



# Machinery

 **Machinery**  
CHIAH CHYUN

TEL: 886-4-2533-7614

FAX: 886-4-2532-9524

EMAIL: info@chiah-chyun.com

AD: No.16 Ln. 52, Sanshe Rd., Shengang Dist.,  
Taichung City 429, Taiwan.

CE



Catalog

[www.chiah-chyun.com](http://www.chiah-chyun.com)

**CB-32M**  
**CB-36M**  
**SLIDING HEAD**  
**CNC LATHE**

CE


# Make Complicated Parts Machining in One Operation!

## Applications:

Designed for various precision parts machining, such as:

- Automotive, motorcycle and bicycle parts
- Electronic and electrical parts
- Instrument parts
- Pneumatic and hydraulic part
- Sanitary and toilet wares
- Hardware
- Any other precision parts

### A Most Versatile CNC Lathe

When it comes to versatility, the CB-32M from  **Machinery** will fully meet your expectations. No matter what operation - turning, milling, drilling, tapping, cutting, side turning and back machining, the CB does it all in one operation. This means you get higher efficiency and greater profitability.

# CB

 **Machinery** CB-32M / CB-36M

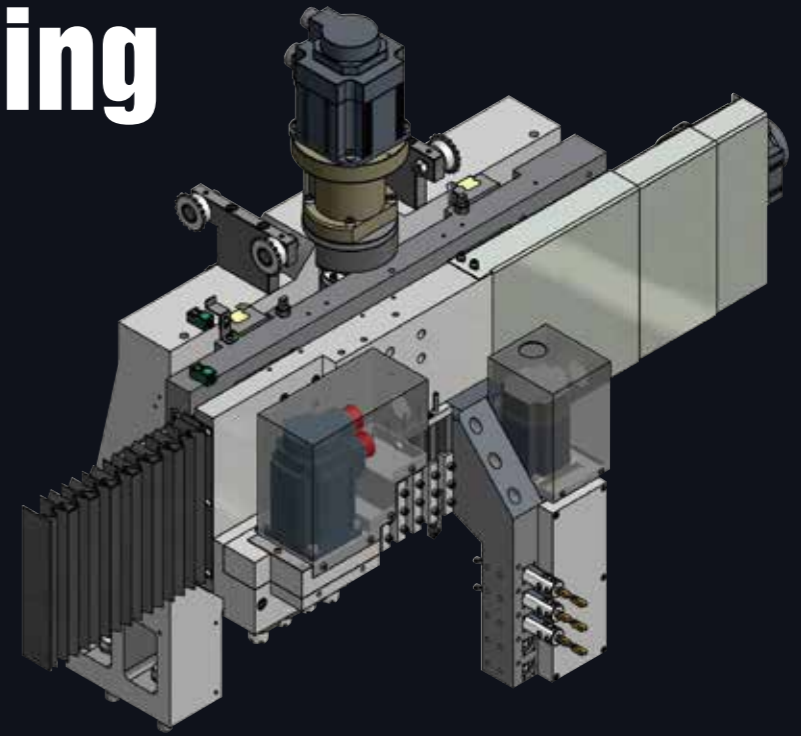
### Dramatically Reduced Machining Time and Improved Quality

- Sliding headstock design.
- A combination of main and sub-spindle.
- $\varnothing 32/36$  mm bar capacity.
- X, Y, Z-axis rapid traverses 30m/min.
- Linear ways on 5 axes.
- PC-based control.
- Collet chucking system.
- Finished parts catcher and conveyor.



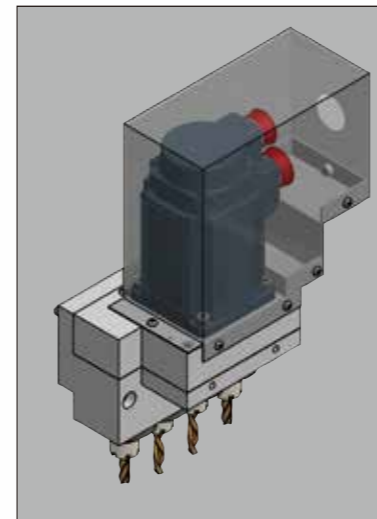


# Multiple Tooling Systems for Versatile Cutting Applications



## Main Tool Slide

- 11 position driven tool.
- It can be fitted with 6 O.D. or 5 O.D. tool.
- The main tool slide is suitable for turning outside diameter of workpiece.



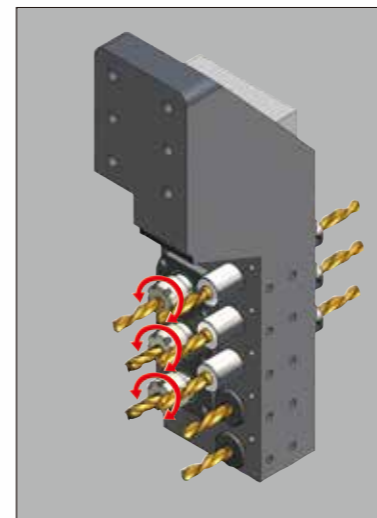
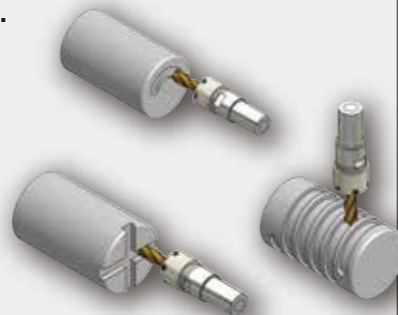
## Side Milling Device

- The side milling device is mounted at top side of the headstock.
- The device is suitable for side milling, drilling and tapping operations.
- Total 4 powered tools driven by a 1.5kw servo motor.
- Max. tool speed is 6,000 rpm.



## C-axis Contouring Capability

- The C-axis features contouring capability.
- Employs a 11-position driven tools by a servo motor.
- Rotating tool holders and tools are optional.
- 0.001 mm extra high indexing resolution ensures high precision contouring and indexing.



## End Milling Device

- The end milling device is mounted in front of the head stock.
- The device is suitable for front end milling, drilling and tapping operations.
- Total 8 tools, among which 3 tools are powered and 5 tools are static.
- Powered tools are driven by a 0.75kw servo motor.
- Max. tool speed is 6,000 rpm.







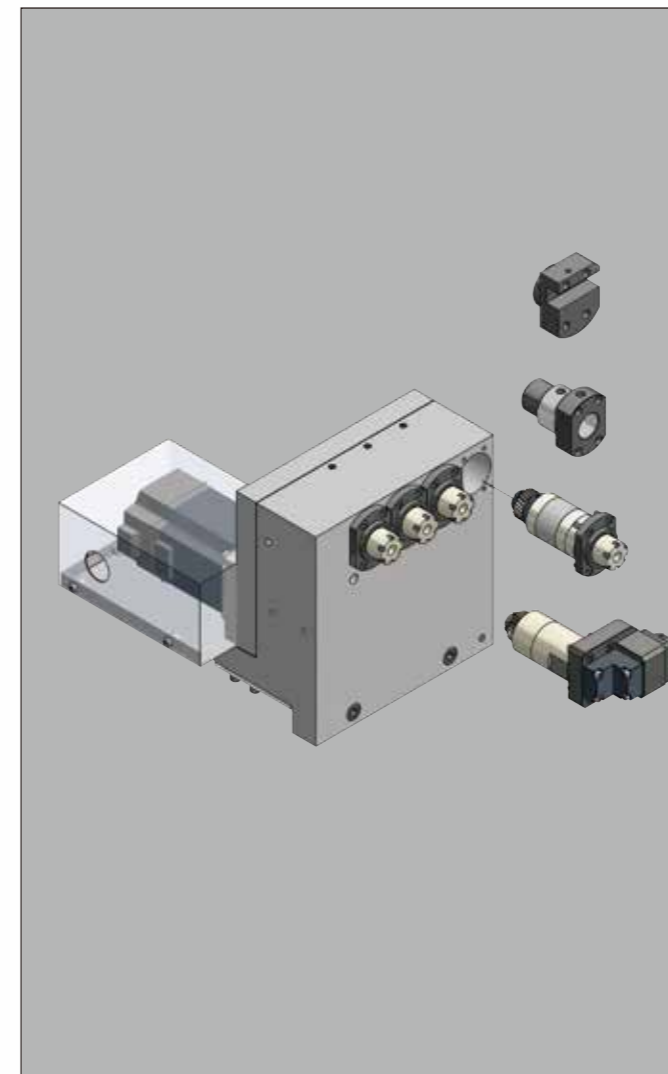
# Sliding Head without Guide Bush

**Increased Efficiency!  
Lower Production Cost!  
Greater Profitability!**

**Spindle head moves on two precision linear ways combined with extra large span between ways, exhibiting outstanding stability and high positioning accuracy.**

Provides additional costs saving, unlike like swiss-style machines. Savings include:

- Faster Setups (No guide bushing to setup)
- Shorter Remnants (No guide bushing, remnant limited to collet length)
- Accommodate no-ground stock for saving cost.



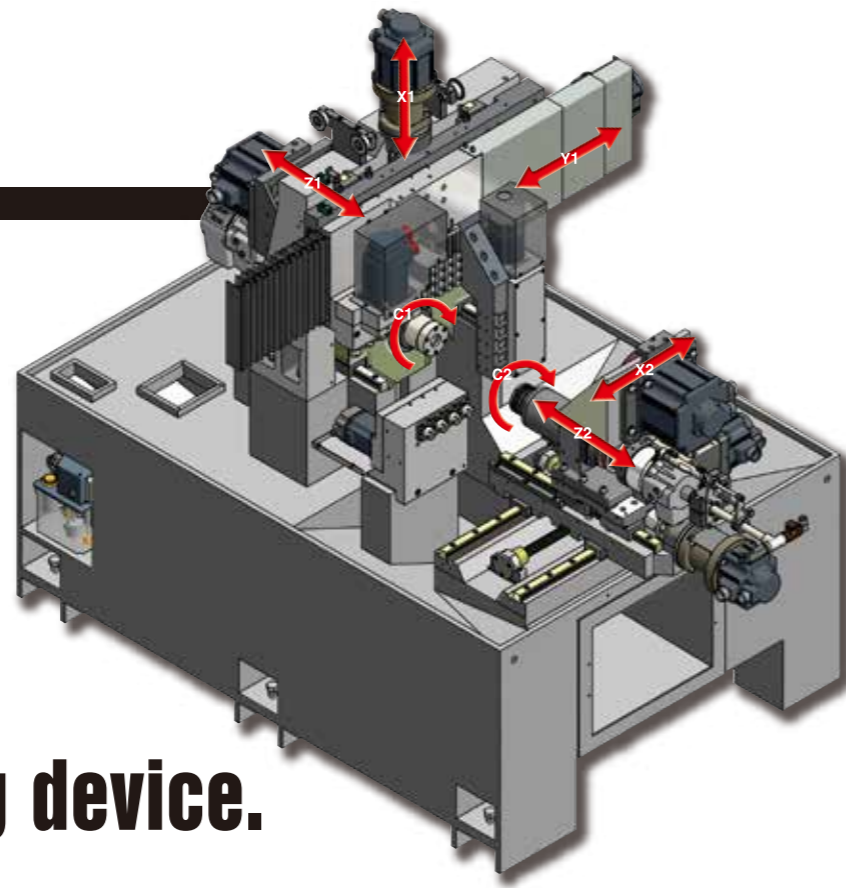
## Maximum Versatility of Back Milling Device

(Back Milling Device)

- Upon request, the back milling device is available to mount with an O.D. or I.D. tool.
- Changing tool holder is done easily by simply loosening 4 lock screws.
- Axial machining device.
- Radial machining device (optional).
- All machining devices can be change with ease.



**The back side machining mechanism consists of a sub-spindle head and a back milling device.**



## Back Side Machining Mechanism



### Precision Linear Ways

- The sub-spindle head moves on two THK precision roller type linear ways, that are combined with extra large span between linear ways for outstanding stability and positioning accuracy.



### Sub Spindle Assembling

- The back milling device is mounted between the main and sub-spindle.
- The device is capable of performing milling, drilling and tapping operations for the back side of a part.
- Total 4 powered tools driven by a servo motor.
- Max. tool speed is 6,000 rpm.

### Main Spindle

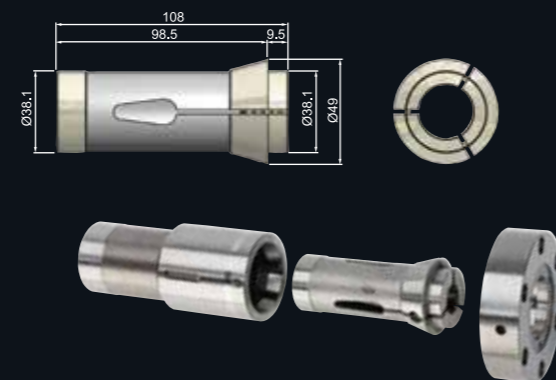
#### Belt-drive Type Spindle (standard)

- Motor: 7.5kw
- Spindle speed: 6,000 rpm
- Clamping system: Collet



### Collet Chucking System for main Spindle

The collet chucking system provides a choice of 164E or 171E collet.



### Sub-Spindle Belt-drive Type Spindle

- Motor: 4.4kw
- Spindle speed: 6,000 rpm
- Clamping system: collet

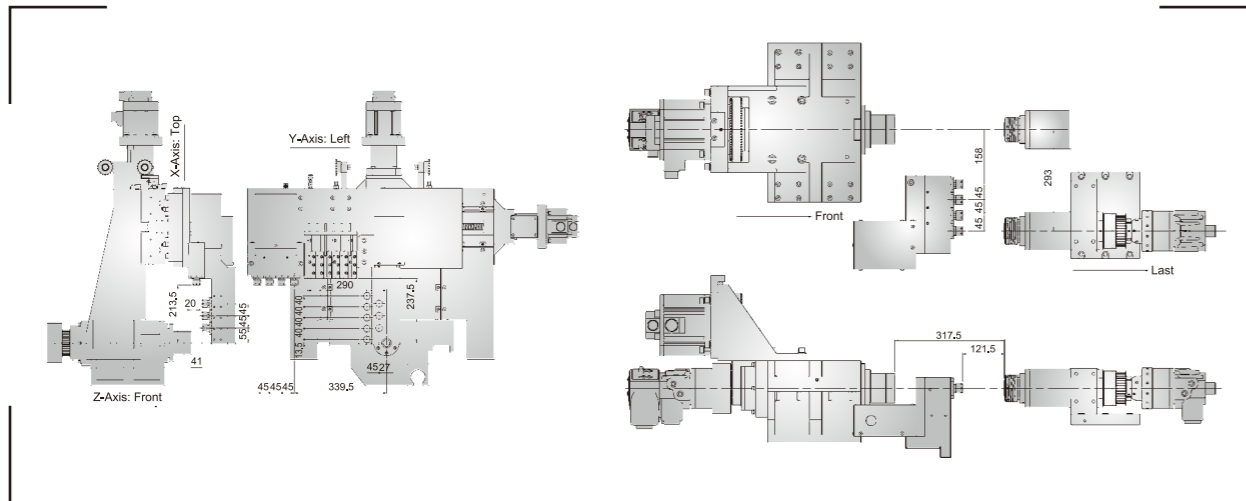


### Collet Chucking System for Sub-spindle

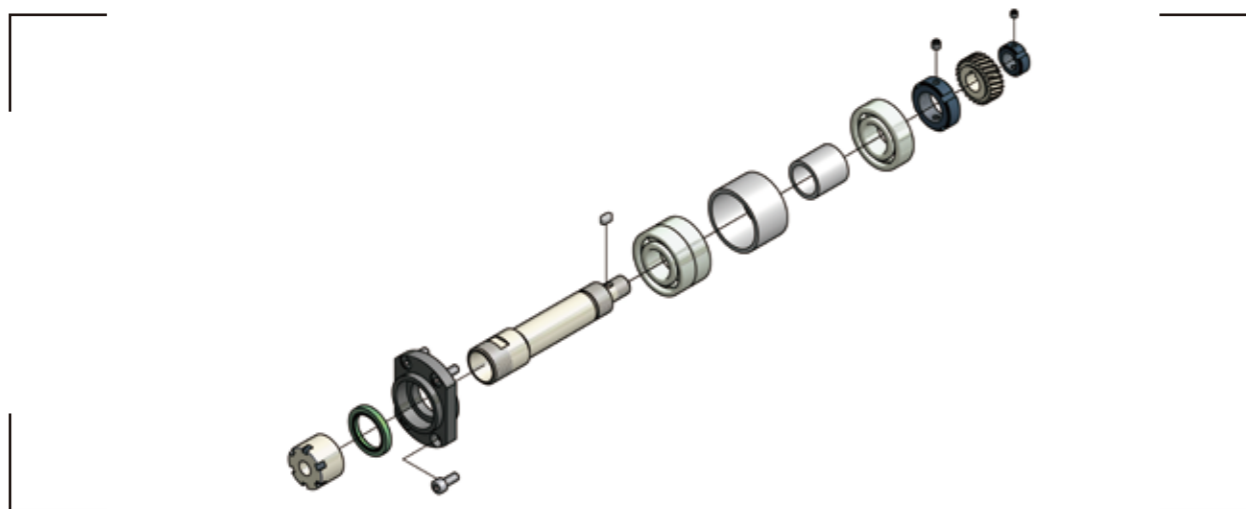
The collet chucking system provides a choice of 164E collet.



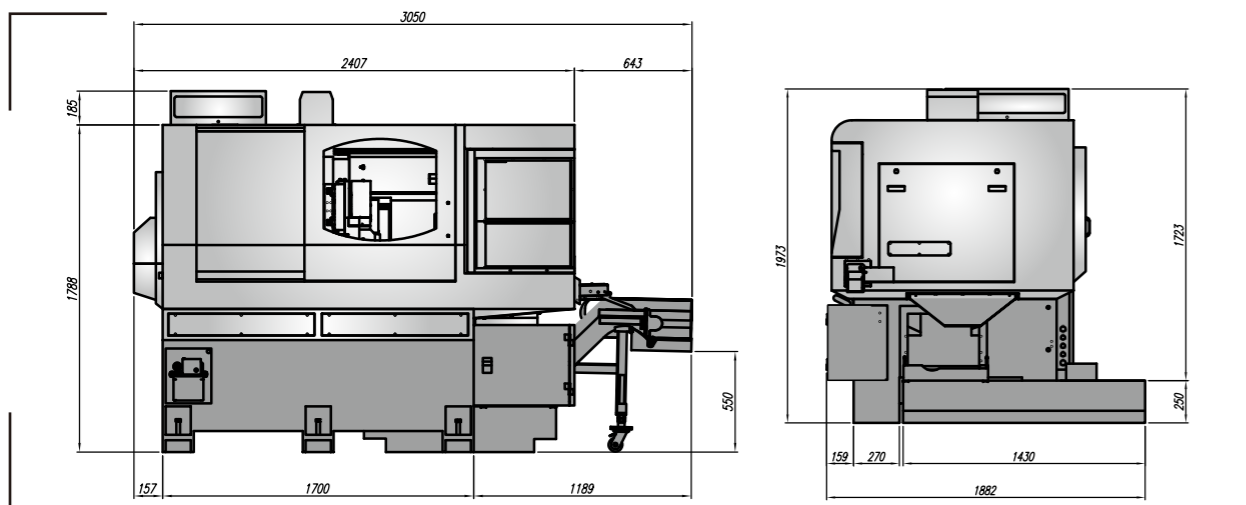
### INTERFERENCE DIAGRAM



### TOOLING SYSTEM



### MACHINE DIMENSIONS



### MACHINE SPECIFICATIONS

	Unit: mm	
Capacity	CB-32M	CB-36M
Controller	Syntec	
<b>Spindle</b>		
Max. manu. Dia.	Ø32	Ø36
Spindle max. rpm	6000 rpm	
Center height	1032	
Max. bar feeding dia.	Ø32	Ø36
Collet of spindle	TRB-32	TRB-36
Spindle servo motor	7.5 kw	
No. of O.D. turning tool	6 (Option: 5)	
No. of I.D. turning tool	5	
O.D. turning tool size	12 (Option: 16)	
I.D. turning tool size	Ø25	
<b>Sub Spindle</b>		
Max. bar feeding dia.	Ø27.5	
Sub spindle max. rpm	6000 rpm	
Collet of spindle	TRB-32	
Sub spindle servo motor	4.4 kw	
Min. input unit	0.001	
No. of turning tool	4	
I.D. turning tool size	Ø25	
<b>Axis Travel</b>		
X1, X2-axis travel	185 / 290	
X1, X2-axis servo motor	X1: 1.3 kw, X2: 0.85 kw	
Y, Z1, Z2-axis travel	490 / 165 / 285	
Y, Z1, Z2-axis servo motor	0.85 kw	
X,Y,Z Rapid travel speed	30 m/min	
<b>Spindle Live Tooling</b>		
No. of Radial live tooling	4	
Radial tooling size	ER-20	
Radial live tooling servo motor	1.5 kw	
Radial live tooling max. speed	6000 rpm	
No. of Axial live tooling	3	
Axial tooling size	ER-20	
Axial live tooling servo motor	0.75 kw	
Axial live tooling max. speed	6000 rpm	
<b>Sub Spindle Live Tooling</b>		
No. of Axial live tooling	4	
Axial live tooling servo motor	0.75 kw	
Axial live tooling max. speed	6000 rpm	
<b>Hydraulic &amp; Coolant motor</b>		
Hydraulic motor	1 HP	
Spindle upper flush pump	1 HP	
<b>Tank capacity</b>		
Hydraulic tank	46 L	
Coolant tank	240 L	
<b>Machine specification</b>		
Auto lubricator capacity	3~6 cc / 15 min	
Power	220 V, 31 KVA	
Machine size (L x W x H) (includes chip conveyor)	3050 x 1882 x 1973	
Machine N.W.(includes chip conveyor)	3800 kg	

### STANDARD ACCESSORIES

- Tool kit
- Drilling shaft ER20 x 6
- Collet chuck device
- Auto bar feeder interface
- Finished parts catcher & conveyor
- Auto power breaker
- Cross side live tooling device
- Front side live tooling device
- Back side live tooling device
- Sub spindle finished parts ejector
- Air conditioner for electrical cabinet
- Chip washing coolant device & Air blowing device
- \* Cutting fluid pump
- \* Cutting fluid inspection device
- \* Sub spindle air-blowing device

### OPTIONAL ACCESSORIES

- Screw type chip conveyor & cart
- Steel belt chip conveyor & cart
- Voltage stabilizer / Transformer
- High pressure coolant device
- Gripper device
- Bar feeder
- Oil skimmer
- Oil mist collector