

Machinery
CHIAH CHYUN

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CB-32M / CB-36M

CNC TURN & MILL LATHES

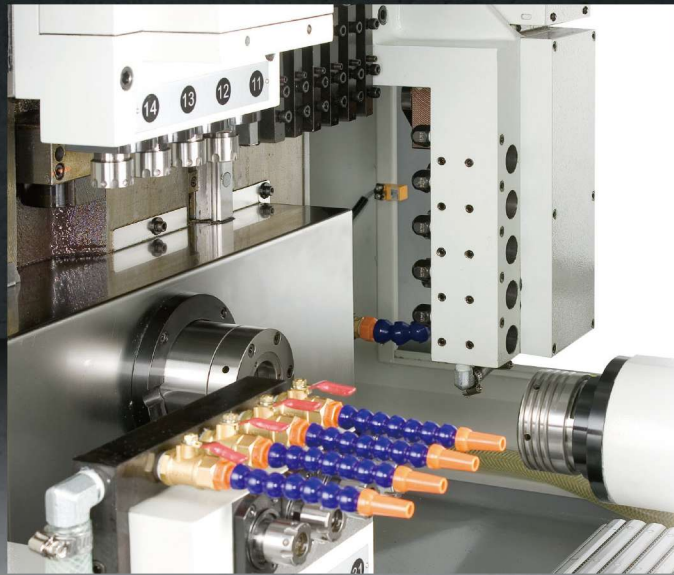
Solve your complex precision parts machining problem.

+ Back Milling Device

Make Complicated Parts in One Operation

Dramatically reduced machining time and improved quality

- + Ø32/36 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.



A Most Versatile CNC Lathe

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 set up. It can bring higher efficiency and greater profitability.



Applications

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



Free
Cutting Steel



Aluminium



Free
Cutting Steel



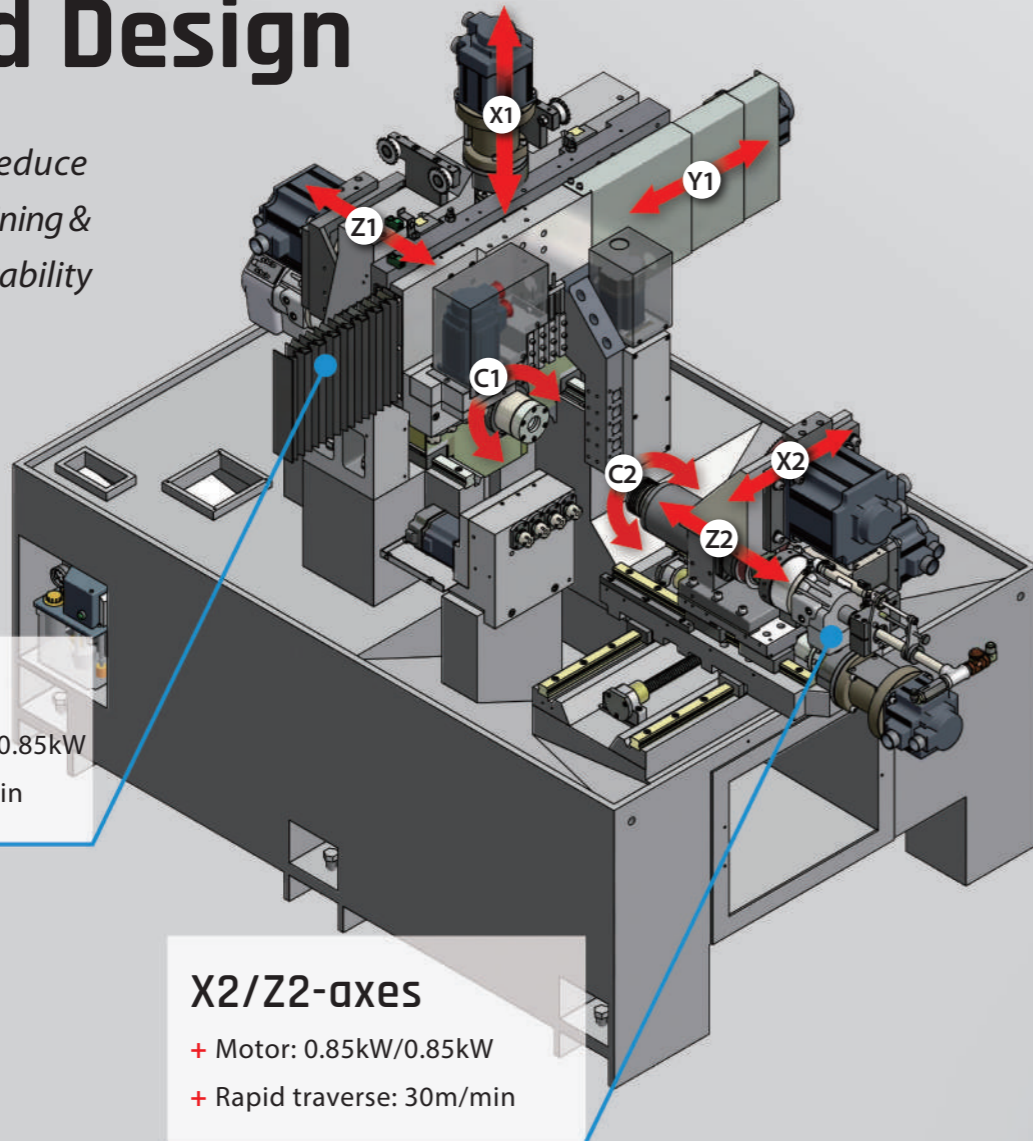
Brass



Brass

One-piece Casting Flat Bed Design

The rigidity casting reduce vibration during machining & increase the cutting stability

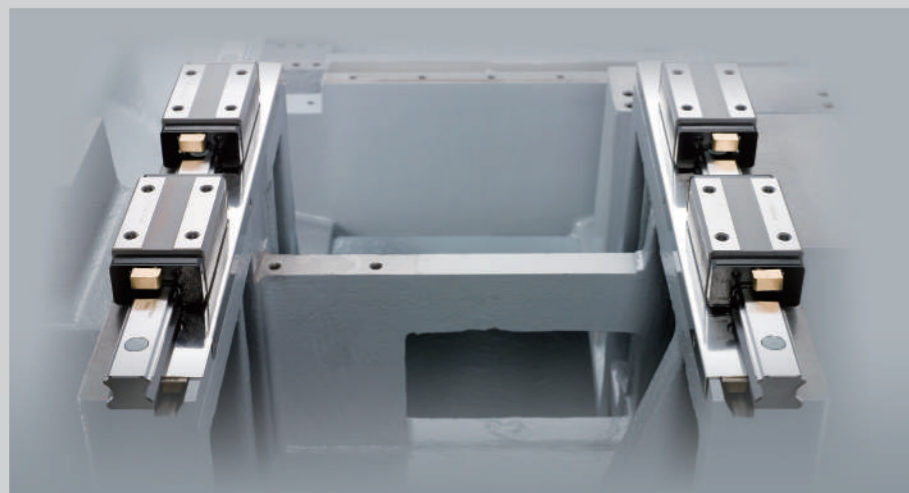


X1/Y1/Z1-axes

- + Motor: 1.3kW/0.85kW/0.85kW
- + Rapid traverse: 30m/min

X2/Z2-axes

- + Motor: 0.85kW/0.85kW
- + Rapid traverse: 30m/min



Roller-type Linear Guide

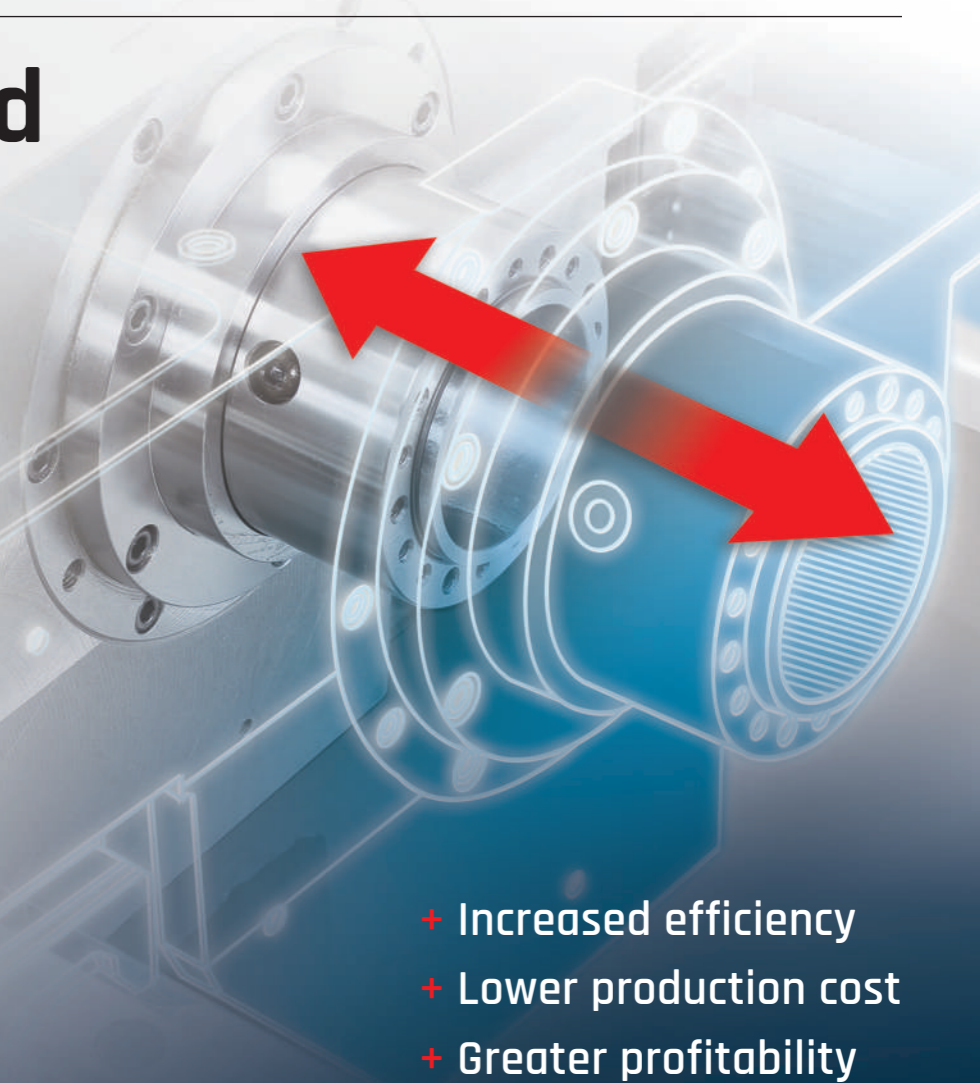
Each axes are moves by two precision roller type linear guides, that are combined with extra large span between linear guides for outstanding stability and positioning accuracy.

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

Superior Spindles

Main Spindle Belt-drive Type Spindle

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

Collet Chucking System

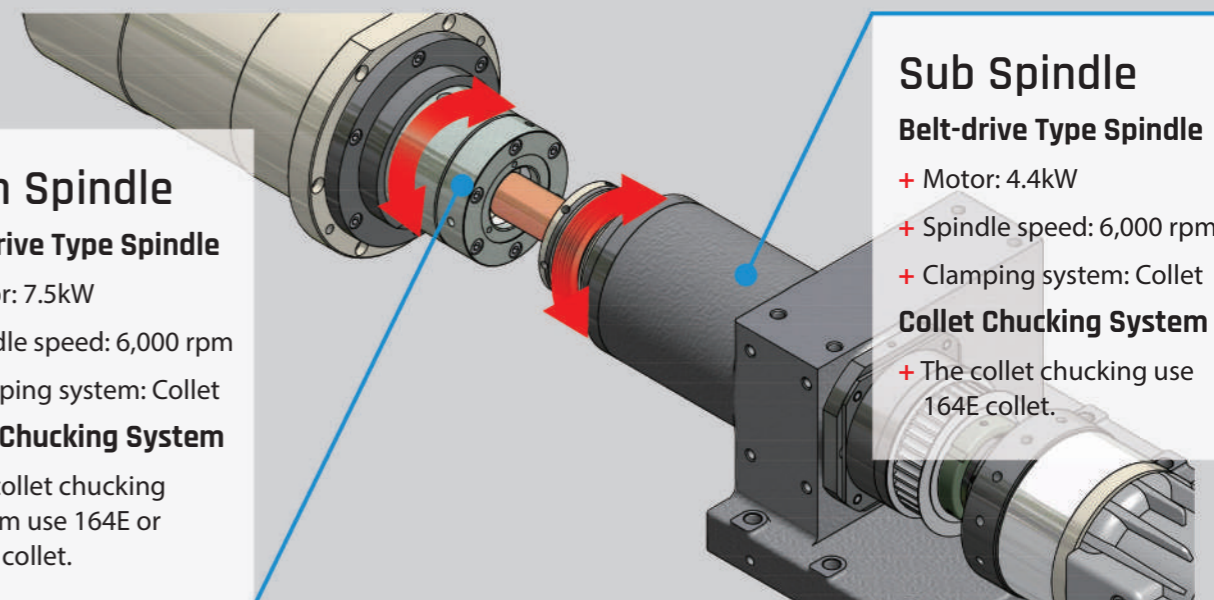
- + The collet chucking system use 164E or 171E collet.

Sub Spindle Belt-drive Type Spindle

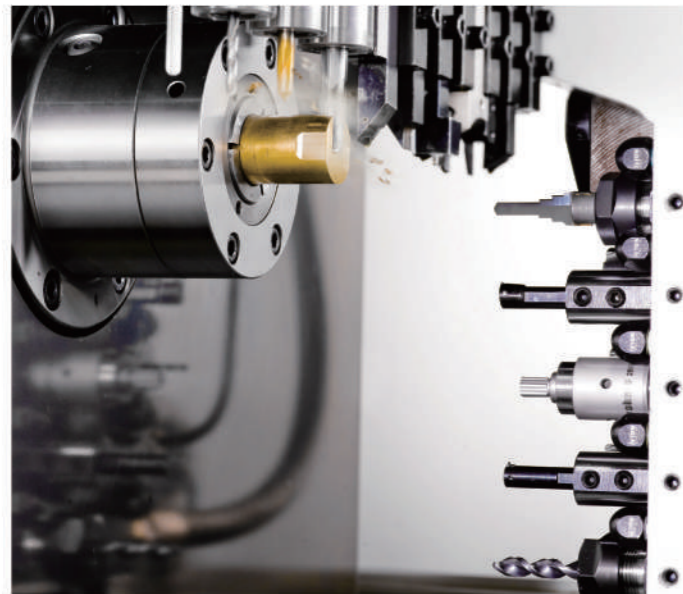
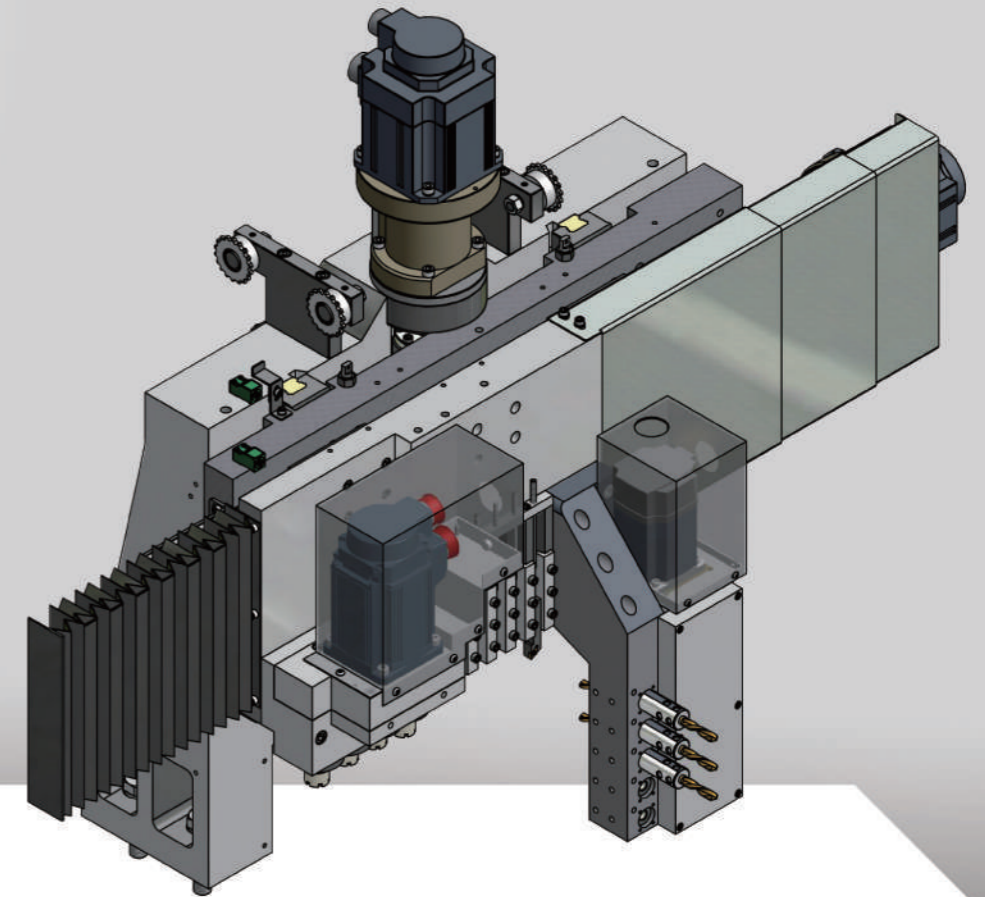
- + Motor: 4.4kW
- + Spindle speed: 6,000 rpm
- + Clamping system: Collet

Collet Chucking System

- + The collet chucking use 164E collet.

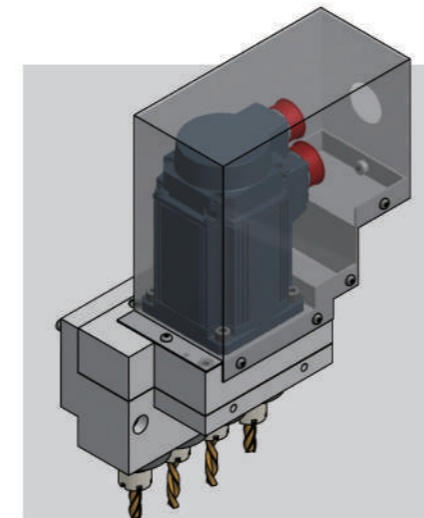


Multiple Tooling Systems Have Broad Cutting Application



The Front Side Machining

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

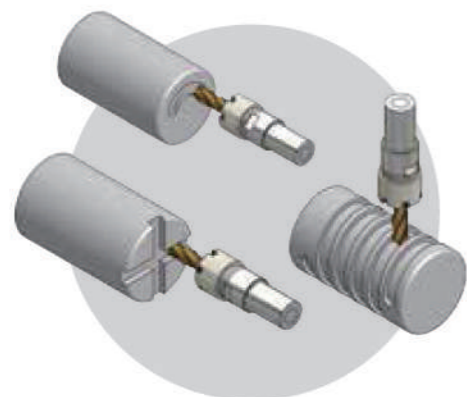


Radial Milling Device

- + 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.

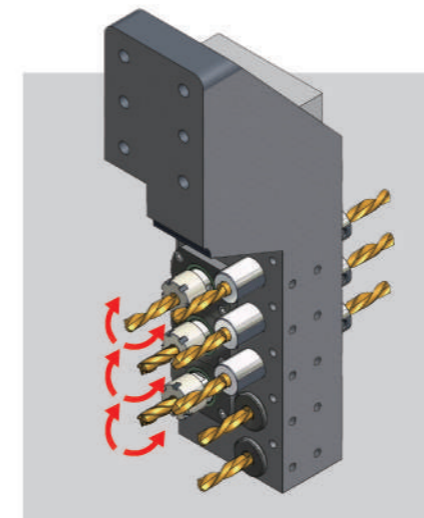


20x33 mm Steel



C-axis Contouring Capability

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



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 6000rpm.

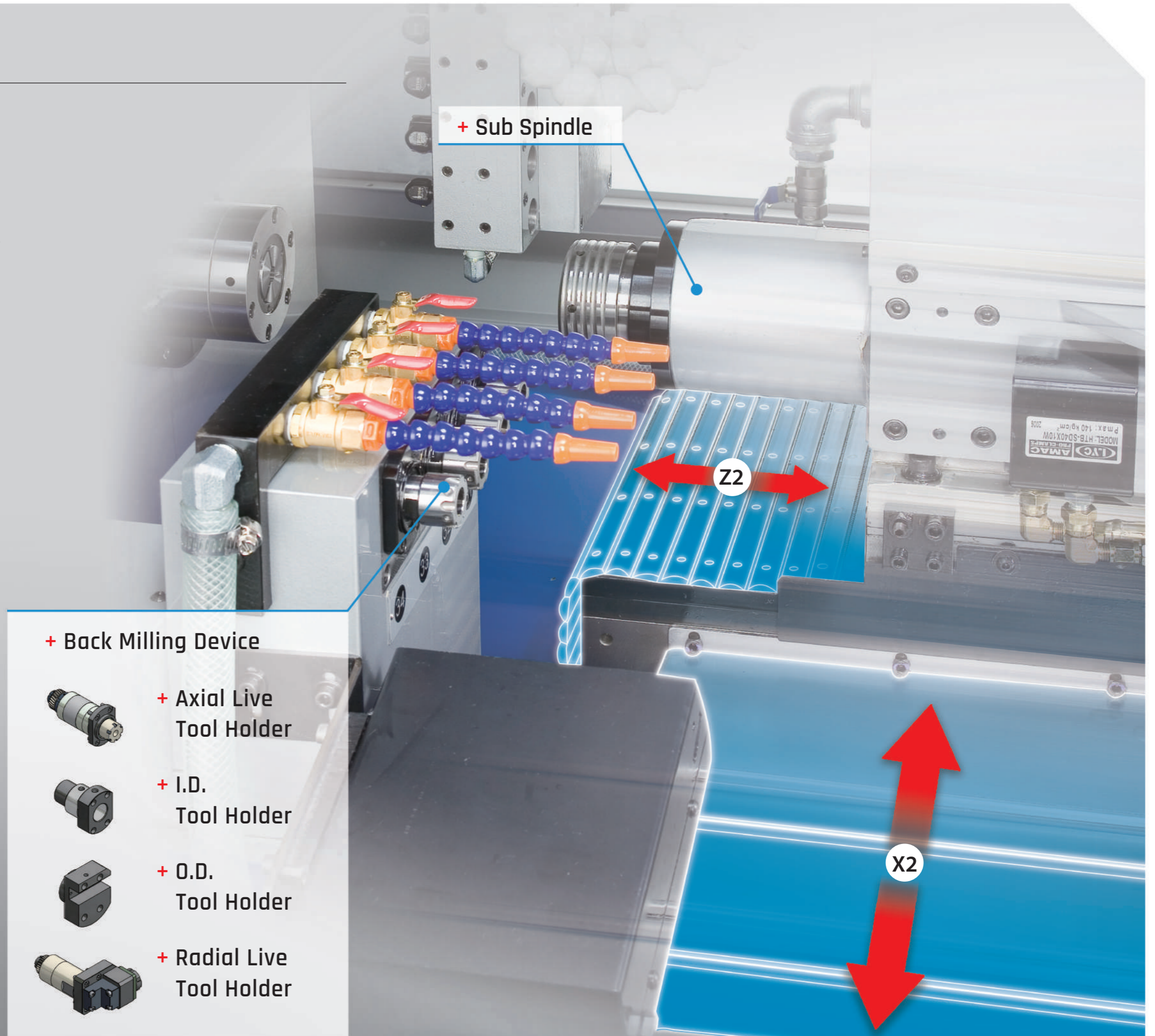


The Back Side Machining

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

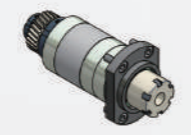
Sub Spindle Assembling

- + 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.



+ Sub Spindle

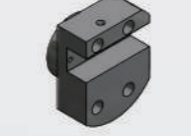
+ Back Milling Device



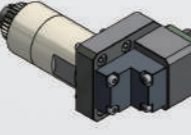
+ Axial Live Tool Holder



+ I.D. Tool Holder



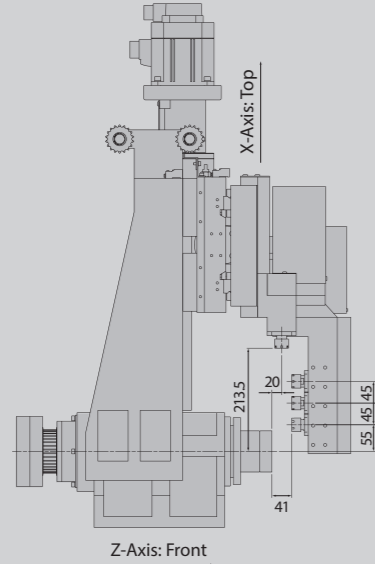
+ O.D. Tool Holder



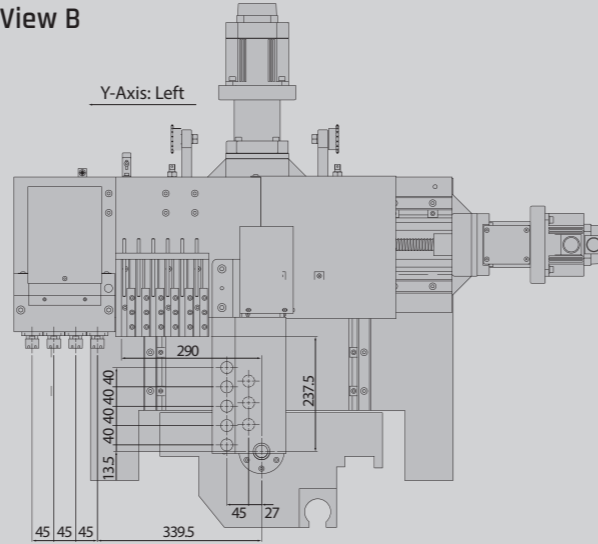
+ Radial Live Tool Holder

Interference Diagram

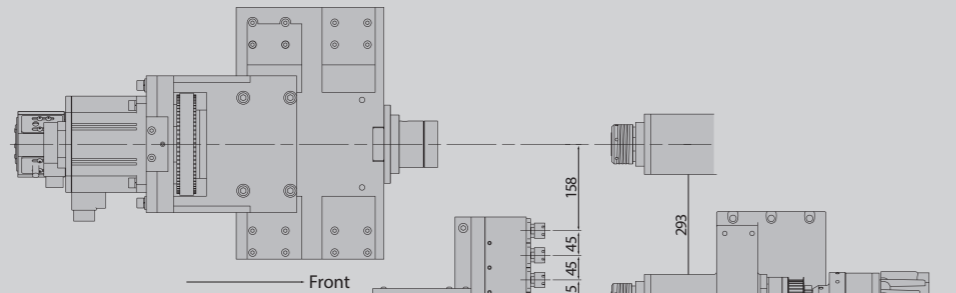
+ View A



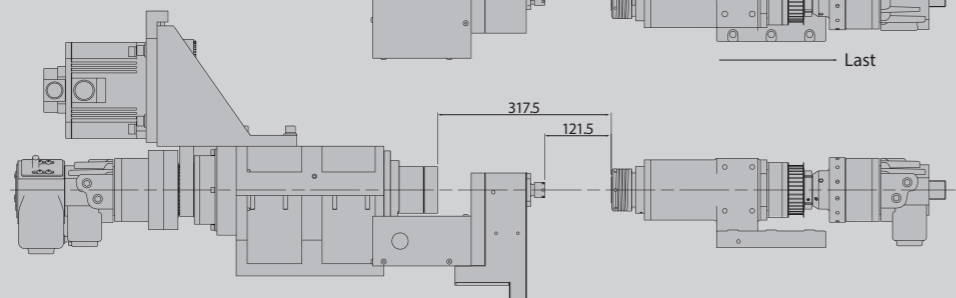
+ View B



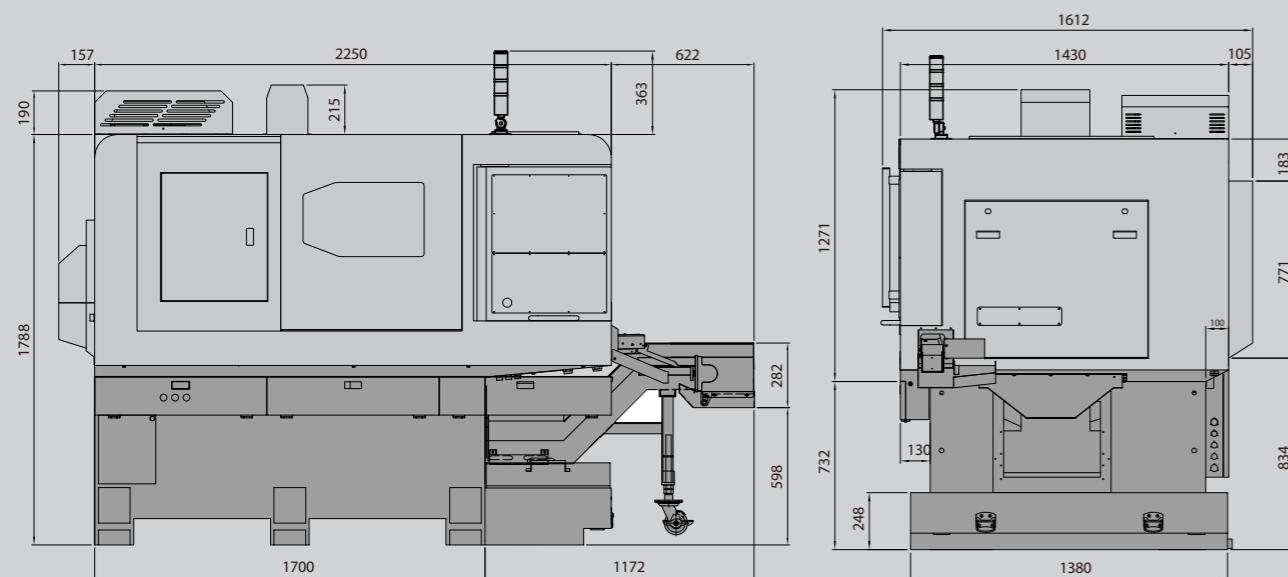
+ View C



+ View D



Machine Dimensions



Machine Specifications

CB-32M

CB-36M

Capacity

Controller	Syntec	Syntec
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Axis Travel

X1 / X2-axes travel	185 / 290 mm	185 / 290 mm
X1 / X2-axes servo motor	1.3 kW / 0.85 kW	1.3 kW / 0.85 kW
Y / Z1 / Z2-axes travel	490 / 165 / 285 mm	490 / 165 / 285 mm
Y / Z1 / Z2-axes servo motor	0.85 kW	0.85 kW
X / Y / Z-axes rapid traverse	30m/min	30m/min

Spindle

Spindle bore	Ø37 mm	Ø37 mm
Max. bar feeding dia.	Ø32 mm	Ø36 mm
Spindle servo motor	7.5 kW	7.5 kW
Max. spindle speed	6000 rpm	6000 rpm
Collet of spindle	TRB-32	TRB-36
C-axis index positioning	0.001°	0.001°
No. of O.D. turning tool	6 pcs (Op: 5 pcs)	6 pcs (Op: 5 pcs)
O.D. turning tool size	□ 12 mm (Op: □ 16 mm)	□ 12 mm (Op: □ 16 mm)
No. of I.D. turning tool	5 pcs	5 pcs
I.D. turning tool size	Ø25	Ø25

Sub Spindle

Sub spindle bore	Ø28 mm	Ø28 mm
Max. bar feeding dia.	Ø27.5 mm	Ø27.5 mm
Sub spindle servo motor	4.4 kW	4.4 kW
Max. sub spindle speed	6000 rpm	6000 rpm
Collet of sub spindle	TRB-32	TRB-32
C-axis index positioning	0.001°	0.001°
No. of I.D. turning tool	4 pcs	4 pcs
I.D. turning tool size	Ø25 mm	Ø25 mm

Spindle Live Tooling

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

Sub Spindle Live Tooling

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

Hydraulic & Coolant Motor

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

Tank Capacity

Hydraulic tank	46 L	46 L
Coolant tank	240 L	240 L

Machine Specification

Power	220 V, 31 kVA	220 V, 31 kVA
Machine size (L x W x H) (includes chip conveyor)	3029 x 1612 x 2151	3029 x 1612 x 2151
Machine N.W. (includes chip conveyor)	4000 kg	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