

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 4 locations in Esslingen, Villingendorf, Neuss and Radebeul, 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 Machinery Europe GmbH

# B12/16E

**Cincom's B series 'best seller' model has been revamped. And the cost has been substantially reduced.**

The B series, which has sold well worldwide for a long time, has been revamped. The B16 can handle diameters up to 16 mm, so the range of target workpieces has been expanded. The B series is renowned for its speed, accuracy and high reliability at extremely low running cost. This 4th generation model retains the same tool layout granting high-accuracy machining in the proven manner. The rigidity of the back headstock has been improved. Preprocessing for shortest cycle time is supported by a simple on-machine program check function. The standard specifications include a comprehensive range of NC functions.

## Advantages

- Reduced thermal displacement.
- On-machine program check function.
- Compact and affordable.
- Comprehensive range of optional accessories.
- Short tool change times.

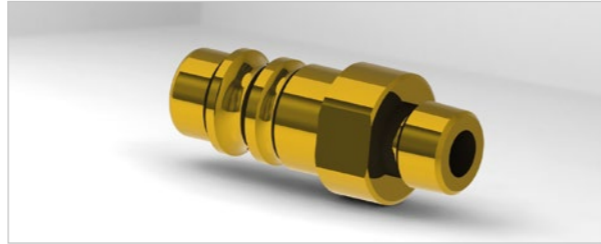
1,33 m<sup>2</sup>





## Workpiece example

**Name** Compressed air connection  
**Material** Brass



## Standard



### 1 Programm Input/Output

NC programs can be input and output using the PC card slot or the USB terminal. Support for RS-232C is also available as an option.

### 2 Product chute

The back spindle retracts and ejects the workpiece into the chute which drops it into the product receiver box. By reversing the product receiver box, it can be used as an oil bath.

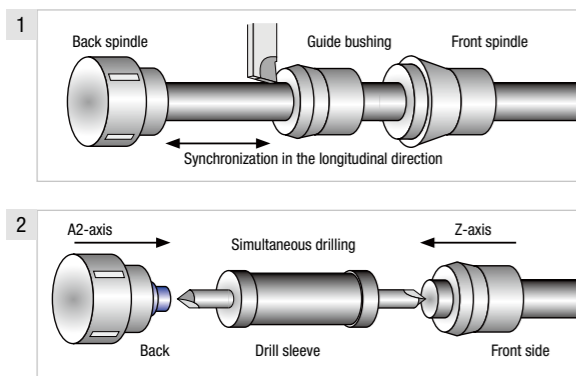
### 3 Chip receiver box

The chip receiver box is easily drawn out for efficient cleaning.

### 4 Coolant tank

The coolant tank has a large capacity of 117 liters and can be moved easily when carrying out maintenance.

## Options



### 1 Z-A2 axis synchronized function

Synchronized feed of the Z-axis (front spindle) and the A2-axis (back spindle) is possible using feed axis synchronization control. The A2 axis (back spindle) feed is controlled in synchronization with the Z-axis (front spindle) feed.

### 2 Front/back simultaneous machining function

This function executes drilling on the front side face and the back side face simultaneously.

## Layout

### Main spindle

B12E Max. spindle speed: 12.000 rpm; when using an RGB: 8.000 rpm  
 B16E Max. spindle speed: 10.000 rpm; when using an RGB: 8.000 rpm

### Rotary tools

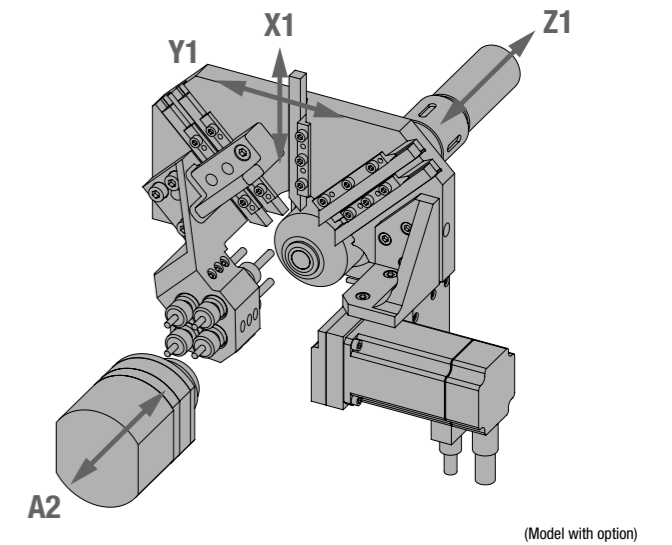
Max. speed: 4.500 rpm Max. drilling diameter:  $\varnothing$  5 mm

### Sub spindle

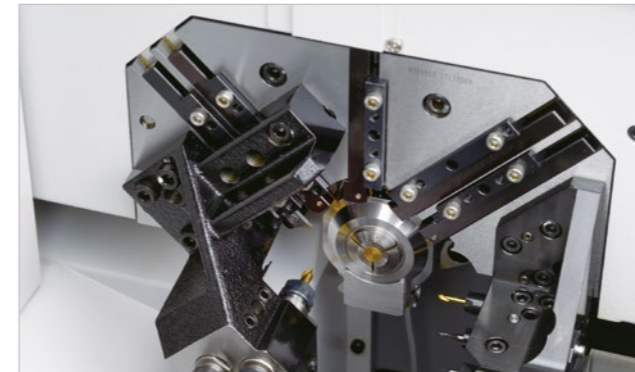
Max. speed: 6.000 rpm Max. drilling diameter:  $\varnothing$  5 mm

### Drill sleeve holder

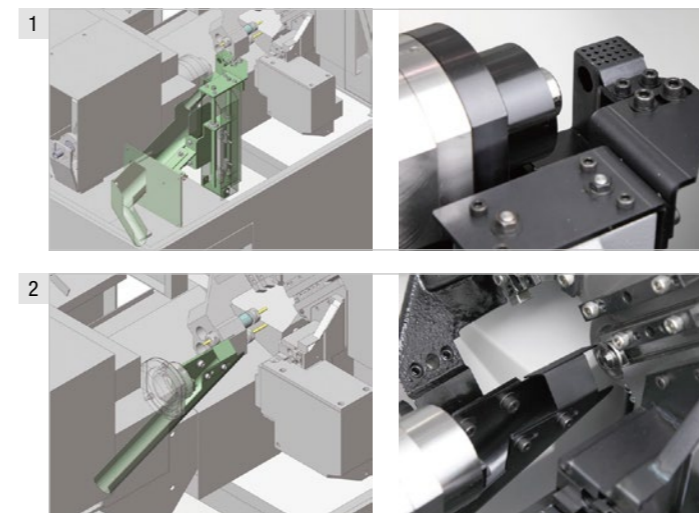
This holder can mount four drilling tools as standard.  
 $\varnothing$  19.05 mm (Option) mm and  $\varnothing$  20 mm gauges are available.



## Working area



Example: Tool layout



### 1 Workpiece separator for small parts

(collection on back side for type VI) [B1216EU34J]

The workpieces ejected from the back spindle by air blow are flushed through the chute with coolant and collected together with the coolant. Applicable workpiece size: O.D. up to  $\varnothing$  2 mm, length up to 20 mm.

\* Used with the back spindle chucking device [B12EU900B].

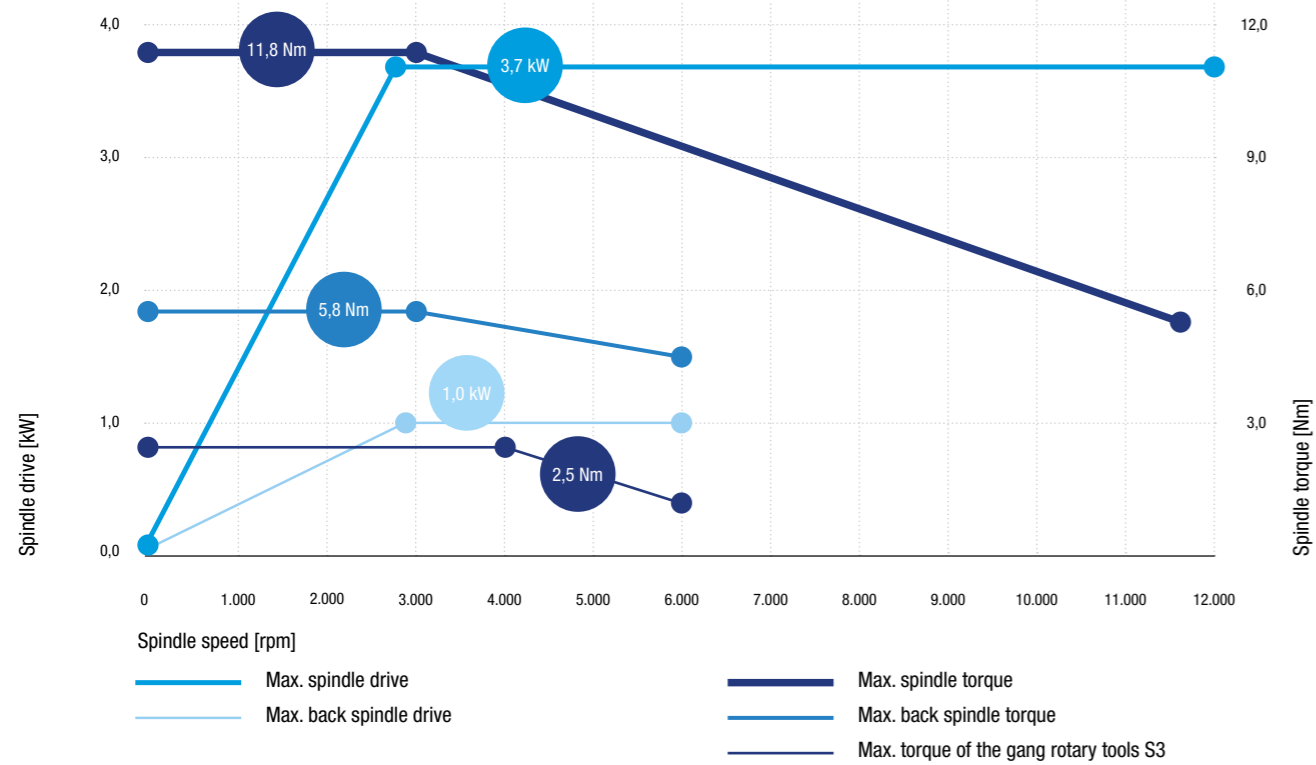
\* Used with air blow ejection unit for small parts [B12EU502C].

### 2 Workpiece separator for small parts

(collection on front side for type VI) [B1216EU341J]

Coolant is run through a chute mounted on the back spindle, and workpieces cut off in front machining are collected together with the coolant. The longitudinal position of the chute can be adjusted. Applicable workpiece size: O.D. up to  $\varnothing$  2 mm, length up to 20 mm. \* Used with the workpiece separator for small parts (collection on back side) [B1216EU34J].

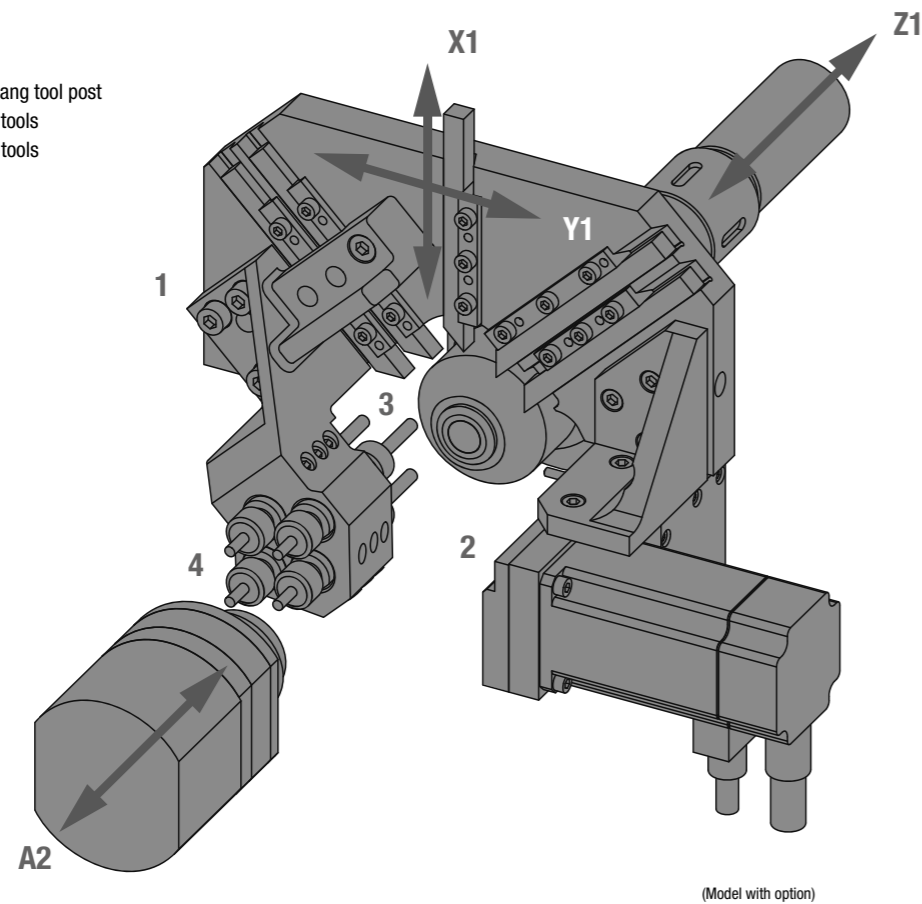
## Performance diagram



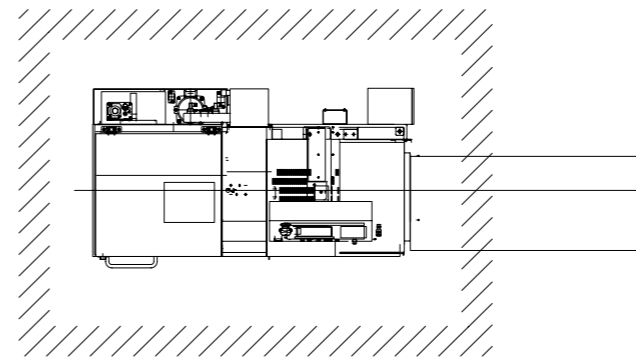
## Tooling System

### B12/16E type VI

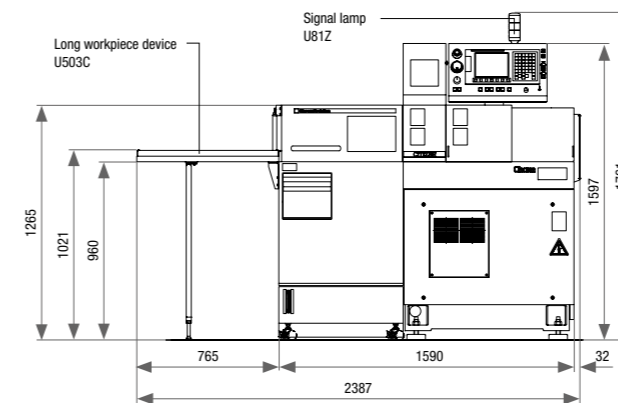
- 1 Drilling tools
- 2 Rotary tools on the gang tool post
- 3 Main spindle drilling tools
- 4 Back spindle drilling tools



## Floor plan



### With accessory



## Machine specification

Item	B12E VI	B16E VI
Max. front spindle machining diameter	Ø 12 mm	Ø 16 mm
Max. machining length without rechucking (with RGB)	135 mm (57 mm)	135 mm (57 mm)
Max. front spindle drilling diameter	Ø 6 mm	Ø 6 mm
Max. front spindle tapping diameter	M6	M6
Spindle bore	Ø 20 mm	Ø 20 mm
Max. spindle speed Front spindle (with RGB)	12.000 rpm (8.000 rpm)	10.000 rpm (8.000 rpm)
Max. drilling diameter of rotary tools (Gang tool post)	Ø 5 mm	Ø 5 mm
Max. tapping diameter of rotary tools (Gang tool post)	M4	M4
Rotary tool speed (Gang tool post)	4.500 rpm	4.500 rpm
Max. back spindle machining diameter	Ø 12 mm	Ø 16 mm
Max. protrusion length at the back spindle	30 mm	30 mm
Max. workpiece length (w/o option for long parts)	80 mm	80 mm
Max. drilling diameter for the back spindle	Ø 5 mm	Ø 5 mm
Max. tapping diameter for the back spindle	M3	M3
Max. back spindle speed	6.000 rpm	6.000 rpm
<b>Number of tools to be mounted</b>	<b>16</b>	<b>16</b>
Turning tools	5	5
Rotary tools (gang tool post)	3	3
Tools for front drilling	4	4
Tools for back drilling	4	4
<b>Shaft cross section of drilling tools</b>	<b>10 mm</b>	<b>10 mm</b>
Sleeve diameter	Ø 20 mm	Ø 20 mm
<b>Chuck and guide bushing</b>		
Main spindle collet chuck	1212E/40.012	138E/40.004
Back spindle collet chuck	1212E/40.012	138E/40.004
Rotary tool collet chuck	ER8	ER8
Guide bushing (Neukomm)	F853	F605
<b>Rapid feed rate</b>		
X and Y axis	21 m/min	21 m/min
Z and A2 axis	15 m/min	15 m/min
<b>Motors</b>		
Main spindle	2.2/3.7 kW	2.2/3.7 kW
Rotary tools (gang tool post)	0.5 kW	0.5 kW
Back spindle	1.0 kW	1.0 kW
Coolant pump	0.18 kW	0.18 kW
Air pressure/air consumption	6 bar/30 NI/min (max. 50 NI/min)	6 bar/30 NI/min (max. 50 NI/min)
<b>Machine dimensions</b>		
Dimensions	W 1.590 × D 837 × H 1.597 mm	
Weight	1.150 kg	1.150 kg
Center height	1.000 mm	1.000 mm
<b>Standard accessories</b>		
Main spindle chucking device		
Back spindle chucking device		
Rotary tool driving devices [gang tool post]		
Coolant device (with level detector)		
Central lubricating oil supply unit (with level detector)		
Machine relocation detector		
Door lock		
Cut-off tool breakage detector		
Lighting		
Rotary guide bushing device		
Pneumatic air sealing unit		
3-color signal tower		
<b>Special accessories</b>		
Chip conveyor		
Option for long workpieces		
High-pressure system		
<b>Standard NC functions</b>		
NC unit: Fanuc 0i-TD		
8.4 inch color liquid crystal display (LCD)		
Nose radius compensation		
Multiple repetitive cycles		
Deep drilling cycle		
Constant cutting speed		
Corner chamfering / rounding function		
User macro		
Hobbing / polygon machining function		
Spindle speed change detector		
Synchronized thread cutting		
Tool life management (I)		
1-degree indexing at front spindle		
Geometric function		
B code function		
<b>Optional NC functions</b>		
Tool life management (II)		
Decimal point coding		

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