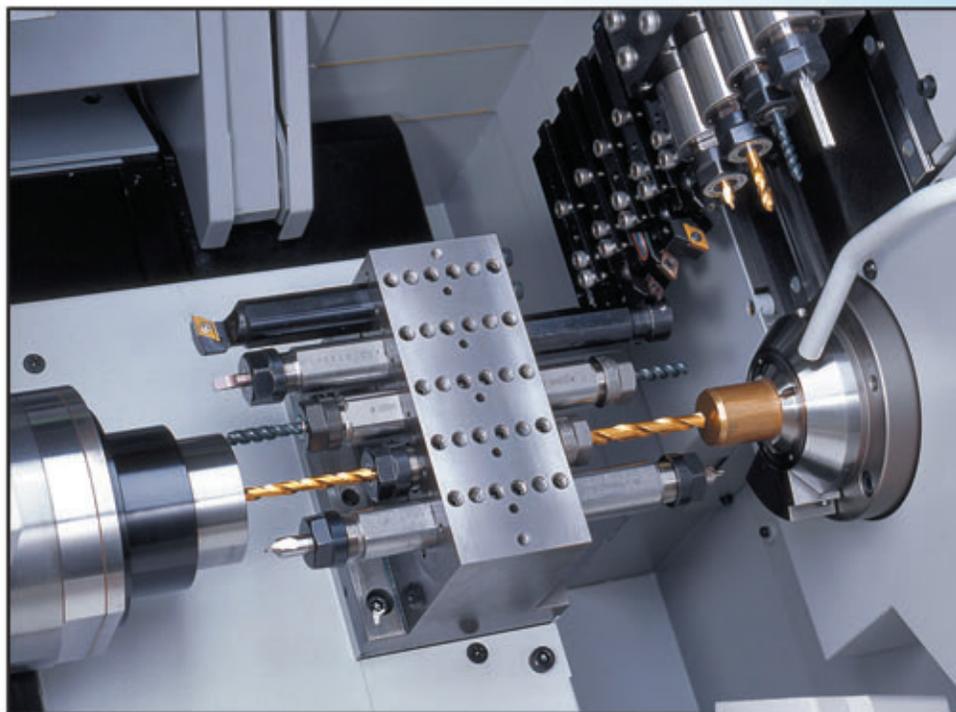


# Cincom C32 Type VIII



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 ( $X_1, Y_1, Z_1, X_2, Z_2, Z_3$ )
- 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

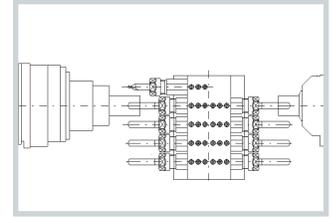
## MODULAR DESIGN & SERVO CONTROL

*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.

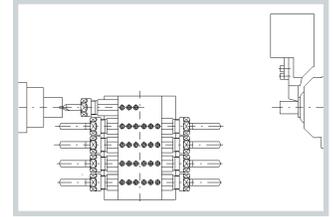
## Main and back spindle simultaneous drilling

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



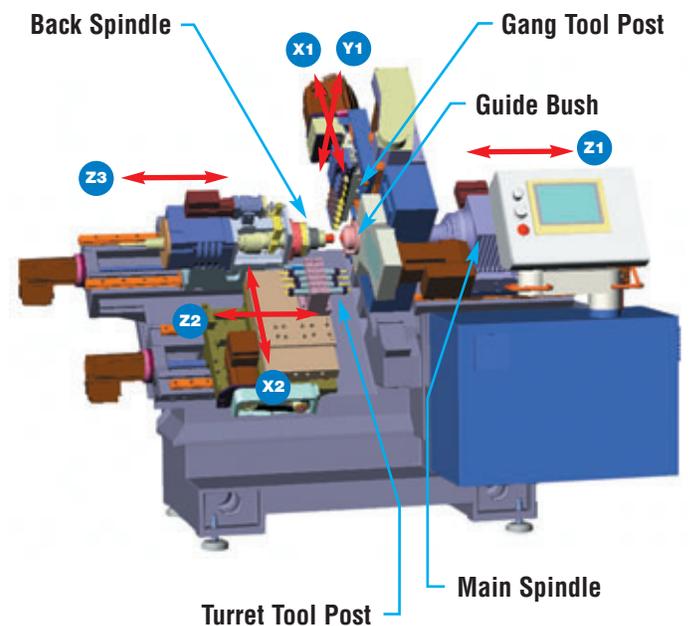
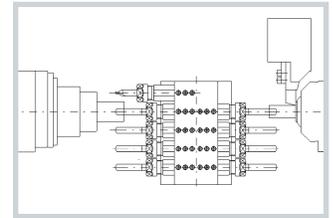
## Main and back spindle simultaneous machining

Independent machining can be done simultaneously.



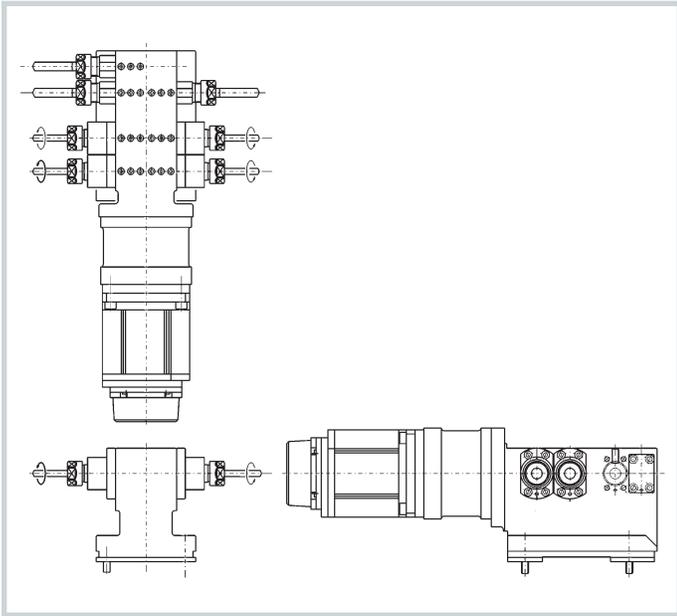
## Main spindle turning, drilling and back spindle simultaneous drilling

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



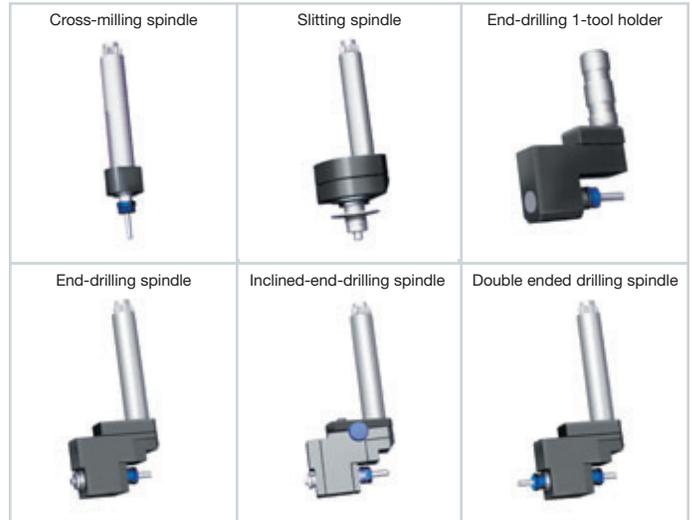
# Cincom

## 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

## 1 Y axis tooling system



## 2 High Performance Windows-based NC



**C32 On-Line Communications**

A PC-based controller connects by modem to the Cincom website. This can be used to remotely trouble-shoot, review programs, obtain on-line help and to download software or monitor performance.

### 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 conveyor
- 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

### Optional Accessories

- Rotary tool spindle drive unit for front/back face machining
- Cutoff tool breakage detector
- Chip conveyor
- Automatic tool setting device
- Back long workpiece machining device

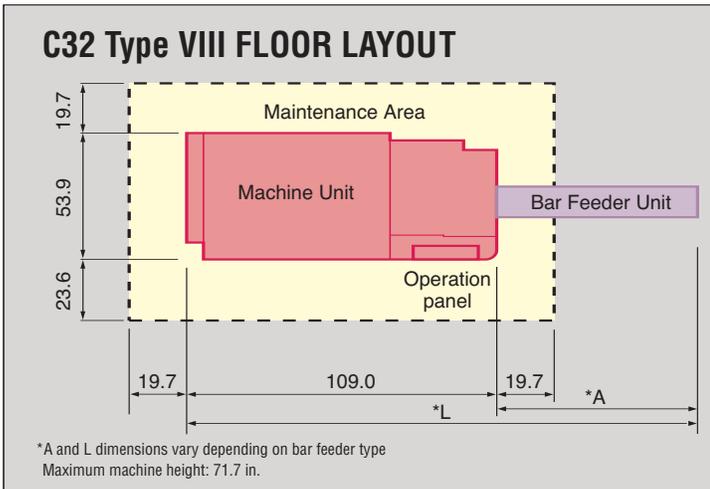
### Standard NC Functions

- NC unit dedicated to the Cincom C series
- 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
- Product counter display: Up to 8 digits
- 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

### Optional NC Functions

- Synchronized tapping function
- Differential rotary tool function
- Back spindle constant surface speed control function
- Inclined helical interpolation function
- Milling interpolation function
- Spindle synchronization control function
- Canned drilling cycle
- Helical interpolation function
- Polygon turning function

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 <sup>-1</sup>
Rotary tool spindle speed	200~5,000 min <sup>-1</sup>
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 <sup>-1</sup>
<b>Number of tools to be mounted</b>	<b>18 max.</b>
Turning tools on the gang tool post	5
Rotary tools on the gang tool post	4
Second gang tool post optional:	4 main/5 back standard 3 main (1 fixed and 2 rotary)/ 4 back (2 fixed and 2 rotary)
<b>Tooling size</b>	
Tool (gang tool post)	16×16×130mm [625"×.625"×5"]
Sleeve	25.4mm [1"]
<b>Chuck and guide bushing models</b>	
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)
<b>Motors</b>	
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



**CITIZEN** The World Leader in CNC Swiss Turning.

**Marubeni Citizen-Cincom Inc.**

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