Specifications

Item			M140X2 / M140X2 RD ∗8
CNC Unit			CNC-C00 (WA)
Travels	X axis	mm(inch)	200(7.9)
	Y axis	mm(inch)	440(17.3)
	Z axis	mm(inch)	305(12.0)
	A axis	(deg.)	120 ～ –30
	C axis	(deg.)	360
	Distance between table top and spindle nose end	mm(inch)	150 ～ 455(5.9 ～ 17.9)
Table	Work area size	mm(inch)	D140(D5.5)
	Shape of table top		In compliance with table nose No.5 of ISO702-4(JISB6109-2)
	Max. loading capacity(uniform load)	kg(lbs)	Table side 40(88.2) ／ Tale side 11(24.3)
	Max. table load inertia	kg･m² (lb･inch²)	Table side 0.29(991) ／ Tale side 0.03(103)
Spindle	Spindle speed	min^{-1}	10,000min^{-1} specifications : 10～10,000 16,000min^{-1} specifications(Optional) : 16～16,000
	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)		Optional
Turning spindle	Max. spindle speed	min^{-1}	2,000
Feed rate	Rapid traverse rate(XYZ-area)	m/min(inch/min)	50 × 50 × 50(1,969 × 1,969 × 1,969)
	Cutting feed rate	mm/min(inch/min)	X, Y, Z axis : 1 ～ 30,000(0.04 ～ 1,181) ∗7
	Indexing feedrate(A and C)	min^{-1}	A axis : 60 C axis : 200
ATC unit	Tool shank type		MAS-BT30
	Pull stad type ∗4		MAS-P30T-2
	Tool storage capacity	pcs.	22
	Max. tool length	mm(inch)	200(7.9)
	Max. tool diameter	mm(inch)	80(3.1)
	Max. tool weight ∗1	kg(lbs)	3(6.6)
	Tool selection method		Random shortcut method
∗5 Tool change time	Tool To Tool	sec.	0.9
	Chip To Chip	sec.	1.4
Electric motor	Main spindle motor(10min/continuous) ∗2	kW	10,000min^{-1} specifications : 10.1/6.7 16,000min^{-1} specifications(Optional) : 7.4/4.9
	Axis feed motor	kW	X, Y axis : 1.0 Z axis : 1.8 A axis : 1.8
	Turning spindle motor	kW	4.2
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
	Air supply Regular air pressure	MPa	0.4～0.6(recommended value : 0.5MPa) ∗6
	Air supply Required flow	L/min	165
Machining dimensions	Height	mm(inch)	2,603 (102.5)
	Required floor space	mm(inch)	1,280 × 3,829(50.4 × 150.7) [including chip conveyor]
	Weight	kg(lbs)	2,712 (5,979)
Accuracy ∗3	Accuracy of bidirectional axis positioning(ISO230-2:2006)	mm(inch)	X, Y, Z axis : 0.006～0.020(0.00024～0.00079) A, C axis : 28 sec or less
	Repeatability of bidirectional axis positioning(ISO230-2:2006)	mm(inch)	X, Y, Z axis : Less than 0.004(0.00016) A, C axis : 16 sec or less
Standard accessories			Instruction Manual(1 set), anchor bolts(4 pcs.), leveling bolts(4 pcs.)

∗1. The maximum 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 your local distributor for details. ∗4. Brother specifications apply to the pull studs for CTS. ∗5. Measured in compliance with JIS B6336-9 and MAS011-1987. ∗6. 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. ∗7. When high accuracy mode B is used (When not used, 1 ~ 10,000 mm/min for X/Y axes and 1 ~ 20,000 mm/min for Z axis) ∗8. 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

CNC model	CNC-C00 (WA)	
Control axes	5 axes(X,Y,Z,A,C)	
Simultaneously controlled axes	Positioning	5 axes(X,Y,Z,A,C)
	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 1ch	
No.of registrable programs	4,000 (Total capacity of program and data bank)	
Program format	NC language ∗Conversation language not available.	

∗Ethernet is a trademark or registered trademark of XEROX in the United States.

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)
- Startus 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
- Herical / conical interpolation
- Tool washing filter with filter clogging detection
- Automatic power off (energy saving function)
- Servomotor off standby mode (energy saving function)
- Chip shower off delay
- Automatic coolant off (energy saving function)
- Automatic work light off (energy saving function)
- Heat expansion compensation systemⅡ (X, Y ,Z axes)
- Tap return function
- Automatic workpiece measurement ∗1
- Waveform display
- Operation level
- External input signal key
- High accuracy mode BⅠ (look-ahead 40 blocks)
- Expanded workpice coordinate system
- Scaling
- Mirror image
- Menu programming
- Program compensation
- Tool length compensation
- Cutter compensation
- Macro function
- Local coordinate system
- One-way positioning
- Opeation in tape mode (Turning function)
- Constant peripheral speed control
- Feed per revolution control
- Tool position compensation XYZ
- Nose R compensation
- Thread cutting function

∗1. Measuring instrument needs to be prepared by users.

Optional NC functions

- Memory expansion (Approx. 500 Mbytes)
- High accuracy mode BⅡ (look-ahead 200 blocks, smooth path offset)
- Interrupt type macro
- Submicron command ∗When the submicron command is used, changing to the conversation program is disabled.
- High-speed processing ∗2
- Rotary fixture offset

∗2. Minute block processing time can be changed. As there are some restrictions, please contact your local distributor for details.