Cincom

L32

Sliding Headstock Type CNC Automatic Lathe

The new L32 — an icon reinvented

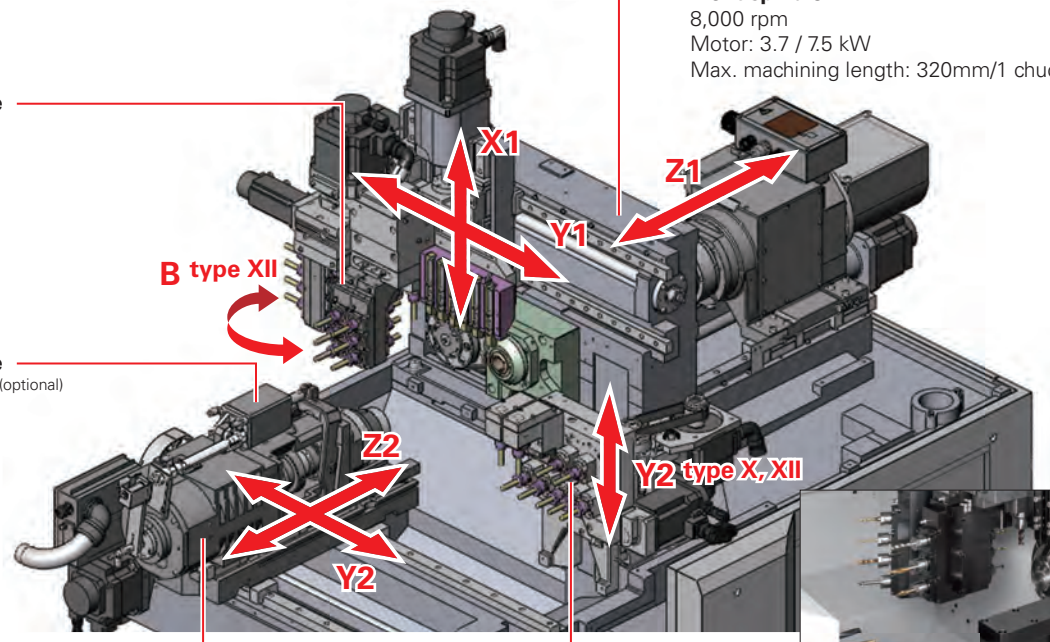
With a legacy as one of the best-selling Cincom machines, the next-generation L32 is launched with 3 models in modular design.

Ranging from a 5-axis machine with excellent cost performance to a high-end machine equipped with B axis and back tool post Y axis, you can select the machine according to the functions you require.

A wide range of modular tooling ensures that the new L32 is both versatile and flexible to meet your production demands into the future.

Front spindle
8,000 rpm
Motor: 3.7 / 7.5 kW
Max. machining length: 320mm/1 chucking (GB)

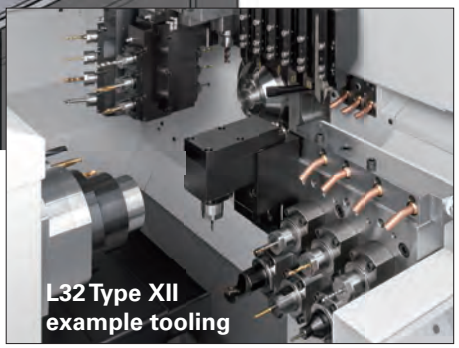
Rotary tools on the gang tool post
6,000 rpm (Max)
4,500 rpm (rating)
Motor: 1.0 kW



Rotary tools on the opposite tool post (optional)
6,000 rpm (Max)
3,000 rpm (rating)
Motor: 1.0 kW

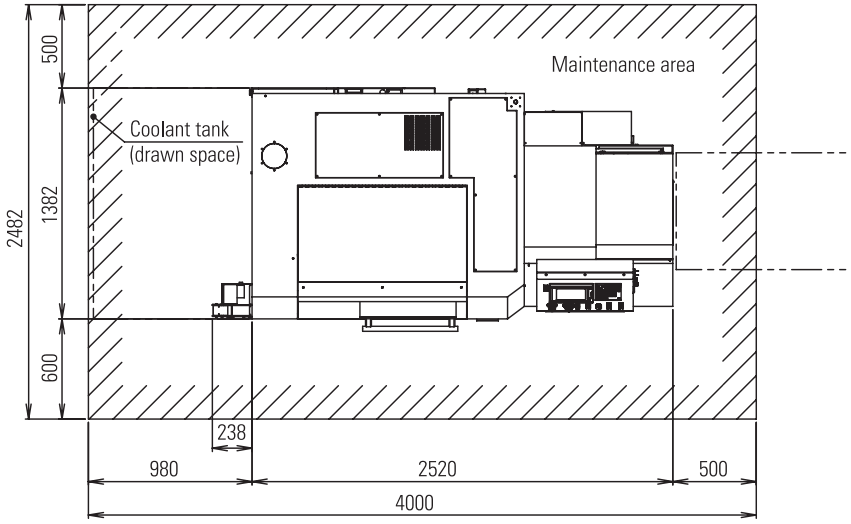
Back spindle
8,000 rpm
Motor: 2.2 / 3.7 kW

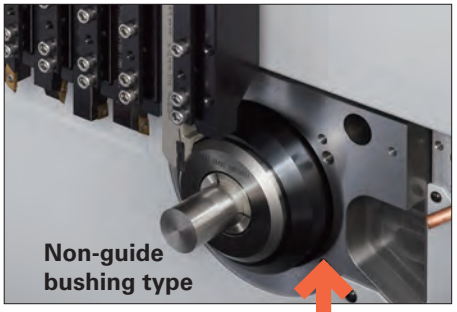
Back tool post rotary tools (optional type VIII)
6,000 rpm (Max)
3,000 rpm(rating)
Motor: 1.0 kW

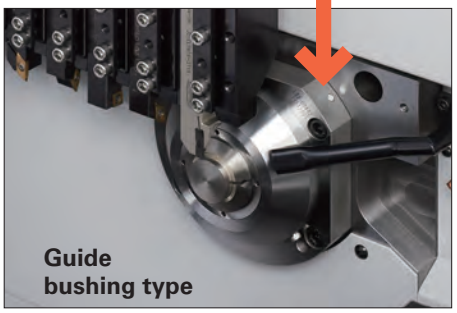

L32 Type XII example tooling

	Type VIII	Type X	Type XII
B axis (rotary tools on the gang tool post)	–	–	O
Y axis (back tool post Y axis)	–	O	O
Rotary tools on the opposite tool post	OP	OP	OP
Rotary tools on the back tool post	OP	O	O

L32 Standard Layout




Non-guide bushing type


Guide bushing type

Switchable between guide bushing mode or non-guide bushing mode
Can be switched by operator in approximately 30 mins.

Stable, powerful, productive with versatile modular design

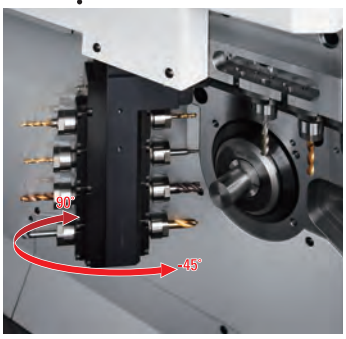
Function modules that can be combined without restrictions

With the current shift in manufacturing industry, the requirement is for variable-lot machining of diverse workpiece shapes and sizes. In order to meet this requirement, Citizen has introduced modular design to the new L32 thus enabling our customers to optimize their manufacturing by selecting the functions to achieve the ideal machine configuration for their needs.

Rotary tools on the gang tool post

U31B
Accommodates up to 4 rotary tools, one position angle adjustable (manual) in the range 0° to 90°

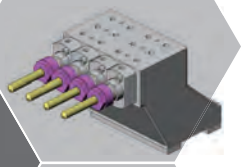
U32B
Features the B axis for both front and back working over a 135° range (+90° to -45°)



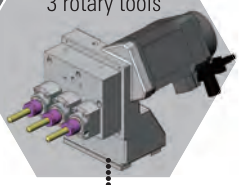
U32B B axis: rotary tools on the gang tool post

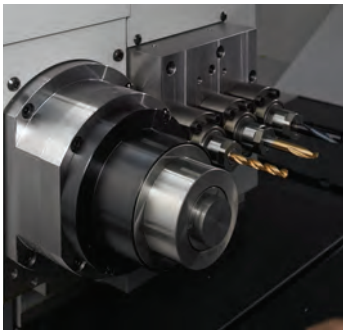
Opposite tool post

U120B
4 fixed tools



U121B
3 rotary tools



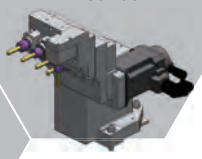


U121B Rotary tools on the opposite tool post

Back tool post

U150B
5 fixed tools

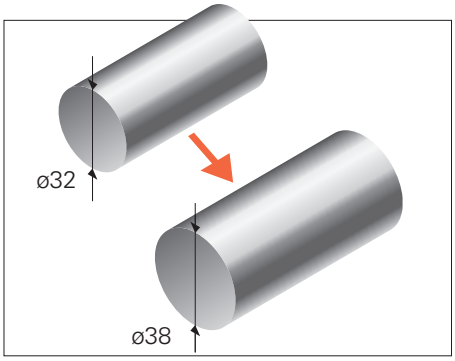
U151B
4 rotary tools and 1 fixed tool



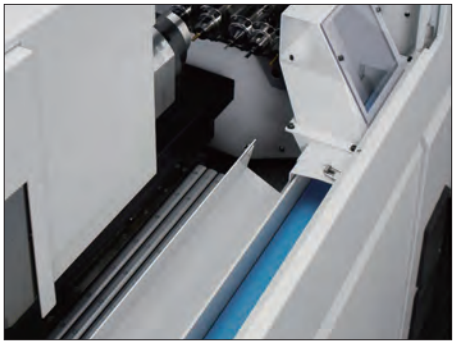
U12B
Incorporates Y2 axis. Can accommodate 4 rotary or fixed tools in the upper row & 5 fixed tools in the lower row.

U12B Back tool post incorporating Y2 axis

Extra-wide cover for operator convenience
The operator door can be flipped up to provide access to the interior of the machining area through a very large opening, allowing comfortable and easy access for tool setting and other adjustments.



ø32 mm max. bar as standard; ø38 mm as option
Supply of bar stock up to ø38 mm is supported as an option. The machining length per chucking is 320 mm in both capacities. A wide range of workpieces can be machined.



Workpiece conveyor equipped as standard
Workpieces are discharged to the left front of the machine.

Machine Specifications

Item	Type VIII	Type X	Type XII
	L32-1M8	L32-1M10	L32-1M12
Max. machining diameter (D)	ø32 mm (option: ø38)		
Max. machining length (L)	GB:320 mm/1chucking NGB: 2.5D		
Spindle through-hole diameter	ø39 mm		
Main spindle speed	Max.8,000 min^{-1}		
Max. chuck diameter of back spindle	ø32 mm		
Max. protrusion length of back spindle workpiece	80 mm	65 mm	
Max. protrusion length	150 mm	140 mm	
Back spindle speed	Max.8,000 min^{-1}		
Gang rotary tool: Spindle speed	Max.6,000 min^{-1} (Rating 4,500 min^{-1})		
Front rotary tool (OP): Spindle speed	Max.6,000 min^{-1} (Rating 3,000 min^{-1})		
Back tool post rotary tool (OP type VIII): Spindle speed	Max.6,000 min^{-1} (Rating 3,000 min^{-1})		
Number of tools to be mounted (max.)	19~30	24~44	30~40
Gang turning tool	6		
Gang rotary tool	4~6	5~13	7~11
Front drilling tool	4~9	4~16	4~9
Back drilling tool	5~11	9~20	13~19
Tool size			
Gang turning tool	□5/8"		
Sleeve	1"		
Chuck and bushing			
Main spindle collet chuck	TF37SP (TF43: ø38 spec)		
Back spindle collet chuck	TF37SP (TF43: ø38 spec)		
Rotary tool collet chuck	ER11, ER16		
Chuck for drill sleeves	ER11, ER16		
Guide bushing	TD32 (STM38: ø38 spec)		
Rapid feed rate			
All axes (except Y2)	32 m/min		
Y2 axis	–	24 m/min	
Motors			
Spindle drive	3.7/7.5 kW		
Gang tool post rotary tool drive	1.0 kW		
Back spindle drive	2.2/3.7 kW		
Back tool post rotary tool drive (OP type VIII)	1.0 kW		
Front rotary tool drive (OP)	1.0 kW		
Coolant oil	0.4 kW		
Lubricating oil	0.003 kW		
Center height	1,050 mm		
Rated power consumption	13.2 kVA		
Full-load current	36A		
Main breaker capacity	60A		
Air pressure and air flow rate for pneumatic devices	0.5 MPa, 64.2 NL		
Weight	6,283 lb	6,393 lb	

*Type VIII back tool post rotary tool is optional; **Front rotary tool drive unit is optional for all types

Standard accessories

- Main spindle chucking unit
- Back spindle chucking unit
- Rotary guide bushing unit
- Gang rotary tool driving unit
- Coolant unit (with level detector)
- Lubricating oil supply unit (with level detector)
- Machine relocation detector
- Door lock
- Cut-off tool breakage detector
- Workpiece separator
- Lighting
- Rotary guide bushing drive unit
- Main spindle coolant unit
- Back tool post rotary unit (type X,XII)

Optional accessories

- Knock-out jig for through-hole workpiece
- Chip conveyor
- Back rotary tool unit (type VIII)
- Coolant flow rate detector
- Signal lamp
- 3-color signal tower
- Front rotary tool unit

Standard NC functions

- CINCOM SYSTEM M70LPC-VU (Mitsubishi)
- 8.4 inch color LCD
- USB slot
- Program storage capacity: 80m (approx. 32KB)
- Tool offset pairs : 80
- Product counter indication (up to 8 digits)
- Operating time display function
- Machine operation information display
- Multiple repetitive cycle for turning
- B axis control function (type XII)
- Back spindle chasing function
- Interference check function
- Synch tapping phasing function
- Spindle speed change detector
- Constant surface speed control function
- Automatic power-off function
- On-machine program check function
- Chamfering, corner R
- Nose radius compensation
- Eco indication
- Variable lead thread cutting
- Arc threading function
- Geometric functions Spindle synchronized function
- Spindle C-axis function
- Back spindle C-axis function
- Milling interpolation
- Canned cycle drilling
- Rigid tapping function
- High speed Rigid tapping function
- Differential speed rotary tool function
- Tool life management I
- Tool life management II
- External memory program driving
- User macros
- Helical interpolation function
- Slant helical interpolation function
- Hob function
- Polygon function
- Inch command
- Sub inch command
- Network I/O function

Optional NC functions

- Optional block skip (9 sets)
- Back machining program skip function
- Program storage capacity 600m (approx. 240KB)

Environmental Information

Basic Information	*Energy Usage*	Power supply voltage	AC200V
		Electrical power requirement (Max)	13.2kVA
		Required pneumatic pressure	0.5MPa
Environmental Performance Information	*Power Consumption*	Standby power*1	0.320kW
		Power consumption with model workpiece*2, *3	0.0133kWh/cycle
		Power consumption value above converted to a CO2 value*4	6.3g/cycle
	Air Consumption	Required air flow rate	45NL/min (max. 182 NL/min., during air blow)
	Lubricant Consumption	At power ON	1.5cc/60min
	Noise Level	Value measured based on JIS	78.5dB
Approach to Environmental Issues	*Environmental load reduction*	RoHS Directive / REACH regulations	Compliant
	Recycling	Indication of the material names of plastic parts	Covered in the instruction manual *5
	Environmental management	We pursue "Green Procurement" by prioritizing purchases for goods and services that show consideration for the environment.	

*1: This is the standby power in the idle stop mode (a function that turns servomotor excitation off when it is not necessary, for example during program editing).
*2: 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.
*3. The average cycle time is 55 sec with the standard test workpiece of our company.
*4: This is the value converted in accordance with the CHUBU Electric Power CO2 emissions coefficient for 2009 as published by the Ministry of the Environment.
*5: If polyvinyl chloride (PVC) and fluoric resin are not processed correctly they can generate harmful gases. When recycling these materials, commission a contractor that is capable of processing them appropriately.

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