# CITIZEN





# Machine Specification

Item	R01 / R04	,
	Type II( R01-5F2, R04-5F2)	Type VI(R01-5F6, R04-5F6)
Max. machining diameter (D)	1 mm / 4 mm dia. (7 mm Dia. <sup>09</sup> )	
Max. machining length (L)		
Fixed guide bushing	20 mm / 40 mm	
Rotary guide bushing	20 mm / 30mm	
Max. front drilling diameter	3 mm dia.	
Max. front tapping diameter	M3 (cutting tap)	
Spindle through-hole diameter	10 mm dia.	
Spindle speed	Max. 20,000 min <sup>-1</sup> (Over size : 1	6,000 min <sup>-1</sup> )
Max. chuck diameter of the back spindle		1 mm / 4mm dia.
Max. workpiece protrusion length from the back spindle		10 mm
Maximum collectable part length	20 mm / 40 mm	
Max. drilling diameter in the back machining		3 mm dia.
Max. tapping diameter in the back machining		M3
Back spindle speed		Max. 20,000 min <sup>-1</sup>
		Over size : 16,000 min <sup>-1</sup>
Rotary tool on the gang tool post		
Max. drilling diameter	2 mm dia.	
Max. tapping diameter	M2 (cutting tap)	
Spindle speed	Max. 8,000 min <sup>-1</sup>	
Number of tools mountable	13	17
Turning tool	7	7
Rotary tool on the gang tool post	2 (3 <sup>OP</sup> )	2 (3 <sup>OP</sup> )
Front drilling tool	4	4
Back drilling tool		4
Tool size		
Tool (gang)	8 mm sq.	
Sleeve	15.875 mm sq.	
Chucks / bushings		
Spindle collet chuck	FCD08-M (FC090-M <sup>OP</sup> )	
Back spindle collet chuck		FCD08-M (FC090-M <sup>OP</sup> )
Rotary tool collet chuck	ER11	
Chuck for drill sleeves	ER8, ER11	
Guide bushing	WFG044-M (WFG601-M <sup>OP</sup> )	
Rapid feed rate		
Allaxes	30 m/ min	
Motor		
for spindle drive	0.5/0.75 kW	
for rotary tool on the gang tool post	0.1 kW	
for back spindle drive		0.5/ 0.75 kW
for coolant	0.06 kW	
for lubrication	0.003 kW	
Center height	1,000 mm	
Rated power consumption	2.3 kVA	3.4 kVA
Full-load current (main breaker capacity)	5 A(20 A)	10 A(20 A)
Pneumatic device Required pressure, Required flow rate	0.5 MPa, 32 NL/min (At power ON) / 70 N	L/min (In normal state) / 136 NL/min (During air blow)
Machine footprint	1,465 × 535 × 1,633 mm	
Weight	1050 kg	1100 kg

Main standard accessory devices	
Spindle chucking device	Back sp
Headstock cooling device	Rotary t
Coolant device (with level detector)	Lubric
Workpiece separator	Longitu
Machine relocation detector	
Special accessory devices	
Open/close guide bushing device	Knock
Suction-type workpiece separator	Comp
Cut-off tool breakage detector	Signal
3-color signal tower	Coolar
Work light	Magne
Dual chucking device	
Standard NC functions	
Axis feed overlap function	Prepro
In-machine tool set function	On-ma
Manual data input (MDI) function	Manua
Background edit function	Displa
Part count function	Cycle
Automatic backlight turning-off function	Input/
Door open detection function	Door l
Automatic power-off function	Optior
Memory protection function	Interfe
Machine lock	Chamt
Exact stop check	Error c
Tool offset 16 pairs	Subpro
Spindle speed fluctuation detection function	Spindle
Continuous thread cutting	Thread
Back spindle pick-off failure detection function	Progra
Sub-microns command	Spindl
Optional block skip	Chamt
Multiple repetitive cycle for turning	Canne
Nose radius compensation	
Special additional NC functions	
Spindle C-axis function	Spindl
Spindle synchronized control function *Only for type VI	Spindl
Back spindle synchronized tapping function	Back sp
Back spindle C-axis function *Only for type VI	Rotary
Cut-off tool breakage detection function program	B code
Tool offset pairs 32 pairs	Tool lif
User macro	Tool lif
Polygon machining function	Progra
Variable lead thread cutting	Progra
Optional block skip (9 sets)	Progra
Sub inch command	Progra
Drawing dimension direct input	Progra
Network I/O function	Progra
Environmontal Information	Progra

pindle chucking device \*Only for type VI cool spindle drive device of the gang tool post ating device (with level detector) dinally adjustable fixed guide bushing device

-out jig for through-hole workpiece act (4-division) workpiece separator lamp nt flow rate detector et-equipped filter

### ocessing function

achine program check function al feed function y of code list time check function output interface lock function nal stop erence check function fering ON / OFF detect ON / OFF ogram call function e constant surface speed control function d cutting canned cycle am storage capacity 40 m (16 KB) e 15° indexing function fering/Corner rounding ed cycle drilling

le synchronized tapping function e 1° indexing function pindle 1° indexing function \*Only for type VI tool synchronized tapping function e I/F fe management l fe management II am storage capacity 80 m (32 KB) am storage capacity 120 m (48 KB) am storage capacity 160 m (64 KB) am storage capacity 320 m (128 KB) am storage capacity 600 m (240 KB) am storage capacity 1280 m (512 KB) ram storage capacity 2560m (1MB)

## **Environmental Information**

Basic Information	Energy usage	Supply voltage Electrical power requirement Required pneumatic pressure	AC200V 2.3 kVA: Type II 3.4 kVA: Type VI 0.5MPa
Environmental Performance Information	Power consumption	Standby power Power consumption with model workpiece <sup>*1</sup> Power consumption value above converted to a CO2 value <sup>*2</sup>	0.314kW 0.0052kWh/ cycle 2.58 g / cycle
	Air consumption	Required air flow rate	32NI / min(Power on), 70NI / min (Normal state), 136NI / min (With air blow)
	Lubricating oil consumption	At power ON	0.6cc / 60min
	Noise level	Value measured based on JIS	75.4dB
	Environmental load reduction	RoHS Directive / REACH regulations	Compliant
Approach to Environmental Issues	Recycling	Indication of the material names of plastic parts	Covered in the instruction manual <sup>'3</sup>
	Environmental management		We pursue "Green Procurement", whereby we make our purchases while prioritizing goods and services that show consideration for the environment.

1: This is the power consumption in program operation (when not cutting) for one of our standard test pieces, shown for the purpose of comparing the environmental performance with that of existing models. 12: This is the value converted in accordance with the CHUBU Electric Power CO2 emissions coefficient for 2014 as published by the Ministry of the Environment. 3: If polyviny) choinde (PVC) and fluoric resist are not processed correctly, they can generate the harmful gases. When recycling these materials, commission a contractor that is capable of processing them appropriately.

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