

Cincom B12 Type VI



4 front/back I.D. tools U.S. standard

The standard in
CNC automatic
lathes



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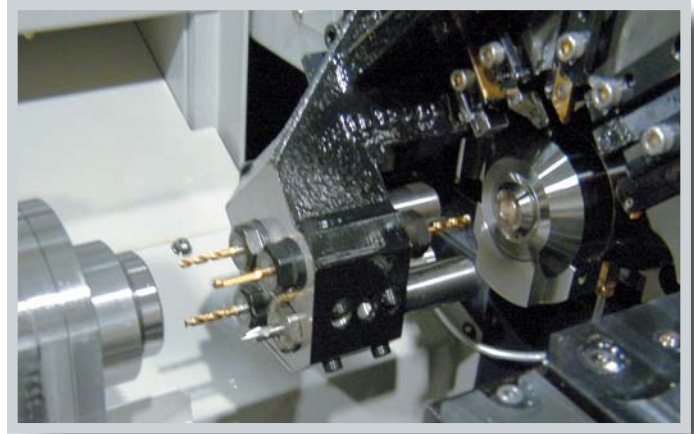
The Standard in CNC Automatic Lathes

The Cincom B12 is a CNC automatic lathe with new concepts developed by Citizen for well into the 21st Century. Innovative and diversified technological advances have resulted in a smaller, faster machine with excellent cost performance. Operating the same way as a cam type lathe, the Cincom B12 is the new standard in CNC automatic lathes, and demonstrates improvements in every aspect over a cam type lathe.

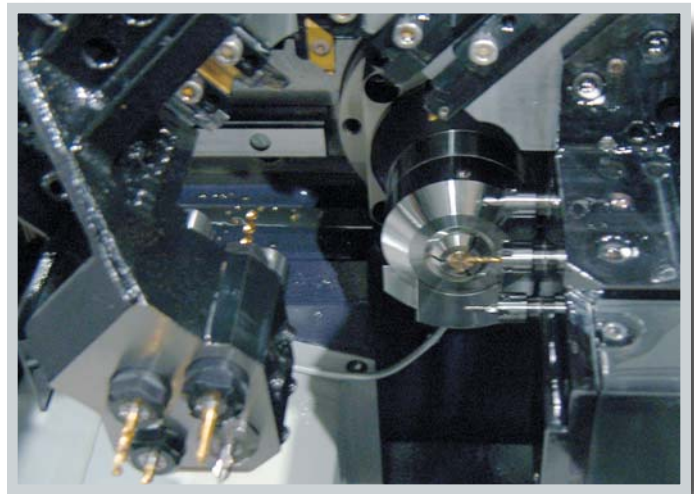
Design Innovations Reduce Machining, NC Operation and Tool Replacement Time

- Multi axis control system resulting in extremely fast data processing
- All operations are directly controlled by the NC using a completely electronic full servo system
- Machining with higher precision is assured even in lengthy operations without being affected by the thermal displacement of a ball screw
- A built-in servo motor with an integrated ball screw realizes high speed, fast response operation of the feed system

A tool layout that is not constrained by the machine structure reduces setup and tool replacement times.



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Improved Back Spindle Functionality

The back spindle offers drilling, S4- digits direct command, and a rotation speed of up to 7,000 rpm.

Synchronization of the front and back spindles is enabled. Excellent acceleration and deceleration is provided by a 0.5 kw motor. The back spindle has the same electrical chuck as the front spindle. It may be opened and closed as needed, which eliminates the limitations of a conventional cam drive.

CINCOM

Virtually Maintenance Free, Low Noise Levels

The adoption of a full electronic servo system eliminates the need for limit switches, hydraulic and pneumatic sources, or solenoid valves. This not only increases the speed of the machine, but also increases its reliability by reducing the number of parts.

In addition to the 5 turning tools, the new B12VI also comes with 3 live cross tools and 4 front/back I.D. tools. This is the standard machine for the U.S. market.

The new B12VI offers quiet, precise, fast, and flexible machining with minimum maintenance and attendance. Partnered with the optional LUB 12 barloader, the new B12 is a complete manufacturing cell offered as a replacement for existing CAM type lathes.

Quiet Integral Drive Spindle

The drive spindle is built in and fully enclosed. This reduces vibration, enables operation at high speed and with high precision, and thus reduced noise. The sealed unit also enables the use of water soluble cutting oil.



Operation Panel

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

BARTOP LUB12 Automatic Bar Feeder for Cincom B12VI

A High Speed Bar Feeder that Complements the Cincom B12VI

Similar to the Cincom B12, the Bartop LUB12 utilizes an all electric servo design, with no hydraulic or pneumatic components. This provides excellent reliability, speeds that are optimized for use with the Cincom B12, and a low noise level.



Rigid construction, automatic channel lubrication as well as vibration suppression rollers allow the Bartop LUB12 to rotate a 12 foot long bar at 12,000 rpm with very little noise or vibration. Maintenance is simplified by the small amount of required oil, and the electric servos. The well thought out design and solid construction make a bar size change easy and fast. Bar changes and remnant retractions are all servo driven.

SPECIFICATIONS	LUB 12
Footprint	17'9" (5.41m) x 1'5.7" (45cm)
Max Bar length	12'6" (3.81m)
Weight	660 lbs
Power requirements	0.5 KVA
Bar diameter range	5/64" - 1/2" (2mm - 12.7mm)
Bar storage capacity	60 bars @ 1/8" (3.18mm)
Remnant treatment	Servo rear remnant retraction

Standard Accessories

- Spindle chuck unit
- Synchronous rotary guide bush
- Workpiece separator
- Chasing unit
- Separately installed cutting oil tank
- Door switch & lock
- Back spindle unit
- Back chuck unit
- Lubricating oil unit
- Cutting oil level detection unit

Optional Accessories

- Fixed rotary guide bush (longitudinal adjustment type)
- Single bar feed unit
- Automatic bar feed unit
- Cutting oil flow rate detection unit
- Product unloading chute
- Cutting chip chute type tank
- Work light
- IC card reader/writer
- Patrol light unit
- Cutting-off tool break detection unit

Standard NC Functions

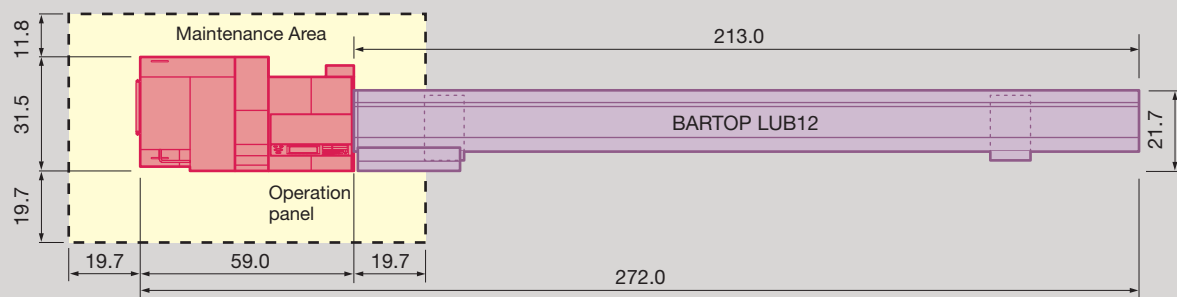
- CNC unit: FANUC 18TC
- Display unit: 7.2" monochrome LCD
- Display language: English or Japanese
- 5 simultaneously controlled axes (X, Y, Z plus 2 auxiliary)
- Multi-axis free control
- Input code: ISO
- Incremental and absolute command input
- Feed command method: Feed per revolution/feed per minute (switchable by G code)
- Automatic return to wait point
- Automatic return to start point
- On machine program check
- Number of offset: 16 pairs
- Automatic power off function
- Virtual X/Y-axis control
- Background editing
- Program memory capacity: Equivalent to 20m of tape
- I/O interface: RS-232C (Portable tape reader can be connected)
- Constant surface speed control
- Run hour display
- Parts counter
- Manual handle feed function
- Main spindle one-degree indexing function
- Main spindle speed fluctuation detection
- Back spindle synchronization function
- Self-diagnosis function
- Alarm history display
- Earth-leakage breaker

Optional NC Functions

- Part program storage equivalent to 40, 80 or 120m of tape
- Chamfering and corner rounding
- Canned cycle for drilling
- Rigid Tapping function main & live tool
- Tool nose radius compensation
- Multiple repetitive cycles
- Continuous threading cycle
- 0.00001" least input
- Tool life management I

MACHINE SPECIFICATIONS	Cincom B12 Type VI
Maximum machining diameter	φ12mm [.47"]
Maximum machining length	135mm [5.31"] per chucking
Spindle Speed	
Main	100-12,000 (Rotary Guide Bush 8,000 rpm)
Back	100-7,000 (Rotary Guide Bush 8,000 rpm)
Rotary tool	100-4,500 (Rotary Guide Bush 8,000 rpm)
Max. chuck diameter of the back spindle	φ12mm [.47"]
Maximum part ejection length when separator function is used	80mm [3.15"] 95mm, [3.74"] including cut-off tool width
Number of tools to be mounted	
Cutting tools	5
Rotary tools	3
Front drilling tools	4
Back drilling tools	4
Tool size	
Cutting tools	3/8" x 3/8" x 4-3/4"
Sleeve diameter	.75"
Rapid traverse	
X/Y axis	21 m/min
Z axis	15 m/min
A ₂ (Back spindle)	12 m/min
Motors	
Main spindle drive	1.5/2.2KW
Back spindle drive	0.5KW
Tool spindle drive	0.4KW
Cutting oil	0.18KW
Weight	1,300kg [2,866 lbs.]

B12 Type VI FLOOR LAYOUT



Maximum machine height: 60.63 in. (including mount)

CITIZEN The World Leader in CNC Swiss Turning.

Marubeni Citizen-Cincom Inc.

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