

Compact Machining Center
SPEEDIO

brother
at your side

R650X2



SPEEDIO ***with Pallet Changer***

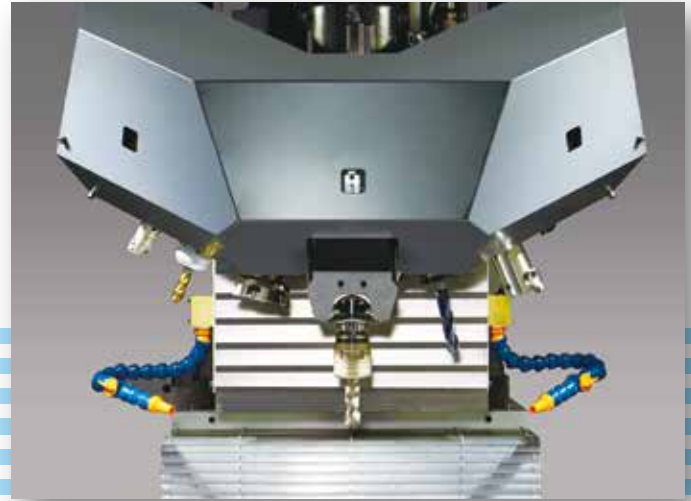


Expanding the World of ***SPEEDIO***

R650X2 is equipped with the "QT table", Brother's original high-speed 2-side pallet changer. The model demonstrates high productivity, and also provides the largest machining area among "QT table" machines, enabling mounting large jigs.

The release of this new model will further expand the world of the SPEEDIO.

Additionally, R650X2 has a new specification of 40-tool storage capacity, and these new development will further extend the world of SPEEDIO.



**Enlargement of
Machining Area**

**Quest for
High Performance**

**High Reliability and
Environmental
Performance**

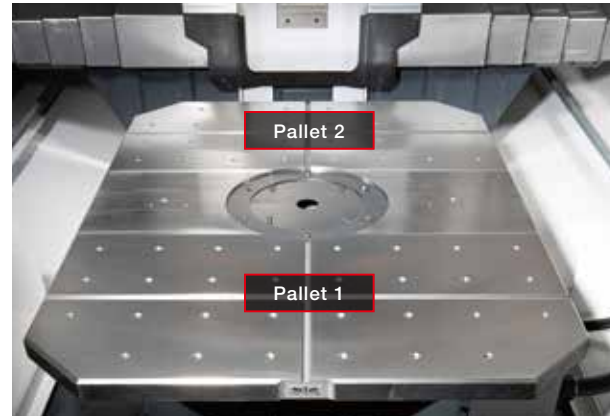
R650X2

Max. spindle speed (min ⁻¹)	10,000 / 16,000 (optional) 10,000 high torque (optional)
Travel of each axis (mm)	14/22 pcs X650 Y400 Z305 40 pcs X650 Y400 Z435
Tool storage capacity (pcs.)	14 / 22 / 40
Rapid traverse rate (m/min)	X/Y/Z 50/50/50
Required floor space (mm)	14/22 pcs 1,897 × 3,448 40 pcs 2,145 × 3,248
Coolant Through Spindle (CTS)	Optional
BT dual contact spindle (BIG-PLUS)	Optional
Low-floor table	Optional

QT table

The QT (Quick Turn) table is Brother's original turn table type high-speed 2-face pallet changer. High-speed pallet change is enabled by avoiding lift-up operation while achieving high reliability through a sealed structure. Workpieces on one pallet can be changed while machining workpieces on the other pallet. Therefore, waste in workpiece change time is eliminated, enabling nonstop machining.

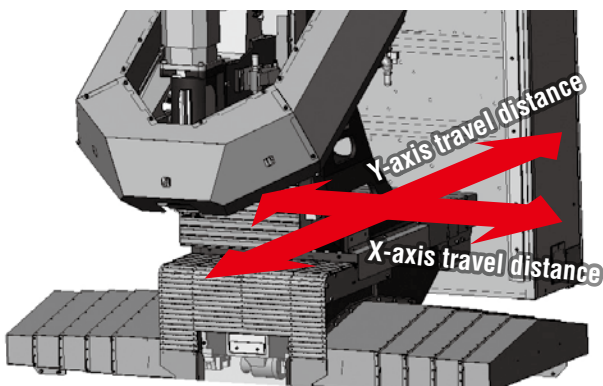
Pallet change time 3.4s



Machining area

Making use of Brother's original pallet changer technologies, the machine provides sufficient travels and a large jig area, which are not available on conventional #30 machines standard equipped with a pallet changer.

Sufficient travels that enlarge machining range

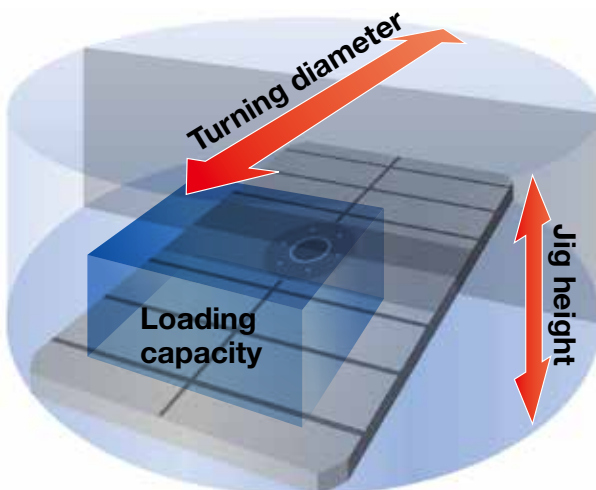


Provides 650 mm X-axis travel, the largest among QT table machines. Effective for large workpiece machining or multiple parts machining.

X-axis travel distance 650mm

Y-axis travel distance 400mm

Jig area that enables mounting of large jigs



The turning diameter and the table size have been increased, enabling the mounting of large jigs. In particular, this makes mounting a trunnion jig using a rotary table easier.

Turning diameter 1,250mm

Jig height 350mm

Loading capacity (one face) 200kg

Work area size (one face) 800×400mm

Simulated over Many Years



Expandability



To enable the mounting of much larger jigs, two options are available: a low-floor table option that increases the jig height and a turning diameter enlargement option that increases the turning diameter to 1,300 mm. The loading capacity can also be increased to 300 kg (one face).

Low-floor table specifications



Increase in loading capacity

Max. loading capacity (one face)

200kg → **300kg***

* The parameter must be changed.

40-tool storage capacity



R650X2 can select tool storage capacity 14 pcs, 22 pcs and 40 pcs. This model is suitable to improve the productivity by process integration with a pallet changer.



The separation of the machining area and the magazine room

A shutter is equipped at tool pot in order to separate the machining area and tool magazine room. This structure prevent chip from coming into magazine room.



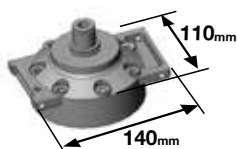
Pot shutter - closed



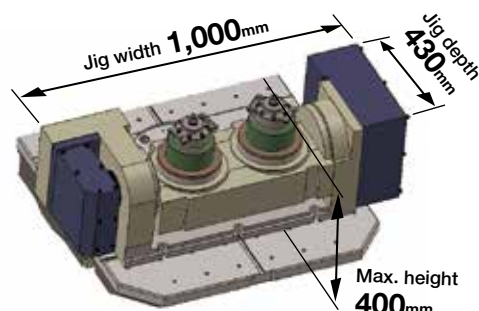
Pot shutter - open

Jig mounting example

- Workpiece : Compressor housing (automobile)
- Machining : Five-face machining using a tilting two-spindle rotary table (When low-floor table is used)



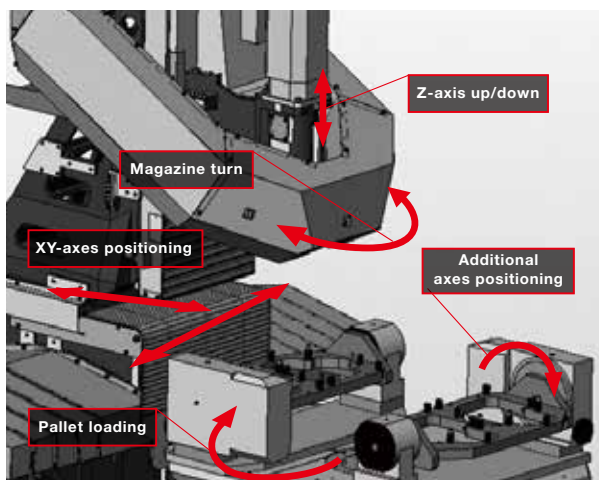
**Tilting two-spindle
rotary table**



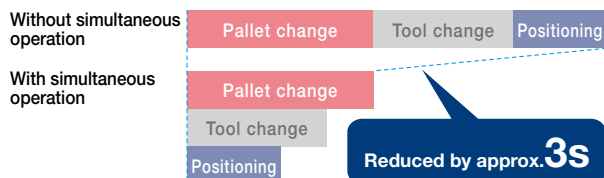
Productivity

Enhanced speed and acceleration, and optimal control with any waste operation and time eliminated, drive machine performance to the fullest, demonstrating high productivity.

■ Simultaneous operation



The machine is equipped with a simultaneous operation function where the QT table turns and the X/Y- and additional axes are positioned simultaneously when tools are changed. This avoids any waste pallet change time, enabling non-stop machining in our quest for "Wasted time = Zero."



■ High acceleration spindle

Using a low-inertia spindle motor achieves quicker starting and stopping of the spindle. Tool change is completed without stopping the Z-axis.

Spindle start / stop time 0.14 s

* Data taken using high-torque specifications.

■ High-speed tool change

High-speed tool change is achieved by increasing the speed of, and optimizing the control for, spindle start/stop, Z-axis up/down, and magazine operation.

40-tool magazine
Tool - Tool : **0.9 s**
Chip - Chip : **2.6 s**

22-tool magazine
Tool - Tool : **0.8 s**
Chip - Chip : **1.6 s**

14-tool magazine
Tool - Tool : **0.7 s**
Chip - Chip : **1.4 s**

Operability

Equipped with tool monitoring functions

1 ATC monitoring

The presence of a spindle tool is detected without using a sensor. (Only for 14 or 22 magazine specification)

■ Spindle load monitoring

The load on the spindle during machining is monitored, abnormalities in tools and machining can be detected.

2 Waveform output to memory card

Torque waveform data can be output to a memory card (CSV format).

3 Simple setting of high accuracy mode

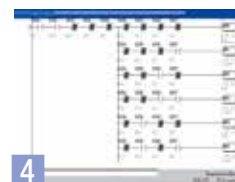
Parameters used for machining can easily be adjusted.

4 PLC function

Standard equipped with PLC. Input and output points can be expanded to up to 1,024 points each (optional)

■ Control box size

Space has been increased for system expansion in case of automation etc.



Passion for #30 and Original NC Unit

Accessibility

Accessibility and operability from the front or side of the machine is enhanced so that operators can easily perform setup work, such as workpiece change or tool change.

Operation from the front

Wider door opening width is secured to make workpiece change easier.

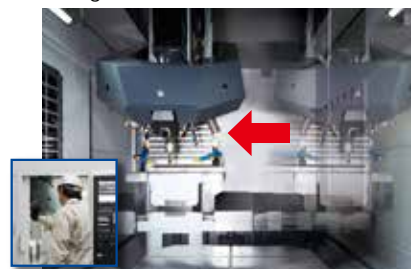


Operation from the side

The operation panel is placed on the side of the machine to make setup work easier.



The column can be moved to a position where tools can easily be changed.



Machining capabilities

The highly rigid structure and a high-power spindle motor provide high-range machining capabilities from heavy-duty machining to high-speed high-efficiency machining.

Highly rigid structure

High rigidity achieved by reviewing the structure of the column and base through analysis.



High-power spindle motor

Demonstrates high machining capabilities, with high characteristics from low-speed to medium-speed range.

Grooving using standard specs



Machining details
Cutting amount: 110 cc/min
Material: Carbon steel (using D16 end mill)

Large hole drilling using high-torque specs



Machining details
Holediameter: D40 mm
Material: Carbon steel

Spindle motor characteristic value

Max.torque (momentary) **40 Nm**
Max.output **18.9 kW**

Spindle motor characteristic value

Max.torque (momentary) **92 Nm**
Max.output **26.2 kW**

Machining	Material	ADC	Cast iron	Carbon steel
Drilling Tool diameter mm(inch) × Feed mm(inch)/rev	10,000min ⁻¹	D32(1.26) × 0.2(0.008)	D28(1.1) × 0.15(0.006)	D25(0.98) × 0.1(0.004)
	16,000min ⁻¹	D24(0.94) × 0.2(0.008)	D22(0.87) × 0.15(0.006)	D18(0.71) × 0.1(0.004)
	10,000min ⁻¹ high-torque	D40(1.57) × 0.2(0.008) D30(1.18) × 0.7(0.03)	D34(1.34) × 0.15(0.006) D26(1.02) × 0.4(0.02)	D30(1.18) × 0.15(0.006) D26(1.02) × 0.25(0.01)
Tapping Tool diameter mm(inch) × Pitch mm(inch)	10,000min ⁻¹	M27 × 3.0(1-8UNC)	M24 × 3.0(7/8-9UNC)	M16 × 2.0(5/8-11UNC)
	16,000min ⁻¹	M22 × 2.5(7/8-9UNC)	M18 × 2.5(5/8-11UNC)	M14 × 2.0(1/2-13UNC)
	10,000min ⁻¹ high-torque	M39 × 4.0(1 1/2-6UNC)	M33 × 3.5(1 1/4-7UNC)	M27 × 3.0(1-8UNC)
Facing Cutting amount cm ³ /min(inch ³ /min)	10,000min ⁻¹	960(58.6)	128(7.8)	81(5.0)
	16,000min ⁻¹	660(40.3)	73(4.5)	48(2.9)
	10,000min ⁻¹ high-torque	1700(102.4)	255(15.6)	186(11.4)

*Data obtained from tests conducted by Brother

High Reliability and Environmental Performance

Reliability and Environmental Performance Achieved through Brother's Accumulated Expertise

Reliability

High reliability is achieved by improving chip discharge performance and enhancing maintenance functions, contributing to the improvement of the machine's operating rate.

Chip shower

Two chip shower pumps are installed to greatly increase the flow rate. Piping is added to the top face to discharge chips from the machine quickly.

Air-assisted tool washing(optional)

High discharge pressure prevents chips becoming attached to the holder.



Motor insulation resistance Maintenance notice function

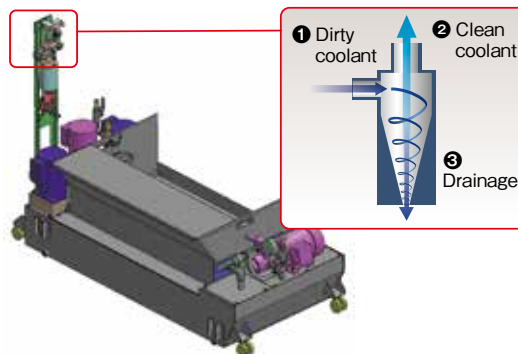
Detects motor failure in advance.



Tank with cyclone filter (special option for CTS)

Coolant is returned to a clean tank through a tank with a cyclone filter with fine chips removed.

This reduces the filter change frequency and extends the service life of the pump.



Environmental performance

Various energy saving functions reduce power consumption, achieving high environmental performance.

Power regeneration system

Equipped with a power regeneration system that reuses energy generated when the spindle motor decelerates. Low power consumption is achieved in combination with a highly efficient spindle motor.

Energy saving pump

Energy saving coolant pump reduces power consumption of the coolant unit.



Various energy saving NC functions

Automatic coolant off

Turns off the coolant pump when the preset time elapses.

Automatic work light off

Turns off the work light when the preset time elapses.

Standby mode

Turns off the servomotor when the machine is not operated for the preset time.

Automatic power off

Turns off the power at the preset time.

LED type work light

LED type work light is used to achieve low power consumption and long service life.



Highly efficient spindle motor

Highly efficient motor is used for the spindle motor to increase acceleration and save energy.



Optional Specifications



Coolant unit

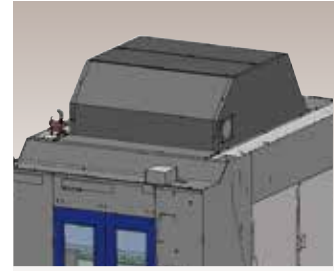
A large 200L or 250L tank (250L only available for 40-tool type)
(Photo: 200L tank with CTS)



Coolant Through Spindle (CTS)

1.5 MPa CTS is ideal for deep drilling and high-speed machining.

*Please consult Brother separately for 3 or 7 MPa CTS.



Top cover

This cover prevents the mist leaking from the top of the machining room. There is also a hole for a mist collector.



Outside index switch

This switch enables operation of the outer index table.



Manual pulse generator

Manual pulse generator with a cable makes operation through the maintenance window easier.



Automatic oil lubricator/Automatic grease lubricator

Regularly applies oil or grease to all lubricating points on the three axes. *Manual greasing is required for the standard specification model.

Rotary Table T-200



Feature① High productivity

High acceleration and fast rotation ensure smooth operation even for jigs with a large unbalanced load.

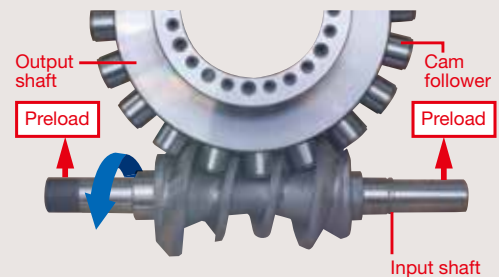
Feature② High accuracy

Preload applied between the input shaft and the output shaft achieves zero-backlash.

Feature③ Extended service life

As very little abrasion on the input shaft and output shaft occurs due to rolling contact, adjustment is unnecessary for long periods

Roller Gear Cam Mechanism



* Depending on the type of coolant, it may have a significant influence on the machine lifecycle. It is recommended to use the coolant which is commercially designated as high lubricity, for example Emulsion type. Especially, the coolant of chemical solution type (ex. Synthetic type) is prohibited to use, because it may cause machine damages.
* When using CTS (Coolant Through Spindle) function, usage of the coolant of combustible type (ex. Oil-based type) is prohibited.

- Coolant unit
 - ①200L tank
 - ②200L tank for CTS
 - ③200L tank for CTS and cyclone filter
 - ④250L tank
 - ⑤250L tank for CTS
 - ⑥250L tank for CTS and cyclone filter
- *250L only available for 40- tool type
- Coolant Through Spindle (CTS)
- Coolant Through Spindle 7MPa (CTS)(40MG)
- Back washing system (for CTS)
- Tool washing (air-assisted type)
- Rotary table T-200
- Tool breakage detector (touch type)

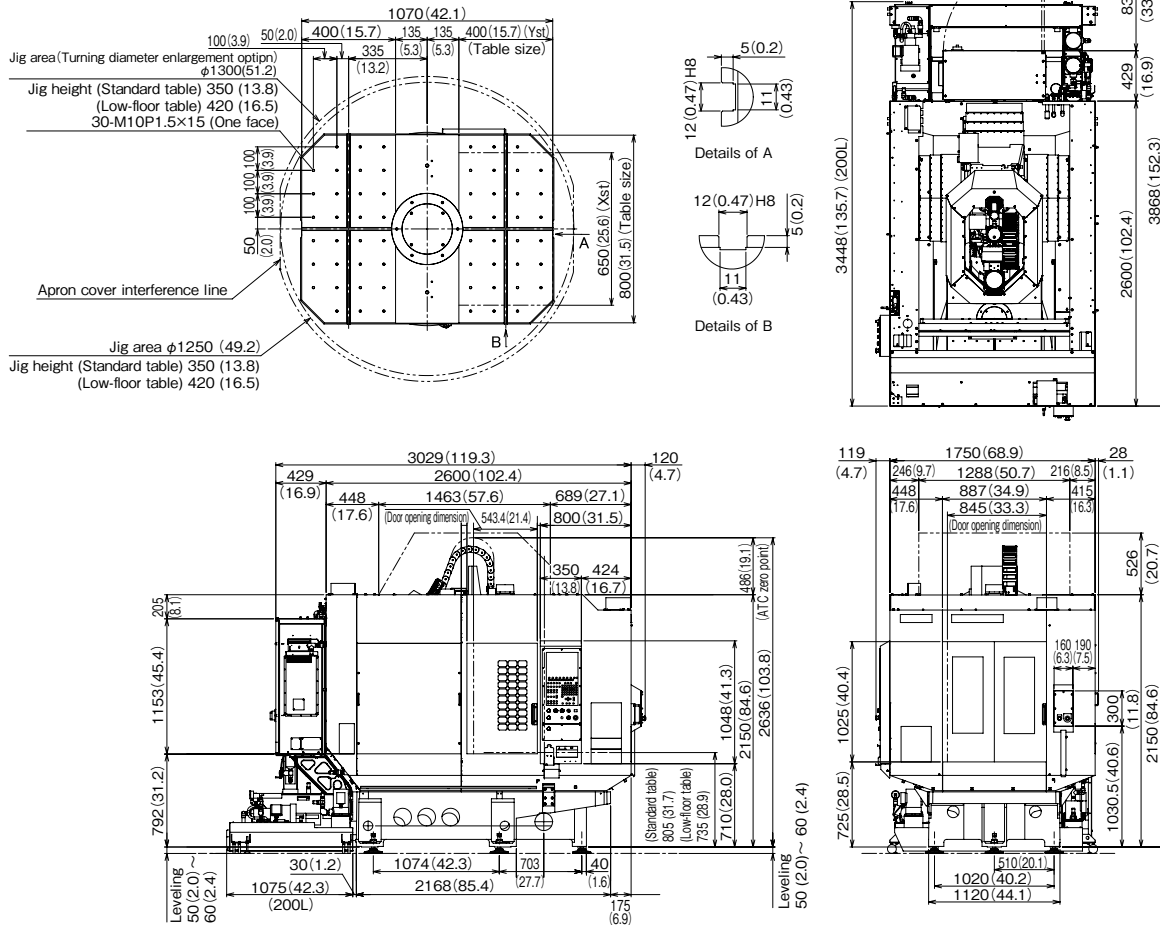
- Hydraulic rotary joint (4P) + Pneumatic relay box (12P)
- Pneumatic relay box (12P)
- Cleaning gun
- Automatic oil lubricator
- Automatic grease lubricator
- LED work light (1 or 2 lamps)
- Table light
- Indicator light (1, 2, or 3 lamps)
- Automatic door (motor-driven)
- Area sensor
- Specified color
- Manual pulse generator
- B-axis cord
- Spindle override

- Outside index rotation switch
- Turning diameter enlargement (D1,300 mm)
- Top cover
- Side cover (transparent board type)
- Memory expansion (approx. 500 Mbytes)
- RS232C (25 pin) for control box
- Expansion I/O board (EXIO board)
 - ①EXIO board assembly
 - ②Additional EXIO board assembly
- Operation preparation circuit
- Power supply expansion
- 100V outlet (in control box)
- Breaker handle cover
- Switch pane (8 holes, 10 holes)
- Front switch panel (8 holes)

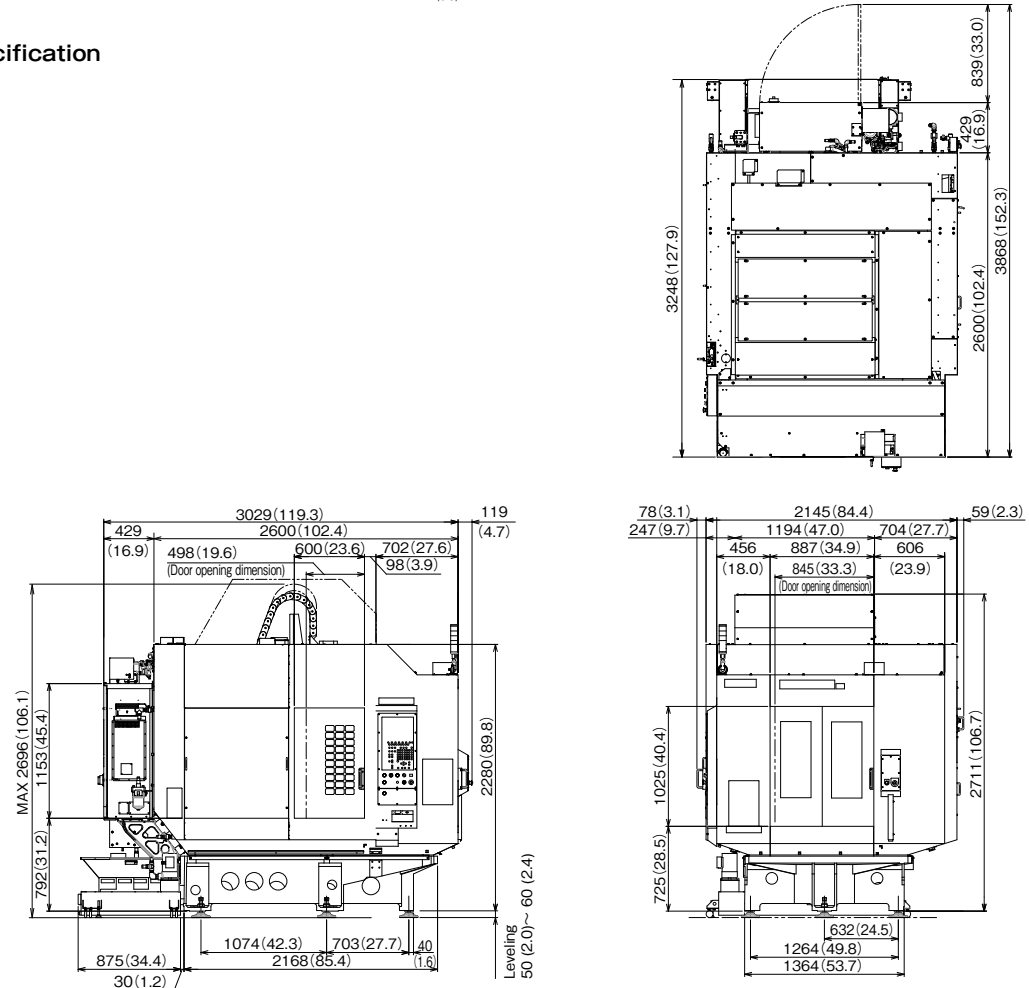
- Fieldbus
 - ① CC-Link (remote device station)
 - ② PROFIBUS DP (slave)
 - ③ DeviceNet (slave)
- PLC programming software (For Windows® XP, Vista, 7, and 8.1)
Windows® is a trademark or registered trademark of Microsoft Corporation in the United States and/or other countries.
*Please contact your Brother dealer for details.
- Teaching pendant
- Jig shower valve unit
- Grip cover
- Mesh basket for chips

External Dimension

●14/22 tool specification



●40-tool specification



Machine Specifications and NC Unit Specifications

Machine specifications

R650X2 / R650X2 RD ※12		14/22 tool	40-tool
CNC Unit		CNC-C00	
Travels	X axis	mm (inch)	650 (25.6)
	Y axis	mm (inch)	400 (15.7)
	Z axis	mm (inch)	305 (12.0)
	Distance between table top and spindle nose end	mm (inch)	250~555 (9.8~21.8) [320~625 (12.6~24.6)] *7
Table	Work area size	mm (inch)	One face 800x400 (31.5x15.7)
	Max.loading capacity (uniform load)	kg (lbs)	One face 200 (441) [300 (661)] *6]
Spindle	Spindle speed	min ⁻¹	10,000min ⁻¹ specifications : 1~10,000 16,000min ⁻¹ specifications (Optional) : 1~16,000 10,000min ⁻¹ high-torque specifications (Optional) : 1~10,000
	Speed during tapping	min ⁻¹	MAX. 6,000
	Tapered hole		7/24 tapered No.30
	BT dual contact system (BIG-PLUS)		Optional
	Coolant Through Spindle (CTS)		Optional
Feed rate	Rapid traverse rate (XYZ-area)	m/min (inch/min)	50 x 50 x 50 (1,969 x 1,969 x 1,969)
	Cutting feed rate	mm/min (inch/min)	X,Y,Z axis : 1~30,000 (0.04~1,181) *8
ATC unit	Tool shank type		MAS-BT30
	Pull stad type *4		MAS-P30T-2
	Tool storage capacity	pcs.	14/22
	Max. tool length	mm (inch)	200 (7.9)
	Max. tool diameter	mm (inch)	80 (3.1)
	Max. tool weight *1	kg (lbs)	3.0 (6.6) (total tool weight : 25 (55.1) for 14 tools, 40 (88.2) for 22 tools >
Tool change time *5	Tool To Tool	sec.	0.7 / 0.8 (14 tool / 22 tool)
	Chip To Chip	sec.	1.4 / 1.6 (14 tool / 22 tool)
			0.9
Electric motor	Main spindle motor (10min/continuous) *2	kW	10,000min ⁻¹ specifications : 10.1 / 7.1 16,000min ⁻¹ specifications (Optional) : 7.4 / 5.1 10,000min ⁻¹ high-torque specifications (Optional) : 12.8 / 9.2
	Axis feed motor	kW	X,Y axis : 1.0 Z axis : 1.8
Power source	Power supply		AC V±10%, 50/60Hz±1Hz
	Power capacity (continuous)	kVA	10,000min ⁻¹ specifications : 9.5 16,000min ⁻¹ specifications (Optional) : 9.5 10,000min ⁻¹ high-torque specifications (Optional) : 10.4
	Air supply		0.4~0.6 (recommended value: 0.5MPa *9)
	Regular air pressure	MPa	
Machining dimensions	Height	mm (inch)	2,696 (106.2)
	Required floor space [with control unit door open]	mm (inch)	1,897x3,448 [3,868] (74.7x135.7 [152.3])
	Weight	kg (lbs)	3,500 (7,716)
Accuracy *3	Accuracy of bidirectional axis positioning (ISO230-2 : 1988)	mm (inch)	0.006~0.020 (0.00024~0.00079)
	Repeatability of bidirectional axis positioning (ISO230-2 : 2014)	mm (inch)	Less than 0.004 (0.00016)
Standard accessories		Instruction Manual (1 set) , anchor bolts (5 pcs.) , leveling plates (5 pcs.)	

*1/ Actual tool weight differs depending on the configuration and center of gravity. The figures shown here are for reference only. *2/ Spindle motor output differs depending on the spindle speed. *3/ Measured in compliance with ISO standards and Brother standards. Please contact Brother for details. *4/ Brother specifications apply to the pull studs for CTS. *5/ Measured in compliance with JIS B6336-9 and MAS011-1987. *6/ Can be increased up to 300kg (one face) by changing the parameter. Please consult us separately. *7/ Values when the low-floor table is selected. *8/ When using high accuracy mode B. (Non high accuracy mode B) X,Y axis : 1~10,000mm/min Z axis: 1~20,000mm/min. *9/ Regular air pressure varies depending on the machine specifications, machining program details, or use of peripheral equipment. Set the pressure higher than the recommended value. *12/ The machine needs to be equipped with a relocation detection device depending on the destination. Machines equipped with a relocation detection device come with "RD" at the end of the model name.

NC unit specifications

Item	
CNC model	CNC-C00
Control axes	7axes (X,Y,Z, 4 additional axes)
Simultaneously controlled axes	Positioning 5 axes (X,Y,Z,A,B)
	Interpolation Linear: 4 axes (X,Y,Z one additional axis) Circular: 2 axes Helical/conical: 3 axes (X,Y,Z)
Least input increment	0.001mm, 0.0001inch, 0.001 deg.
Max. programmable dimension	±9999.999mm, ±999.9999inch
Display	12.1-inch color LCD
Memory capacity	Approx. 100 Mbytes (Total capacity of program and data bank)
External communication	USB memory interface, Ethernet, RS232C
No. of registrable programs	4,000 (Total capacity of program and data bank)
Program format	NC language, conversation (changed by parameter) conversion from conversation program to NC language program available

* Number of "control axes" and/or "simultaneously controlled axes" are the maximum number of axes, which will differ depending on the destination country and the machine specifications.
* Ethernet is a trademark or registered trademark of XEROX in the United States.

Quick turn table specifications

Type	0 deg./180 deg. turntable system
Table dimension	mm (inch)
Max. turning diameter	mm (inch)
Max. jig height	mm (inch)
Table work area size	mm (inch)
Max. loading capacity	kg (lbs)
Rated table load inertia for turning axis	kg·m ²
Table turning system	AC servo motor (0.82kW) Worm gear (total speed reduction ratio: 1/60)
Table position time	sec
Table change repeatability	mm (inch)

*10/ When the turning diameter enlargement option is selected.
*11/ When table loading on one face is 200kg.
* Quick turn table is a turntable type 2-face pallet changer.

Standard NC functions

- Absolute / incremental
- Inch / metric
- Corner C / Corner R
- Rotational transformation
- Synchronized tap
- Coordinate system setting
- Dry run
- Restart
- Backlash compensation
- Rapid traverse override
- Cutting feed override
- Alarm history (1,000 pieces)
- Status log
- Machine lock
- Computer remote
- Built-in PLC
- Motor insulation resistance measurement
- Operation log
- High-accuracy mode AIII
- Tool length measurement
- Tool life management / spare tool
- Background editing
- Graphic display
- Subprogram
- Helical / conical interpolation
- Standby mode
- (energy saving function)
- Chip shower off delay
- Tap return function
- Automatic work light off
- (energy saving function)
- Automatic workpiece measurement *1
- Heat expansion compensation systemII (X,Y,Z axes)
- Automatic power off (energy saving function)
- Automatic coolant off (energy saving function)
- Tool washing filter with filter clogging detection
- Waveform display
- Operation level
- External input signal key
- High accuracy mode BI
- (look-ahead 40blocks)
- Waveform output to memory card
- Screen shot
- Auto notification
- Inverse time feed
- Spindle load monitoring function

NC

- Expanded workpiece coordinate system
- Scaling
- Mirror image

Optional NC functions

- Memory expansion (Approx. 500 Mbytes)
- High accuracy mode BII (look-ahead 200 blocks, smooth path offset)
- Spindle override
- High-speed processing *2

NC

- Submicron command *3
- Interrupt type macro
- Rotary fixture offset

*1. Measuring instrument needs to be prepared by users.
*2. Minute block processing time can be changed.
*3. When the submicron command is used, changing to the conversation program is disabled.
*Functions listed under (NC) and (Conversation) are available only for NC programs and conversation programs respectively.

Global Service Sites

Local dealers are available to provide services in each region, in addition to the sites below.

U. S. A.

BROTHER INTERNATIONAL CORP.
MACHINE TOOLS DIV. TECHNICAL CENTER
2200 North Stonington Avenue, Suite 270, Hoffman Estates, IL 60169, U.S.A.
PHONE:(1)224-653-8415 FAX:(1)224-653-8821

Germany

BROTHER INTERNATIONALE INDUSTRIEMASCHINEN GmbH
MACHINE TOOLS DIVISION FRANKFURT TECHNICAL CENTER
Hoechst Str.94, 65835 Liederbach, Germany
PHONE:(49)69-977-6708-0 FAX:(49)69-977-6708-80

India

BROTHER INTERNATIONAL (INDIA) PVT LTD.
Machine Tools Bengaluru Technical Center
Park Landing, Ground Floor, Municipal No.5AC-709, 2nd Block, HRBR Extension,
Bengaluru - 560 043 Karnataka, India
PHONE:(91)80-43721645

China

BROTHER MACHINERY (SHANGHAI) LTD.
(MACHINE TOOLS DIV.) SHANGHAI TECHNICAL CENTER
Unit 01, 5/F., No.799, West Tianshan Rd., ChangNing District Shanghai 200335, P.R.China
PHONE:(86)21-2225-6666 FAX:(86)21-2225-6688

China

BROTHER MACHINERY (SHANGHAI) LTD.
CHONGQING BRANCH (MACHINE TOOLS DIV.) CHONGQING TECHNICAL CENTER
Room 105, No.51 Xuefudadao, Nan' an District, Chongqing Province, 400074, P.R.China
PHONE:(86)23-6865-5600 FAX:(86)23-6865-5560

Mexico

BROTHER INTERNATIONAL DE MÉXICO, S.A. DE C.V.
División de Maquinaria Industrial Centro Técnico Querétaro
Calle 1 No.310 Int 15, Zona Industrial Jurica, Parque Industrial Jurica,
Queretaro, QRO C.P. 76100 México
PHONE:(52)55-8503-8760 FAX:(52)442-483-2667

Thailand

BROTHER COMMERCIAL (THAILAND) LTD.
MACHINE TOOLS TECHNICAL CENTER
317 Pattanakarn Road, Pravet Sub-District, Pravet District, Bangkok 10250, Thailand
PHONE:(66)2321-5910 FAX:(66)2321-5913

India

BROTHER INTERNATIONAL (INDIA) PVT LTD.
Machine Tools Gurugram Technical Center
CE SERVICED OFFICES PVT. LTD., DLF CYBER HUB, Building No 10, Tower A, Level 1,
Phase 3,DLF Cyber City,Gurugram - 122002 Haryana - India
PHONE:(91)80-43721645

China

BROTHER MACHINERY (SHANGHAI) LTD.
DONGGUAN BRANCH (MACHINE TOOLS DIV.) DONGGUAN TECHNICAL CENTER
1F, Fuyuan Business Center Building, No.1 Lane 13, Malyuan Road, Xin'an community,
Chang'an Town, Dongguan City, Guangdong Province, 523008, P.R.China
PHONE:(86)769-2238-1505 FAX:(86)769-2238-1506

Figures in brackets () are the country codes.

- Please read the instruction manuals and safety manuals before using Brother products for your own safety. When using oil-based coolant oil or when machining the materials which can cause a fire (ex. Magnesium, resin material), customers are requested to take thoroughgoing safety measures against fire. Depending on the types of cutting material, cutting tools, coolant oil, lubrication oil, it may have an influence on the machine lifecycle. Further questions, please contact our sales representative in charge.
- Leave 700 mm between machines as a maintenance space.
- When exporting our machine together with additional 1-axis rotary table or compound rotary table (including case that a rotary table is scheduled to be installed overseas), the machine is deemed to be included in the "applicable listed items" controlled by the Foreign Exchange and Foreign Trade Law of Japan. When exporting the machine, please obtain required permissions, including an export license, from the Ministry of Economy, Trade and Industry (METI) or Regional Bureaus of Economy, Trade and Industry before shipment. When re-selling or re-exporting the machine, you may need to obtain permissions from METI, and the government of the country where the machine is installed.
- When exporting our machine together with compound rotary table (including case that a rotary table is scheduled to be installed overseas), as a machine conforming to Row 2 of Appended Table 1 of Export Trade Control Order, a relocation detection device is installed on the machine depending on the destination country. After relocating the machine with the detection device, the machine is locked and any operation is temporarily impossible. Please inform your local distributor of machine relocation in advance and apply to perform the release operation of relocated machine.
- In order to operate our machine with an additional axis rotary table installed separately overseas after exporting the machine, the procedure to activate the axis of rotary table is needed. Please inform your local distributor of these processes in advance, because the predetermined procedure is required to perform the activation. In addition, for export to "non-white countries (excluding some countries and regions)", it is not possible to install a compound rotary table separately overseas after exporting the machine. Please make sure to obtain the export license of the machine together with compound rotary table before shipment.

Specifications may be subject to change without any notice.



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