CITIZEN

Cincom

Preface

Dear Readers,

Citizen Machinery Europe GmbH has successfully been selling Swiss type lathes and fixed head automatic lathes of the brands Cincom and Miyano all over Germany and in large parts of Europe for many decades. With our 3 locations in Esslingen, Villingendorf and Neuss, we are always personally at your disposal and always in close vicinity throughout Germany to answer your questions regarding sales and other issues. In all service matters, we are there for you in whole of Europe.

Under the Cincom brand, we sell Swiss-type lathes which demonstrate their full power and performance when machining long workpieces and small diameters.

The Miyano brand measures up to all challenges when turning short workpieces in fixed-headstock applications. The machines distinguish themselves by high productivity, quality and precision and grant excellent results in diameter ranges of up to 80 mm.

Our path-breaking LFV Technology as well as laser integration have revolutionized the cutting process. We will continue to work hard on developing new innovations and provide optimum solutions to our customers. With future-oriented products, we look forward to stepping into the future together with you.

Markus Reissig
General Manager Citizen

L12

Machining of workpieces with small diameter with or without guide bush and high-speed spindle with 15,000 rpm.

It is a simple matter to fit or remove the guide bushing so that the machine configuration can be adapted to suit the workpiece to be machined.
As an automatic lathe that combines two roles in a single unit, it can be used to machine both long and short workpieces effectively. It also shows uncompromising performance as a machine for high-speed, small-diameter applications. It shortens cycle times with a front spindle capable of high-speed rotation of 15,000 rpm and 10,000 rpm rotary tools. The L series that has built Cincom's history is now creating the new 'standard' in automatic lathes for function and performance.

Advantages

Changeover between machining with or without guide bushing in ca. 30 minutes.

Intuitive screen display – readable at a glance.

LFV technology

1.78 m²

Workpiece example

Name Shaft
Material Plastic

Standard

1 NC program I/O
2 Central lubrication
3 Coolant tank
4 NC program I/O
5 Door folds up completely

1 

2 

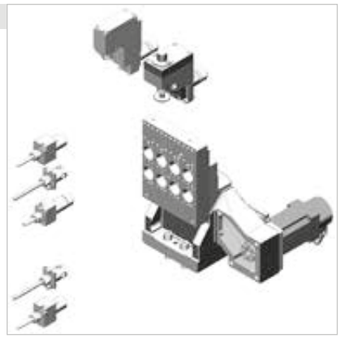
3 

4 

5 

Options

1 Back tool post tooling variation
2 Chip conveyor
3 Barfeeder
4 Detachable guide bushing:
The L12 allows the guide bushing to be fitted and removed simply, so it can be used in accordance with the workpiece to be machined, either as a machine for long workpieces utilizing the guide bushing, or as a guide bushing-less machine able to leave short remnant bars.

1 

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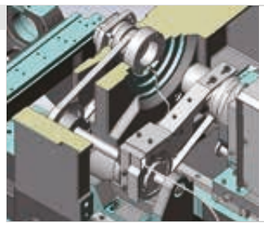
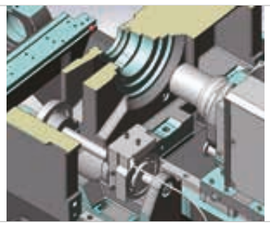
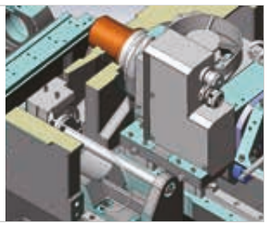
Procedure for GB/GBL switching (Switching from guide bushing to guide bushing-less)

4 

Remove the guide bushing unit and rotary guide bushing drive belt.



Remove the spindle cap for the guide bushing.



Fit the spindle cap for guide bushing-less operation, then advance the spindle.

LFV technology

What is more...
LFV technology as an option

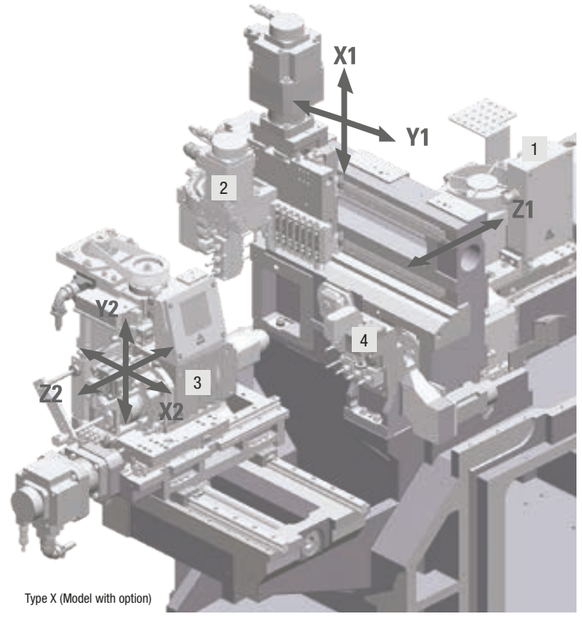
Kinematics

1 Main spindle
Max. spindle speed:
15,000 rpm (GB); 12,000 rpm (GBL)

2 Rotary tools
Max. spindle speed: 10,000 rpm

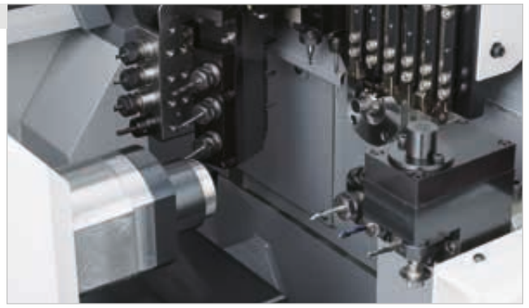
3 Back spindle
Max. spindle speed: 10,000 rpm

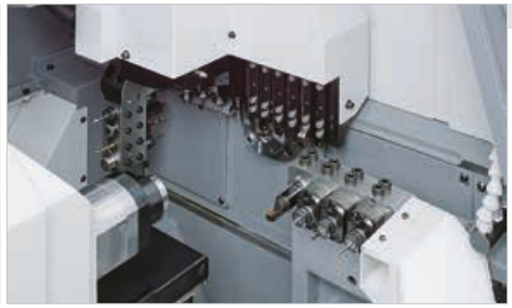
4 Rotary tools for back machining
Max. spindle speed: 9,000 rpm



Type X (Model with option)

Working area

1 

2 

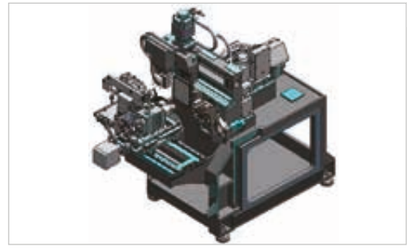
1 Modular Tooling System adapted and Y2 Axis equipped for greater functionality
We have expanded the lineup by adding two models to the L12 series, which specializes in small-diameter machining, with a maximum diameter of 12 mm. Adoption of modular tooling systems that enable selection and combination of the functions tailored to a variety of machining needs realizes a flexible tooling layout, supporting diversified customer needs.
In addition, the introduction of the back spindle equipped with a Y2-axis in type X enhances back machining capability, improves the degree of freedom in process allocation, and also significantly increases the maximum number of tools installed. This allows flexible handling of various kinds of integrated/complex machining.

2 Modular tooling
A modular tooling system was adopted for the gang tool post and the back tool post. A versatile tooling layout, including the „angle adjustable end-face drilling spindle“, which can handle slanted holes, supports varied machining.

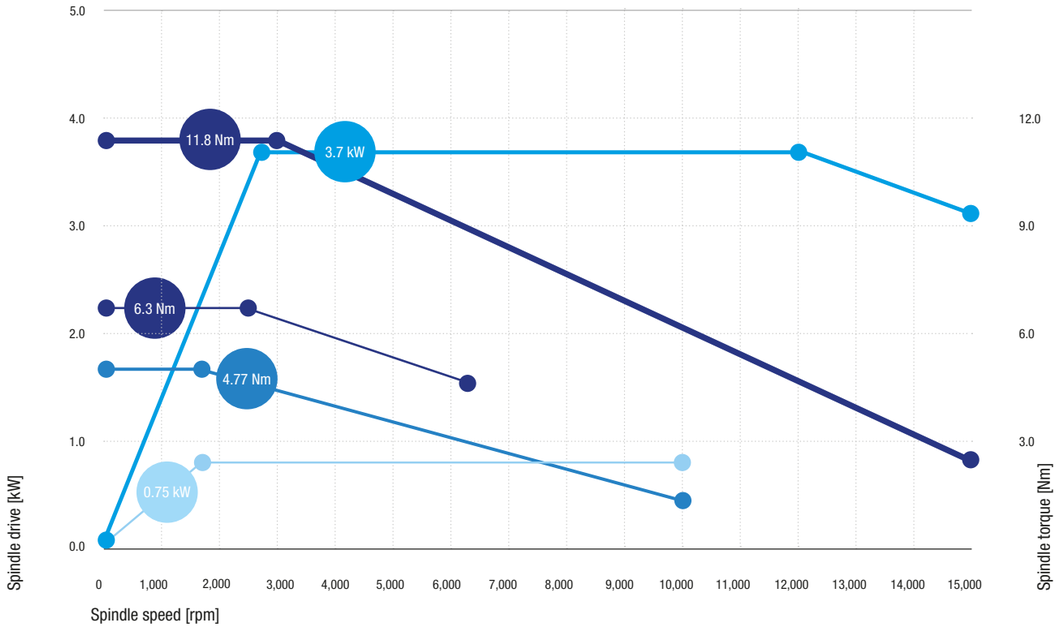
3 Opposite tool post may be equipped with drill for deep hole drilling (CS)

4 Back spindle equipped with a Y2 axis in type X
The back spindle is equipped with a Y2-axis in type X. This has improved back machining and increased the degree of freedom in allocation of processes.

3 

4 

Performance diagram

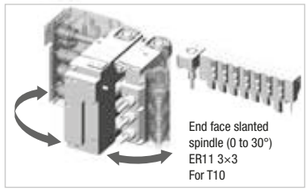


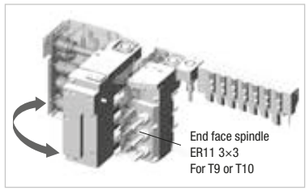
Max. spindle drive
Max. back spindle drive
Max. spindle torque
Max. back spindle torque
Max. torque of the gang rotary tools S3*

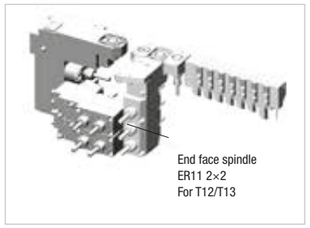
* Duty cycle

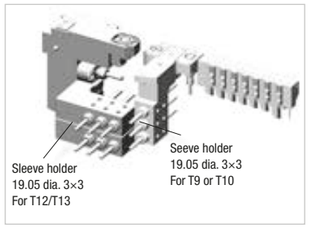
Tooling System

Gang tool post tooling variation

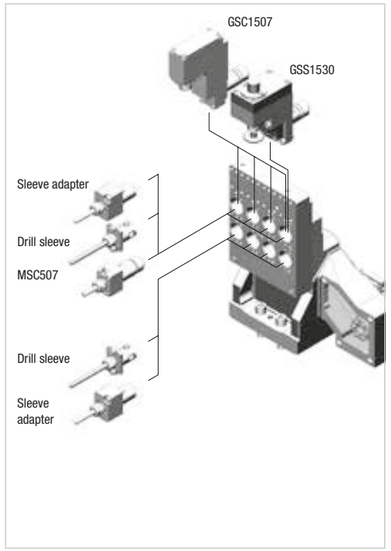




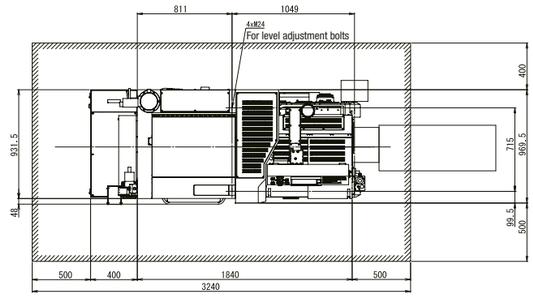


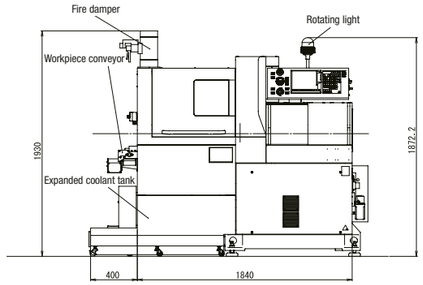


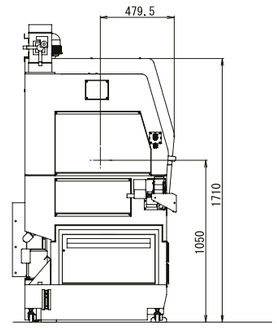
Back tool post tooling variation

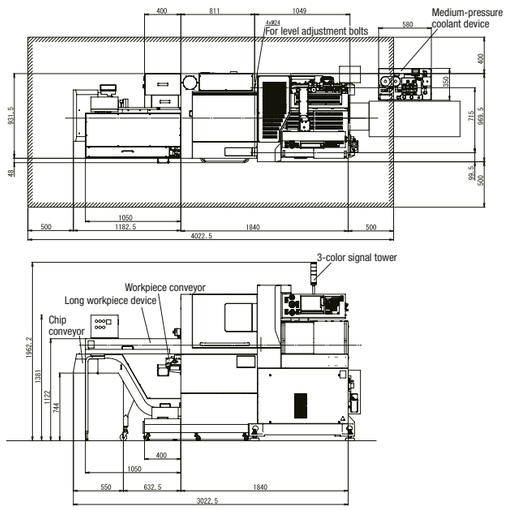


Floor plan









Machine specification

Item	**L12 VIII** (L12–2M8)	**L12 X** (L12–M10)
Max. machining diameter	Ø 12 mm	Ø 12 mm
Max. machining length (L)	135 mm/1 chucking (GB), 30 mm (GBL)	135 mm/1 chucking (GB), 30 mm (GBL)
Max. main spindle drilling diameter	Ø 8 mm	Ø 8 mm
Max. tapping diameter for the main spindle	M6	M6
Spindle through-hole diameter	Ø 20 mm	Ø 20 mm
Main spindle speed	Max. 15,000 rpm (GB), Max. 12,000 rpm (GBL)	Max. 15,000 rpm (GB), Max. 12,000 rpm (GBL)
Max. chuck diameter of the back spindle	Ø 12 mm	Ø 12 mm
Max. protrusion length	80 mm	80 mm
Max protrusion length of the back spindle workpiece	30 mm	30 mm
Max. drilling diameter for the back spindle	Ø 8 mm	Ø 8 mm
Max. tapping diameter for the back spindle	M6	M6
Back spindle speed	max. 12,000 rpm	max. 12,000 rpm
Gang rotary tools		
Max. drilling diameter	Ø 5 mm	Ø 5 mm
Max. tapping diameter	M4	M4
Main spindle speed	max. 10,000 rpm	max. 10,000 rpm
Back rotary tools (Option)		
Max. drilling diameter	Ø 5 mm	Ø 5 mm
Max. tapping diameter	M4	M4
Main spindle speed	max. 9,000 rpm	max. 9,000 rpm
Number of tools to be mounted	34	38
Gang tool post	7	7
Gang rotary tools	6 to 17	6 to 17
Front drills	Standard: 2, Max.: 11	Standard: 2, Max.: 11
Back drills	4 (13)	8 (17)
Tool size		
Turning tools	□ 10 mm, □ 12 mm (Option)	□ 10 mm, □ 12 mm (Option)
Drill sleeve	Ø 19.05 mm	Ø 19.05 mm
Chuck and bush		
Main spindle collet chuck	1212 E	1212 E
Guide bushes	F853	F853
Back spindle collet chuck	1212 E	1212 E
Rapid feed rate		
All axes	35 m/min	35 m/min
Motors		
Motor spindle drive	2.2/3.7 kW	2.2/3.7 kW
Gang tool post rotary tool drive	0.75 kW	0.75 kW
Back spindle drive	0.75/1.5 kW	0.75/1.5 kW
Back tool post rotary tool drive (Option)	0.5 kW	0.5 kW
Coolant	0.25 kW	0.25 kW
Center height	1,050 mm	1,050 mm
Rated power consumption	8 KVA	8 KVA
Total load current	22 A	22 A
Main breaker capacity	40 A	40 A
Power supply voltage	AC200V ± 10%	AC200V ± 10%
Pneumatic unit: Required pressure and required flowrate	0.5 MPa, 44 NL/min (Power On) / 55 NL/min (Stationary) / 150 NL/min (Air blower)	0.5 MPa, 44 NL/min (Power On) / 55 NL/min (Stationary) / 150 NL/min (Air blower)
Machine dimensions	W 1,840 × D 970 × H 1,710 mm	W 1,840 × D 970 × H 1,710 mm
Weight	2,200 kg	2,200 kg

Standard Accessories

Synchronous guide bush; Internal machine lighting; Cut-off tool breakage detector; Conversion parts for guide bush type or guide bush-less type; Workpiece conveyor; Pneumatic workpiece ejector system; Coolant flow rate detector; 3-color signal tower

Special Accessories

Chip conveyor; Oil mist evacuation; High-pressure system; Option for long workpieces

Standard NC functions

Control unit: Mitsubishi Meldas M70LPC-VU; Spindle synchronization; Nose radius compensation; Milling interpolation; Multiple repetitive cycles; Synchronized thread cutting; Deep drilling cycle; C axis at main and back spindle; Constant cutting speed; Geometric function; User macro; Corner chamfering/rounding function; Network function; Program storage capacity 160 m

Optional NC functions

Tool life management; Hob function; Polygon function; Program storage capacity 600 m; Helical interpolation function; 80 tool offset pairs

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