Leveling Plate Set	Turret Installed	●	●	●
Auto Power-Off System		●	●	●
Bar Feeder Interface		○	○	○
Trans	Other than CE	○	○	○
	CE	●	●	●
RS-232C Interface		○	○	○
Instruction Manual		●	●	●

●:Standard ○:Optional −:None

＊For other optional accessories, please contact us.
A variety of optional accessories are available for respective models. The specifications of optional accessories vary depending on the model, thus requiring a separate discussion.

＊1) Please note the bar capacity follows types of chucks and cylinders.
By default, the following hydraulic cylinder are provided.

	Left Spindle	Right Spindle
Hydraulic Chuck Cylinder	KITAGAWA SS1881K	SMW SIN-S125 (Solid)
Inner Diameter of Draw Tube	81	–
Bar Capacity	80	–

＊2) With Work Oil Pan, Chip Conveyor and Operation Panel.
＊3) Lubricant mixing in water soluble coolant is separated, and only the coolant is returned to the coolant tank. The lubricant collected in the lubricant collection box must be drained periodically.
＊4) In-machine unloader has parts catcher type and hand type.

Parts Catcher Type

Hand Type

TM-4000 Series

NC Unit Specifications

FANUC : 31i-B

※ Please contact our sales persons for further information.

■ Composition

Specifications・Contents	TM-4000
【Software】	
iHMI	●
iHMI machining cycle	●
iHMI interactive programming function for lathe *20	○
iHMI machine collision prevention function *20	○
Tiwap-1	○
RAKU-RAKU Monitor 3	○
Measurement Monitor 3 *1	◎
【Safety Devices】	
Front Door Interlock	●
Front Door Locking Mechanism	○ , CE
Dual Check Safety	○ , CE
Control Panel Breaker with Tripper	●

■ Main Function List

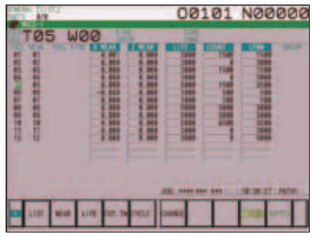
Specifications・Contents	TM-4000
【Controlled Axes】	
Least Input Increment *2	●
Max. Programmable Dimension (±999999.999)	●
Cs Contouring Control	●
Synchronous/Composite Control *3	●
Increment System C *4	○
Inch/Metric Conversion	○
Interlock	●
Machine Lock	○
Emergency Stop	●
Stored Stroke Check 1	●
Stored Stroke Check 2, 3 *5	○
Stored Limit Check Before Move	○
Chuck and Tail Stock Barrier *6	○
Mirror Image (Each Axis)	▲
Chamfering ON/OFF	●
Unexpected Disturbance Torque Detection Function *7	○
Position Switch	◎

Software

＊ The software specifications are subject to change for improvement without notice.

RAKU-RAKU Monitor 3

Easy and convenient multi-functional softwares that can perform the tool life management, cutting load monitoring, group control, and also run information collection, Cp (process capability) calculation, and periodic offset addition.



▲ RAKU-RAKU Monitor 3

Specifications・Contents	TM-4000
【Operation】	
Automatic Operation (Memory)	●
MDI Operation	●
DNC Operation *8	○
DNC Operation with Memory Card *9	○
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	●
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) *10	◎
Torque Limit Skip	●
Reference Position Return (G28)	●
2nd Reference Position Return (G30)	●
Balanced Cutting	○
【Feed Functions】	
Rapid Traverse Override (0%,F0,10%,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/Seceleration After Cutting Feed Interpolation	○
Feedrate Override (21 Steps)	●
Jog Override (21 Steps)	●
Override Cancel	●
Manual per Revolution Feed	▲
AI Contour Control Ⅰ	○
AI Contour Control Ⅱ	○
【Program Input】	
Program Code (EIA/ISO Auto Recognition)	●
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	●
Rotary Axis Designation	●
Rotary Axis Rollover	●

Specifications・Contents	TM-4000
Coordinate System Setting (G50) *11	●
Automatic Coordinate System Setting	●
Workpiece Coordinate System	●
Workpiece Coordinate System Preset	●
Addition of Workpiece Coordinate System 48-pairs	○
Direct Drawing Dmension Programming *12	○
G-Code System A	●
G-Code System B/C *11	○
Chamfering/Corner R *13	●
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 Dnterpolation by R Programming	●
Automatic Corner Override	○
3D Coordinate System Conversion *14	○
Coordinate System Shift	●
Direct Input of Coordinate System Shift	●
Embedded Macro	◎
Real Time Custom Macro	◎
Program Coordinate System Changing Function	●
【Auxiliary/Spindle Speed Function】	
M Function (M3 Digits)	●
Waiting Function	●
Multiple Command of Auxiliary Function (3 Pieces)	●
Spindle Speed Function (S Functions)	●
Constant Surface Speed Control	●
Spindle Override	●
Spindle Orientation	●
Spindle Synchronous Control	●
Rigid Tap (Spindle Center)	●
Rigid Tap (Rotary Tool)	●
【Tool Functions / Tool Compensation】	
Tool Function	●
Tool Offset Pairs 64-pairs	●
Tool Offset Pairs 99-pairs	○
Tool Offset Pairs 200-pairs	○
Tool Offset Pairs 400-pairs	◎
Tool Offset Pairs 499-pairs	◎
Tool Offset Pairs 999-pairs	◎
Tool Offset Pairs 2000-pairs	◎
Tool Offset	●
Y-Axis Offset	Y
Tool Radius・Tool Nose Radius Compensation	●
Tool Geometry/Wear Compensation	●
Tool Offset Value Counter Input	●
Direct Input of Tool Offset Value Measured	●
Direct Input of Tool Offset Value Measured B *15	○
Tool Life Management *16	○
Tool Offset Memory Switching Function	●
【Accuracy Offset Functions】	
Backlash Compensation	▲
Backlash Compensation for Each Rapid Traverse and Cutting Feed	▲
Smooth Backlash Compensation	▲
【Editing】	
Part Program Storage Size 512Kbyte	●
Part Program Storage Size 1Mbyte	○
Part Program Storage Size 2Mbyte	Tiwap
Part Program Storage Size 4Mbyte	○
Part Program Storage Size 8Mbyte	○
Number of Registerable Programs Expansion 1	●
Number of Registerable Programs Expansion 2	Tiwap
Part Program Editing	●
Extended Part Program Editing	●
Program Protect	●
Machining Time Stamp	○
Background Editing	●
Multi Part Program Editting	●

Specifications・Contents	TM-4000
【Setting / Display】	
Status Display	●
Clock Function	●
Current Position Display	●
Program Comment Display (31 Characters)	●
Parameter Setting and Display	●
Alarm Display	●
Alarm Log Display	●
Operation History Display	▲
Run Hours and Parts Count Display	●
Actual Cutting Feedrate Display	●
Display of Spindle Speed and T Code at All Screens	●
Servo Setting Screen	●
Spindle Adjustment Screen	●
Maintenance Information Screen	●
Data Protection Key, 1 Kind	●
Erase CRT Screen Display	●
Parameter Set Supporting Screen	●
Help Function	●
Self-diagnosis Function	●
Periodic Maintenance Screen	●
Graphic Function	●
【Multi-language Display】	
English *17	●
Other Language *17 *18	●
【Data I/O】	
RS-232C Interface for 1ch	○
Fast Data Server	○
Memory Card I/O	●
USB Memory I/O	●
Screen Hard Copy	●
One Touch Macro Call	◎
Automatic Data Backup	●
【Communication Function】	
Embedded Ethernet	●
Fast Ethernet *19	◎
【Other】	
Touch Panel	●

● :Standard ○ :Optional ◎ :Special ▲ :Parameter setting is required.

(Note: Normally, the parameters need not to be changed. If the parameters are to be set or changed, understand completely the functions of such parameters. Wrong setting could cause the machine to be moved unexpectedly, resulting in machine or workpiece damage or personal injury.)

CE : CE type standard specification. Tiwap : Tiwap-1 standard specification.
Y : TM-4000Y2, TM-4000Y standard specification.

*1) I/O addition and the PC change are necessary.
*2) 0.001mm, 0.0001inch, 0.001deg
*3) Synchronous control: Z-axis/C-axis, Composite control: C-axis/A-axis (Tiwap specification supports C-axis only.)
*4) IS-C 0.0001mm 0.001deg 0.00001inch
*5) Not coexistent with chuck tailstock barrier.
*6) Not coexistent with Stored Stroke Check 2, 3.
*7) Required when RAKU-RAKU Monitor 3 is used.
*8) DNC run mode transfer switch and RS-232C interface for 1ch are required.
*9) DNC run mode transfer switch, CF card and adaptor are required.
*10) Used for touch sensor, etc.
*11) Cannot be used when Tiwap-1.
*12) Not coexistent with chamfering/corner R.
*13) Not coexistent with drawing dimension direct input.
*14) Angle Holder is required.
*15) Tool setter is required.
*16) Cannot be used when RAKU-RAKU Monitor 3 is installed.
*17) Cannot be simultaneous display the other languages.
*18) Japanese (Kanji) , German, French, Spanish, Italian, Chinese (traditional), Chinese (simplified), Korean, Portuguese, Dutch, Danish, Swedish, Hungarian, Czech, Polish, Russian, Turkish, Romanian, Bulgarian, Slovak, Finnish, Vietnamese, Indonesian
*19) Hardware option is required.
*20) PANEL iH Pro is required.

The contents of the catalog are subject to change for improvement without notice. Please make confirmation from our sales representatives when entering into the contract.

TM-4000

TAKISAWA®

TAKISAWA MACHINE TOOL CO., LTD.

983 Natsukawa, Kita-ku, Okayama 701-0164, JAPAN
Telephone : (81)86-293-1500
Fax : (81)86-293-5799
Website : http://www.takisawa.co.jp
E-mail : tkj-1@takisawa.co.jp (America)
tkj-2@takisawa.co.jp (Europe)
tkj-3@takisawa.co.jp (Asia)

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.

NC530E1705EN2000A

ISO 9001 Certified
JQA-2010
(Head Office)

JAB
CM007
ISO 14001
12ER-865
(Head Office)

■ Overseas Network

THAILAND Takisawa (Thailand) Co.,Ltd.
Telephone : (66)2-012-1530-2 Fax : (66)2-012-1533

INDONESIA PT. Takisawa Indonesia
Telephone : (62)21-45852466 Fax : (62)21-45852467

INDIA SAP Takisawa Machine Tools Private Ltd.
Telephone : (91)80-26662386 Fax : (91)80-26662392

CHINA Takisawa (Shanghai) Co., Ltd.
Telephone : (86)21-6235-0938 Fax : (86)21-6235-0905

USA Takisawa, Inc.
Telephone : (1)847-419-0046 Fax : (1)847-419-0043

GERMANY Takisawa Machine Tool Germany Representative Office
Telephone : (49)2056-2598-15 Fax : (49)2056-5994-79