Cincom C32 Type VIII



Multi-tool simultaneous machining for high productivity



Cincom C32 Type VIII

Unique, servo-control design minimizes the number of moving parts, resulting in a highly compact, near maintenance-free turning center. Its patented Synchronous-Superimposed functionality allows multiple operations to be performed simultaneously. With five axes (plus standard C-axis on both the main and sub-spindle) and an array of fixed and rotary tools.

- For simple or complex geometries to 1.25" diameter \times 12.5" long per chucking
- 100% servo driven, complete modular design
- Built-in main and sub spindles
- 6 axes simultaneously controlled (X₁, Y₁, Z₁, X₂, Z₂, Z₃)
- Space saving tool post design (patent pending)
- Mounts up to 18 tools (live and stationary) for front and back work
- Enhanced synchronized-superimposed operation (patent pending)
- PC based controller, with PC card slot and networking capability
- Displaced thermal effects for high precision over long operating periods
- Full-open cover speeds setups and maintenance
- Cincom System M6B controller
- On machine program check (patent pending)
- Machine status memory and display (patent pending)
- 3-dimensional interference check
- Internet service and support

MODULAR DESIGN & SERVO CONTROL

Citizen-Cincom's modular design and 100% servo control provide advantages unavailable in other machine designs:

- Lower Maintenance: belts, hydraulics, pressure sensors, limit switches, pneumatics and other maintenance components are minimized or completely eliminated. With fewer parts to wear, downtime and maintenance are held to a minimum.
- **Better Performance:** fewer moving parts means less vibration and greater precision. Faster rapid traverses, higher spindle speeds and shorter acceleration/deceleration times enhance productivity.
- Shorter Production Cycles: servos allow shorter chip-to-chip tool changes, quicker tool replacements, and high speed rapid traverses.

Main and back spindle simultaneous drilling

Simultaneous drilling or tapping between main and back spindle is possible.



Main and back spindle simultaneous machining

Independent machining can be done simultaneously.



Main spindle turning, drilling and back spindle simultaneous drilling

During main and back spindle simultaneous drilling, main spindle turning by gang tool post is possible.





Front and back rotary tool spindle drive unit C22032U121B



- Drive unit for face live tools of second gang tool post
- Both front and back live tools rotate clockwise at the same time—counter-clockwise tools are not required for main and back simultaneous drilling
- Fixed type sleeve holder can be mounted to rotary tool station with dedicated sleeve adapter
- Allows two live tools front and two live tools back



2)

High Performance Windows-based NC

Y axis tooling system



Flexible Operation Panel

The operation panel's user friendly man-machine interface makes the machine easy to operate.



Standard Accessories

- · Rotary guide bushing drive unit
- Guide bushing device
- · Main spindle chucking device
- Coolant device (level detection function)
- · Motor driven knock-out device for back machining
- Workpiece convevor

Optional Accessories

- · Rotary tool spindle drive unit for front/back face machining
- · Cutoff tool breakage detector

Standard NC Functions

- NC unit dedicated to the Cincom C series Product counter display: Up to 8 digits
- 10.4" color LCD display
- Operating time display
- · Preparation functions
- Corner chamfering/rounding function
- On-machine program check function
- · Main spindle C-axis function
- · Main spindle speed change detection function
- · Main spindle chasing function
- Program work area capacity equivalent to 20m tape
- Thread cutting canned cycle
- Tool offset pairs 40
- Main spindle 1 degree indexing function
- Back spindle chasing function
- · Sub-inch command

Optional NC Functions

- Synchronized tapping function
- · Differential rotary tool function · Back spindle constant surface speed
- control function · Inclined helical interpolation function

- Door switch
- Workpiece separator
- Back spindle chucking device
- Lubrication device (level detection function)
- · Rotary tool spindle on gang tool post
- · Rotary tool spindle drive unit
- Chip conveyor
- · Automatic tool setting device
- · Back long workpiece machining device
- Nose R compensation function Three-dimensional interference check function
- · Back spindle speed change detection function
- Back spindle C-axis function
- · Main spindle constant surface speed control function
- Automatic power-off function
- · Program storage capacity equivalent to 40m tape
- Multiple repetitive cycle for turning
- · Back spindle 1 degree indexing function
- User macro
- · Tool life management
- Milling interpolation function
- · Spindle synchronization control function
- · Canned drilling cycle



MACHINE SPECIFICATIONS	CINCOM C32 Type VIII
Maximum machining diameter	32mm [1.25"]
Maximum machining length	320mm [12.5"] per chucking
Main spindle speed	200~8,000 min ⁻¹
Rotary tool spindle speed	200~5,000 min ⁻¹
Maximum chuck diameter of the	
back spindle	32mm [1.25"]
Maximum workpiece length for the front	
side collection from the back spindle	145mm [5.7"]
Back spindle speed	200~7,000 min ⁻¹
Number of tools to be mounted	18 max.
Turning tools on the gang tool post	5
Rotary tools on the gang tool post	4
Second gang tool post	4 main/5 back standard
optional:	3 main (1 fixed and 2 rotary)/
	4 back (2 fixed and 2 rotary)
Tooling size	
Tool (gang tool post)	16×16×130mm [625"×.625"×5"]
Sleeve	25.4mm [1"]
Chuck and guide bushing models	
Main spindle collet chuck	TF37
Guide bush	TD32
Lego type chuck	ER11/AR11, ER16/AR16
Back spindle collet chuck	TF37
Rapid feed rate	20 m/min (all axes)
Motors	
Main spindle drive	3.7/7.5KW
Guide bushing drive	0.75/1.5KW
Back spindle drive	1.5/2.7KW
Tool spindle drive of tool post 1	1KW
Tool spindle drive of tool post 2	1KW
Center height	1,132mm [44.5"]
Input power capacity	10KVA
Weight	3.050kg

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- Helical interpolation function
- Polygon turning function