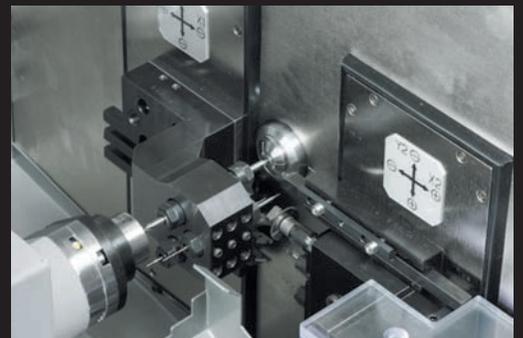


CITIZEN®

# Cincom

Sliding Headstock Type CNC Automatic Lathe

## R07



*Leading the Way with Superior Value and Technology*

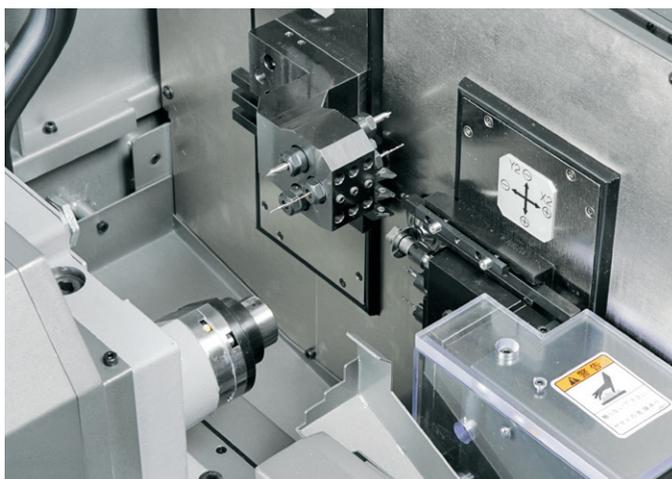
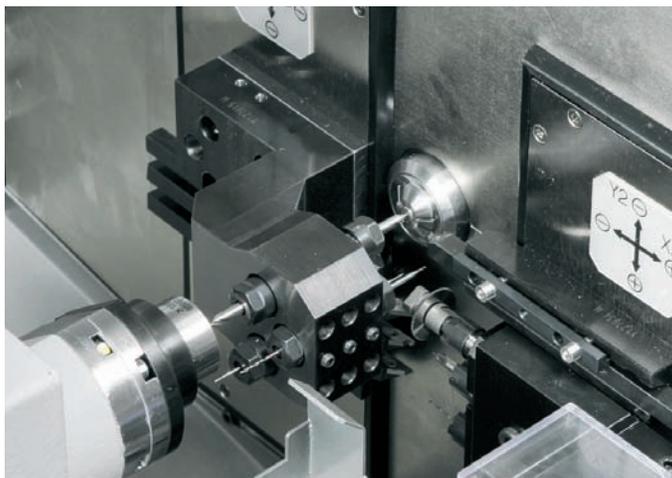
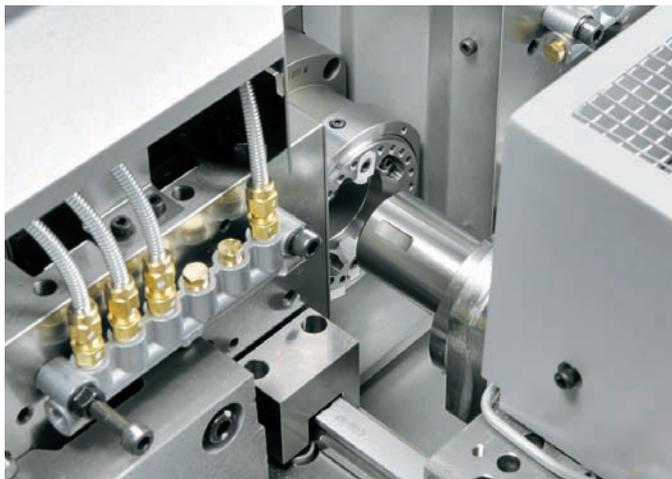
# The R07 CINCOM was developed by Citizen for high-speed, high-precision machining of tiny precision parts.

## Maximum machining diameter $\phi 7$ mm

The new R07 CINCOM is compact and has a maximum machining diameter of  $\phi 7$  mm. It specializes in machining small-diameter parts, thus offering a wider range of high-precision work pieces for specialized parts.

## Rotary Guide Bushing

The new R07 offers a compact rotary guide bushing unit developed exclusively for high-speed, high-precision machining. With this new rotary guide bushing the R07 can perform metal cutting at speeds of up to 12,000 rpm. Without the rotary guide bushing the cutting speeds go up to 16,000 rpm. The sub-spindle delivers 10,000 rpm.



## Slide structure ideal for the machining of small-diameter parts

The R07 CINCOM uses linear motors to drive the slide and tool posts. This system achieves fast part processes with quick response and quiet operation, as well as eliminating thermal distortion. A scale feedback control system is also used with all axes, which offers the perfect machine configuration for machining small, high-precision parts.

# Cincom R07



## Automatic Bar Loader

Complementing the R07 is the optional ALPS Automatic Bar Loader. This special bar loader is specifically designed to grasp and feed small wire-like bars into the machine.

## Small-diameter (tiny) part removal system

The R07 CINCOM offers an optional vacuum type part removal system and carousel work piece separator that can greatly improve productivity.

## Improvement of complex machining capability

Rotary tools are now part the gang tool post. This allows small-diameter parts requiring complex machining such as polygon turning and end face drilling be machined easily.

## Reduction of non-cutting idle time

Even while the high-speed built-in spindle motor is running at a high speed, the chuck can be opened or closed without first decreasing the speed. This feature reduces non-cutting idle time which results from acceleration and deceleration of the spindle. Use of two independent tool posts on the machine increases operation efficiency, eliminating idle time due to a tool exchange.

## Compact design

The R07 CINCOM with its use of a built-in spindle and linear motor, reduces the size of the machine foot print saving valuable floor space by 40% compared to that of the B12. This small, compact size considerably increases the manufacturing production area of the plant.

Machine specifications	
Item	R07 VI
Max. machining diameter	φ7 mm (.28")
Max. machining length	40 mm (1.57")
Max. front drilling diameter	φ4 mm (.16")
Max. front tapping size (with tap and die)	M4
Spindle through-hole diameter	φ12 mm (.47")
Main spindle speed	16,000 rpm (12,000 rpm with rotary guide bushing)
Max. drilling diameter in the rotary gang tool machining process	φ2 mm (.08")
Max. tapping diameter in the rotary gang tool machining process	M2
Rotary spindle speed	8,000 rpm
Max. chuck diameter of the back spindle	φ7 mm (.28")
Max. workpiece length for the front side collection from the back spindle	40 mm (1.57")
Max. drilling diameter in the back machining process	φ2 mm (.08")
Max. tapping diameter in the back machining process	M2.6
Back spindle speed	10,000 rpm
Number of tools to be mounted	13
Turning tools on the gang tool post	5
Rotary tools on the gang tool post	2
Tools for front spindle	3
Tools for back spindle	3
Tool size	
Gang tool post (tool)	φ8 mm (.32")
Sleeve	φ15.875 mm (.63")
Rapid feed rate	
X1,Y1,Z1,X2,Y2 axes	30 m/min (98.43 ft/min)
Z3 axis	20 m/min (65.62 ft/min)
Motor	
Main spindle drive	0.75/1.1 KW
Tool spindle drive	0.2 KW
Back spindle drive	0.5 KW
Cutting oil	0.18 KW
Center height	1,000 mm (39.37")
Input power capacity	4 KVA
Air pressure and air flow rate for air-driven equipment	0.5 MPa · 80 NI/min
Weight	850 Kg (1,873.93 lbs)

#### Main standard accessories

Main spindle chucking device  
 Workpiece separator  
 Carry type synchronous rotary guide bushing device  
 Coolant device (with level sensor)  
 Door switch/door lock  
 Back spindle chucking device  
 Lubrication device (with level sensor)

#### Optional accessories

Stationary guide bushing device with open/close device  
 Rotary tool spindle drive unit for gang tool  
 Small 4-division separator  
 Cut-off tool breakage detector  
 Coolant flow-rate detecting device  
 Signal lamp  
 Work light

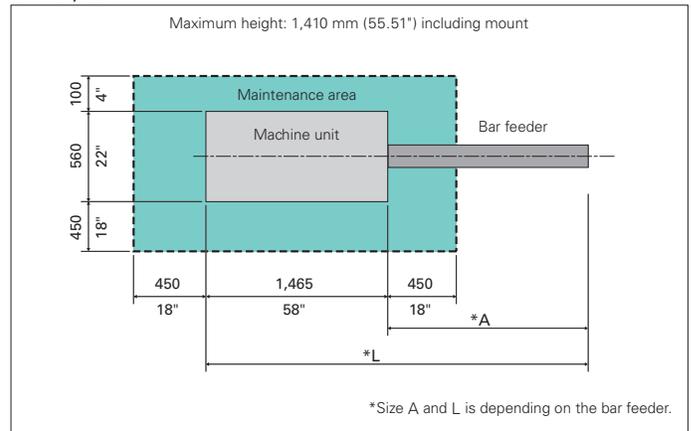
#### Standard NC functions

NC unit dedicated to CINCOM R series  
 Tool offset pairs: 16 pairs  
 7.2-inch monochrome liquid crystal display  
 Product counter display: Up to 8 digits  
 Operation time display  
 Preparation function  
 Interference check function  
 On-machine program check function  
 Main spindle speed change detection function  
 Automatic power-off function  
 Program storage capacity: Equivalent 20 m tape  
 Thread cutting canned cycle  
 Spindle synchronization control function  
 Sub-inch command

#### Optional NC functions

Main spindle 1 degree indexing function  
 Back spindle 1 degree indexing function  
 Multiple repetitive cycle  
 Canned cycle for drilling  
 Nose R compensation function  
 Corner chamfering/rounding function  
 Program storage capacity: Equivalent 120 m tape (maximum)  
 Main spindle rigid tapping function  
 Tool spindle rigid tapping function  
 Back spindle rigid tapping function  
 Continuous threading cycle  
 Tool life control I

#### Floor layout



The above specifications may not apply to product sold in the US or other countries.  
 Please contact your local Citizen distributor for actual machine quotation.

**CITIZEN** The World Leader in CNC Swiss Turning  
**Marubeni Citizen-Cincom Inc.**

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