

Modular quick-change system provides solutions for different processing requirements



Advantages: high runout accuracy, high clamping force and stability, easy assembly, various connection methods, can be switched from traditional external clamping to internal expansion/three-claw or magnetic clamping, without disassembling the fixture.

Benefits: long service life, flexible manufacturing, reduced scrap, higher machineutilization efficiency.



OTURN

Ningbo Oturn Machinery Co.,Ltd(Overseas office)
info@oturnmachinery.com
www.oturnmachinery.com

TENOLY

Taiyu Precision Machinery(Zhejiang) Co., Ltd.
Address:Robot Industrial Park,
Longyou Economic Development Zone,Zhejiang Province, China



关注我们了解更多

TENOLY
台钰精机
禾川控股:688320



Composite High precision High efficiency
Energy saving Intelligent
Milling Turning
Gear turning Grinding



TENOLY Precision Machinery (Zhejiang) Co., Ltd. was established in 2020 with capital injection from HCFA Technology Co., Ltd. (688320) It is located in Phase III of the Robot Industrial Park, Longyou Economic development Zone, Quzhou City, Zhejiang Province. The plant area is 15000 square meters, with a team of more than 100 people, including more than 30 R&D technical engineers. The company has complete qualification certificates and a number of technical patents.

TENOLY Precision Machinery focuses on the field of turning, milling and grinding, vertical five-axis linkage turning and milling, horizontal nine-axis five-linkage turning and milling, and develops turning and milling compound equipment around the two major brands of "TENOLY, SENOLY" It follows the standardized and modular design concept, integrates turning, milling and grinding functions, and meets the processing needs of complex precision parts in multiple industries. The products are sold well in many places in China and exported to European countries.

In terms of building independent manufacturing capabilities (relying on affiliated companies in the park), TENOLY Precision Machinery has formed a complete industrial chain closed loop. In terms of shell sheet metal, it has the ability to design and manufacture industrial aesthetics, covering the whole process of phosphating pickling, spraying laser cutting, bending machine, etc.; in the development of the spindle, it has a professional dynamic balancing, temperature rise, and noise detection inspection room to ensure the excellent and stable performance of the spindle; the processing equipment is excellent, with high-end equipment such as Japan Nidec + Nicholas pentahedron gantry, Japan Makino horizontal machine, and Zeiss three -coordinate.

In terms of team service, the company focuses on high-end manufacturing, accurately grasps customer needs, and makes efforts in the fields of fixtures, tools, process technology applications, and all-round automation solutions, and is committed to providing customers with professional and complete services and equipment.

It has a global sample center to provide customers with services such as sample production and batch trial production until customers are completely satisfied, helping customers improve efficiency and competitiveness.



Horizontal five axis turning&milling center
MT-850/1250/1650B



Vertical five axis turning&milling center
VL-630B/800B



Hot sell CNC turning&milling machine
106/108/208



Large type CNC turning&milling machine
600/800/1200/1600/2000/3000



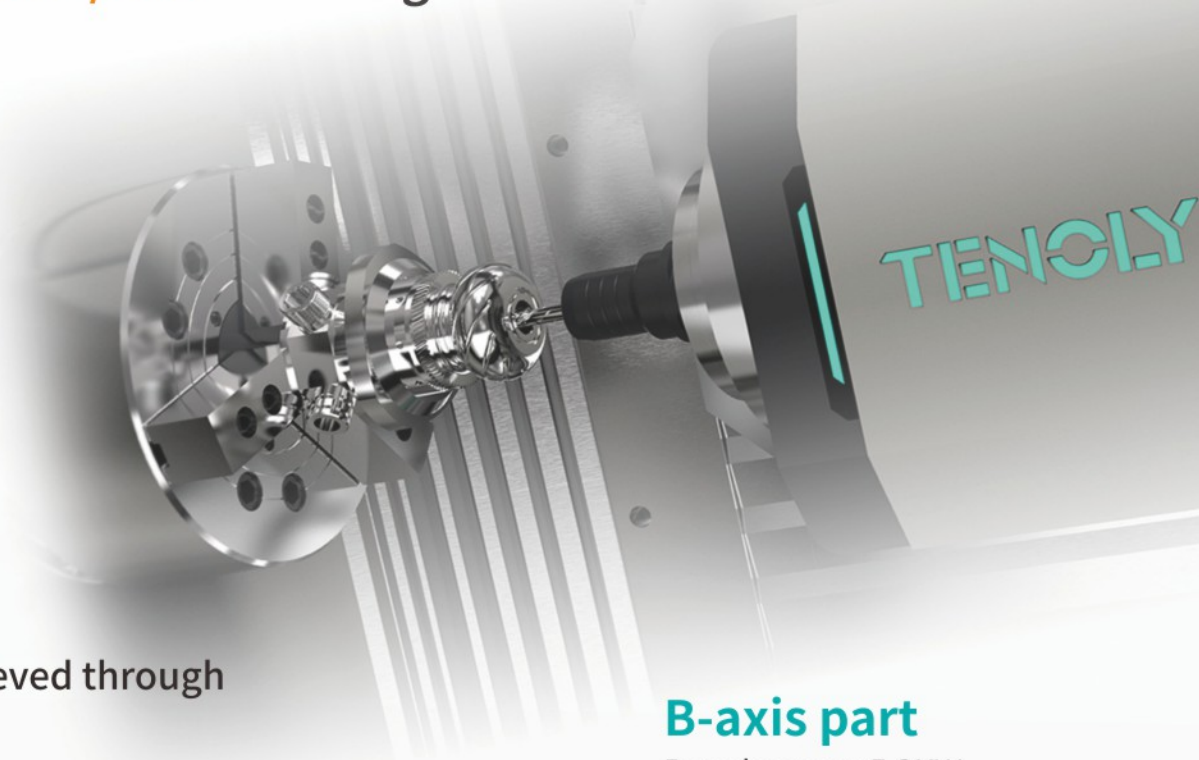
Heavy duty boxway CNC turning&milling machine
250L10/15/20/30

Horizontal five axis turning&milling center

◀ B axis swing 12000 rpm + ATC60/120 tool magazine

Turning

- Maximum bar diameter 76mm
- Maximum turning torque 400Nm
- Maximum turning diameter 500mm achieved through long-travel moving column



B-axis part

Rated power: 5.3KW
Locking torque: 2000NM
Maximum speed: 360rpm
Minimum indexing angle: 0.001°

Milling axis part

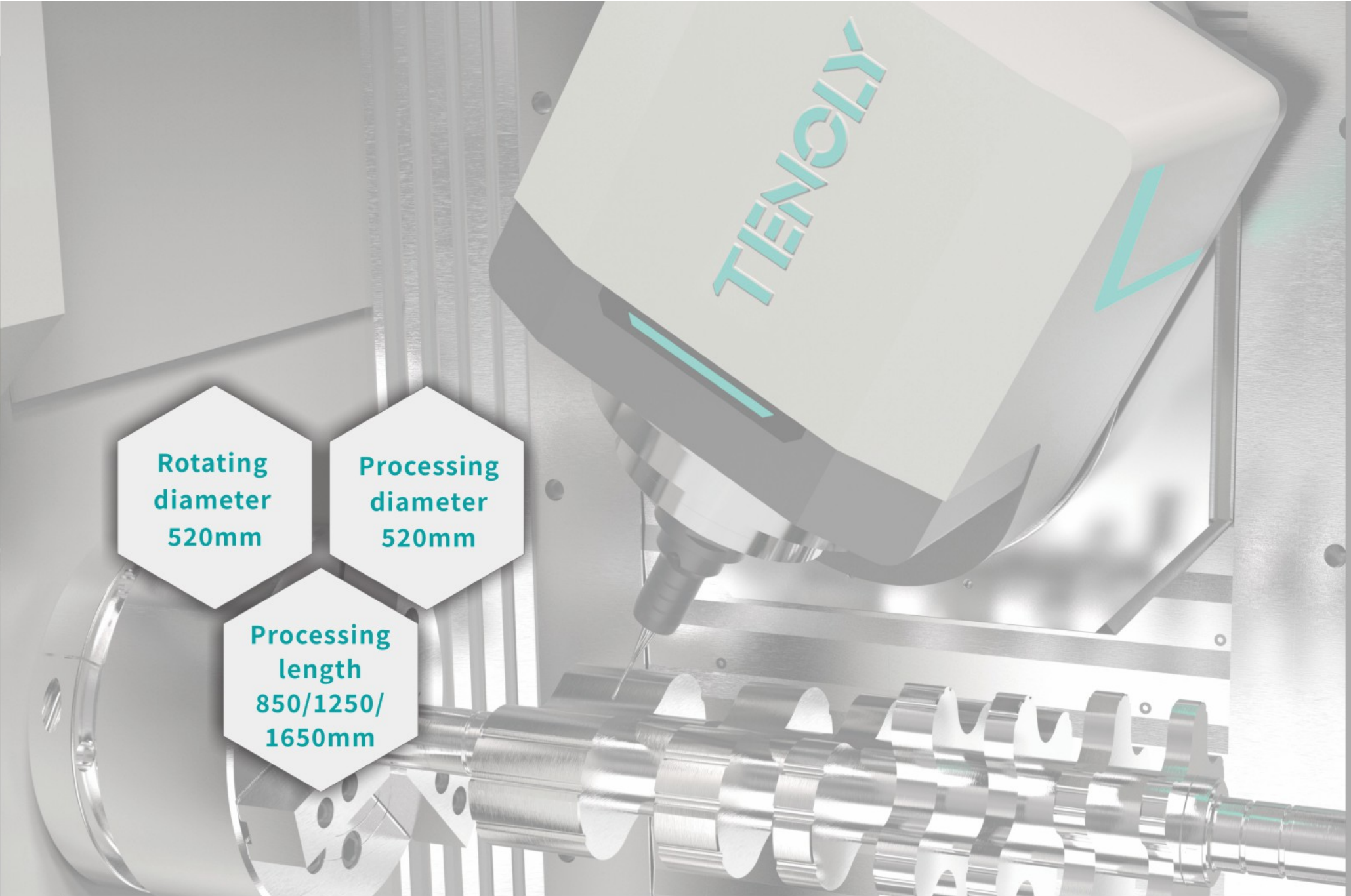
Power (S1-100%): 22KW
Torque (S1-100%): 88NM
Maximum speed: 12000rpm
Tool handle interface: CAPTO-C6 (HSK T63)
Broaching force: 28-39.6KN



MT850B/1250B/1650B

Highlights

- + Turning and milling spindle 12000 rpm
- + Workpiece diameter up to $\phi 500$ mm, turning length up to 850/1250/1650 mm
- + 8"/10"/12" spindle, 8"/10" sub-spindle
Multi-spec spindle chuck selection
- + The workspace is more spacious and transparent, with better accessibility, and the operating distance from the spindle center is minimized
- + The eccentric machining Y-axis travel is up to 105mm



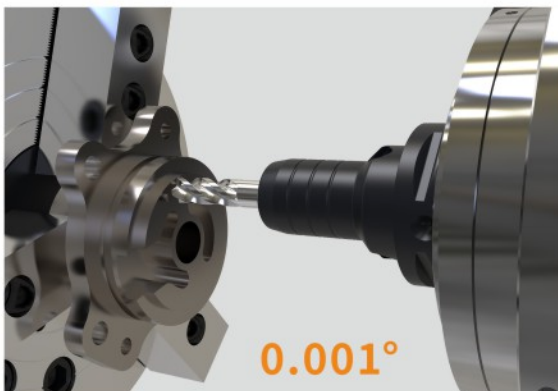
B-axis large angle

Continuous and precise braking and indexing at any angle of the B-axis



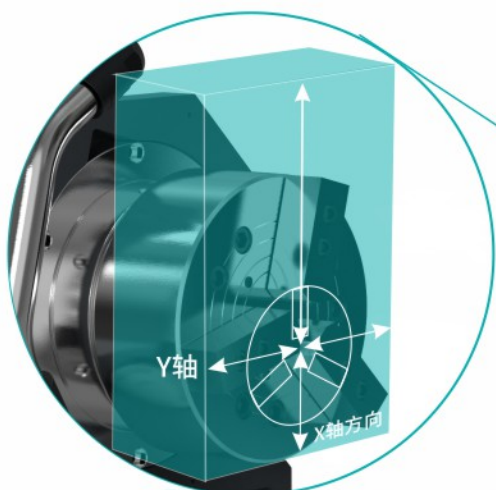
C-axis positioning control

C-axis positioning control in units of 0.001°



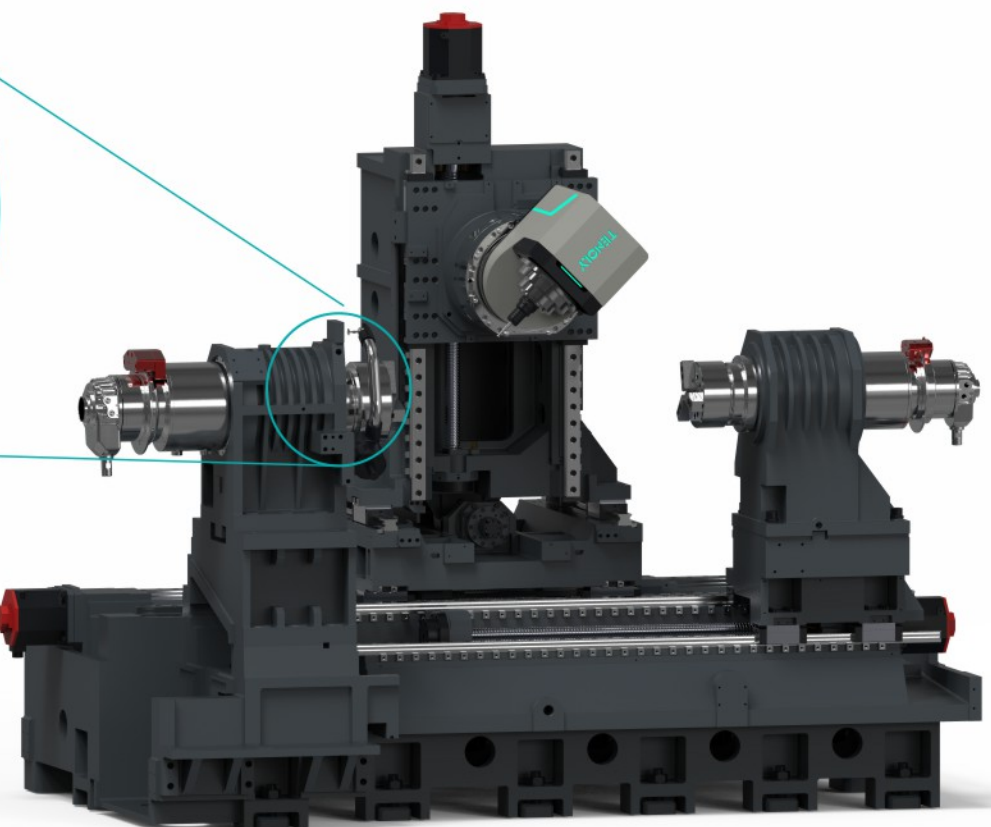
Automatic tool changer

Tool magazine capacity 60 tools can be increased to 120 tools



Highly efficient combination of milling spindle

Both the left and right spindles can perform high-precision C-axis operations, and by combining with the iron spindle, they can perform a variety of machining functions such as turning, iron cutting, and synchronous cutting in one clamping.



Vertical five axis turning&milling center

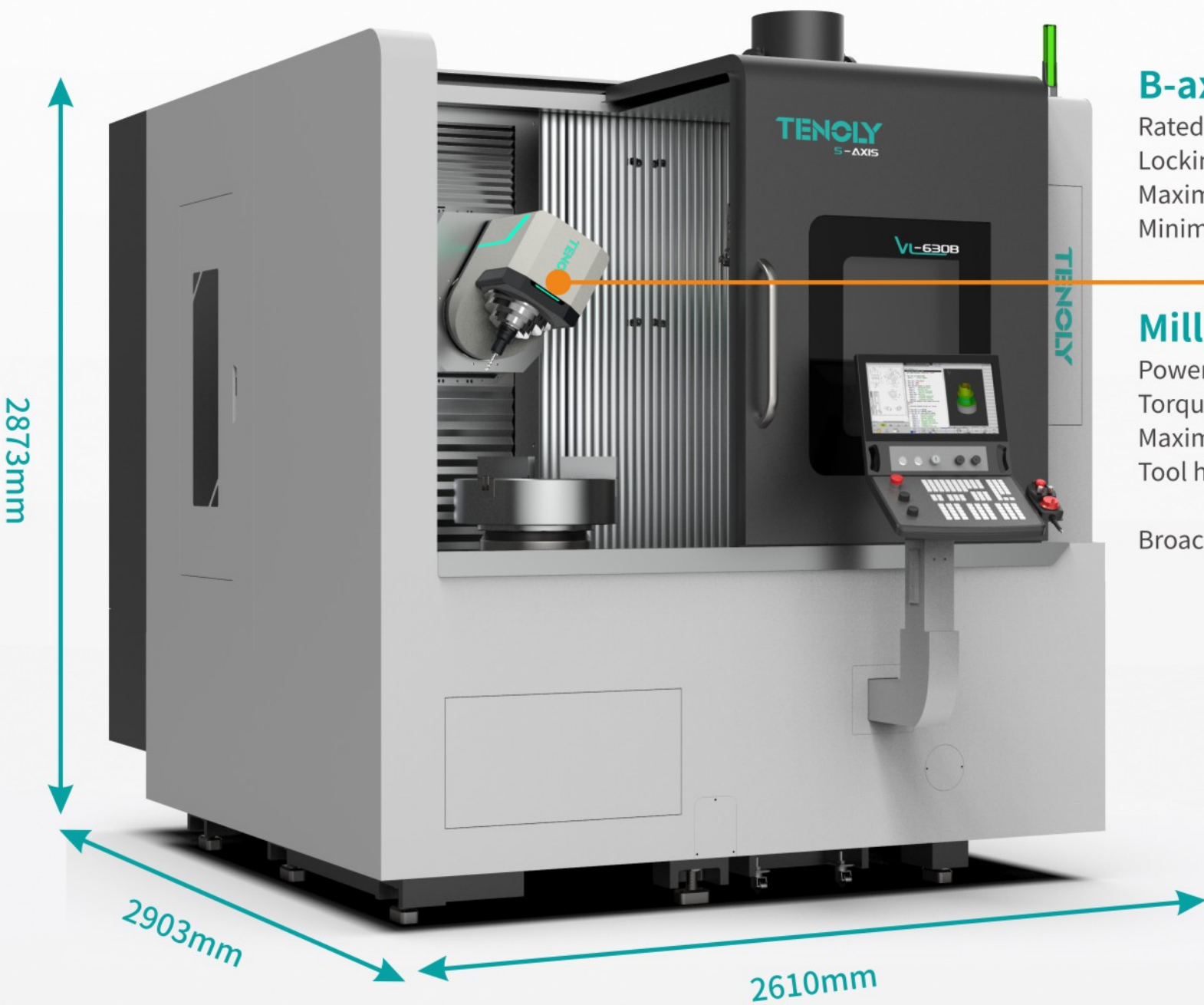
Milling Turning Gearing Grinding

High-precision multi-faceted and inclined surface processing, as well as linkage processing of complex contours, achieve high production efficiency

Rotation diameter
730/900mm

Processing diameter
630/800mm

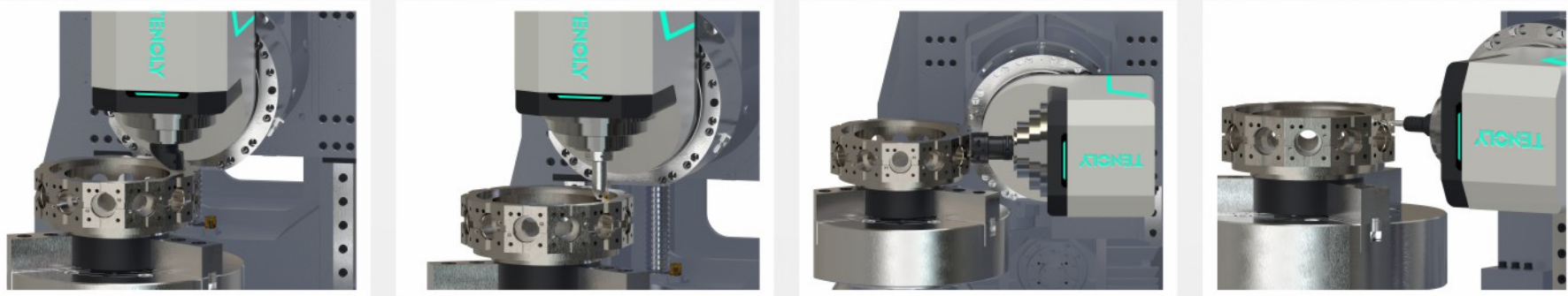
Processing length
675mm



VL630B/800B

Cutting performance

It exhibits good processing performance in turning, milling, drilling and tapping operations, and is suitable for composite processing of a variety of workpieces.

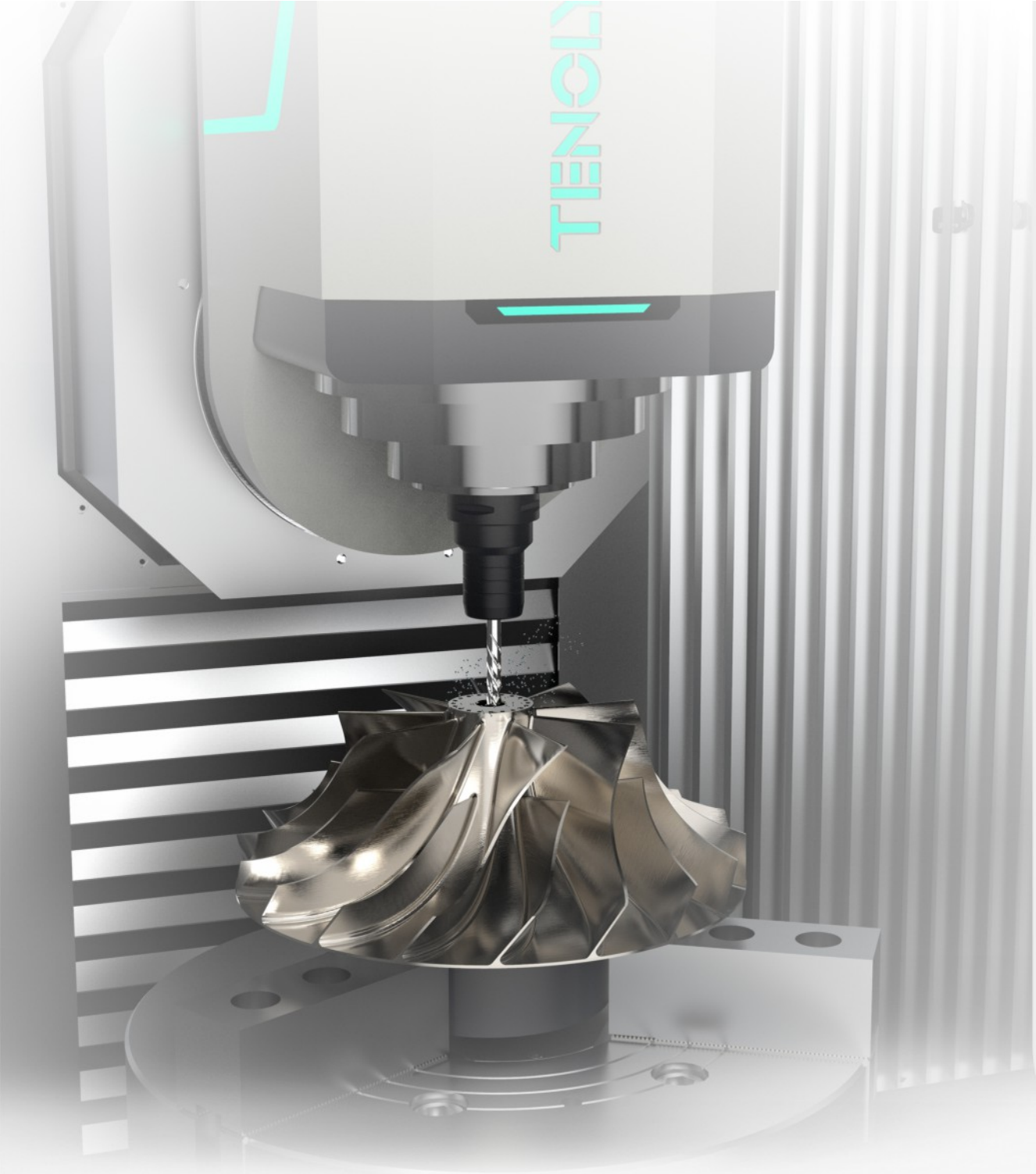


B-axis part

Rated power: 5.3KW
Locking torque: 2000NM
Maximum speed: 360rpm
Minimum indexing angle: 0.001°

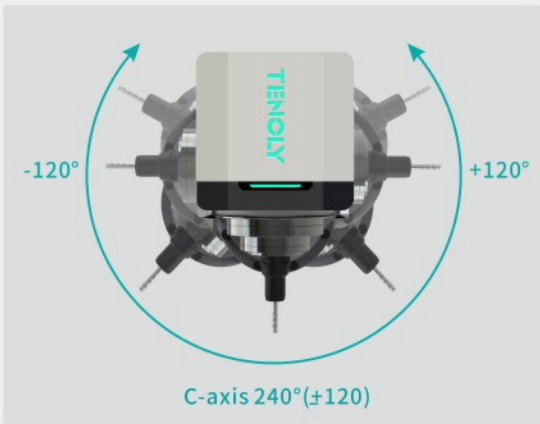
Milling spindle part

Power (S1-100%): 22KW
Torque (S1-100%): 88NM
Maximum speed: 12000rpm
Tool handle interface: CAPTO-C6 (HSKT63)
Broaching force: 28-39.6KN



B-axis large angle

Continuous and precise braking and indexing at any angle of the B-axis



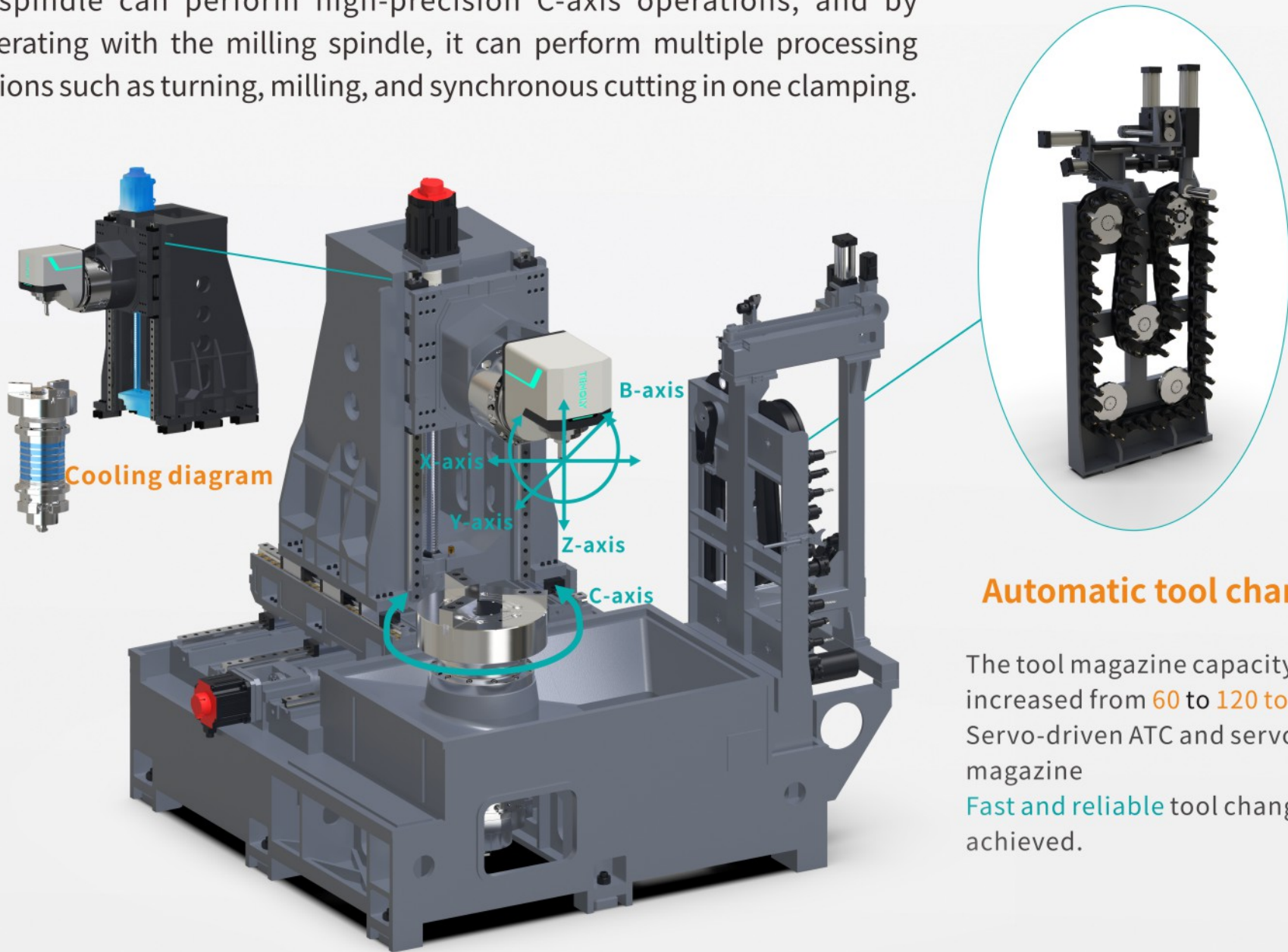
C-axis positioning control

C-axis positioning control in units of 0.001°



Efficient combination of milling spindle

The spindle can perform high-precision C-axis operations, and by cooperating with the milling spindle, it can perform multiple processing functions such as turning, milling, and synchronous cutting in one clamping.



Automatic tool changer

The tool magazine capacity can be increased from 60 to 120 tools
Servo-driven ATC and servo tool magazine
Fast and reliable tool change is achieved.

➤ Hot sell CNC turning&milling machine

High rigidity high precision Heavy cutting

The machine work very well without any letup,
from feeding to the finished products,
realizes automatic and efficient mass
production perfectly

Heavy-duty cast iron **HT300**
bases and components

Rotating
diameter
700mm

Processing
diameter
510mm

Processing
length
520mm



106/108/208/210NC M MY MS MSY

Machine protection function

- + Prevention of misoperation
- + Abnormal load detection
- + Tool life management

Process improvement functions

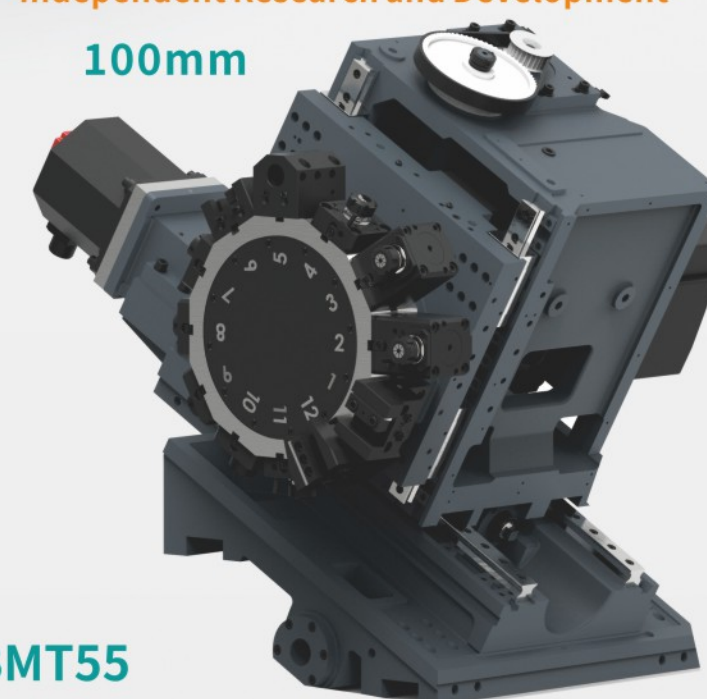
- + Spindle speed fluctuation anti vibration
- + Servo shaking chip breaker (optional)
- + Arbitrary speed thread cutting (optional)

Quality improvement and efficiency enhancement functions

- + Shorten the processing time of composite fixed cycle
- + High precision spindle speed command
- + Intelligent spindle load table

Independent Research and Development

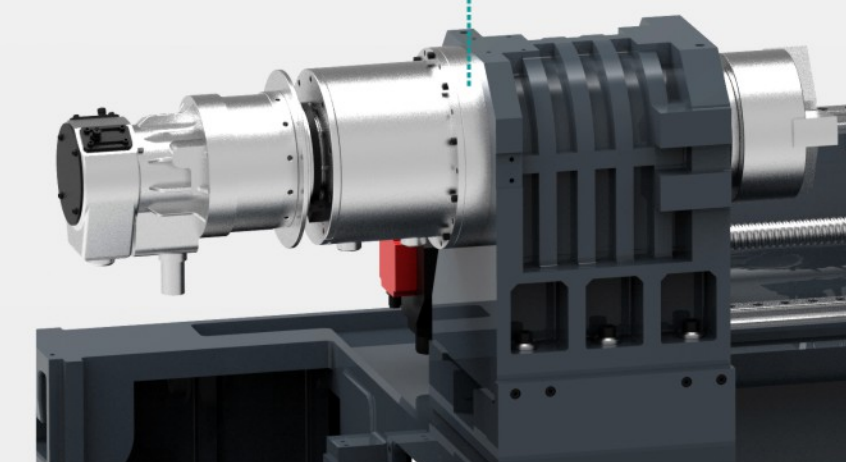
100mm



BMT55

Direct drive synchronous electric spindle

High rigidity and high torque
Better smoothness
More precise division



Unique turret design

Integrated positive Y-axis and gantry structure, super strong rigidity

Large type CNC turning&milling machine

Continuous progress and mature production solutions, decades of technological accumulation reflected in numerous design details

Excellent design/powerful performance

Achieve the ultimate in turning and milling processing

High end future type turning and milling compound machine

Max. rotating diameter 800mm

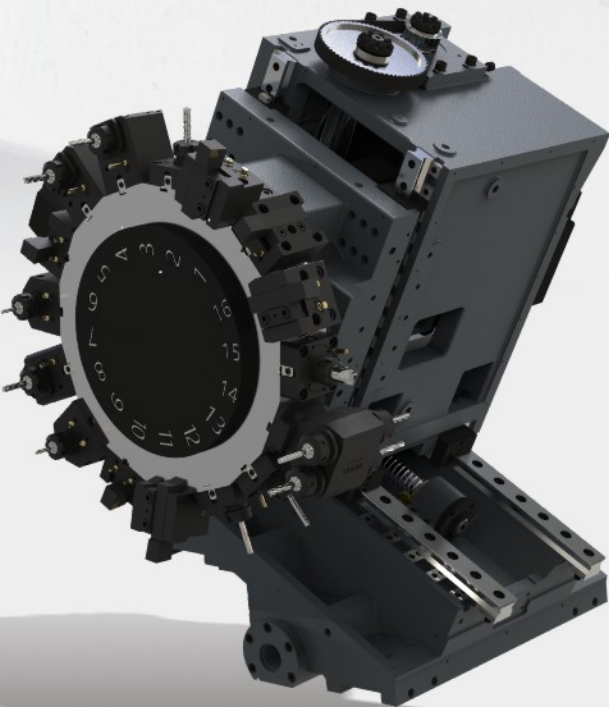
Max. processing diameter 640mm

Processing length 600/800/1200 /1600/2000 /3000mm

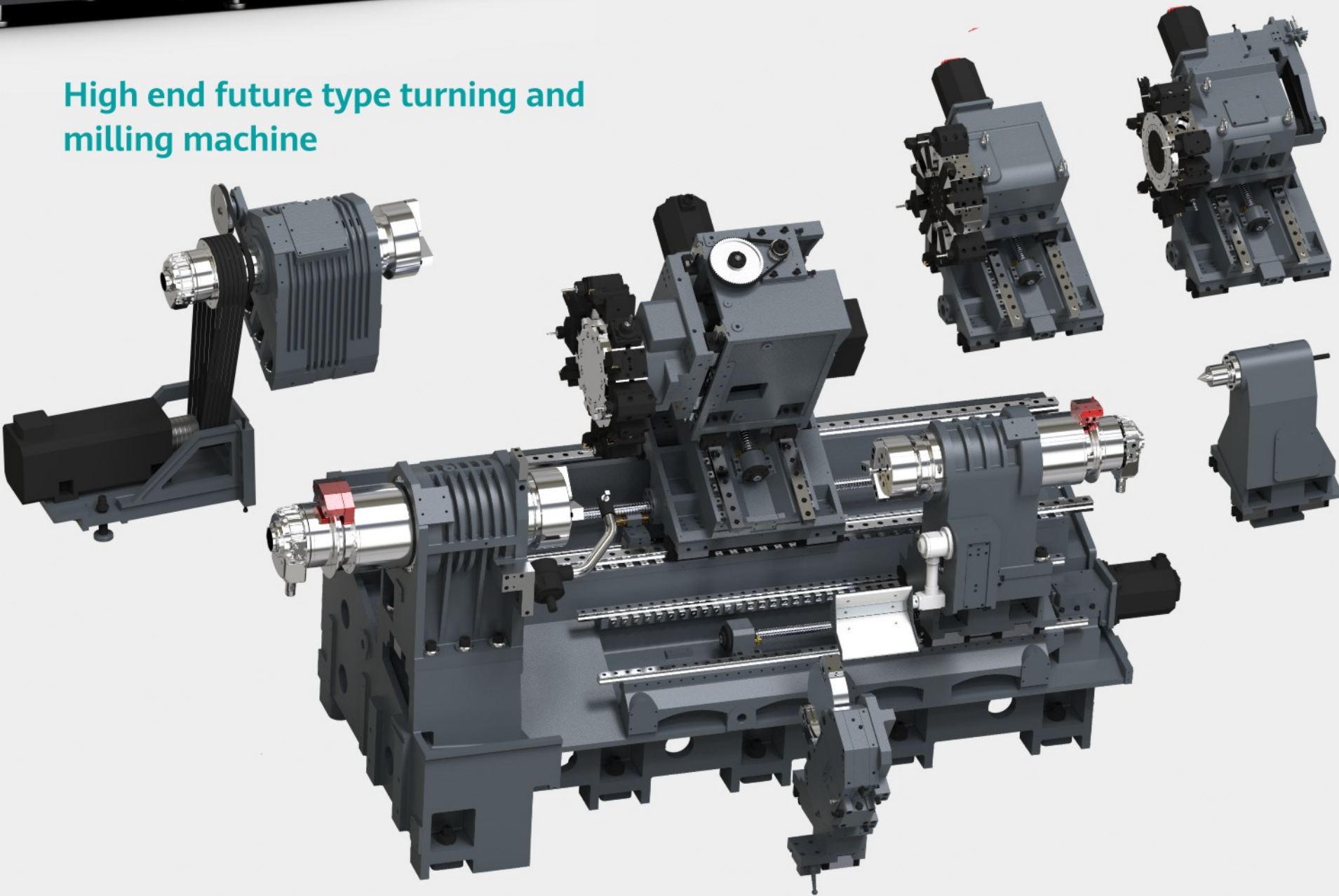


The integrated positive Y-axis structure belongs to high rigidity and heavy cutting

- + Flat contour processing is smoother and smoother
- + More convenient for processing composite surfaces and contours



High end future type turning and milling machine



600/800/1200/1600/2000/3000 NC M MY MS MSY

Optional Features

8 "10" 12 "hydraulic chuck system	Automatic tool alignment system	Spindle positioning
A2-6/A2-8/A2-11 spindle	Automatic safety door control	Selection of Intelligent Control Systems
10.4 "/15" color LCD display	Robot interface	Auto chip conveyor+chip cart
Built in USB interface	Automatic workpiece feeding device	High pressure cooling system
	Blowing device	Various power tool holders

➤ Heavy duty boxway CNC turning&milling machine

Horizontal turning&milling machine with max. processing length up to 3000mm
 Gearbox spindle+full boxway structure is suitable for heave duty cutting

High rigidity and high precision ensure machining performance



Max. rotating diameter
860mm

Max. processing diameter
570mm

Processing length
1000/1500
2000/3000 mm

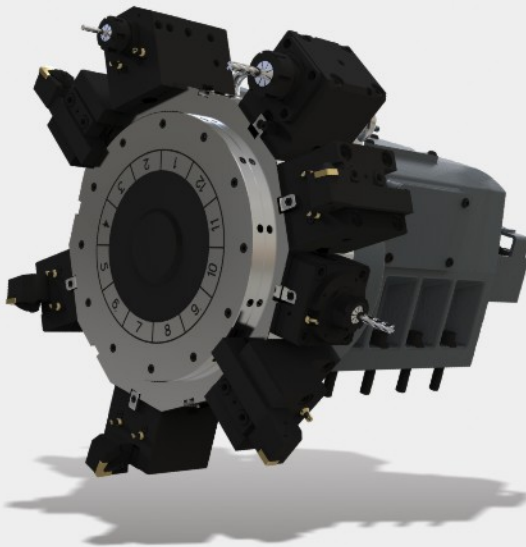
250L10/15/20/30 NC M MY

- | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| A2-11 (including chuck) | A2-11, (including chuck) | A2-15, (including chuck) | A2-15, (including chuck) |
| Workpiece weight 1300 kg | Workpiece weight 650 kg | Workpiece weight 1700 kg | Workpiece weight 850 kg |
| Shaft parts | Plate-part | Shaft parts | Plate-part |



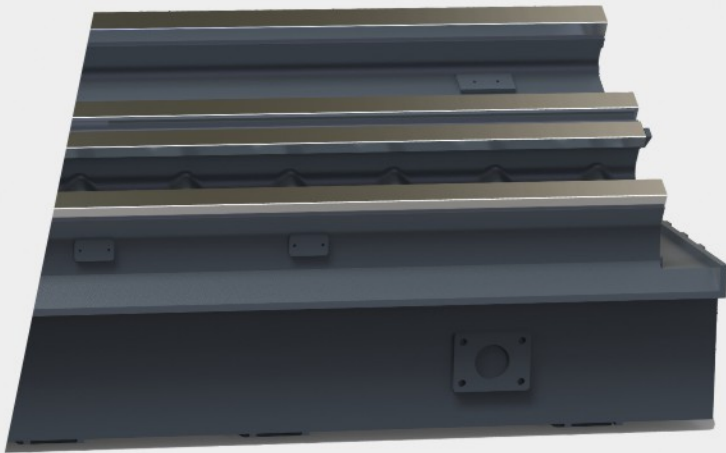
Spindle/Gearbox spindle(optional)

Equipped with a high-performance spindle, the vibration and thermal displacement generated during the spindle rotation process are minimized to the greatest extent possible. The high torque spindle can provide excellent machining capabilities.



Power turret

The turret is driven by an efficient servo motor, and the drive system and number of components of the servo turret have been optimized and improved. By reducing the failure rate and making maintenance more convenient, the stability and reliability of the machine tool can be improved.



Bed

30 degree inclined back integrated box structure Low center of gravity and stable accuracy.

High-performance

- + Large type boxway high load machine with low speed heavy cutting capability

Rigidity

- + The body has a 30 degree inclined back integrated box structure, low center of gravity, and stable accuracy.

High efficiency

- + The servo turret effectively shortens non cutting time and improves machining efficiency.

Convenience

- + The mobile operation panel is easy to move and observe the processing status, improving convenience.

TRUSS TYPE AUTOMATIC PRODUCTION LINE



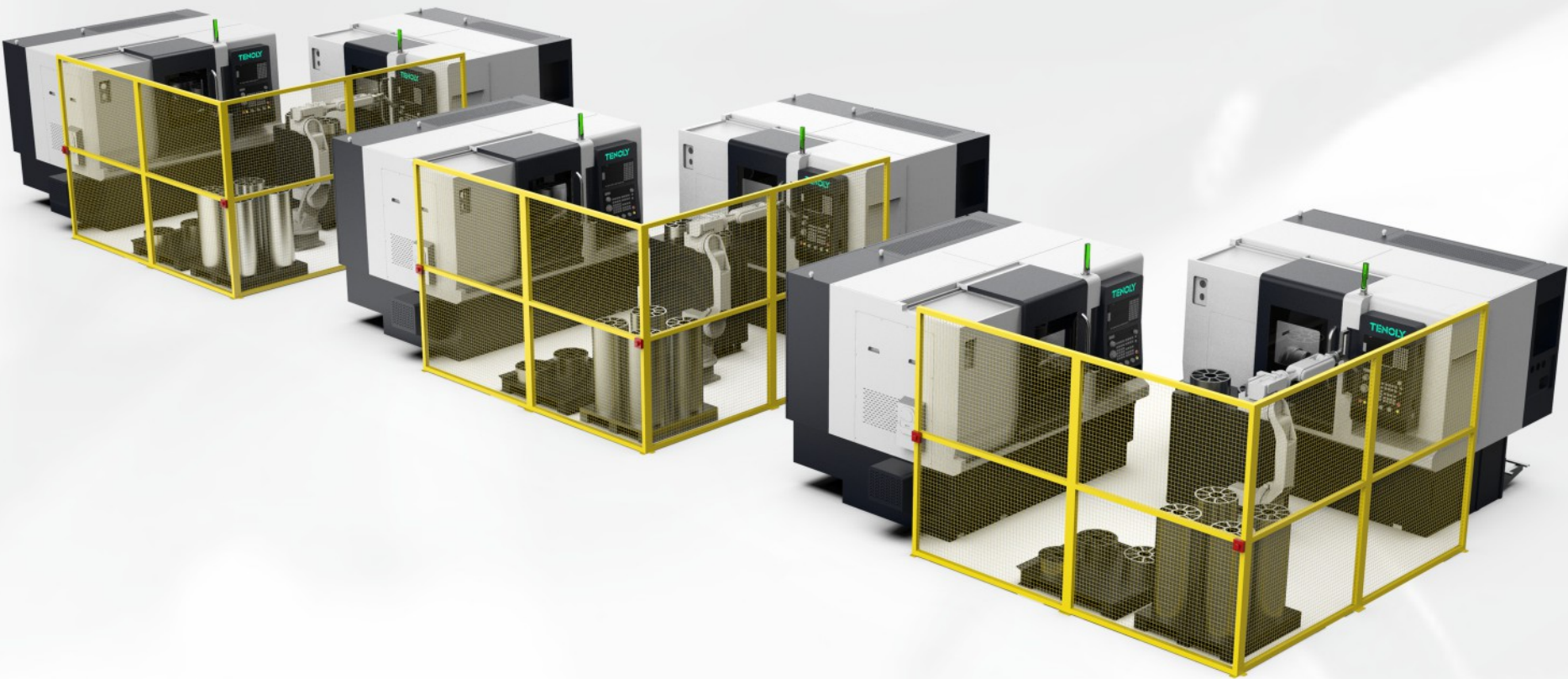
- Flexible articulated robotic arm
- Aerial walking axis
- Multi beam support form
- Longmen frame structure
- Heavy load handling, light load high-speed handling
- Double sided gear strip transmission
- Smooth transportation and flexible handling



AUTOMATION RENDERINGS

Provide to customers

A complete set of intelligent flexible processing solutions from raw materials to finished products



- Flexible articulated robotic arm
- Ground rail walking axis
- Safety limit to prevent derailment
- Adjustable foundation bolt
- Can meet uneven ground conditions
- Fast movement speed and highprecision

The six joint robot online automation unit is suitable for mass production of various parts