

**TAKISAWA®**

CNC Lathe

**TCC-1100**  
**TCC-2100**

# 2-Axis CNC Lathe Achieving Extreme High Speed, High Accuracy, and Compactness



TCC-1100  
Floor Space  
**1.6m<sup>2</sup>**

CNC lathe "TCC series" having minimized width/space optimum for small parts machining is redesigned with further increased speed, accuracy, and compactness.  
The gantry loader with higher speed powerfully supports mass production.

Increased Productivity per m<sup>2</sup> due to the Minimized Width and Space  
Compact machine supporting the chuck work and center work.

- TCC-Series is a compact machine having small width and requiring minimized installation space, nevertheless it supports 6"/8" chuck.
- It supports the chuck work and center work\*1 at the minimized width and space, thus enabling the optimum layout according to your production.
- Long experience and great technique for automation.
- 1-spindle and 1-turret CNC lathes providing the highest quality and versatility.

TCC-1100

TCC-2100



## 6" Chuck

C-C	L2
Max. Turning Diameter	φ 220
Max. Turning Length	171
Bar Capacity	42

Gantry Loader **TiwaP-I**

## 8" Chuck

C-C	L2	L3
Max. Turning Diameter	φ 350	φ 350
Max. Turning Length	189	289
Bar Capacity	51 (OP.42)	51 (OP.42)

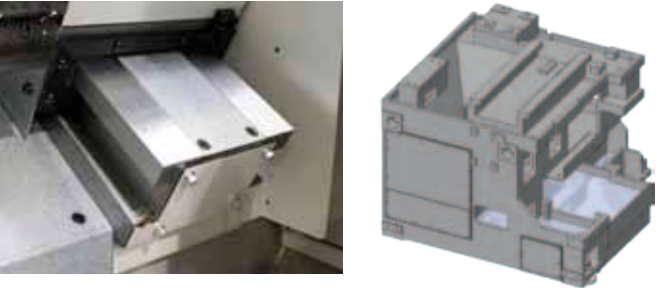
Gantry Loader **TiwaP-I**

(\*1 Hydraulic tailstock for the center work is optional for TCC-1100 L2, TCC-2100 L3)

# Capability • Performance

## Box Shaped Bed & Box Slide Way

Box-shaped bed construction having very high rigidity resistive to thermal deformation.  
Rectangular slideways excellent in high reliability and high durability owing to Takisawa's long experienced scraping (facing-up) technique are used in all axes.  
They contribute to keeping stable accuracy for a long time.

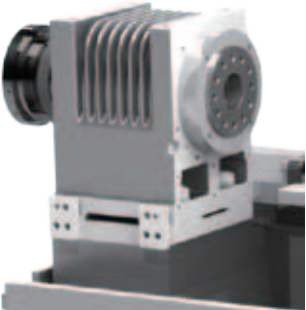


Tank bed structure with a large capacity coolant tank. A low center of gravity provides more stability in machining. Improved machining accuracy thanks to minimized thermal distortion.

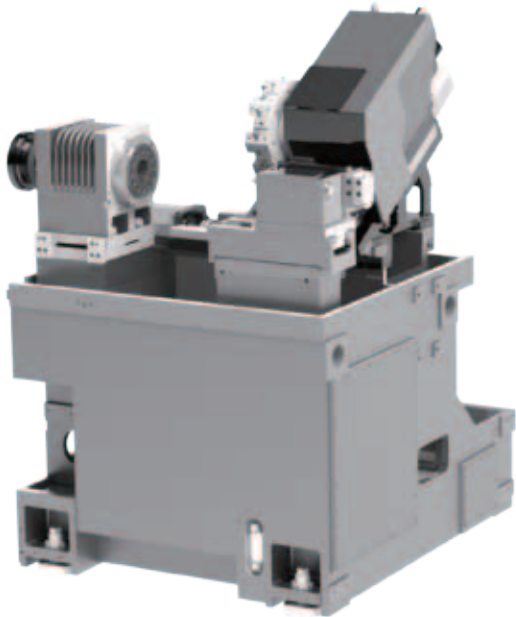
	TCC-1100	TCC-2100
Coolant Tank Capacity	110L	150L(L2) 170L(L3)
Coolant Pump (Submerged Type)	250W	250W

## Highly Rigid Headstock

The headstock is designed for high torque and provides excellent cutting performance. Shorter accelerating/decelerating time than existing models.



	TCC-1100	TCC-2100
Output	5.5/3.7kW	11/7.5kW
Continuous Rated Torque	28.3N·m	90N·m



## Machining Range

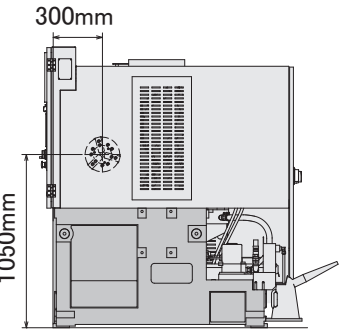
The appearance is compact, but the machining range is wide. The rapid traverse rate is increased compared to our former machines to reduce machining time.

	TCC-1100	TCC-2100
Max. Turning Diameter	φ 220mm (T8)	φ 350mm (T8)
Max. Turning Length	171mm	189mm (L2, T8)
Rapid Traverse Rate	X-Axis Travel	24m/min
	Z-Axis Travel	30m/min

## Compact & space saving, but operability-oriented.

The headstock, carriage, turret, and tailstock (option) are arranged on the tough box-shaped bed in an optimum balance to realize the compact and space saving machine.

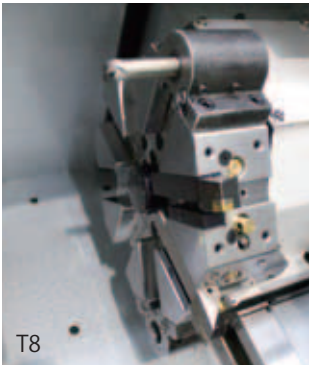
The machine is made thoroughly compact and space-saving, but the door opening is wide. It makes accessibility to the spindle excellent and tip change and setup change easy.  
Door Opening Width : 435mm(TCC-2100)  
Opening to spindle center distance : 300mm(TCC-2100)  
Height form Floor to Spindle Centerline : 1050mm



## Turret

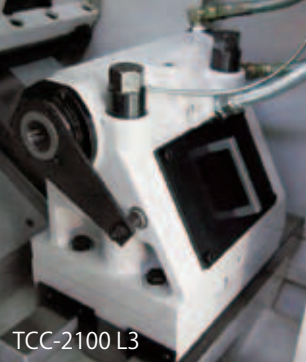
Direct-mount type powerful turret.  
The number of tools of a turret can be selected from 8 (T8) as standard and 12 (T12) as optional for optimum machining.

Type of Turret	TCC-1100		TCC-2100	
	T8 (STD.)	T12	T8 (STD.)	T12
Number of Attachable Tools	8	12	8	12
Height of Square Tool Shank	20		25	20
Diameter of Boring Bar Shank	25		40	25



## Hydraulic Tailstock (Optional)\*

Highly Rigid Tailstock is optional.  
Even shaft workpieces can be machined powerfully without paying attention to runout.



	TCC-1100	TCC-2100 L3
A-Axis Travel	130mm	175mm
Quill Taper	MT No.3	MT No.4
Thrust (Hydraulic Pressure 3MPa)	3.4kN	5.9kN

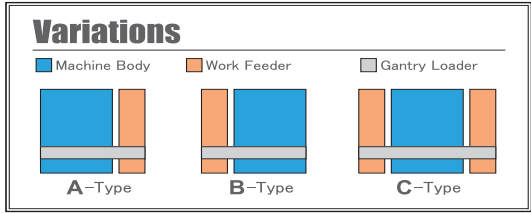
\*) For TCC-1100 L2, TCC-2100 L3.



High-Speed Gantry Loader System

We can propose automatic system configuration with high productivity according to workpieces.

Variations



Standard 3-Jaw Loader Hand



Photo is TCC-1100GC type.

Loader Specification (A-Type)

			TCC-1100G		TCC-2100G	
			L2		L2	L3
Target Workpiece	Outside Diameter	mm inch	φ100	3.94"	φ160	6.3"
	Length	mm inch	60	2.36"	100	3.94"
	Weight	kg lbs	0.7	1.5 (×2)	3	6.6 (×2)
Travel (Running Speed)	Vertical	mm inch (m/min ipm)	510	20.08" (160 6299.21")	630	24.8" (160 6299.21")
	Longitudinal	mm inch (m/min ipm)	1120	44.09" (170 6692.91")	1240	48.42" (200 7874.02")
					1340	52.76" (200 7874.02")

Work Piece Feeder Specifications

Number of Pallets		14	16
Loading Capacity (Per Pallet)	kg lbs	25 55	40 88
Maximum Height	mm inch	450 17.72"	450 17.72"

Variations A-Type Standard Accessories

Solid 3-jaw Hydraulic Chuck  
Boring Bar / Drill Holder (3 Pieces)  
Facing Holder (1 Piece)  
Boring Bar Bush (3 Pieces)  
Front Door Interlock  
Chuck Open/Close Footswitch  
Coolant Unit (250W, 1 Unit)  
Lighting Apparatus  
Splashguard  
Working Tool Set

Instruction Manual  
Chuck Auto Open/Close M-Function  
Chuck Airblow (Outside Spindle)  
Signal Tower Light (3-Lamp Type)  
Chip Conveyor (Caterpillar Type, Rear Discharge)  
Total Counter (Display)  
Auto Power-Off System  
Gantry Loader  
Work Feeder  
NG Chute

RAKU-RAKU Loader 4  
RAKU-RAKU Monitor 3

**[Note]**  
Chuck cylinder is proximity switch specification.  
For the B or C type standard accessories, please make an inquiry to Takisawa sales persons.  
When using loader types, there might be limitations for tooling and workpiece length depending on the type of turret or with/without a tailstock. Please contact us for further details.

Supply/Discharge Unit

Standard : Work Feeder  
Three-guide-bar specification Center pole specification



Loader Hand

We will provide optimum one according to the application.

Parallel type (Example: for flange)  
Swivel type (Example: for palletizer)\*



\*) Only for TCC-1100G.

Promptly Compatible with Turnkey System  
Peripheral Device Modular Unit

The loader peripheral device is unitized as a package. It is flexibly applicable for automatic cell with previous and subsequent processes such as positioning by camera and measurement.

Machine	1 Unit Width	Workpiece handled by unit (diameter x length, weight)
TCC-1100G	420mm	φ100×60, 0.7kg
TCC-2100G	600mm	φ160×100, 3kg



Software

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

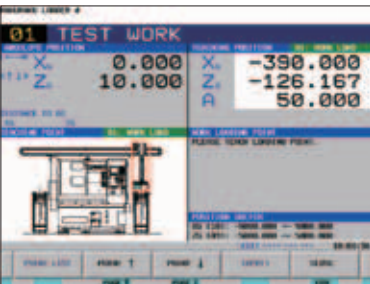
Measurement Monitor 3

Optional Accessories

This function loads the measured data from a measuring unit and sets automatically the offset value. Also, various convenient functions such as graphical display, Cp (process capability) calculation, and data input/output are included.

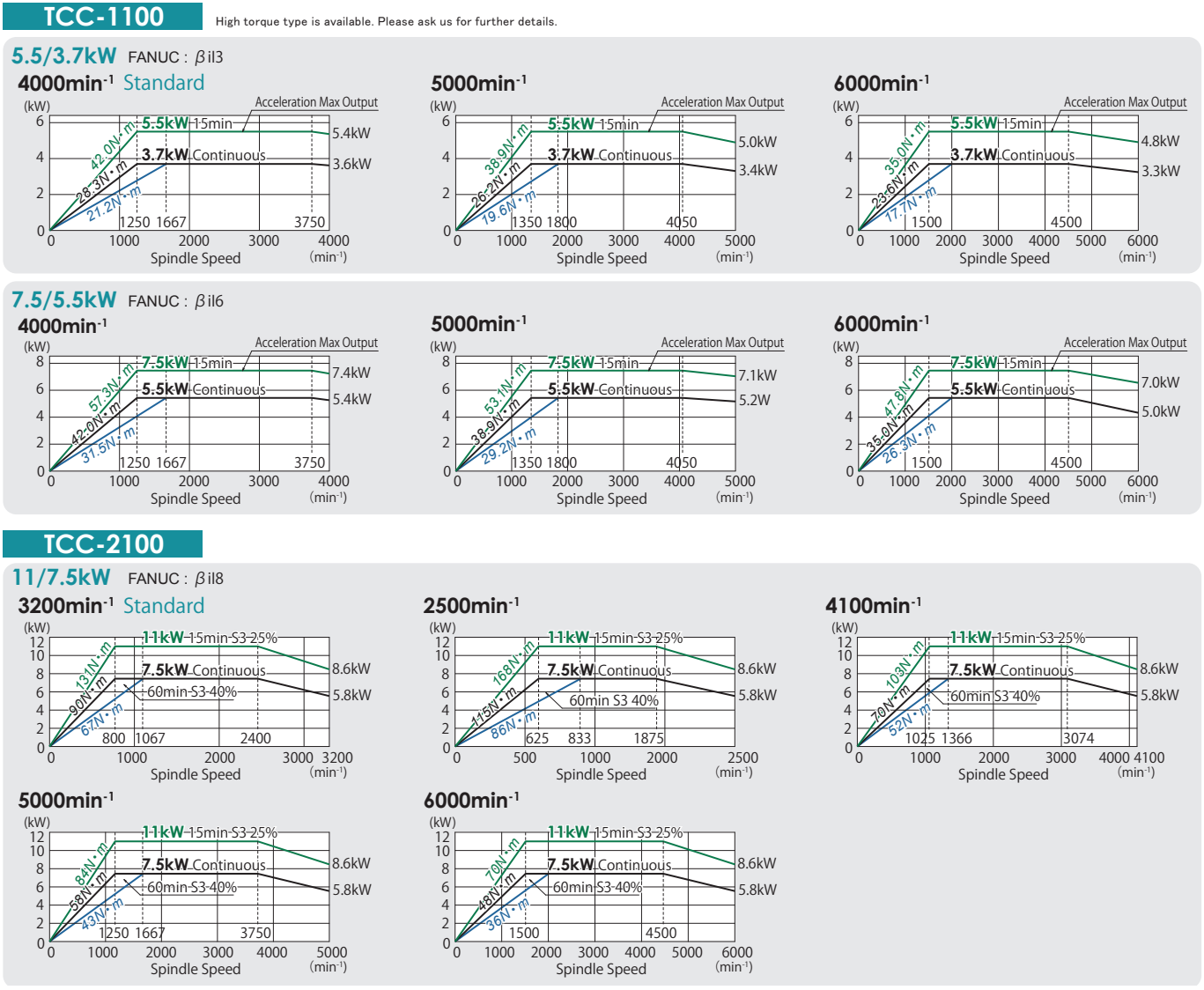
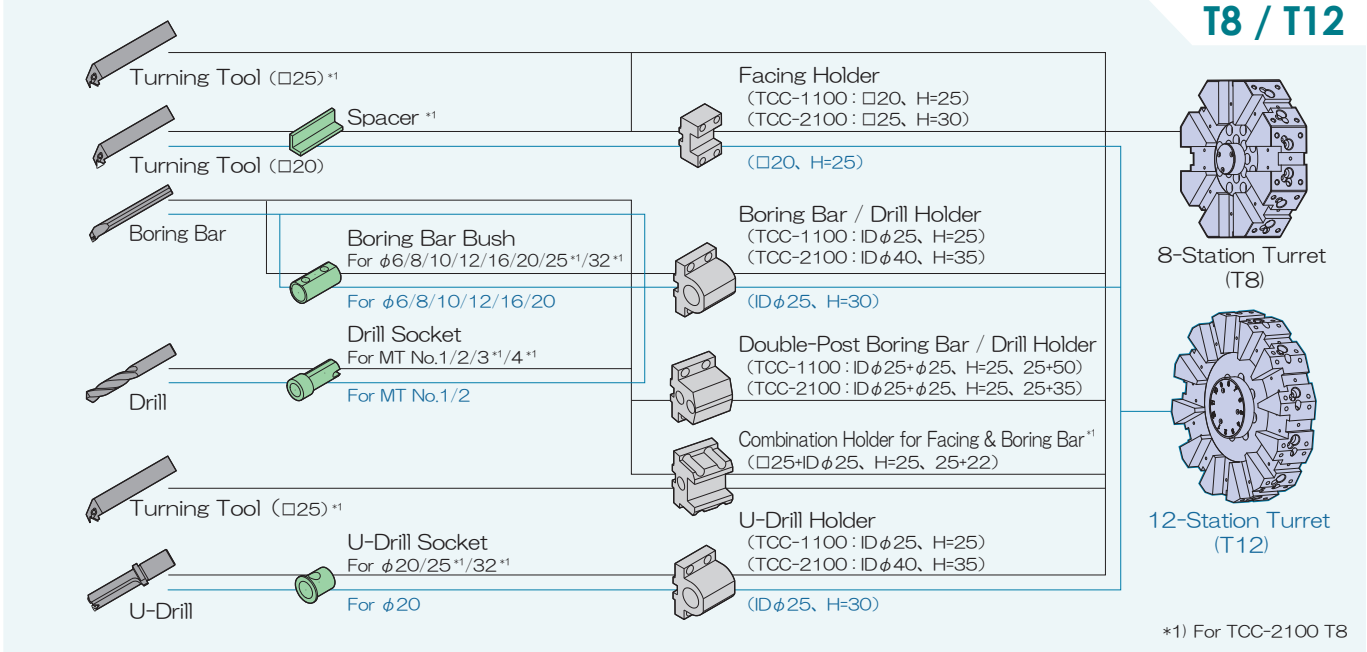
RAKU-RAKU Loader 4

The loader operation settings can be changed simply by the operation from the dedicated screen without modifying the program.



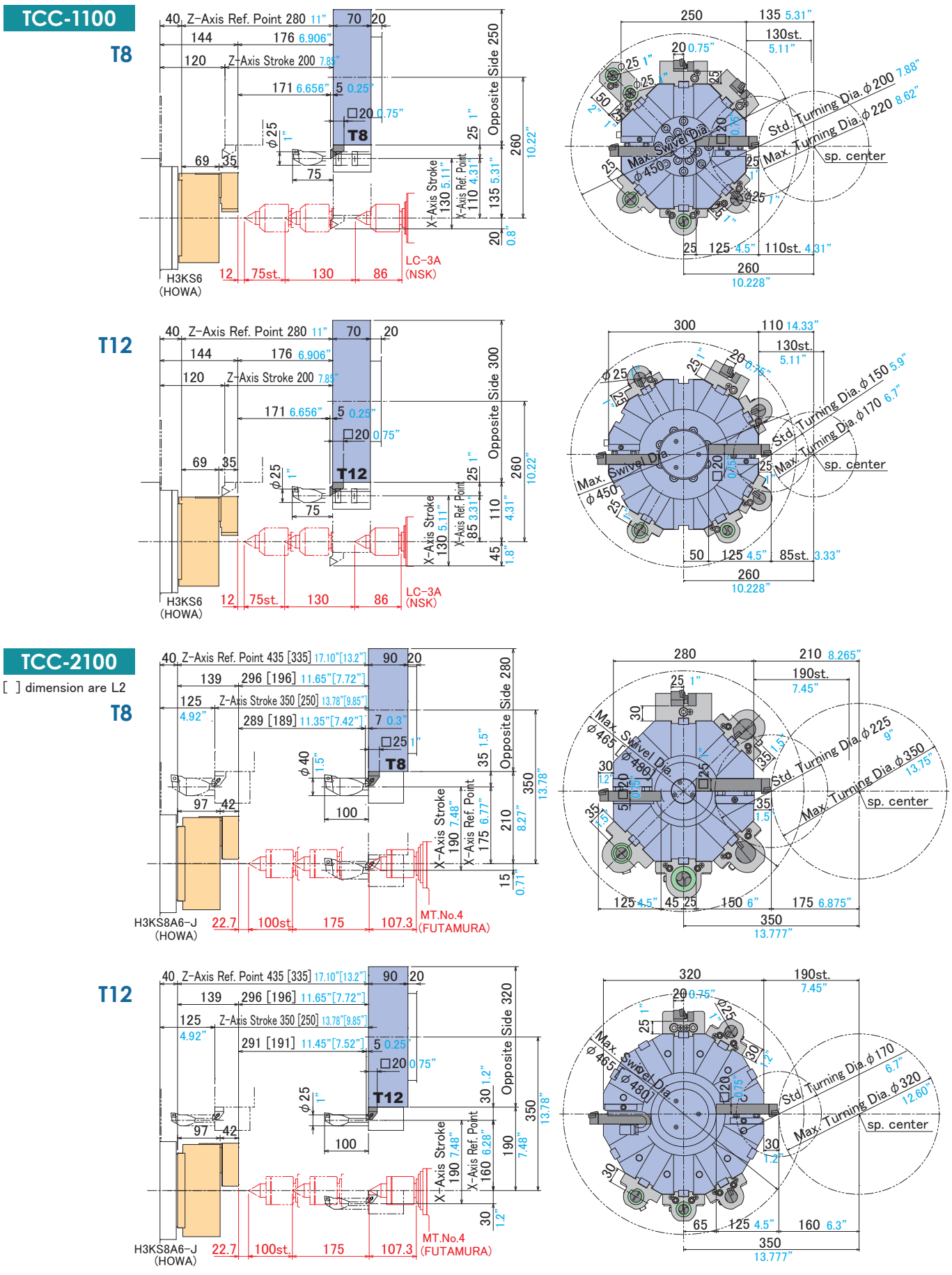
▲ RAKU-RAKU Loader 4

Tooling System • Output Diagram



Interference • Travel Range

Unit: mm inch





Unit : mm **inch**

Technical drawings of the 316 and 316S models showing front and side views with dimensions in millimeters and inches.

**Front View Dimensions:**

- Overall Width: 2141.4 mm (84.31")
- Overall Height: 1050 mm (41.34")
- Top Section Width: 1170 mm (46.06")
- Top Section Height: 1370 mm (53.94")
- Bottom Section Width: 400 mm (15.75")
- Bottom Section Height: 412 mm (16.22")
- Door Opening Width: 922 mm (36.3")
- Chip Conveyor Pull Out: 705.6 mm (27.78")
- Chip Pan Pull Out: 145.6 mm (5.73")

**Side View Dimensions:**

- Overall Width: 1958 mm (77.09")
- Overall Height: 1048.5 mm (41.28")
- Top Section Width: 1370 mm (53.94")
- Top Section Height: 1700 mm (66.93")
- Bottom Section Width: 400 mm (15.75")
- Bottom Section Height: 412 mm (16.22")
- Door Opening Width: 922 mm (36.3")
- Chip Conveyor Pull Out: 705.6 mm (27.78")
- Chip Pan Pull Out: 145.6 mm (5.73")

Technical drawings of the 388 and 450 series chip conveyors. The left drawing shows the 388 series with dimensions: height 1495 (446), width 1290 (350.4), depth 1050 (270.6), and opening width 386 (98.0). The right drawing shows the 450 series with dimensions: height 1700 (426.7), width 2105.1 (530.2), depth 1059.5 (269.4), and opening width 450 (114.3). Both drawings include labels for 'Chip Conveyor Pull Out' and 'Chip Pan Pull Out'.

[illegible][illegible]

Technical drawings of the 15554 chip conveyor system, including top, side, and front views with dimensions in inches and millimeters.

**Top View Dimensions:**

- Overall Width: 1563 (406.4)
- Overall Depth: 2154 (548.3)
- Internal Width: 1290 (50.79)
- Internal Depth: 209.7 (53.1)
- Chip Conveyor Pull Out: 1410.6 (357.9)
- Chip Pan Pull Out: 1059.5 (269.5)

**Side View Dimensions:**

- Overall Height: 2713 (68.81)
- Loader X-Axis: 630st (160.1)
- Chip Conveyor Pull Out: 1410.6 (357.9)
- Chip Pan Pull Out: 1059.5 (269.5)

**Front View Dimensions:**

- Overall Width: 1563 (406.4)
- Overall Depth: 2154 (548.3)
- Internal Width: 1290 (50.79)
- Internal Depth: 209.7 (53.1)
- Chip Conveyor Pull Out: 1410.6 (357.9)
- Chip Pan Pull Out: 1059.5 (269.5)

# TiwaP-I

[illegible]

## Machining Simulation

[illegible][illegible]

In Input window for arbitrary shape, Intersection Point will be calculated automatically.

Machine Specifications

Items			TCC-1100		TCC-2100 L2		TCC-2100 L3										
	Turret Type		T8	T12	T8	T12	T8	T12									
Capability • Capacity	Max. Swing	mm <span>inch</span>	380	14.96"	420	16.54"	420	16.54"									
	Standard Turning Diameter	mm <span>inch</span>	200	7.88"	150	5.9"	225	9"	170	6.7"							
	Max. Turning Diameter	mm <span>inch</span>	220	8.62"	170	6.7"	350	13.75"	320	12.60"							
	Max. Turning Length	mm <span>inch</span>	171	6.73"	189	7.42"	191	7.52"	289	11.35"	291	11.45"					
	Bar Capacity	mm <span>inch</span>	42	1.65"	51 2.00" [ 42 1.65" ]												
Travel	X-Axis Travel	mm <span>inch</span>	130	5.11"	190 7.48"												
	Z-Axis Travel	mm <span>inch</span>	200	7.85"	250 9.85"				350 13.78"								
Spindle	Spindle Speed	min <sup>-1</sup>	4000	5000	6000	3200	2500	4100	[ 5000 6000 ]								
	Spindle Nose (Nom, Code)		140F			A2-6 [ 140F ]											
	Spindle Through-Hole Diameter	mm <span>inch</span>	53	2.09"		63		2.48"		[ 53 2.09" ]							
	Spindle Bearing Inside Diameter	mm <span>inch</span>	80	3.25"		100		3.39"		[ 80 3.15" ]							
Turret	Type of Turret		Direct-Mount Type			Direct-Mount Type		Direct-Mount Type									
	Number of Attachable Tools		8	12		8	12		8	12							
	Height of Square Tool Shank	mm <span>inch</span>	20	0.75"		25	1"		20	0.75"		25	1"		20	0.75"	
	Diameter of Boring Bar Shank	mm <span>inch</span>	25	1"		40	1.5"		25	1"		40	1.5"		25	1"	
Tailstock	Tailstock Travel	mm <span>inch</span>	130	5.11"		-		175 6.89"									
	Quill Diameter	mm <span>inch</span>	60	2.36"		-		75 2.96"									
	Quill Taper		MT.3			-		MT.4									
	Quill Travel	mm <span>inch</span>	75	2.95"		-		100 3.94"									
Feedrate	Rapid Traverse Rate	m/min ipm	X:24 / Z:30 X:944.88" / Z:1181.10"			X:24 / Z:30 X:944.88" / Z:1181.10"											
Motors	Spindle Motor (15, 30 min/continuous)	kW <span>HP</span>	5.5/3.7	7.5/5.5	7.3/4.9	10/7.3	11/7.5 15/10										
	Feed Axis Motor	kW <span>HP</span>	X:1.2 / Z:1.2	X:1.6 / Z:1.6		X:1.2 / Z:1.8		X:1.6 / Z:2.4									
	Hydraulic Pump Motor	kW <span>HP</span>	0.75	1.0		0.75		1.0									
	Coolant Pump Motor	kW <span>HP</span>	0.25	0.33		0.25		0.33									
Required Power	Electric Power	kVA	10 11			14											
Tank Capacity	Hydraulic Unit Tank	L <span>gal</span>	18.5	4.88		18.5 4.88											
	Lubricant Tank	L <span>gal</span>	1.8	0.48		1.8 0.48											
	Coolant Tank	L <span>gal</span>	110	29.04		150	39.60		170 44.88								
Machine Size	Machine Height	mm <span>inch</span>	1700	66.93"		1700 66.93"											
	Height form Floor to Spindle Centerline	mm <span>inch</span>	1050	41.34"		1050 41.34"											
	Required Floor Space	mm × mm <span>inch × inch</span>	1170 × 1370		46.06" × 53.94"		1290 × 1495		50.79" × 58.86"		1390 × 1525		54.72" × 60.04"				
	Machine Weight	kg <span>lbs.</span>	1860	4092		2400 5280		2530 5566									

Red is Optional. [ ] are specification of spindle speed 5000min<sup>-1</sup>, 6000min<sup>-1</sup>.

Accessories

Items		TCC-1100	TCC-2100
Solid 3-Jaw Hydraulic Chuck *1		●	●
Solid Cylinder *1		●	●
Boring Bar / Drill Holder	3 Pieses	●	●
Facing Holder	1 Piese	●	●
Boring Bar Bush	3 Pieses	●	●
Front Door Interlock		●	●
Chuck Open/Close Footswitch		●	●
Coolant Pump	250W, 1 Unit	●	●
Lubricant Collection Box *2	withn Pot	●	●
Leveling Plate Set		●	●
Lighting Apparatus		●	●
Adjustment Tool Set		●	●
Instruction Manual		●	●
Hollow Chuck		○	○
Spindle Orientation		○	○
Spindle Motor	5.5/3.7kW	●	-
	7.5/5.5kW	○	-
	11/7.5kW	-	●
Chuck Auto Open/Close M-Function		○	○
Switchable to Two Chuck Pressures		○	○
Spindle Speed	2500min <sup>-1</sup>	-	○
	3200min <sup>-1</sup>	-	●
	4000min <sup>-1</sup>	●	-
	4100min <sup>-1</sup>	-	○
	5000min <sup>-1</sup>	○	-
	6000min <sup>-1</sup>	○	-
Seating Control		○	○
Chuck Airblow	with M-Function	○	○
Spindle Through Airblow	with M-Function	○	○
Spindle Through Coolant	with M-Function	○	○
Spindle Inner Stopper		○	○
Spindle Above Coolant		○	○
Hydraulic Tailstock		○	○
Tailstock M-Function		○	○
Linear Scale		○	○
Robot Interface	16 Inputs & Outputs	○	○
Switchable to Two Tailstock Pressures		○	○
Rolling Center		○	○

Items		TCC-1100	TCC-2100
Turret	8-Station Type (T8)	●	●
	12-Station Type (T12)	○	○
Boring Bar / Drill Holder		○	○
Facing Holde		○	○
U-Drill Holder		○	○
Boring Bar Bush		○	○
U-Drill Socket		○	○
Drill Socket		○	○
Tool Setter		○	○
Counter	Various Types	○	○
Signal Tower Light	3-Color, Lighting	○	○
Auto Door	Left Open	○	○
Chip Conveyor	Various Types	○	○
Chip Bucket		○	○
Sub-Control Box		○	○
Parts Catcher		○	○
Bar Feeder Interface		○	○
Turret Pusher		○	○
Work Pusher		○	○
Hybrid Hydraulic Unit		○	○
Line Filter for Hydraulic Unit		○	○
100V Outlet (Single Socket, Capacity 1A)		○	○
Coolant Pump	Various Types	○	○
Mist Collector		○	○
Filler Tube	Various Types	○	○
RS-232C Cable		○	○
RAKU-RAKU Monitor 3		○	○
Measurement Monitor 3		○	○
Tiwap-1		○	○

● :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.

Special Specification Example

Parts Catcher



\*1) By default, the following hydraulic chuck/cylinder are provided.

	TCC-1100	TCC-2100
Solid 3-Jaw Hydraulic Chuck	HOWA H3KS6	HOWA H3KS8 A6-J
Solid Cylinder	HOWA C1SA115	HOWA C1SA125

\*2) 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.



# TCC-1100/TCC-2100

## NC Unit Specifications

FANUC : Oi-TF (Type 1)

※ Please contact our sales persons for further information.

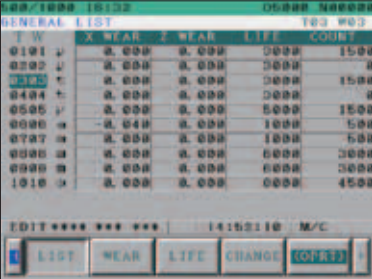
### Software

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

#### ■ Gantry Loader Type Standard Accessory

##### RAKU-RAKU Monitor 3

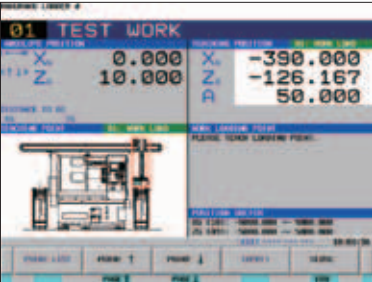
Easy and convenient multi-functional softwares that can perform the tool life management, cutting load monitoring, group control, and also run information collection, Cp (process capability) calculation, and periodic offset addition.



▲ RAKU-RAKU Monitor 3

##### RAKU-RAKU Loader 4

The loader operation settings can be changed simply by the operation from the dedicated screen without modifying the program.



▲ RAKU-RAKU Loader 4

##### Measurement Monitor 3

###### 【Optional Accessories】

This function loads the measured data from a measuring unit and sets automatically the offset value. Also, various convenient functions such as graphical display, Cp (process capability) calculation, and data input/output are included.

#### ■ Composition

Specifications・Contents	TCC-1100, TCC-2100	
	Standard	Gantry Loader Type
	Oi-TF	Type 1
【NC Unit】		
8.4" Color LCD/MDI	●	●
10.4" Color LCD	Tiwap	Tiwap
【Software】		
RAKU-RAKU Monitor 3	○	●
RAKU-RAKU Loader 4 *1	—	●
RAKU-RAKU Loader 3	—	Tiwap *2
Measurement Monitor 3 *3	◎	◎
Tiwap-1	○	○
【Safety Devices】		
Front Door Interlock	●	●
Front Door Locking Mechanism	○ , CE	○ , CE
Dual Check Safety	CE	CE
Control Panel Breaker with Tripper	○	○

#### ■ Main Function List

Specifications・Contents	TCC-1100 TCC-2100
	Oi-TF    Type 1
【Controlled Axes】	
Least Input Increment *4	●
Max. Programmable Dimension (±999999.999)	●
Increment System C *5	▲
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	◎

【Operation】	
Automatic Operation (Memory)	●
MDI Operation	●
DNC Operation *10 *11	◎
DNC Operation with Memory Card *11 *13	◎
Program Number Search	●
Sequence Number Search	●
Sequence Number Comparison and Stop	●
Wrong Operation Prevention	▲
Buffer Register	●
Dry Run	●
Single Block	●
Manual Continuous Feed (JOG)	●
Manual Reference Position Return	●
Reference Position Setting without DOG	●
Manual Handle Feed, 1 Unit	●

【Interpolation Functions】	
Positioning (G00)	●
Exact Stop Mode (G61)	●
Tapping Mode (G63)	●
Cutting Mode (G64)	●
Exact Stop (G09)	●
Linear Interpolation (G01)	●
Circular Interpolation (G02/G03)	●
Dwell (G04)	●
Thread Cutting, Synchronous Cutting	●
Multi Threading	●
Thread Cutting Retract	●
Continuous Threading	●
Variable Lead Thread Cutting	●
Reference Position Return (G28)	●
Reference Position return Check (G27)	●
2nd Reference Position Return (G30)	●
3rd, 4th Reference Position Return	◎

Specifications・Contents	TCC-1100 TCC-2100
	Oi-TF    Type 1
【Feed Functions】	
Rapid Traverse Override (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	●
Linear Acceleration/Deceleration After Cutting Feed Interpolation	●
Feedrate Override (15 Steps)	●
Jog Override (15 Steps)	●
Override Cancel	●
Manual per Revolution Feed	▲

【Program Input】	
Tape 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)	●
Coordinate System Setting (G50)	●
Automatic Coordinate System Setting	●
Direct Drawing Dimension Programming *13	▲
G-Code System A	●
G-Code System B/C	▲
Chamfering/Corner R *14	●
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	●
Coordinate System Shift	●
Direct Input of Coordinate System Shift	●

【Auxiliary / Spindle Speed Function】	
Miscellaneous Functions (M8 Digits)	●
2nd Auxiliary Functionn (B8 Digits)	●
Spindle Speed Function (S5 Digits)	●
Constant Surface Speed Control	●
Spindle Orientation	●
Rigid Tap	●

【Tool Functions / Tool Compensation】	
Tool Function (T2+2 Digits)	●
Tool Offset Pairs 99-pairs	●
Tool Offset Pairs 128-pairs	▲
Tool Offset Pairs 200-pairs	○
Tool Offset	●
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 Geometry Size Data, 100 Pieces	Tiwap

【Accuracy Offset Functions】	
Backlash Compensation	▲
Backlash Compensation for Each Rapid Traverse and Cutting Feed	▲

【Editing】	
Part Program Storage Size 512Kbyte *17	●
Part Program Storage Size 2Mbyte *17	○
Number of Registerable Programs, 400 Programs *18	●
Number of Registerable Programs Expansion 1, Max. 1000 Programs	Tiwap

Specifications・Contents	TCC-1100 TCC-2100
	Oi-TF    Type 1
Part Program Editing	●
Extended Part Program Editing	●
Program Protect	●
Background Editing	●
【Setting / Display】	
Status Display	●
Clock Function	●
Current Position Display	●
Program Comment Display (31 Characters)	●
Parameter Setting and Display	●
Alarm Display	●
Alarm Log Display	●
Operator Message History Display	●
Operation History Display	▲
Run Hours and Parts Count Display	●
Actual Cutting Feedrate Display	●
Display of Spindle Speed and T Code at All Screens	●
Directory Display of Floppy Cassette	●
Servo Setting Screen	●
Maintenance Information Screen	●
Data Protection Key, 1 Kind	●
Help Function	●
Self-diagnosis Function	●
Periodic Maintenance Screen	●
Display of Hardware and Software Configuration	●
Graphic Function	●
Dynamic Graphic Display	○

【Multi-language Display】	
English *19	●
Other Language *19 *20	▲
Dynamic Display Language Switching	▲

【Data I/O】	
RS-232C Interface for 1ch	○
Data Server Function	◎
External Message	●
External Workpiece Number Search	◎
Memory Card I/O	●
USB Memory I/O	●

● : Standard    ○ : Optional    ◎ : Special    — : None  
▲ : 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.)

Tiwap : Tiwap-1 standard specification.  
CE : CE type standard specification.

\*1) Cannot be used when RAKU-RAKU Monitor 3 is installed.

\*2) RAKU-RAKU Loader 3 used when Tiwap-1 is installed.

\*3) I/O addition and the PC change are necessary.

\*4) 0.001mm, 0.0001inch

\*5) IS-C 0.0001mm 0.00001inch.

\*6) Addition of switch is required.

\*7) Not coexistent with chuck tailstock barrier.

\*8) Not coexistent with Stored Stroke Check 2, 3.

\*9) Required when RAKU-RAKU Monitor 3 is used.

\*10) DNC run mode transfer switch is required.

\*11) RS-232C Interface is required.

\*12) CF card and adaptor is required.

\*13) Not coexistent with chamfering/corner R.

\*14) Not coexistent with drawing dimension direct input.

\*15) Tool setter is required.

\*16) Cannot be used when RAKU-RAKU Monitor 3 is installed.

\*17) In the case of loader specification, about [ 262K-byte 655m ] is used for program store capacity by RAKU-RAKU loader 4 software.

\*18) In the case of loader specification, the 150 program number is used by RAKU-RAKU loader 4 software.

\*19) Cannot be simultaneous display the other languages.

\*20) Japanese, German, French, Spanish, Italian, Chinese (traditional), Chinese (simplified), Korean, Portuguese, Dutch, Danish, Swedish, Hungarian, Czech, Polish, Russian, Turkish, Romanian, Bulgarian, Slovak, Finnish, Hindi(8.4" display only), Vietnamese, Indonesian



# TCC-1100 TCC-2100

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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.

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