

CITIZEN

# MC20III

MultiStationMachiningCell



# Machine specifications

Item	<b>MC20</b> (MC20-2M3)
Chuck size	4-inch chuck
Max. through-spindle workpiece diameter	20 mm dia.
Max. workpiece length	70 mm
Max. drilling diameter with the spindle	7 mm dia.
Max. tapping diameter with the spindle (Cutting tap)	M6
Spindle speed	Max 8,000 min <sup>-1</sup> (differs depending on the chuck type)
Revolving tools on the gang tool post	
Max. drilling diameter	5 mm dia.
Max. tapping diameter (Cutting tap)	M5
Spindle speed	Max 8,000 min <sup>-1</sup>
Number of tools to be mounted (standard spec.)	5 per module
Turning tools	2
Cross drilling tools	3
Number of tools to be mounted (turning / cross machining / end-face machining spec.)	6 per module
Turning tools	2
Cross drilling tools	2
End-face drilling tools	2
Number of tools to be mounted (full tooling capability)	9 per module
End-face sleeve	4
Cross drilling tools	1
End-face drilling tools	4
Tool size	
Turning tools	13 mm sq.
Sleeve	19.05 mm dia. , 20 mm dia.
Rapid feed rate	
X axis	32 m/ min
Y axis	32 m/ min
Z axis	32 m/ min
A axis	40 m/ min
Motor	
Front spindle	2.2/ 3.7 kW
Revolving tools on gang tool post	0.75 kW
Coolant pump	0.18 kW × 3
Lubrication pump	0.003 kW
Loader axis motor	0.2 kW × 2
Center height	1,030 mm
Rated power consumption	16 kVA
Total load current	60 A
Main breaker capacity	80 A
Pneumatic device	Required pressure 0.5 MPa Required flow rate 231 Nl/ min
Machine dimensions	W 3,120×D 1,395×H 1,790 mm
Machine weight	3,600 kg

## Standard Accessories

Spindle chucking device, Spindle cooling unit
Emergency stop sub operation switch
Machine transfer detect function
Revolving tool spindle drive device unit (gang tool post)
Workpiece transfer device set (Module 1, Module 3), Door lock

## Special Accessories

Work pusher, Work mounting confirmation device
Workpiece transfer device set (Module 2), Chuck air blow
Chip conveyor (Hinge type) with coolant tank unit
Spindle inner air blow,
Air blow for workpiece separator hand
Tool air blow, Coolant tank unit
Coolant flow rate detector, Medium-pressure coolant unit
Pendant Operation Panel, Foot switch, Tablet
3-color signal tower,
Automatic fire extinguishing equipment, Oil mist damper
Bar feeder interface (Cut off confirmation)

## Standard NC Function

Preparation functions, Background editing
On machine program check function
High speed program check function
Axis feed motion overlap function
Spindle speed change detection
Corner chamfering/ Radius function
Tool nose R compensation function, Arc radius specification
Thread cutting canned cycle, Multiple canned cycles for turning
Parts counter 8-digit, Interference check function
Program storage capacity 160 m (Approx 64 KB)
Touch panel 10.4" color LCD, Automatic power shut off
I/ O interface (RS232C, Compact flash, USB)

## NC Options

Program storage capacity 1200 m (Approx 480 KB)
Custom macro, Sub micron command
Sync tapping function, Canned drilling cycle
Principal-axis constant surface speed control
Differential speed rotary tool function
Tool life management function I
Tool life management function II
Milling interpolation function
External memory program operation, Polygon function
Hobbing function, Helical interpolation function
Slant helical interpolation function
Geometric command function
Variable lead thread cutting function
Circular thread cutting function
2 system simultaneous thread cutting I, II
Coordinate rotation command function
Custom macro G code call
Hi-speed sync tapping function, Optional block skip

## CITIZEN MACHINERY CO., LTD.

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