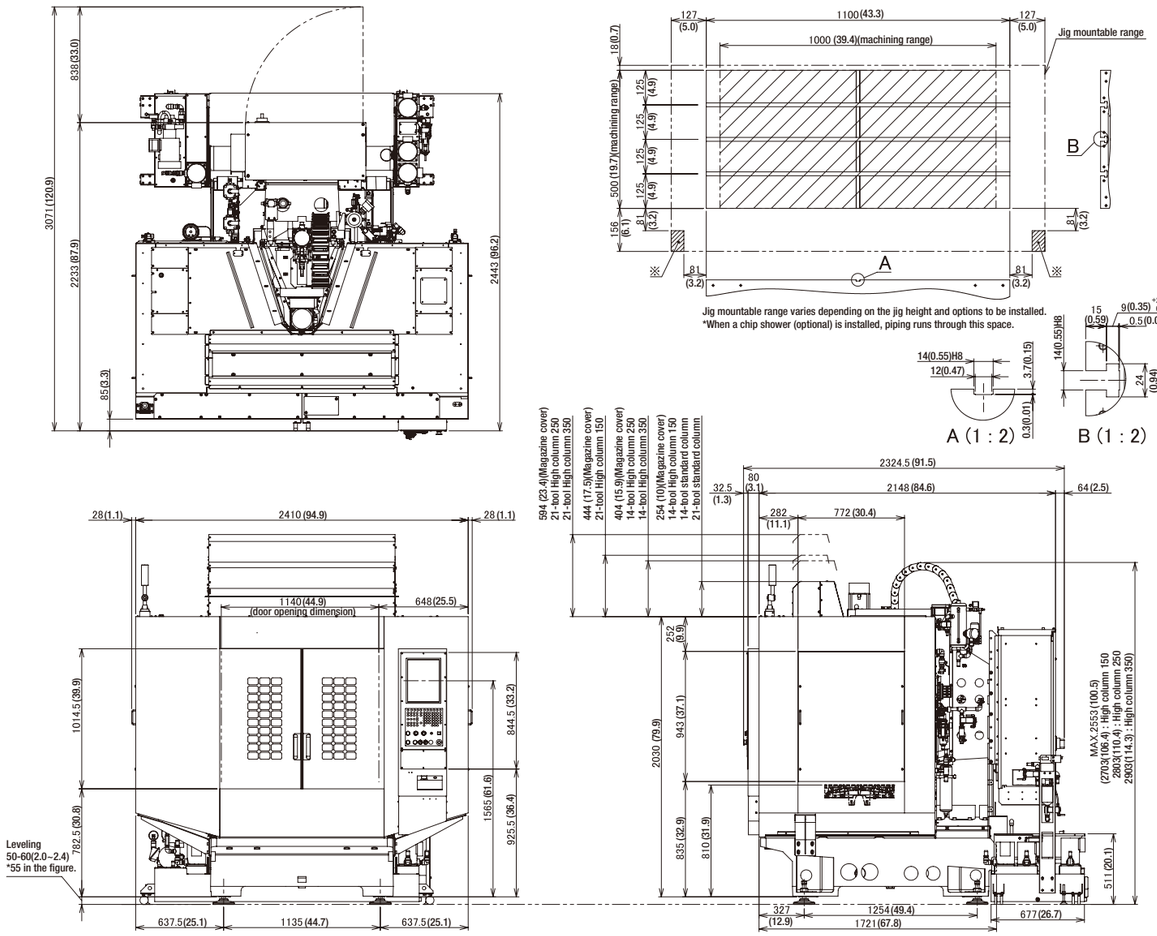
External Dimensions



mm(inch)

Secure 700 mm(27.6 inch) between machines as maintenance space.

NC unit specifications

CNC model	CNC-D00	
Control axes	5 axes (X,Y,Z, two 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)
		Involute interpolation (optional)
Least input increment	0.001mm, 0.0001inch, 0.001 deg.	
Max.programmable dimension	±999999.999mm, ±99999.9999inch	
Display	15-inch color LCD touch display	
Memory capacity	500 Mbytes (Total capacity of program and data bank)	
External communication	USB memory interface, Ethernet, RS232C (optional)	
No.of registrable programs	4,000 (Total capacity of program and data bank)	
Program format	NC language, conversation (changed by parameter), conversation 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.

Machine Specifications

Item			W1000Xd1 / W1000Xd1 RD *10
CNC unit			CNC-D00
Travels	X axis	mm(inch)	1,000 (39.4)
	Y axis	mm(inch)	500 (19.7)
	Z axis	mm(inch)	300 (11.8)
	Distance between table top and spindle nose end	mm(inch)	180~480 (7.1~18.9)
Table	Work area size	mm(inch)	1,100 × 500 (43.3 × 19.7)
	Max. loading capacity (uniform load)	kg(lbs)	300[400 *1] (661[881*1])
Spindle	Spindle speed	min^{-1}	10,000min^{-1} specifications:1~10,000, 10,000min^{-1}high-torque specifications (optional) : 1~10,000, 16,000min^{-1} specifications (optional) : 1~16,000
	Speed during tapping	min^{-1}	MAX. 6,000
	Tapered hole		7/24 tapered NO.30
	BT dual contact spindle (BIG-PLUS)		Optional
	Coolant through spindle (CTS)	MPa	1.5/7.0: Optional
Feed rate	Rapid traverse rate (XYZ-area)	m/min(inch/min)	50 × 50 × 56 (1,969 × 1,969 × 2,205)
	Cutting feed rate	mm/min(inch/min)	X,Y,Z:1~30,000 (0.04 ~ 1,181) *2
ATC unit	Tool shank type		MAS-BT30
	Pull stud type *3		MAS-P30T-2
	Tool storage capacity	pcs.	14 / 21
	Max. tool length	mm(inch)	250 (9.8)
	Max. tool diameter	mm(inch)	ø110 (4.3)
	Max. tool weight *4	kg(lbs)	3.0(6.6) [4.0(8.8) *5]/tool, (TOTAL TOOL WEIGHT : 25 (55.1) for 14 tools, 35 (77.2) for 21 tools)
	Tool selection method		Random shortcut method
Tool change time *6	Tool To Tool	sec	0.6
	Chip To Chip	sec	1.2
Electric motor	Main spindle motor (10min/continuous) *7	kW	10,000min^{-1} specifications: 10.0/6.9, 10,000min^{-1}high-torque specifications (optional): 12.8/9.2, 16,000min^{-1} specifications (optional): 7.3/5.0
	Axis feed motor	kW	X,Y axis: 1.0 Z axis: 2.0
Power source	Power supply		AC200V±10%、50/60Hz±1Hz
	Power capacity (continuous)	kVA	10,000min^{-1} specifications: 9.5, 10,000min^{-1}high-torque specifications (optional): 10.4, 16,000min^{-1} specifications (optional): 9.5
	Air supply — Regular air pressure	MPa	0.4~0.6(recommended value 0.5MPa) *8
	Air supply — Required flow	L/min	45
Machining dimensions	Height	mm(inch)	2,553 (100.5)
	Required floor space [with control unit door open]	mm(inch)	2,410×2,443 [3,072] (94.9×96.2[121.0])
	Weight	kg(lbs)	3,350 (7,386)
Accuracy *9	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)
Front door			2doors
Standard accessories	Instruction Manual (DVD 1 set), leveling bolts (4 pcs.), leveling plate (4 pcs.)		

*1 Acceleration must be adjusted for X and Y axes. *2 When using high accuracy mode B. *3 Brother specifications apply to the pull studs for CTS. *4 Actual tool weight differs depending on the configuration and center of gravity. The figures shown here are for reference only. *5 Parameter settings must be changed. (Tool magazine indexing time will change.) *6 Measured in compliance with JIS B6336-9 and MAS011-1987. *7 Spindle motor output differs depemding on the spindle speed. *8 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. *9 Measured in compliance with ISO standards and Brother standards. Please contact your local distributor for details. *10 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 functions

Standard NC functions

Absolute / incremental
Inch / metric
Coordinate system setting
Corner C / Corner R
Rotational transformation
Synchronized tap
Subprogram
High-accuracy mode A III
High-accuracy mode B I (look-ahead 160blocks)
Tool life / Spare tool
Automatic workpiece measurement *1
Dry run
Machine lock
Restart
Rapid traverse override
Cutting feed override
Tool length measurement
Spindle load monitoring
ATC monitoring
Adjust machining parameter screen
Check over load
Waveform display / waveform output to memory card
Heat expansion compensation system II (X,Y,Z axes)
Tap return function

Background editing
Graphic display
Screen shot
File viewer
Status log
Alarm log
Operation log
Production performance display
Computer remote
Auto notification
OPC UA
Built-in PLC
External input signal key
Automatic power off
Servomotor off standby mode
Automatic coolant off
Automatic work light off
Chip shower off delay
Power consumption display
Motor insulation resistance measurement
Tool washing filter with filter clogging detection
Operation level
Backlash compensation

NC
Menu programming
Local coordinate system
Expanded workpiece coordinate system
One-way positioning
Inverse time feed
Programmable data input
Tool length compensation
Cutter compensation
Scaling
Mirror image
External sub program call
Multiple skip function
Macro
Operation in tape mode

Conversation
Operation program
Schedule program
Automatic tool selection
Automatic cutting condition setting
Automatic tool length compensation setting
Automatic cutter compensation setting
Automatic calculation of unknown number input
Machining order control

Optional NC functions

Memory expansion 3Gbytes
Spindle override
High accuracy mode BII,
look-ahead 1,000 blocks, with smooth path offset

NC
Submicron command *2
Interrupt type macro
Rotary fixture offset
Involute interpolation

*1. Measuring instrument needs to be prepared by users.
*2. 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.