

CB-36M DIRECT DRIVE

FIXED HEAD CNC LATHES

Solve your complex precision parts machining problem.

- + Back Milling Device
- + Sliding Head without Guide Bush
- + Chip Breaking Functionality

 **Machinery**
CHIAH CHYUN

CHIAH CHYUN MACHINERY CO., LTD.

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

TEL: +886-4-2533-7614

FAX: +886-4-2532-9524

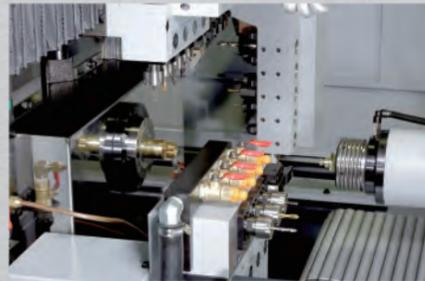
E-mail: info@chiah-chyun.com

www.chiah-chyun.com



Make Complicated Parts In One Operation

Enhanced roundness and accuracy are achieved, as there are no gears or belts causing vibrations.



A Most Versatile CNC Lathes

The CB will fully meet your expectations. No matter what operation—turning, milling, drilling, tapping, cutting and back machining, the CB does it all in one setup. It can bring higher efficiency and greater profitability.

Powerful Chip Breaking Functionality

Chip Breaking functionality solves the problem of chips entangling around the cutting tool and workpiece, reducing the need for tool retraction to clear chips significantly, thus enhancing machining efficiency.



Without Chip Breaking

With Chip Breaking

- + Ø36 mm bar capacity
- + Collet chucking system
- + Sliding headstock design
- + A combination of main and sub-spindle

- + PC-based control
- + Linear guides on axes
- + X,Y,Z-axis rapid traverses 30m/min
- + Finished parts catcher and conveyor



Applications

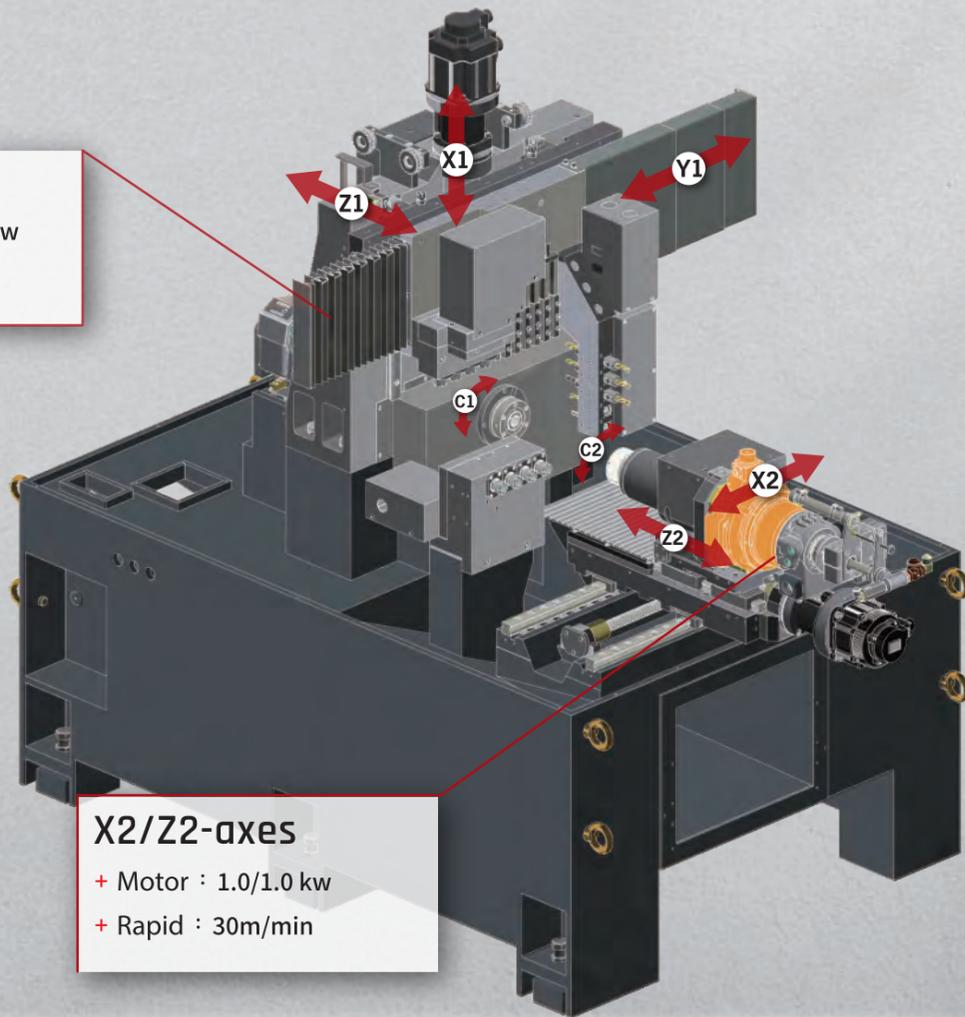
- + Automotive, motorcycle and bicycle parts
- + Electronic and electrical parts
- + Instrument parts
- + Pneumatic and hydraulic parts
- + Sanitary and toilet wares
- + Hardware accessories



One-piece Casting Flat Bed Design

X1/Y1/Z1-axes

- + Motor : 1.5/1.0/1.0 kw
- + Rapid : 30m/min



X2/Z2-axes

- + Motor : 1.0/1.0 kw
- + Rapid : 30m/min

Sliding Head without Guide Bush

When machining without guide bush, is ideal for making relatively short parts.

Saves more production costs and more convenient to operation.

- + Faster Setups.
- + Shorter Remnants.
- + No Need to Use Polished Round Bar.

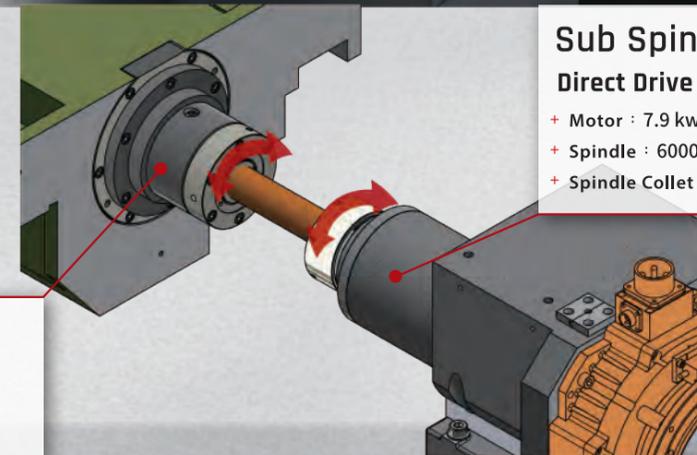
- + Increased efficiency
- + Lower production cost
- + Greater profitability

Powerful Direct Drive Spindles



Roller-type Linear Guide

Each axes are moves by two precision roller type linear guides, that are combined with extra large span between linear guides for outstanding stability and positioning accuracy.

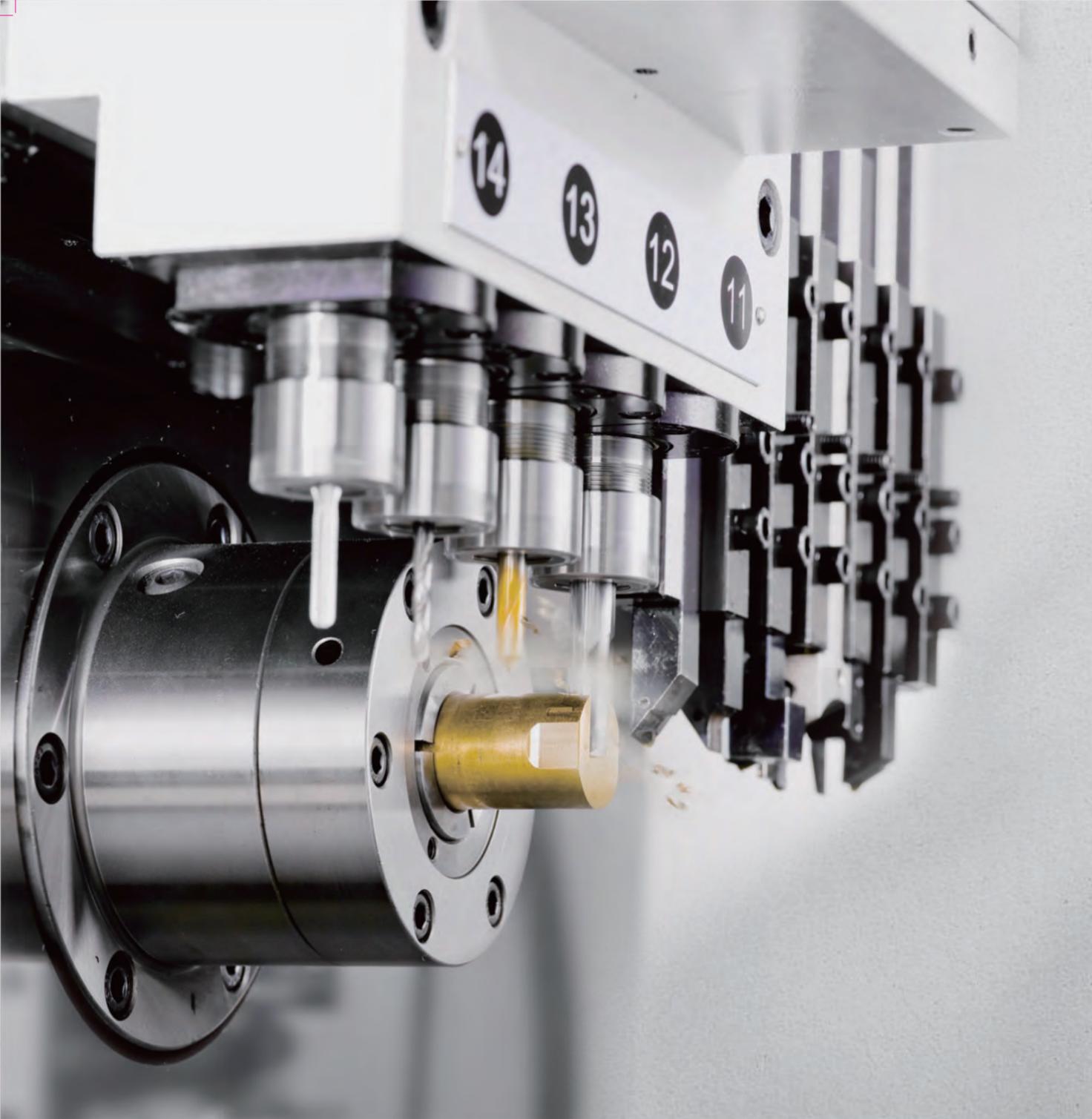


Sub Spindle Direct Drive

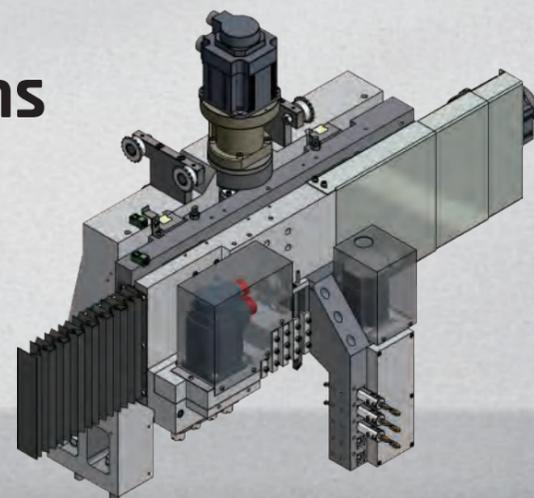
- + Motor : 7.9 kw
- + Spindle : 6000 rpm
- + Spindle Collet : 171E(TRB-36)

Spindle Direct Drive

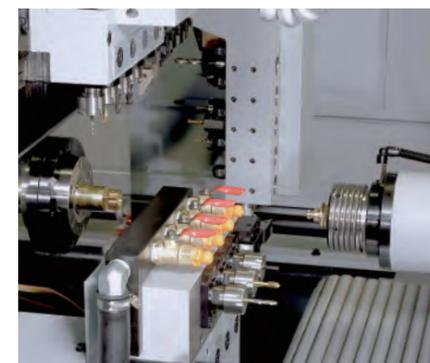
- + Motor : 7.9 kw
- + Spindle : 6000 rpm
- + Spindle Collet : 171E(TRB-36)



Multiple Tooling Systems Have Broad Cutting Application



FLEXIBLE MACHINING

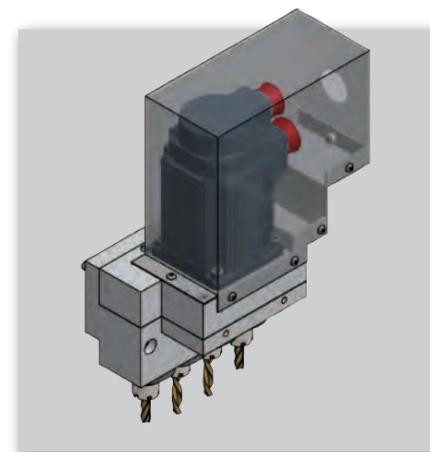
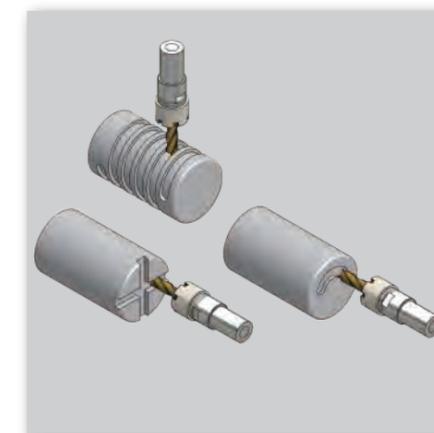


The Front Side Machining

- + Front side multiple tools are suitable for complex parts.
- + 4+3 live tools driven by servo motor.
- + It can be fitted with 6 O.D. tools and 5 I.D. tools.

C-axis Contouring Capability

- + 0.001 mm extra high indexing resolution ensures high precision contouring and positioning.

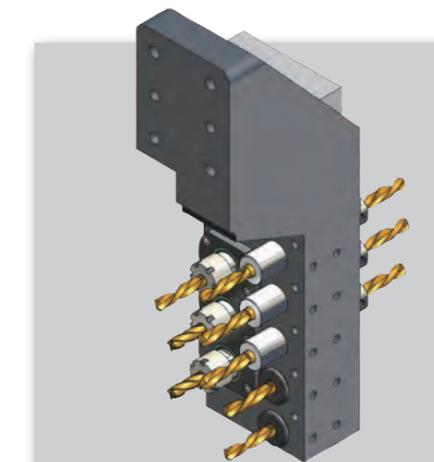


Radial Milling Device

- + The radial milling device is mounted at the top side of the main spindle.
- + 4 live tools are driven by a 1.5kW motor.
- + Maximum live tooling speed is 6000rpm.

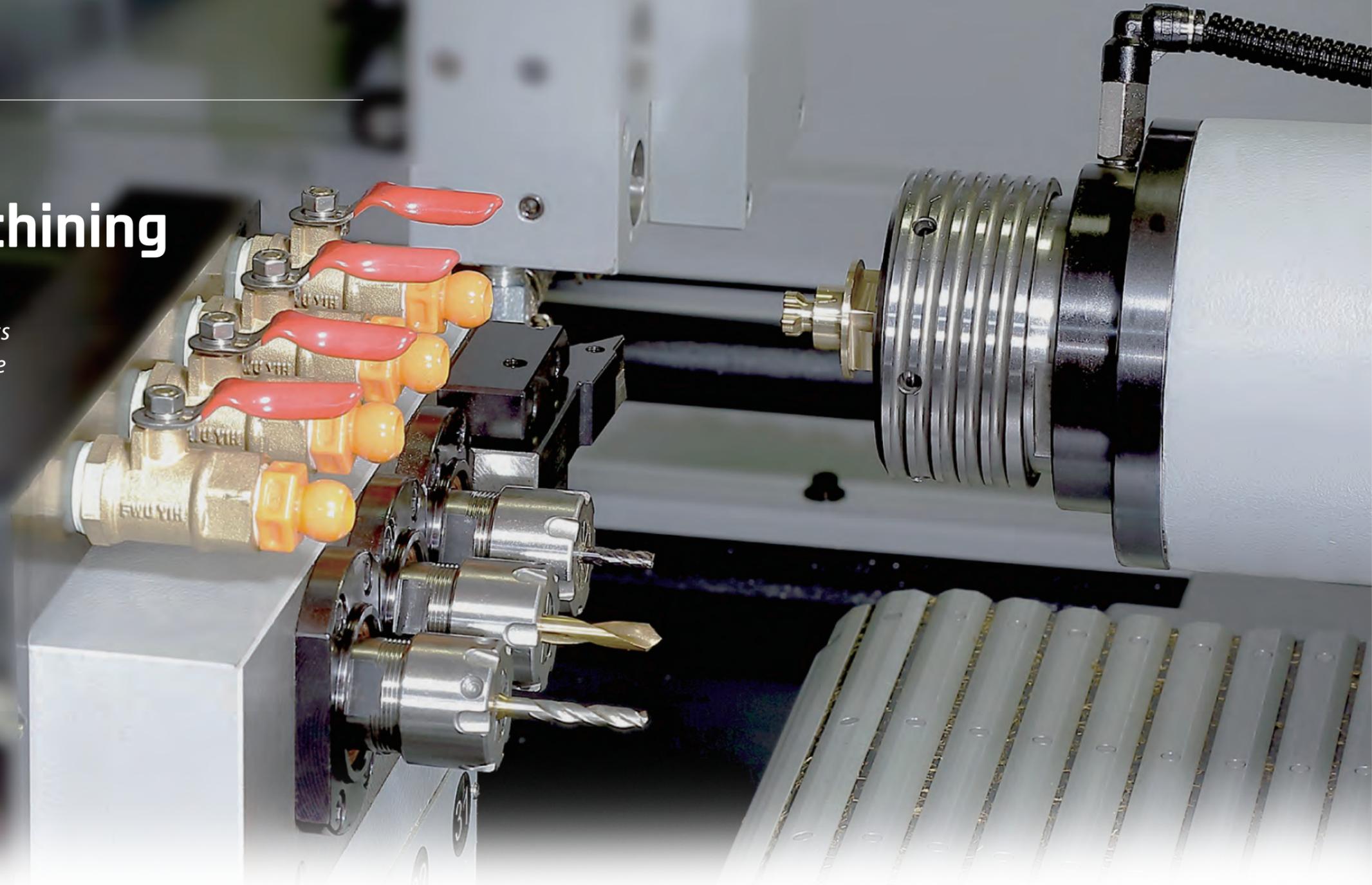
Axial Milling Device

- + The axial milling device consists of 3 live tools and 5 turning tools, and it is mounted in front of the main spindle.
- + Live tooling are driven by a 0.75kw servo motor.
- + Maximum live tooling speed is 60000rpm.



The Back Side Machining

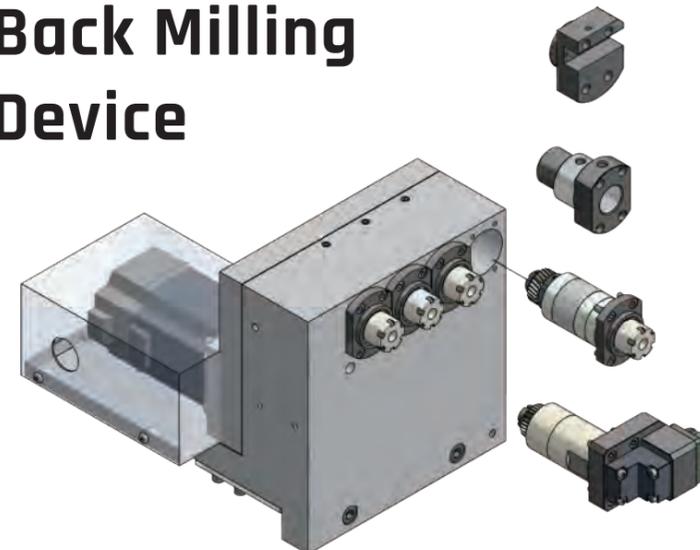
The back side machining mechanism consists of a sub-spindle head & a back milling device



Sub Spindle Assembling

- + Back milling device is capable of performing milling, drilling and tapping operations for the back side of a part.
- + Maximum live tooling speed is 6000rpm.
- + 4 live tools are driven by 0.75kW servo motor.
- + Changing the tool holder is done easily by simply loosening 4 lock screws.
- + Upon request, the back milling device is available to mount with O.D. or I.D. tool.

Back Milling Device



+ O.D.
Tool Holder

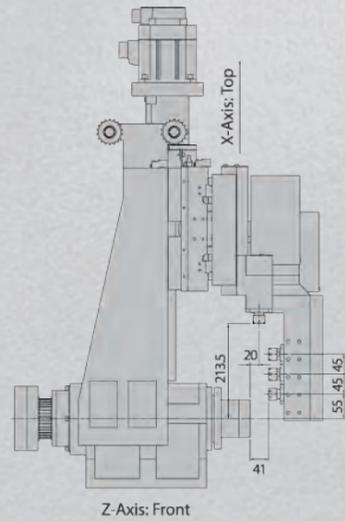
+ I.D.
Tool Holder

+ Axial Live
Tool Holder

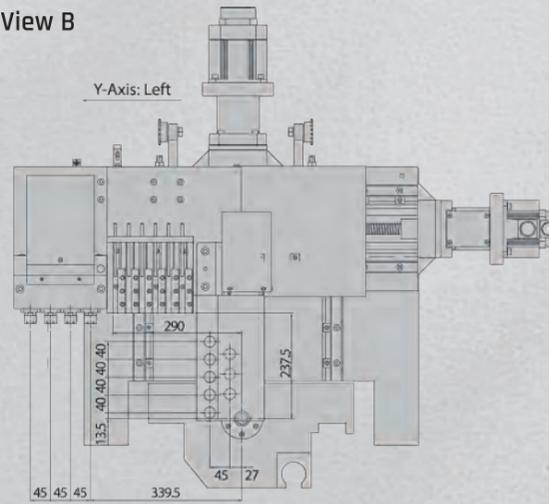
+ Radial Live
Tool Holder

Interference Diagram

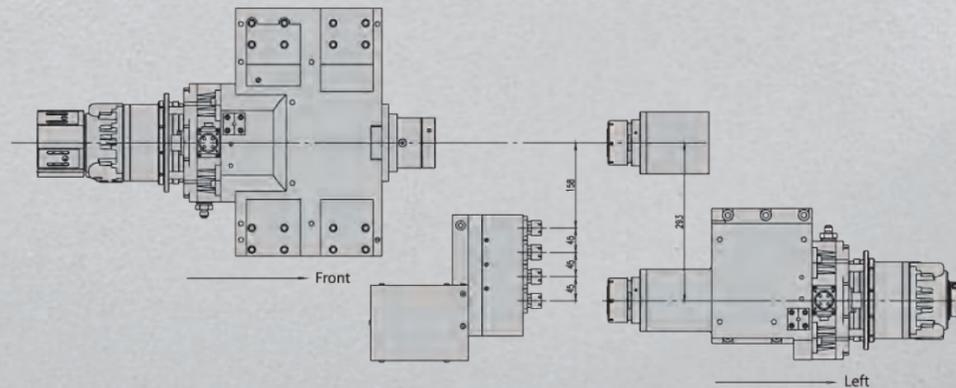
+ View A



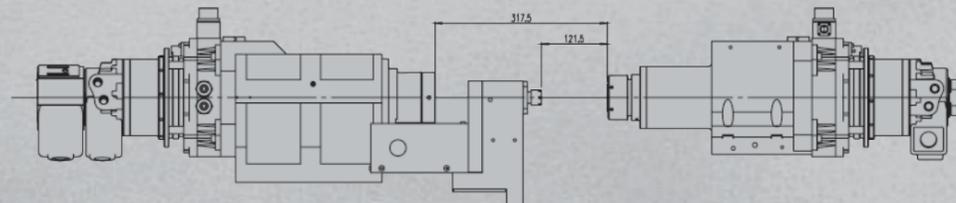
+ View B



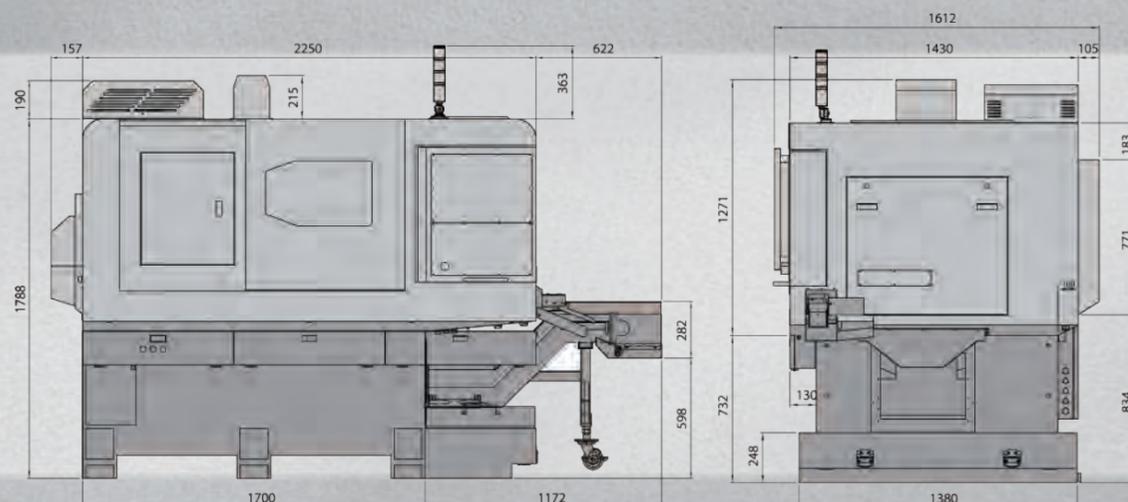
+ View C



+ View D



Machine Dimensions



Machine Specifications

CB-36M

Capacity

Controller	Syntec	Mitsubishi
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Axis Travel

X1 / X2-axes travel	185 / 290 mm
X1 / X2-axes servo motor	1.5 kw / 1.0 kw
Y / Z1 / Z2-axes travel	490 / 165 / 285 mm
Y / Z1 / Z2-axes servo motor	1.0 kw
X / Y / Z-axes rapid traverse	30m/min

Spindle

Max. bar feeding dia.	Ø36 mm
Spindle servo motor	7.9 kw
Max. spindle speed	6000 rpm
Collet of spindle	TRB-36
C-axis index positioning	0.001°
No. of O.D. turning tool	6 pcs (Op: 5 pcs)
O.D. turning tool size	□ 12 mm (Op: □ 16 mm)
No. of I.D. turning tool	5 pcs
I.D. turning tool size	Ø25mm

Sub Spindle

Max. bar feeding dia.	Ø36 mm
Sub spindle servo motor	7.9 kw
Max. sub spindle speed	6000 rpm
Collet of sub spindle	TRB-36
C-axis index positioning	0.001°
No. of I.D. turning tool	4 pcs
I.D. turning tool size	Ø25 mm

Spindle Live Tooling

No. of Radial live tooling	4 pcs
Radial tooling size	ER-20
Radial live tooling servo motor	1.5 kw
Max. radial live tooling speed	6000 rpm
No. of Axial live tooling	3 pcs
Axial tooling size	ER-20
Axial live tooling servo motor	0.75 kw
Max. axial live tooling speed	6000 rpm

Sub Spindle Live Tooling

No. of Axial live tooling	4 pcs
Axial tooling size	ER-20
Axial live tooling servo motor	0.75 kw
Max. axial live tooling speed	6000 rpm

Hydraulic & Coolant Motor

Hydraulic motor	1 HP / 0.75 kw
Spindle upper flush pum	1 HP / 0.75 kw
Tool coolant pump	1 HP / 0.75 kw

Tank Capacity

Hydraulic tank	46 L
Coolant tank	240 L

Machine Specification

Voltage stabilizer / Transformer	220 V / 20 KVA
Machine size (L x W x H) (includes chip conveyor)	3029 x 1612 x 2151 mm
Machine N.W. (includes chip conveyor)	4000 kg

Standard Accessories

- + Tool Kit & Box
- + Drilling Shaft ER-20
- + Collet Chuck Device
- + Auto Bar Feeder Interface
- + Finished Parts Catcher & Conveyor
- + Auto Power Breaker
- + Radial Live Tooling Device
- + Axial Live Tooling Device

- + Back Side Live Tooling Device
- + Sub Spindle Finished Parts Ejector
- + Air Conditioner for Electrical Cabinet
- + 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