

Global Services

DONGS Machine Tool Global Service,
24-hour rapid response to customer needs

DONGS Machine Tool provides systematic services for all pre-sales and after-sales processes, responding quickly to customer needs and resolving issues quickly. From the supply of machine tool equipment and equipment spare parts to product training, troubleshooting, and technical support, we can provide customers with fast services through our service network.



DONGS SOLUTIONS

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FOR MORE DETAILS, PLEASE CONTACT DONGS MACHINE TOOL

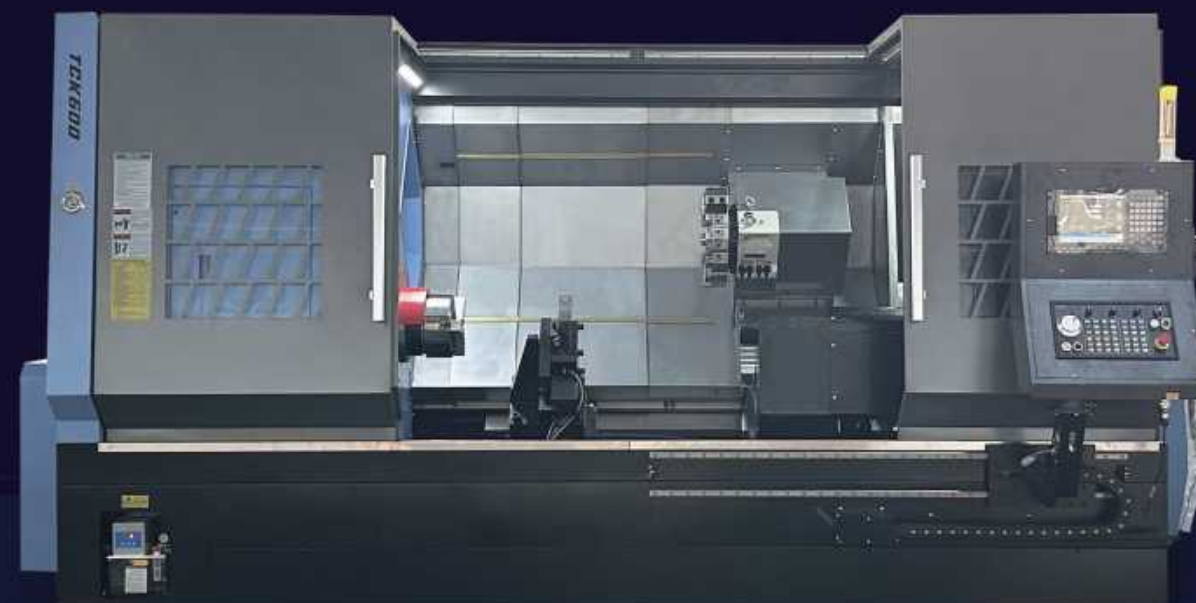
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EFFICIENT MEDIUM AND LARGE
HORIZONTAL TURNING CENTER

TCK 600

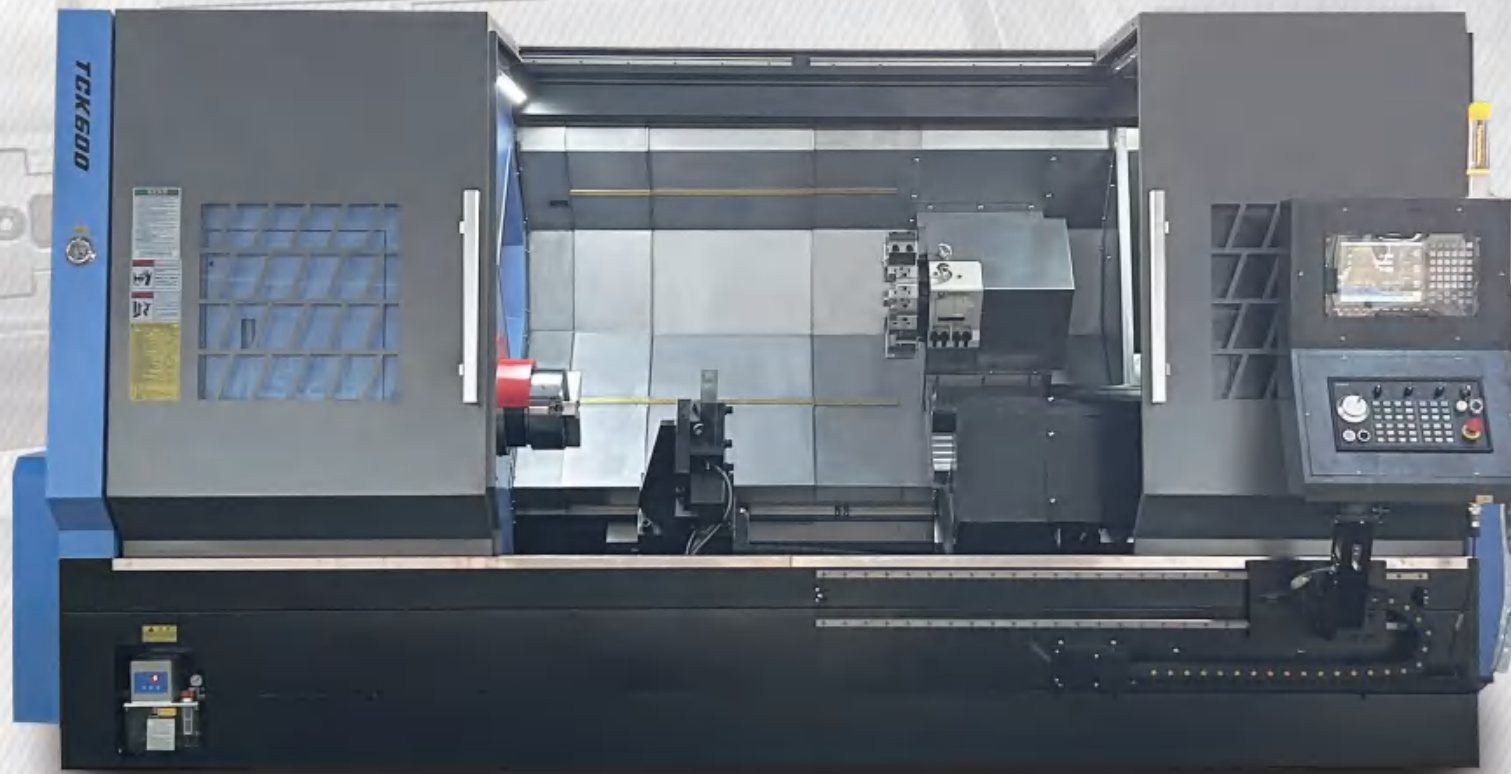
1100 • 1600



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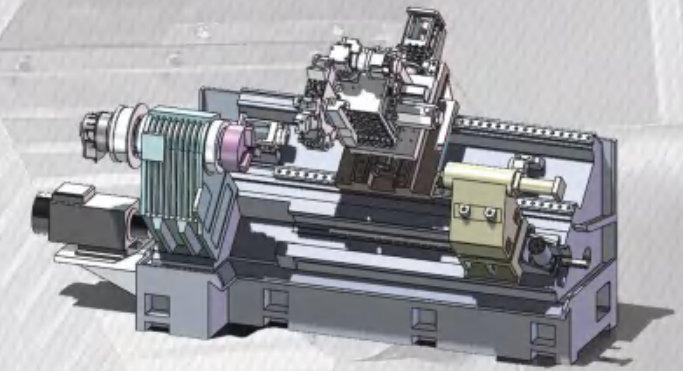
Efficient medium large horizontal turning center

TCK 600 series is a medium horizontal turning center with a maximum machining length of 1.5 meters. For large-scale pipe and shaft processing, it can be widely used in industries such as oil and gas, aerospace, and engineering machinery.



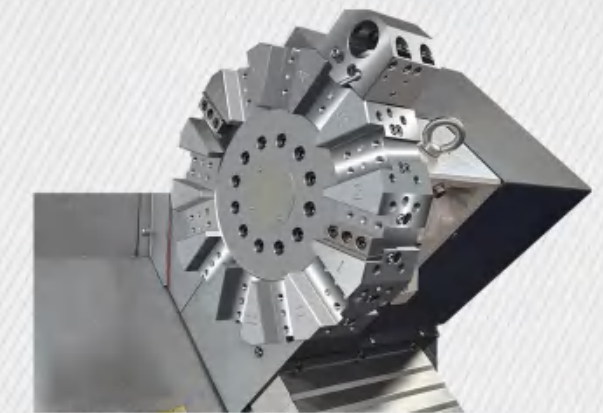
Highly rigid structure

The 45° inclined bed structure and the X/Z-axis 45mm roller linear guide ensure high rigidity and stability.



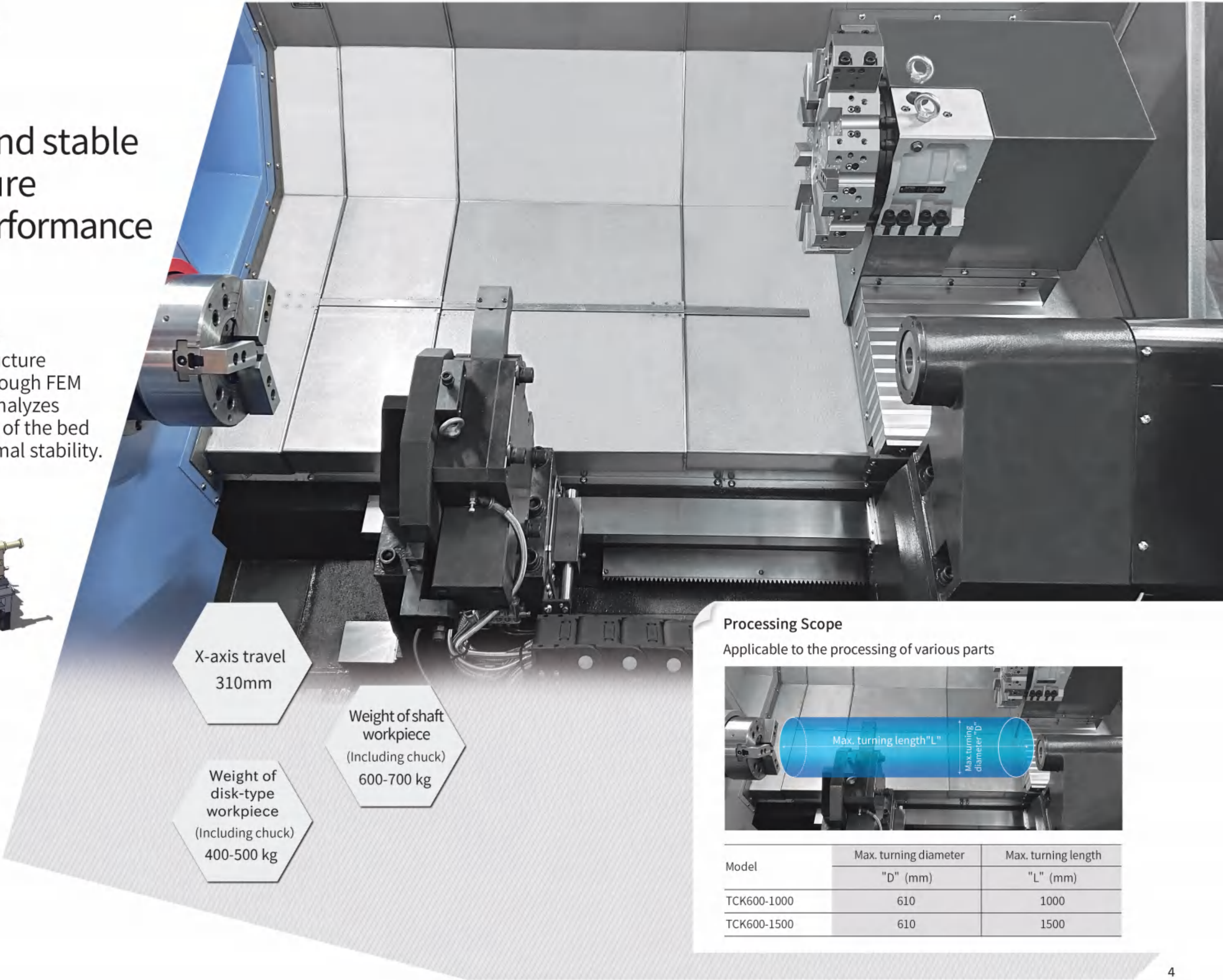
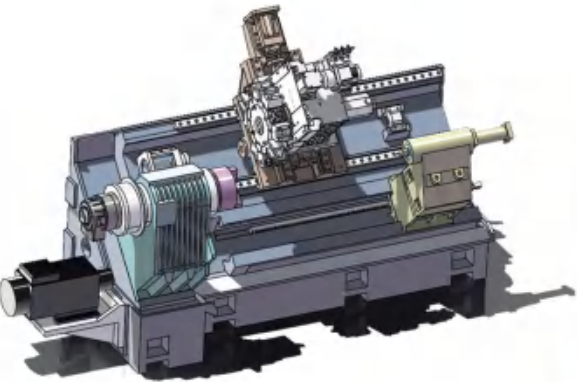
High efficiency

The turret is driven by a high-efficiency servo motor, suitable for heavy-duty cutting, effectively shortening non-cutting time and improving processing efficiency.



High rigidity and stable structure ensure processing performance

TCK 600 series adopts a low-center-of-gravity structure with a wider bed, and through FEM finite element analysis, analyzes and optimizes the design of the bed structure to achieve optimal stability.



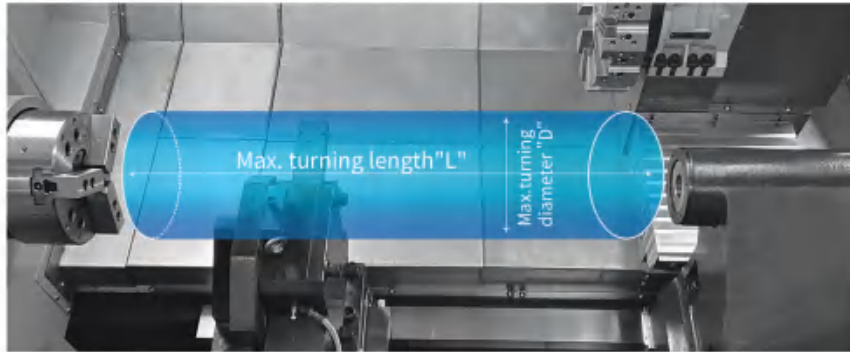
X-axis travel
310mm

Weight of disk-type workpiece
(Including chuck)
400-500 kg

Weight of shaft workpiece
(Including chuck)
600-700 kg

Processing Scope

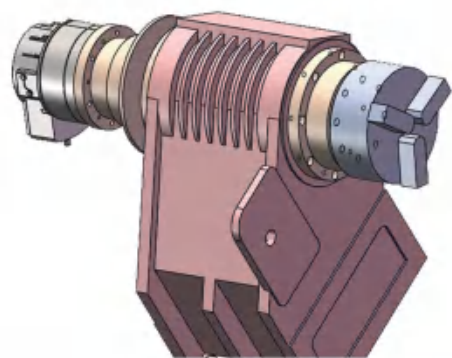
Applicable to the processing of various parts



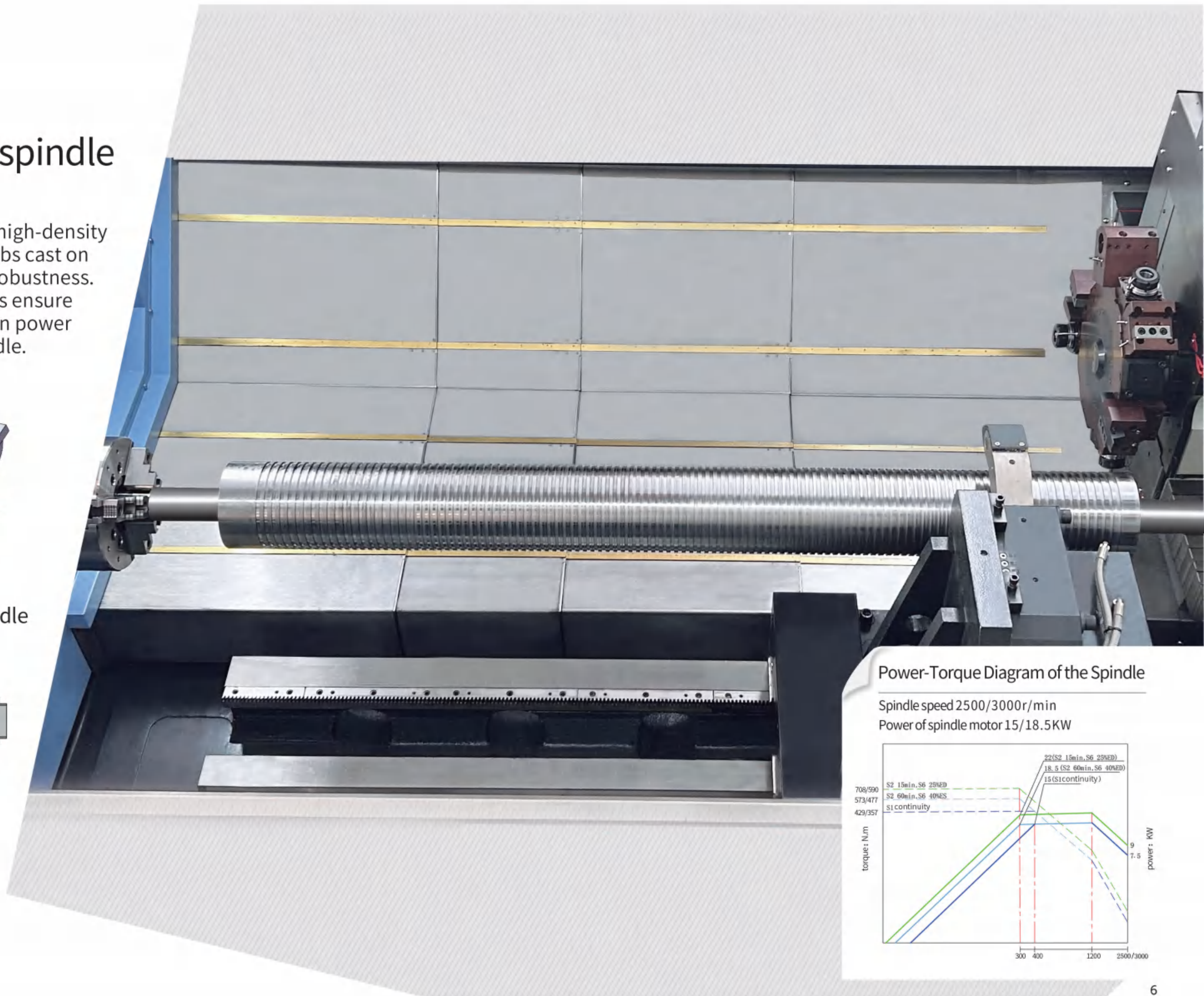
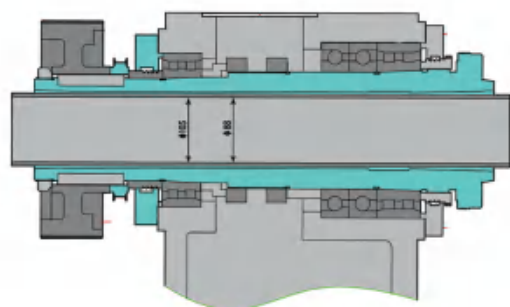
Model	Max. turning diameter	Max. turning length
	"D" (mm)	"L" (mm)
TCK600-1000	610	1000
TCK600-1500	610	1500

High-efficiency spindle

The spindle box is made of high-density cast iron, with reinforcing ribs cast on the outside to enhance its robustness. The dual-row roller bearings ensure high rigidity and efficiency in power transmission from the spindle.

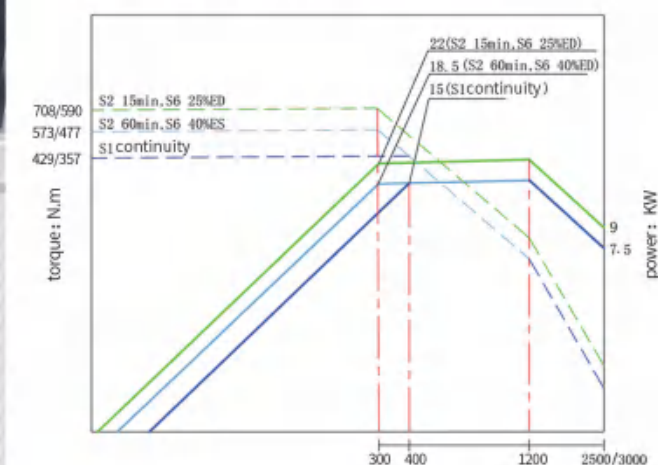


Structural diagram of spindle



Power-Torque Diagram of the Spindle

Spindle speed 2500/3000r/min
Power of spindle motor 15/18.5KW

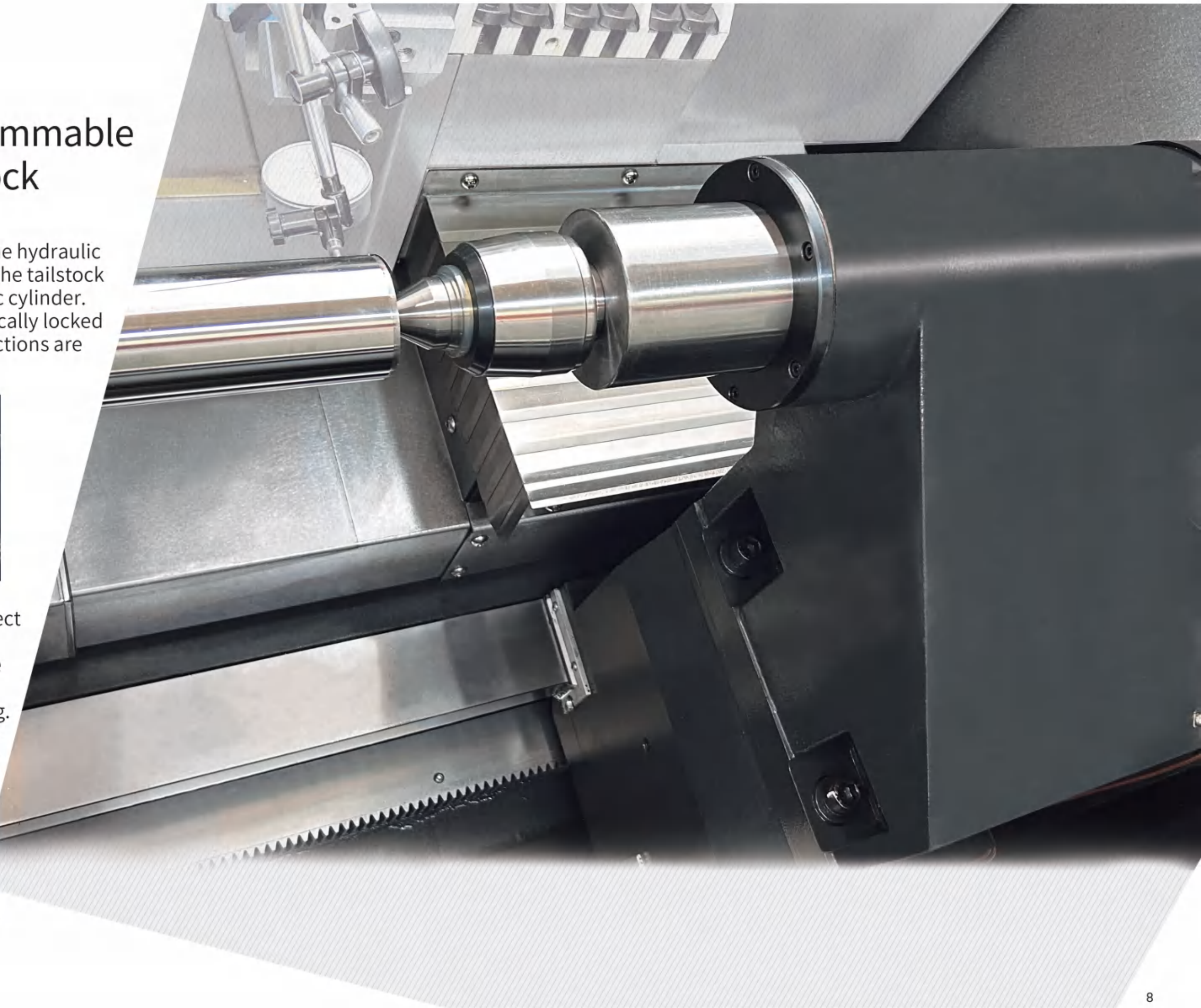


Hydraulic programmable automatic tailstock

The tailstock body driven by the hydraulic motor through the gear rack. The tailstock quill is pushed by the hydraulic cylinder. The tailstock body is automatically locked by the hydraulic cylinder. All actions are controlled by M Code.



The tailstock guide rail is subject to high-frequency quenching treatment, the contact surface is widened, and the rigidity is improved by manual shoveling.

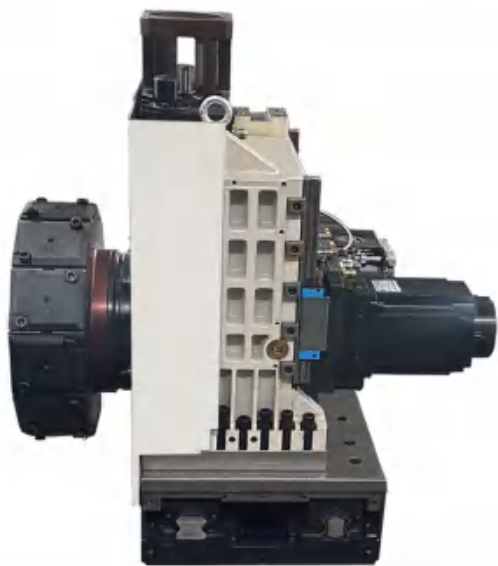


Optional configurations

Power Turret / Y-axis

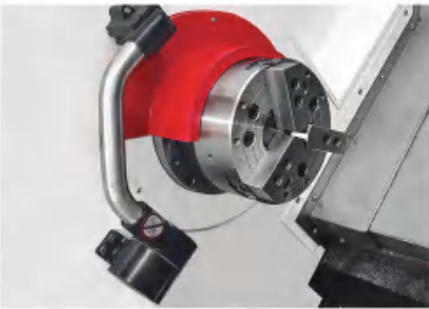
OPTION

BMT55 power turret Y axis (travel ± 50)



Y-axis travel	± 50 (mm)
Y axis driven motor	1.8 (mm)
Power of living tool	3 (kw)

Automatic tool setter



OPTION

Renishaw tool setter

Oil Mist Collector



OPTION

Low noise/high efficiency/stable operation

Oil skimmer



OPTION

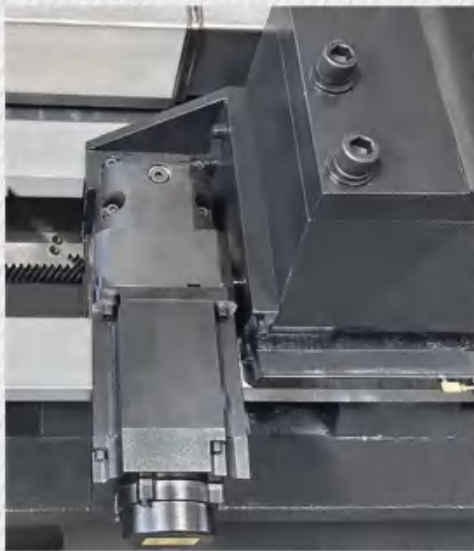
Belt oil skimmer

Optional configurations

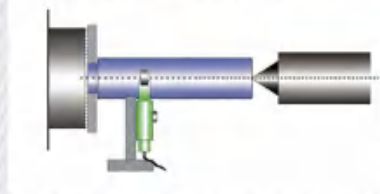
Hydraulic steady rest

OPTION

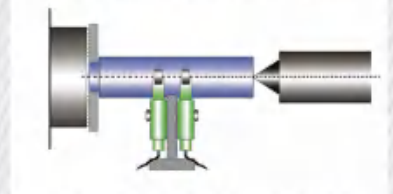
For long turning parts, various types of hydraulic steady rest (single and double) can be selected. Servo control programmable steady rest (follow rest) can be selected.



Single strut hydraulic steady rest

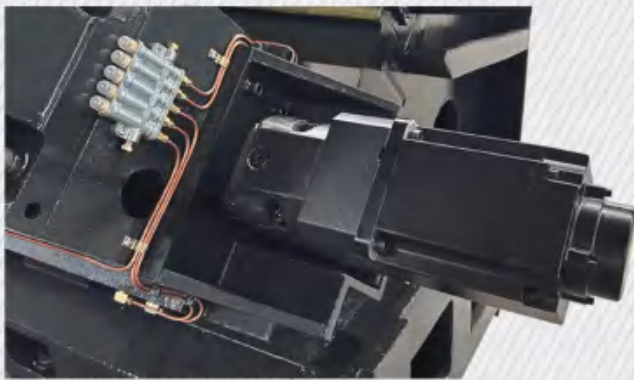
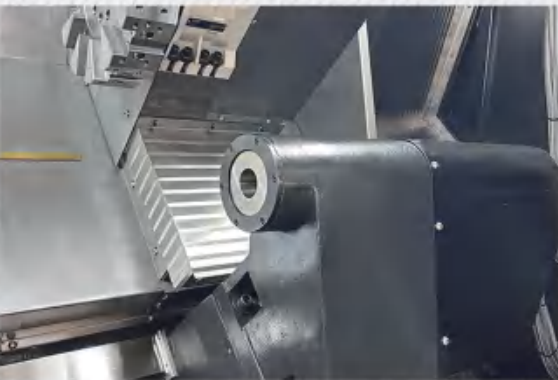


Double-pillar hydraulic steady rest



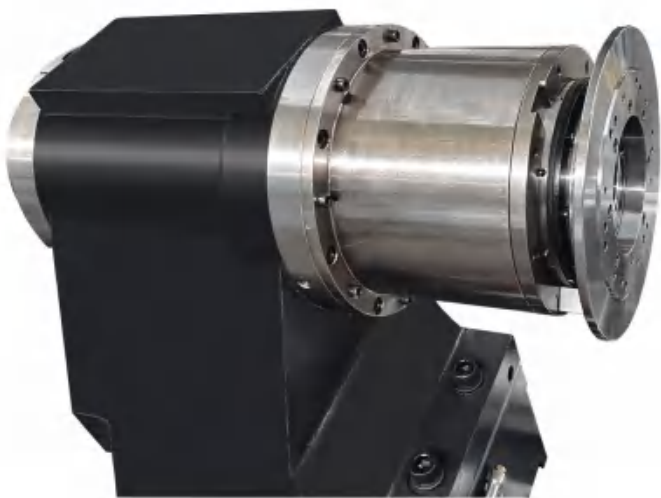
OPTION

Servo programmable fully automatic tailstock

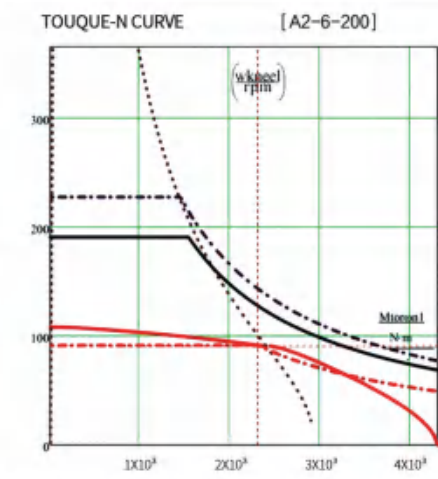


Sub spindle

High-power motor inside spindle

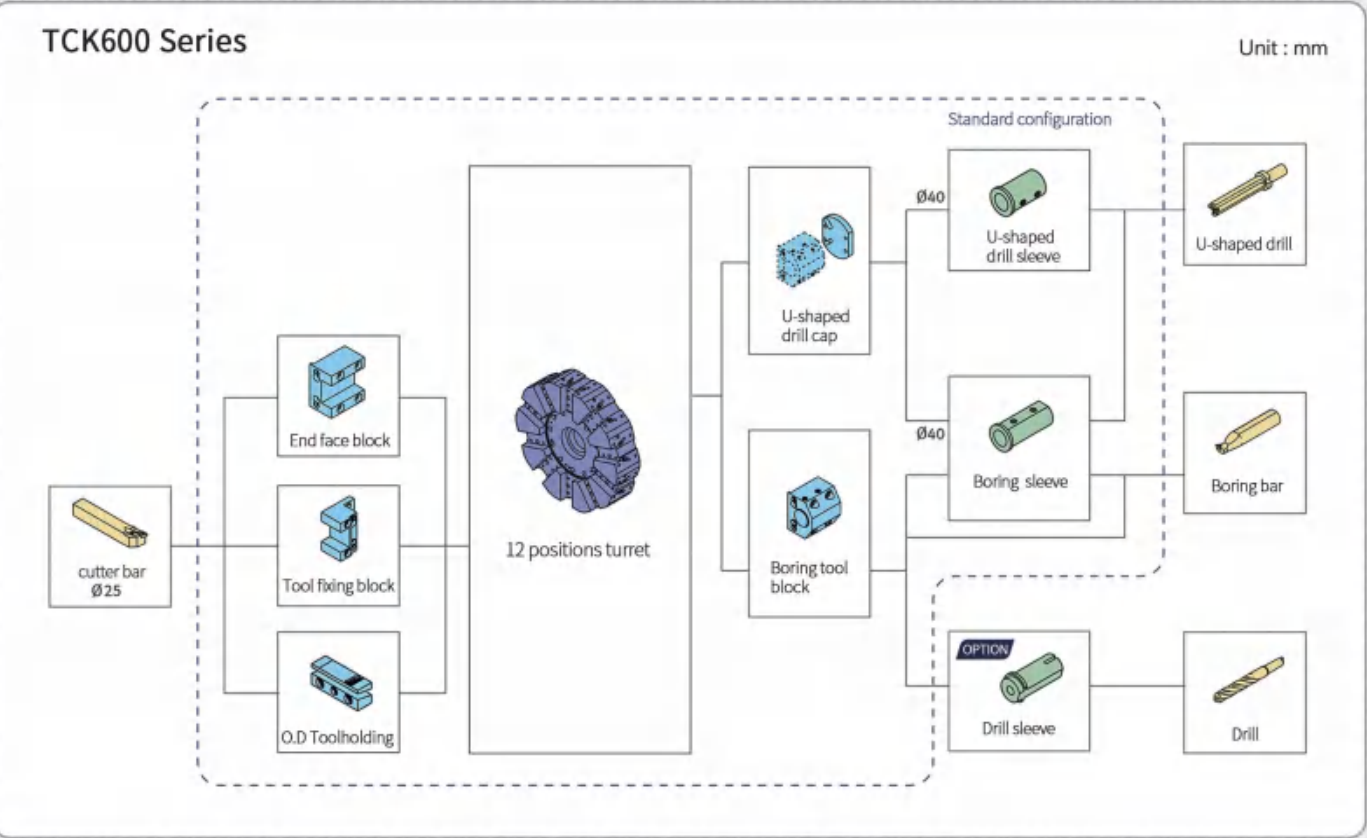


sub spindle-torque diagram

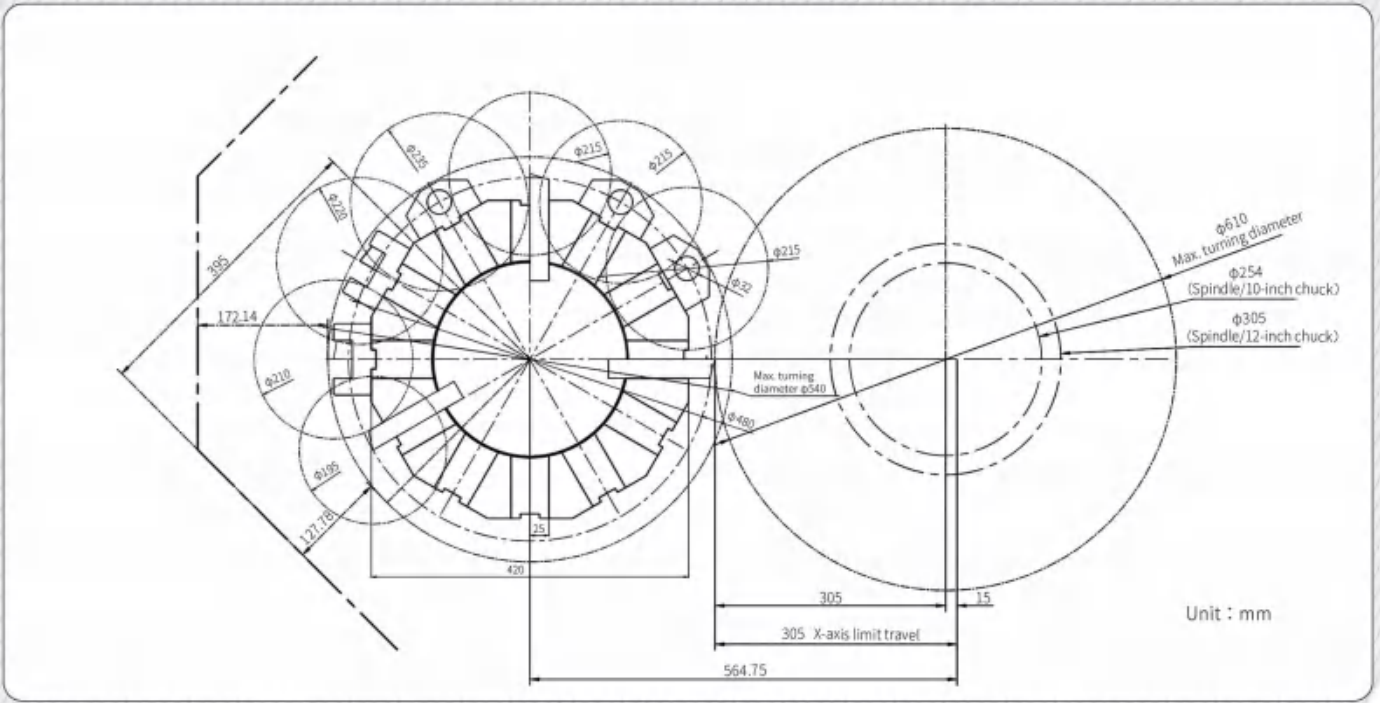


Through hole of Sub spindle	66 (mm)
Outer diameter of Sub spindle	200 (mm)
Precision of Sub spindle	≤0.003mm
Rated rotational speed	2320rpm
Max. rotating speed	4300rpm
Rated power	91.1Nm
Max. torque	227Nm

Tools system

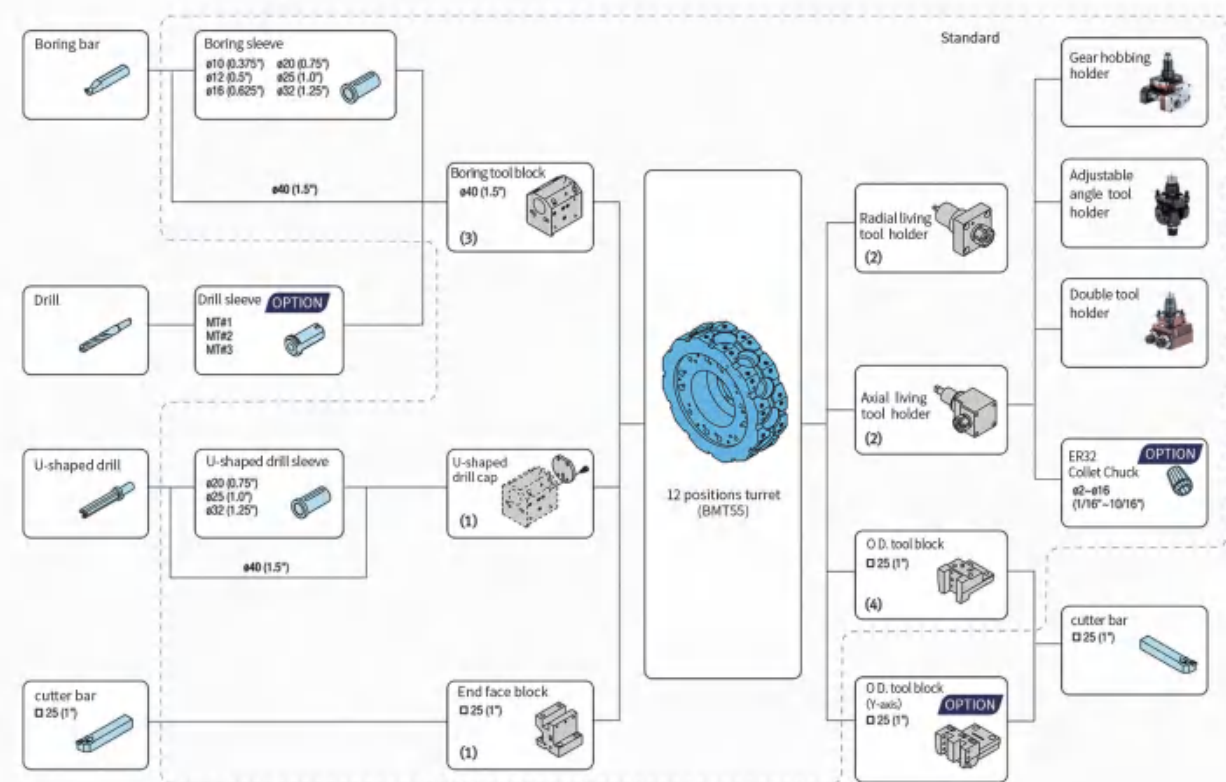


Tool interference pattern



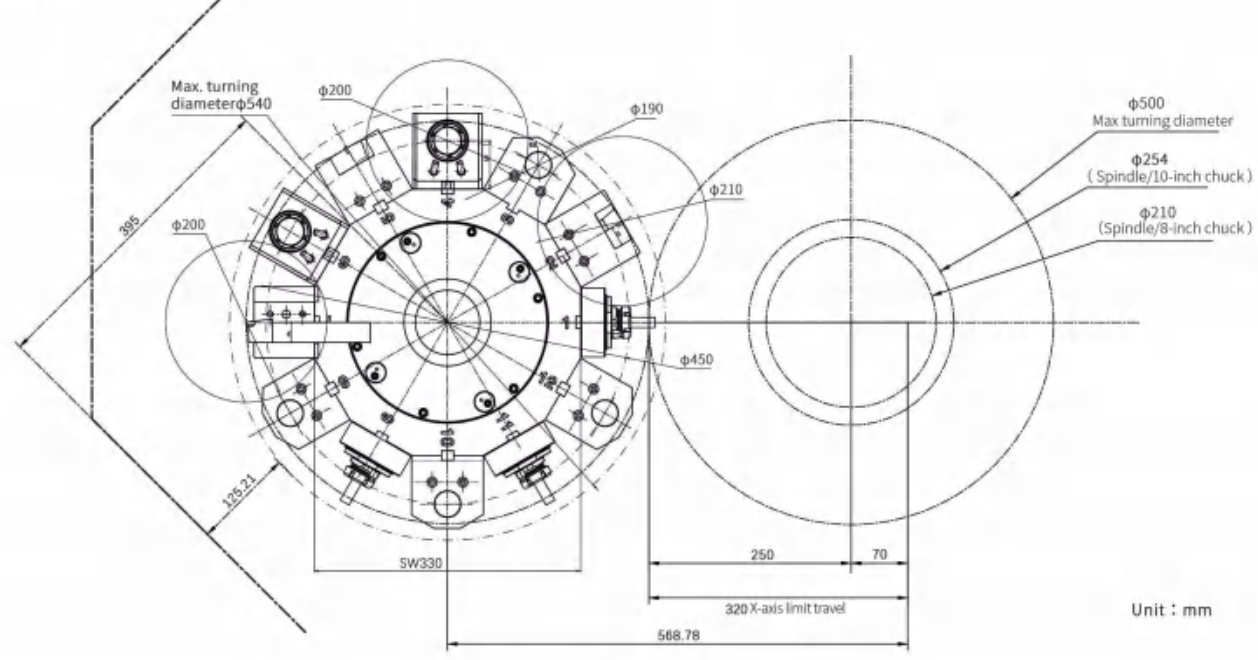
Tools System

BMT-55



Tool interference pattern

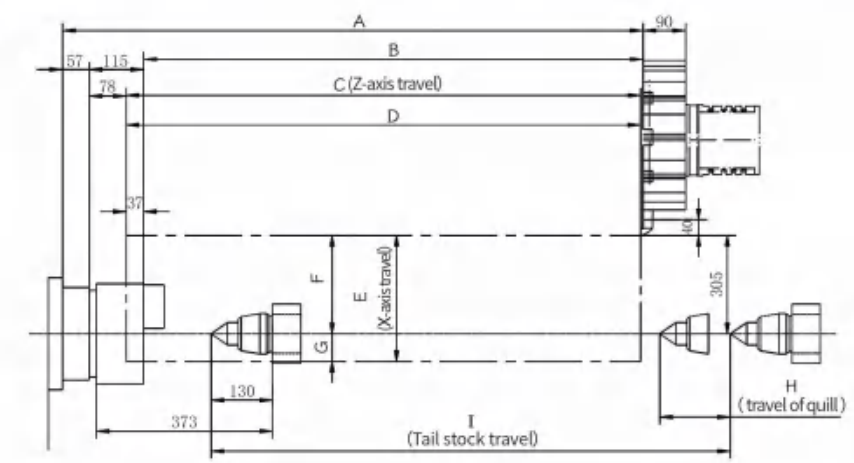
BMT-55



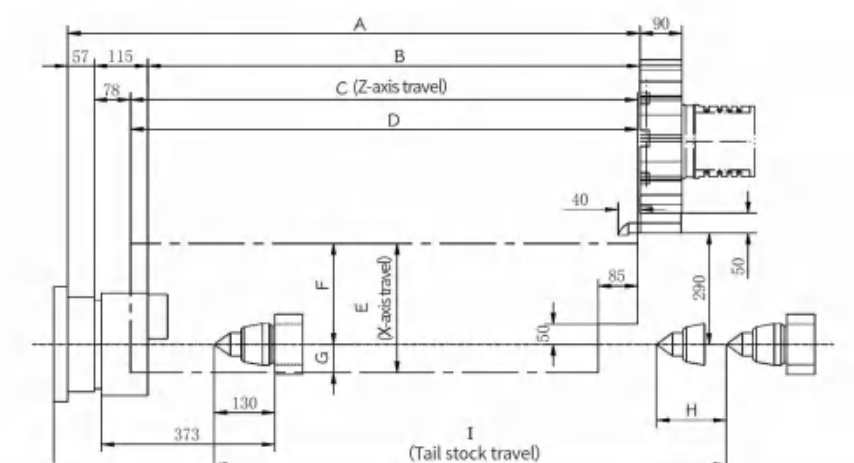
Scope of processing

TCK600 Series

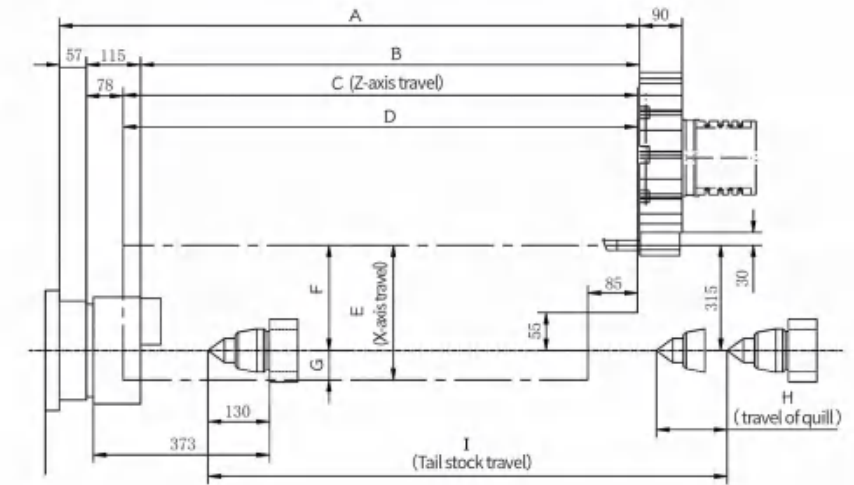
O D.tool block



End face block



Boring tool block

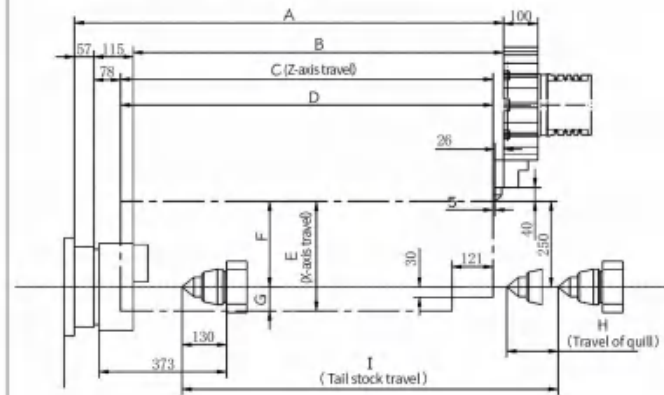


		A	B	C	D	E	F	G	H	I
TCK600-1000	OD.tool block	1287	1115.5	1090	1085	320	305	15	150	1100
TCK600-1500	OD.tool block	1787	1615.5	1590	1585					1600
TCK600-1000	End face block	1287	1115.5	1090	1085	320	290	30	150	1100
TCK600-1500	End face block	1787	1615.5	1590	1585					1600
TCK600-1000	Boring tool block	1287	1115.5	1090	1085	320	315	5	150	1100
TCK600-1500	Boring tool block	1787	1615.5	1590	1585					1600

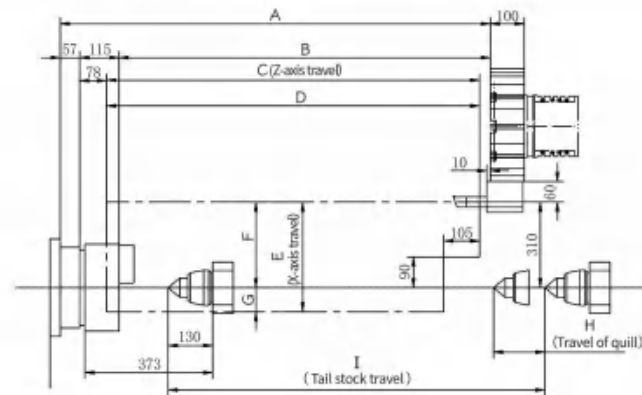
Scope of processing

BMT55

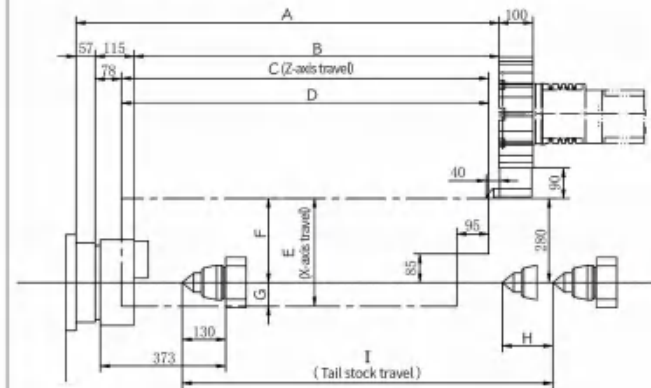
O D.tool block



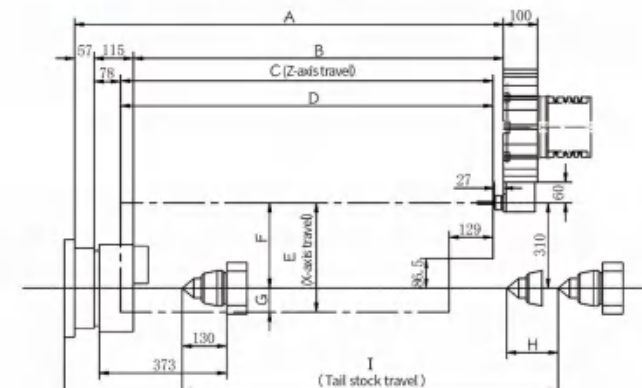
Boring tool block



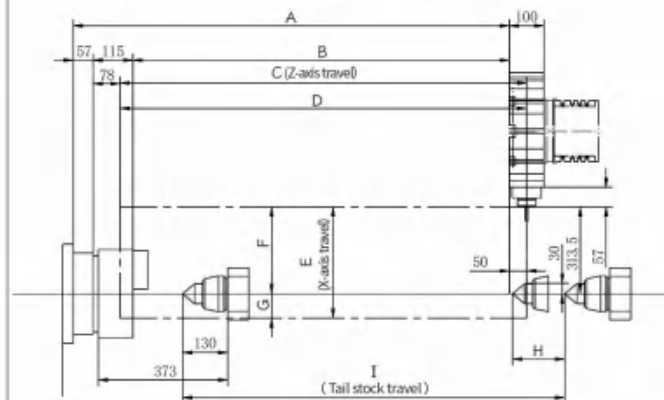
End face block



Axial living tool holder



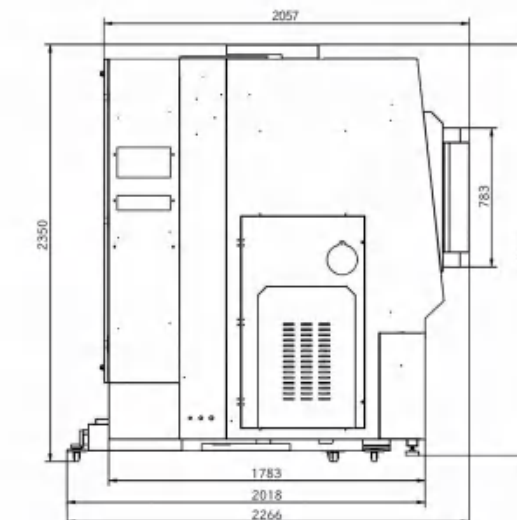
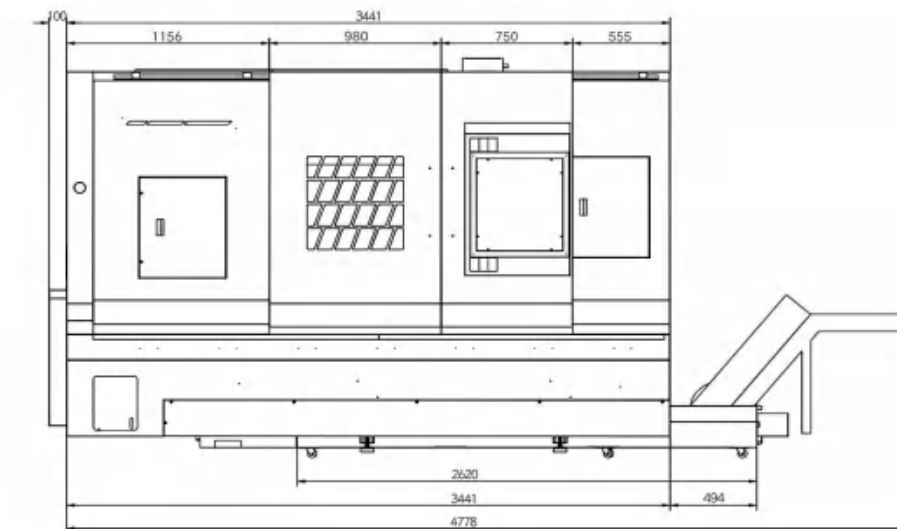
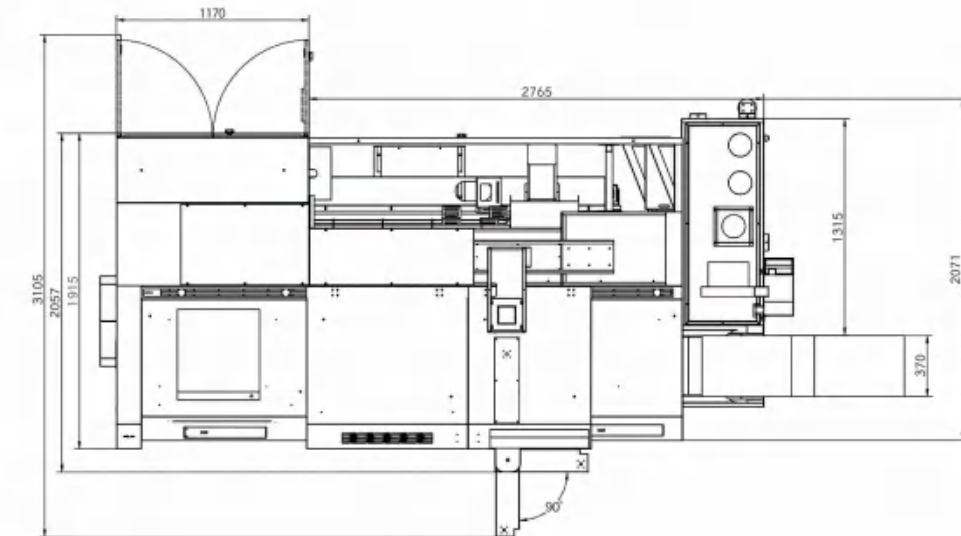
Radial living tool holder



		A	B	C	D	E	F	G	H	I
TCK600-1000	OD tool block	1255.5	1083.5	1090	1053	320	250	70	150	1100
TCK600-1500		1755.5	1583	1590	1553					1600
TCK600-1000	End face block	1255.5	1083.5	1090	1053	320	280	40	150	1100
TCK600-1500		1755.5	1583	1590	1553					1600
TCK600-1000	Boring tool block	1255.5	1083.5	1090	1053	320	310	10	150	1100
TCK600-1500		1755.5	1583	1590	1553					1600
TCK600-1000	Axial living tool holder	1255.5	1083.5	1090	1053	320	313.5	6.5	150	1100
TCK600-1500		1755.5	1583	1590	1553					1600
TCK600-1000	Radial living tool holder	1255.5	1083.5	1090	1053	320	313.5	6.5	150	1100
TCK600-1500		1755.5	1583	1590	1553					1600

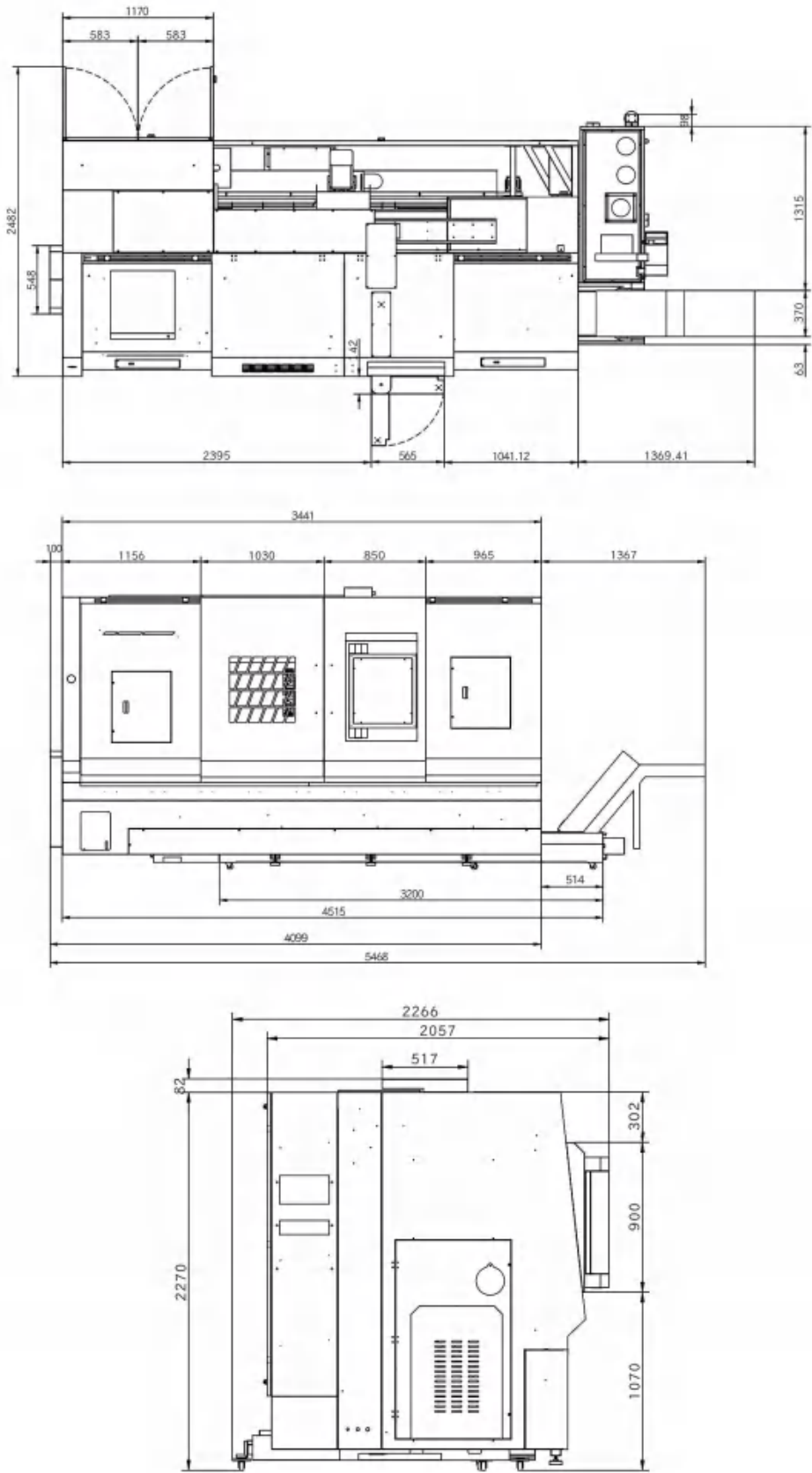
Overall dimensions

TCK600 Series-1000



Overall dimensions

TCK600 Series-1500



Technical parameter



Entry name		Unit	TCK600-1000	TCK600-1500
Processing capacity	Swing over bed	mm	φ 630	
	Max. turning diameter on carriage	mm	φ 450	
	Distance between centers	mm	1100	1600
Spindle	Spindle head	—	A2-8	
	Spindle through hole	mm	φ 86	φ 105
	Max. spindle speed	rmp	3000	2000
	Max. spindle output torque	N.M	280	
	Bar capacity	mm	74	91
Travel	X-axis travel	mm	310	310
	Z-axis travel	mm	1100	1600
	Y-axis travel	mm	±50	
	X/Z-axis power	kw	3kw /3kw	
	Y-axis power	kw	1.8kw	
Fast moving speed	X-axis fast moving speed	m/min	24	
	Z-axis fast moving speed	m/min	24	
Turret	Turret position	/	12	
	Tool size	mm	25x25	
	Rotation time of turret	s	0.5	
Tail stock	Tailstock quill	MT	MT5	
	Moving form of tailstock	/	Hydraulic programmable fully automatic	
	Tailstock travel	mm	1100	1600
	Tailstock guide rail	/	Box way	
Chuck	Hydraulic chuck	inch	10/12.	
Motor	Motor power of main spind	kw	15/18.5	
Overall dimensions	L / W / H	mm	4200*2100*2300	4700*2100*2300
	Machine tool weight (approx.)	kg	6200 / 6500	7200 / 7500

Standard configurations

- Hydraulic chuck & slewing cylinder
- Water gun
- Soft jaws (three jaws)
- Live center
- Fully enclosed protection
- Chip conveyor
- Attached tool kit (including small tools for operation)
- Cutting fluid supply equipment
- Centralized lubrication
- Leveling bolt and blocks
- Working lamp
- Coolant pump
- Chip receiving car
- Hydraulic power unit
- Safety warning nameplate
- Foot switch
- Working condition lamp (yellow, red, green)
- Machine tool operating instructions and parts manuals
- Air gun
- Standard Tool Holder (Tool Holder&Boring Tool)

Optionals

- Steady rest servo control
- Tailstock servo control
- Steady rest
- Chuck clamping retrieval switch
- Automatic power-off
- Automatic Door
- Automatic tool setter
- Security door lock
- chuck jaws cleaning and blowing device
- Oil skimmer
- Harden jaws
- Additional tool blocks and boring sleeve