



Slant-Bed Turning Center

UT
Series



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Robust Structure Design

Superior casting of meehanite

The UT-200 series has a 45° inclined bed, whereas the UT-300 series has a 30° inclined bed box structure, enabling smooth turret movement without vibrations. The center of gravity falls inside the base, ensuring rigidity during the heavy cutting process.

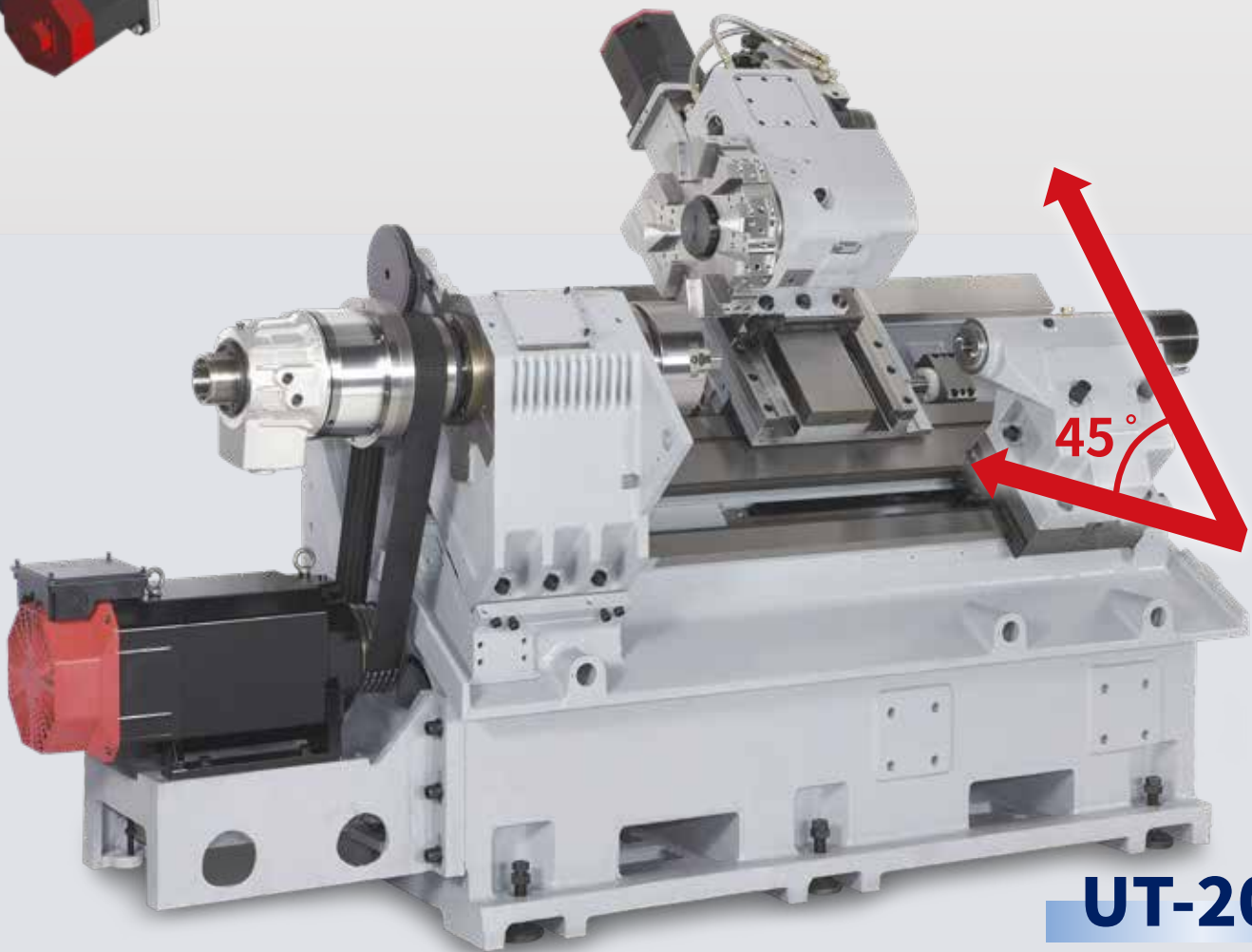
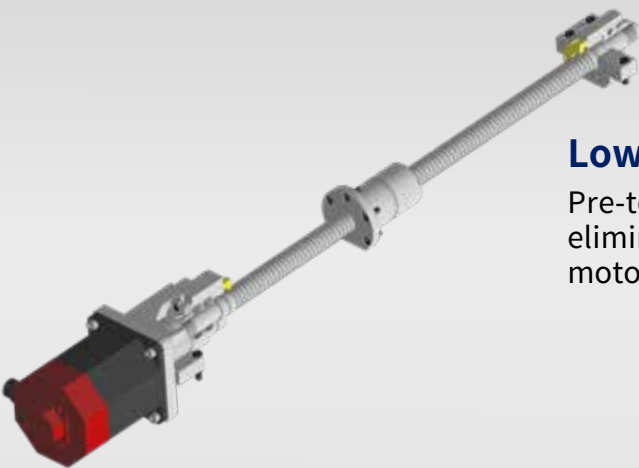
The base and guide rail, made of Meehanite gray cast iron, are integrally cast, hardened, and ground. They possess a wide rail span, low center of gravity, large bed swing, and high stiffness while delivering excellent drainage and chip removal performance. The base bed's interior has a heavily distributed strengthening ribs design, effectively eliminating deformation caused by shear and tensile stress.

Low backlash ballscrew drive mechanism

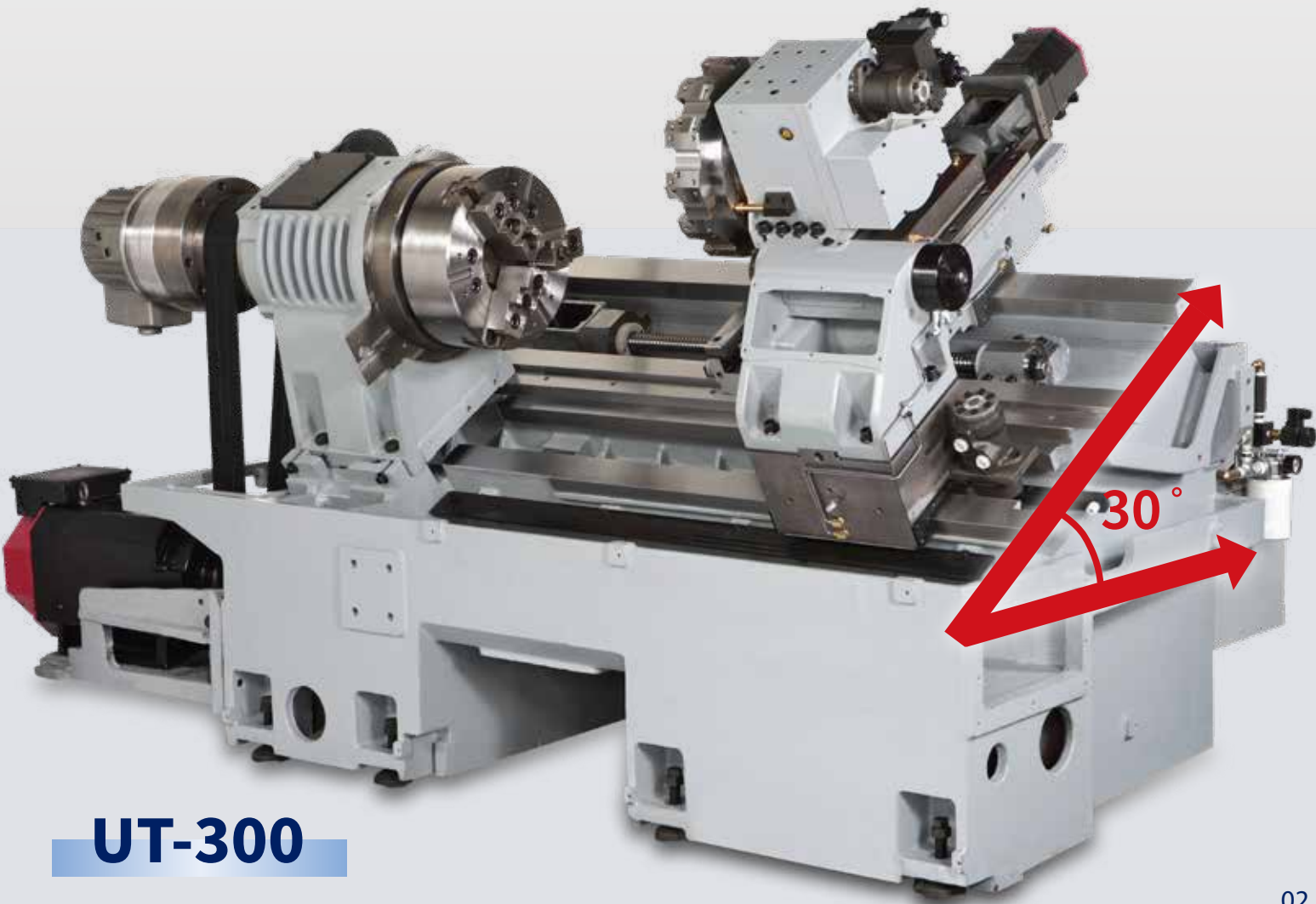
Pre-tensioned ballscrews and heat suppression designs eliminate backlash and thermal elongation. Direct servo motor drive improves axial feed positioning accuracy.

Meticulous hand-scraping work

The headstock and ballscrew anchoring seat require precise scraping for tighter alignments and tolerances between mating parts, ensuring excellent overall accuracy and machine stability. Skilled hand scraping creates oil pockets with high and low spot texture patterns, aligning the sliding surfaces between saddle and box guideways for smooth gliding while reducing wear and heat from friction.



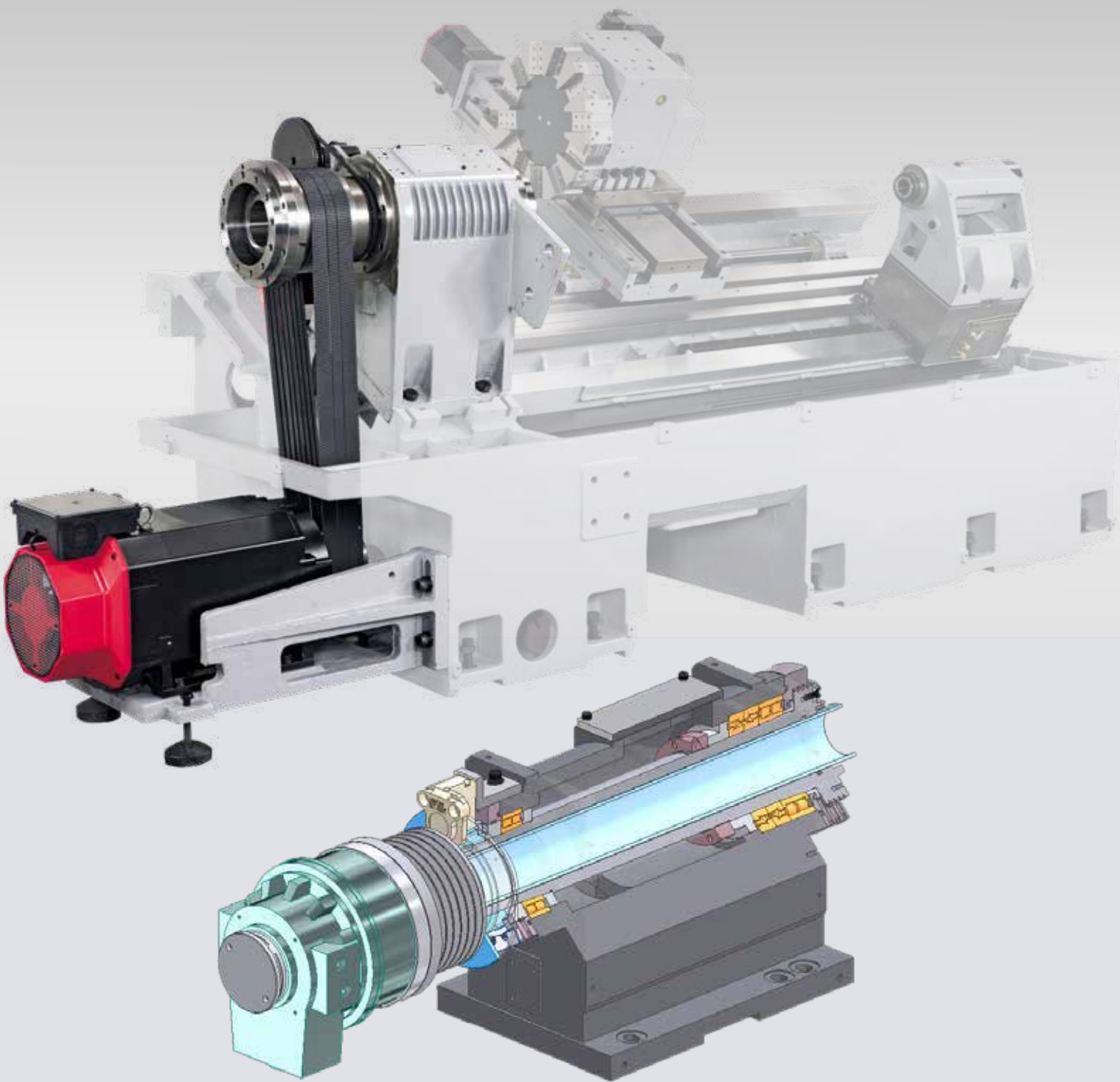
UT-200



UT-300

Professional And Precise Self-made Spindle

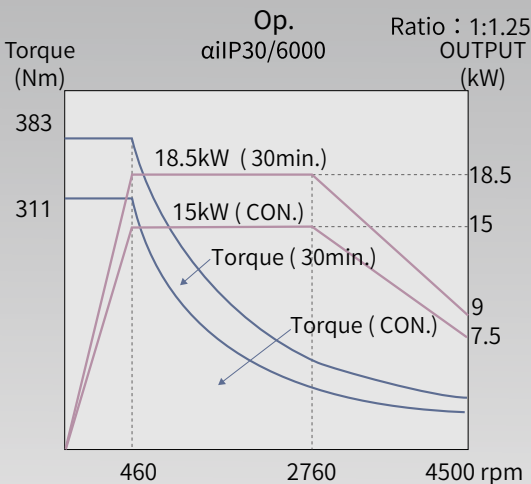
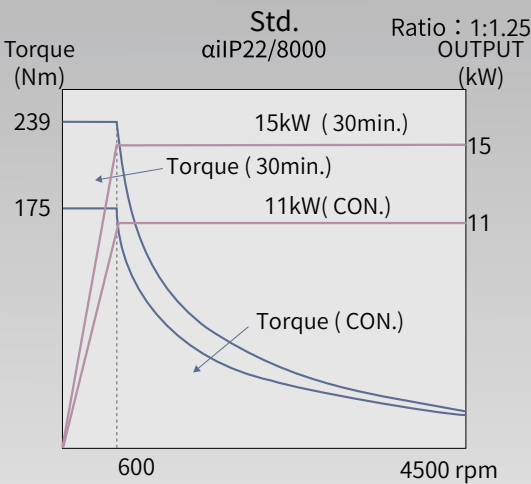
Our in-house precision belt drive spindles deliver unmatched power, durability, and machining capability. They undergo ISO 1940 Dynamic Balance G1 verification for high accuracy and low vibration. The headstock design reduces thermal deformation and ensures precise roundness and concentricity.



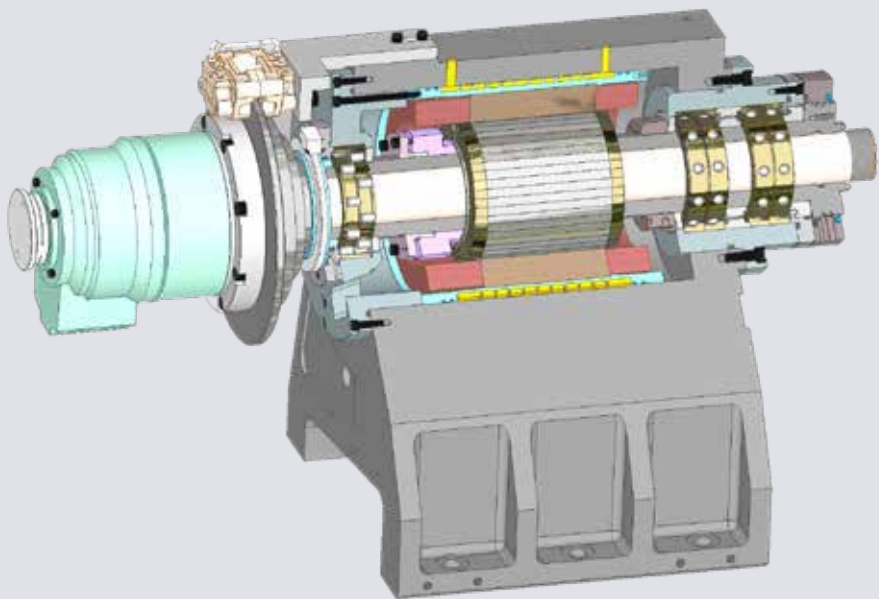
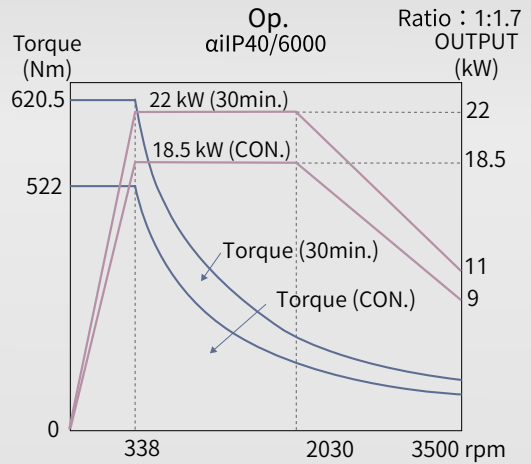
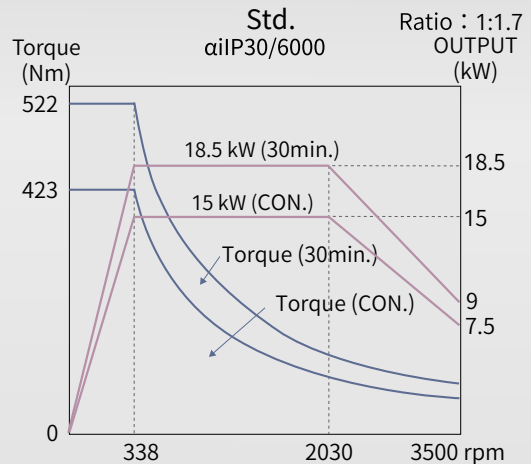
Belt-driven spindle (Standard)

Spindle power chart

UT-200



UT-300

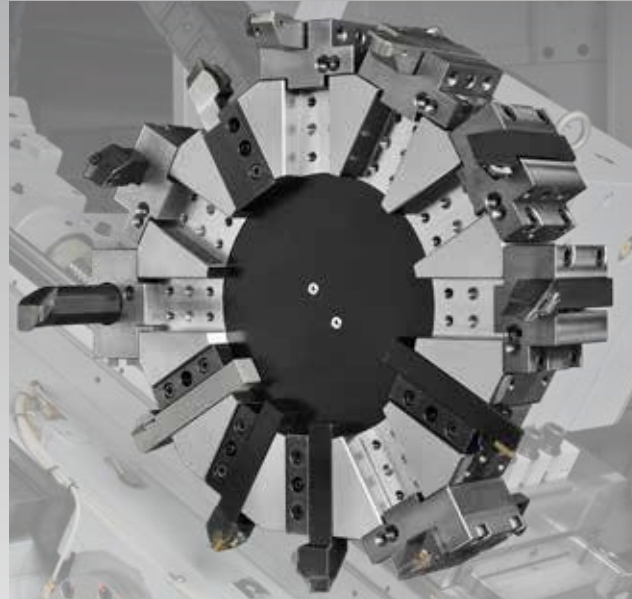


High-precision built-in motor spindle (optional)

High-precision Self-made Turrets

Hydraulic Turret

The turret utilizes a high-precision curved-tooth coupling for hydraulically driven tool disc rotation. It offers precise positioning with cam control and accommodates 8, 10, or 12 tool holders.



BMT Power Turret

The self-developed BMT power turret uses a high-precision 3-piece large-diameter curvic coupling and is driven by a servo motor to index the tool position. It has the advantages of short tool indexing times and high positioning accuracy.



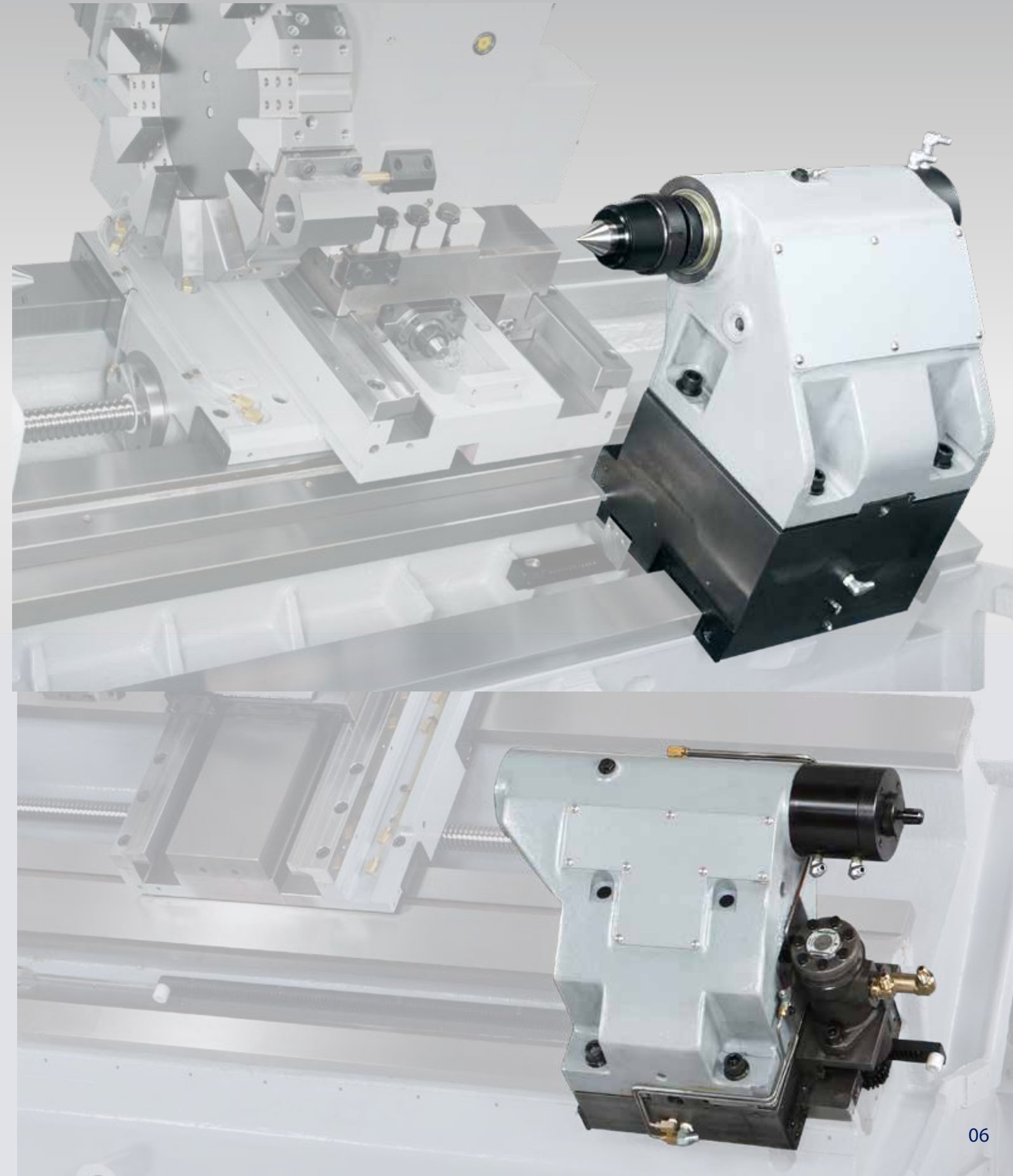
VDI Power Turret

The optional VDI tool system allows for quick tool change and greatly improved production efficiency.



Programmable Tailstock

The tailstock quill has a high-precision inner sleeve for accurate positioning. Its body can be moved on the guide rail manually or hydraulically, offering flexibility and accuracy to meet different processing needs.



Optional Peripheral Equipment

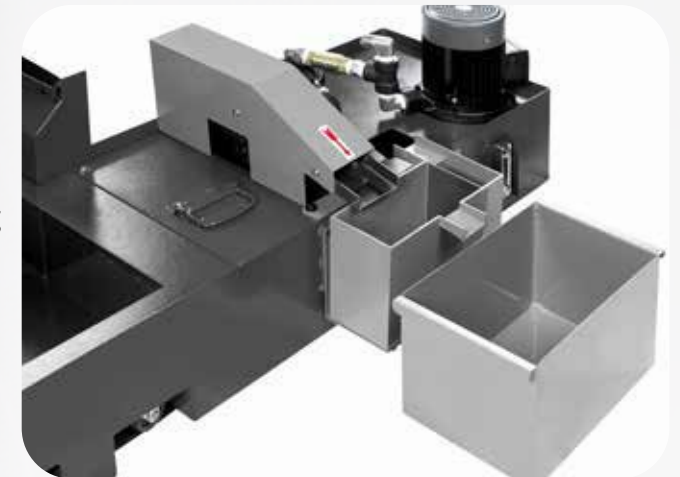
Tool setter

A tool inspection arm automatically detects tooltip wear and adjusts the tool position with a repeated positioning accuracy of 5 μ m. It ensures high-precision machining quality, maintaining stability and effectively reducing machine downtime.



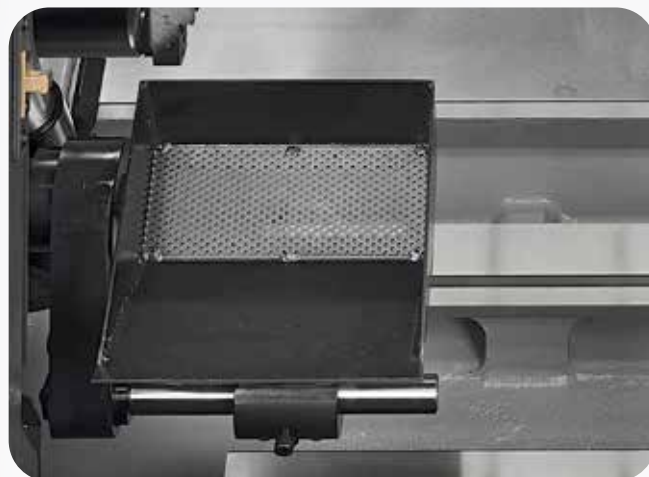
Oil-coolant skimmer

This device removes floating oil from coolant, prolonging its lifespan and improving machining efficiency, and product quality, and providing environmental protection.



Parts catcher

After finishing the machining cycle, the workpiece is automatically transferred to the collection box. With a bar feeder and parts conveyor, it can save labor costs through automatic production.



Oil mist collector

It can effectively separate fine oil mist particles, reducing pollution and damage to the workplace and machinery, saving costs, and protecting the environment.



Steady rest

A movable pivot point reduces self-weight and centrifugal force effects on long workpieces, ensuring concentricity control. Main body travel can be hydraulic, servo-driven, or manual.



Linear scale

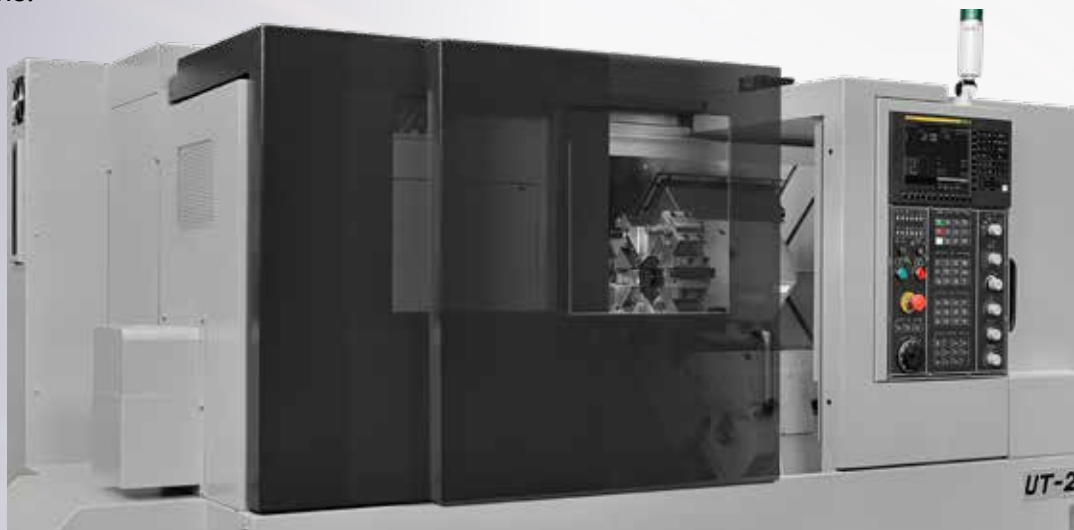
The linear scale encoder measures position during servo motion, ensuring accuracy and speed while eliminating errors arising from backlash, pitch error, and thermal displacement due to the heat generated by the ball screw.



Optional Peripheral Equipment

Auto door

The machine automatically opens the door after completing the machining cycle, improving efficiency and enabling unmanned processing with automatic loading and unloading systems.



Bar feeder

By programming the machining cycle, the machine automatically feeds raw material bars into the spindle for continuous operation, increasing production capacity and reducing labor costs.



Automation integration

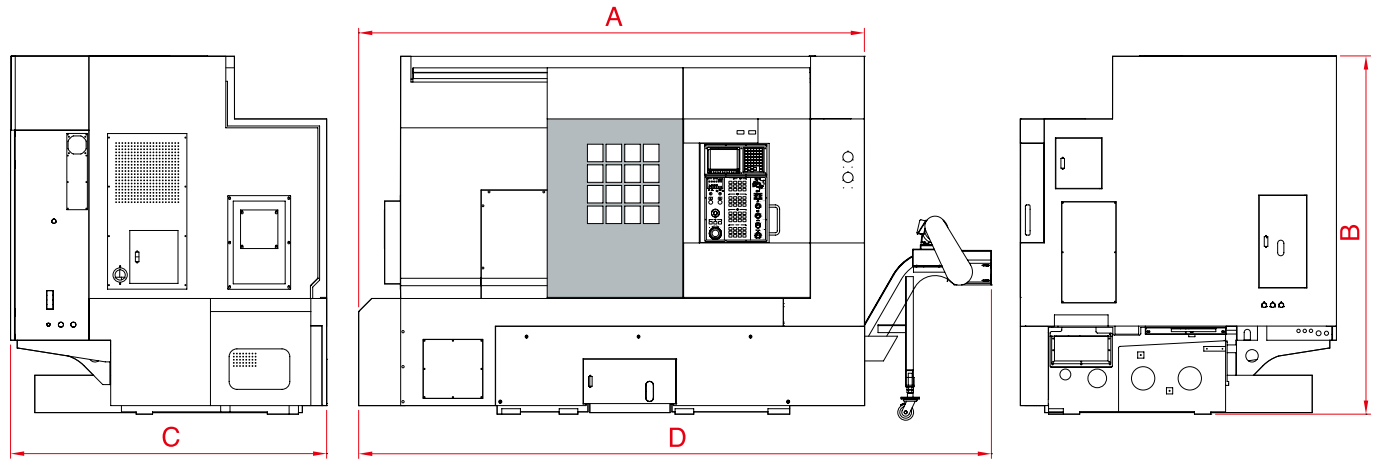
Combining a gantry loader with work stockers enables an automated production line. This reduces costs, improves efficiency, ensures stability in machining quality, and enhances workplace safety by minimizing human errors.



UT-200+Gantry loader+Plate type work stocker

UT-300+Gantry loader+Stacking type work stocker

Machine Dimensions



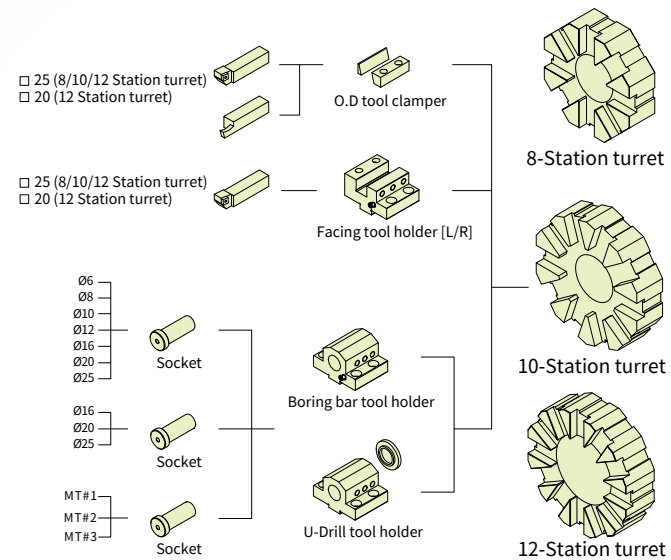
Unit: mm

	UT-200 series				UT-300 series						
	UT-200	UT-200M	UT-200L	UT-200LM	UT-300	UT-300M	UT-300L	UT-300LM	UT-300LX	UT-300LX2	UT-300LX3
A	2867		3674		3100	3300	3900		5250	5550	7050
B	1800		1800		1850	1950	1850	1950	2200	2200	2200
C	1600		1600		1850	1850	1850		2300	2300	2300
D	3500		4300		3800	3850	4500		6050	6400	7900

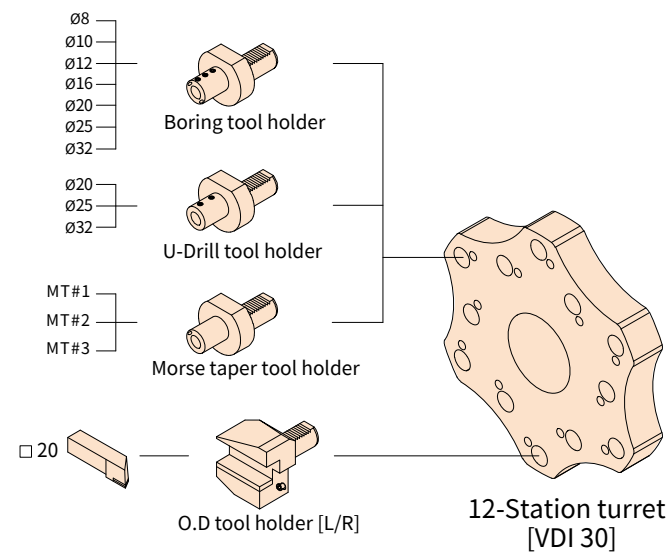
Tooling System Diagrams

UT-200 series

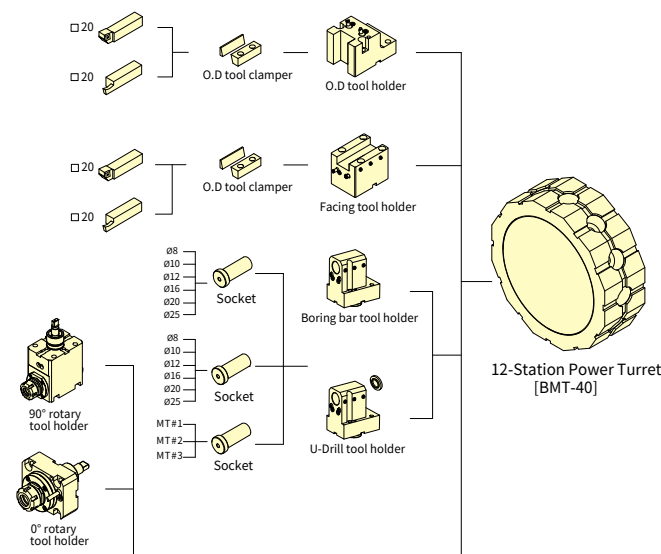
UT-200 BOT Hydraulic/Servo Turret



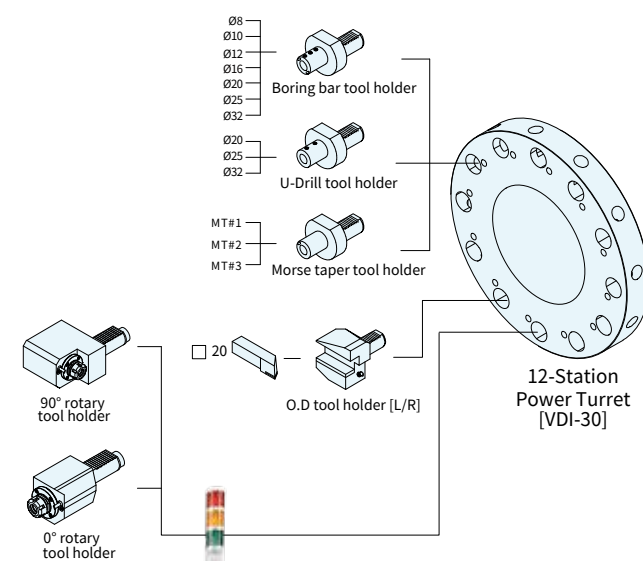
UT-200 VDI-30 Hydraulic/Servo Turret



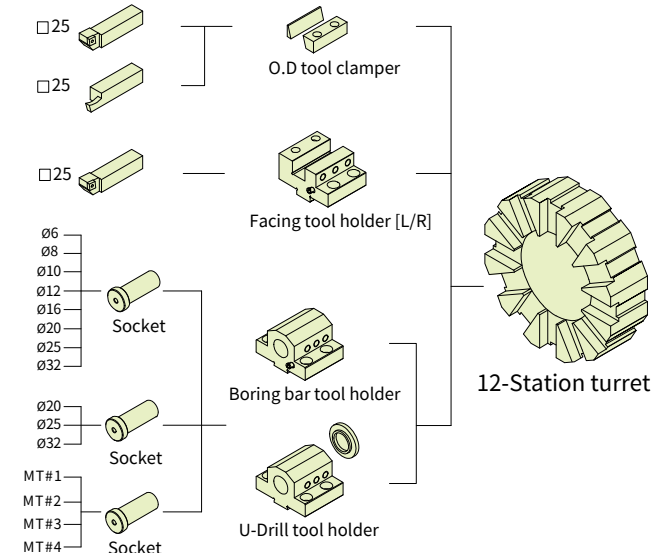
UT-200 BMT-40 Power Turret



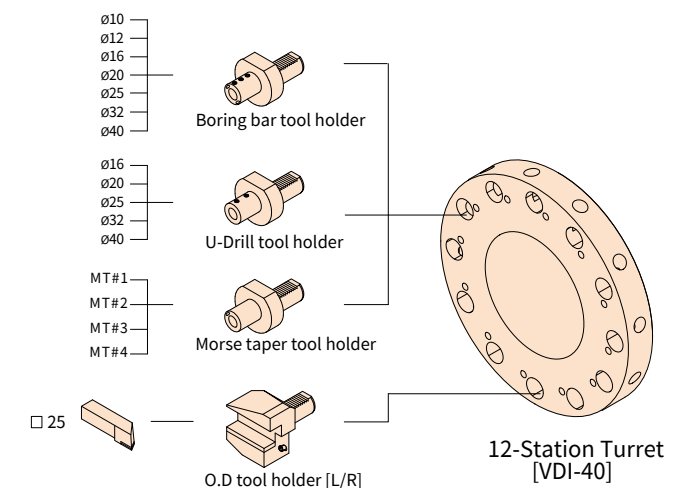
UT-200 VDI-30 Power Turret



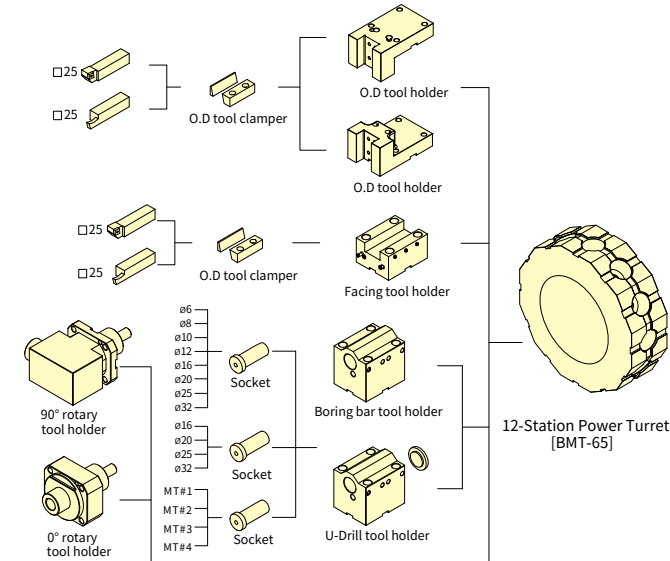
UT-300 BOT Hydraulic/Servo Turret



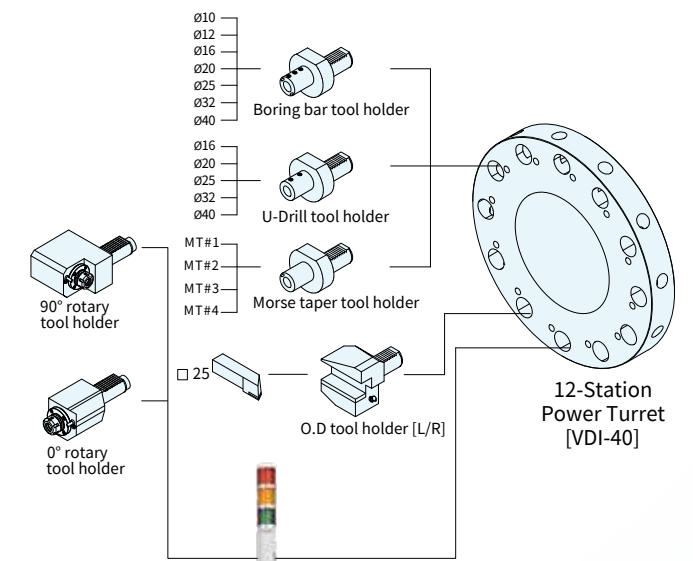
UT-300 VDI-40 Hydraulic/Servo Turret



UT-300 BMT-65 Power Turret



UT-300 VDI-40 Power Turret

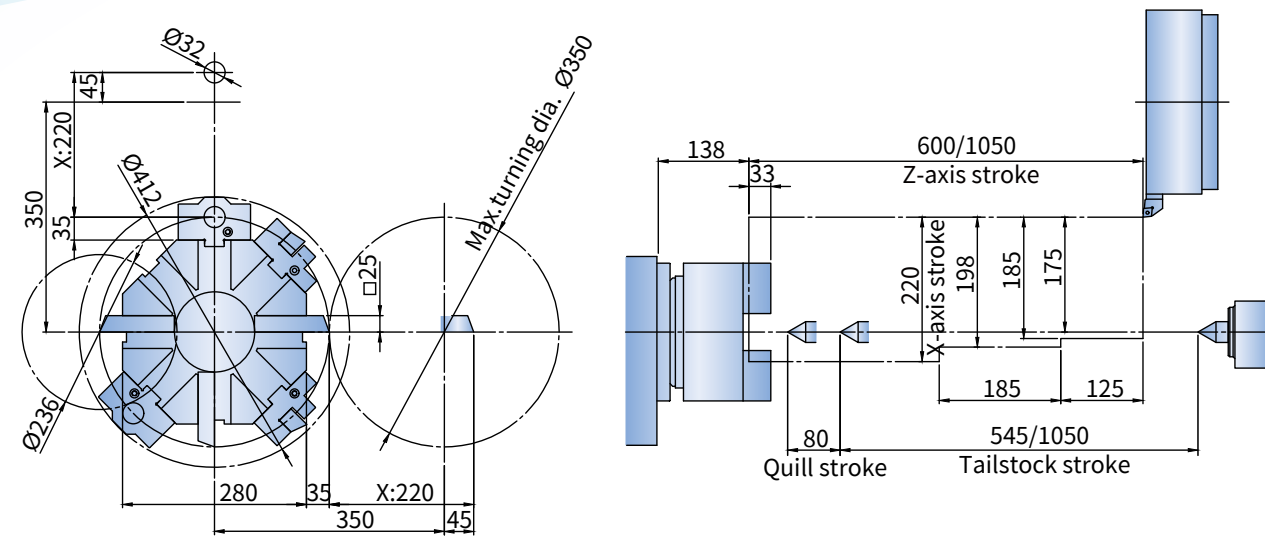


Tool Interference Diagrams

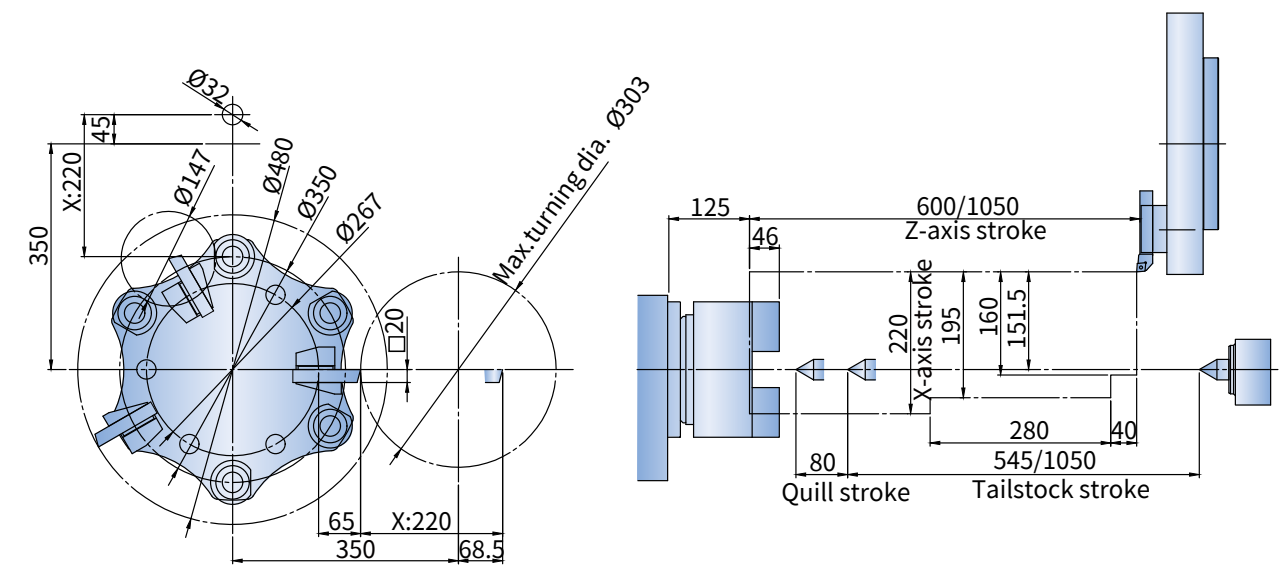
Unit: mm

UT-200 series

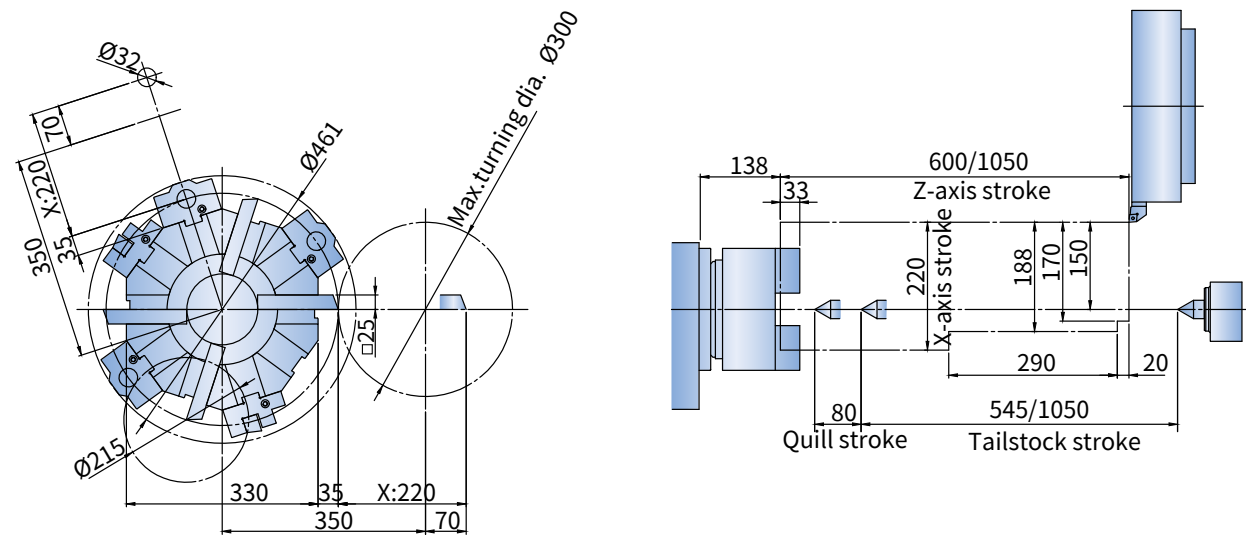
UT-200 BOT 8-station Hydraulic/Servo Turret



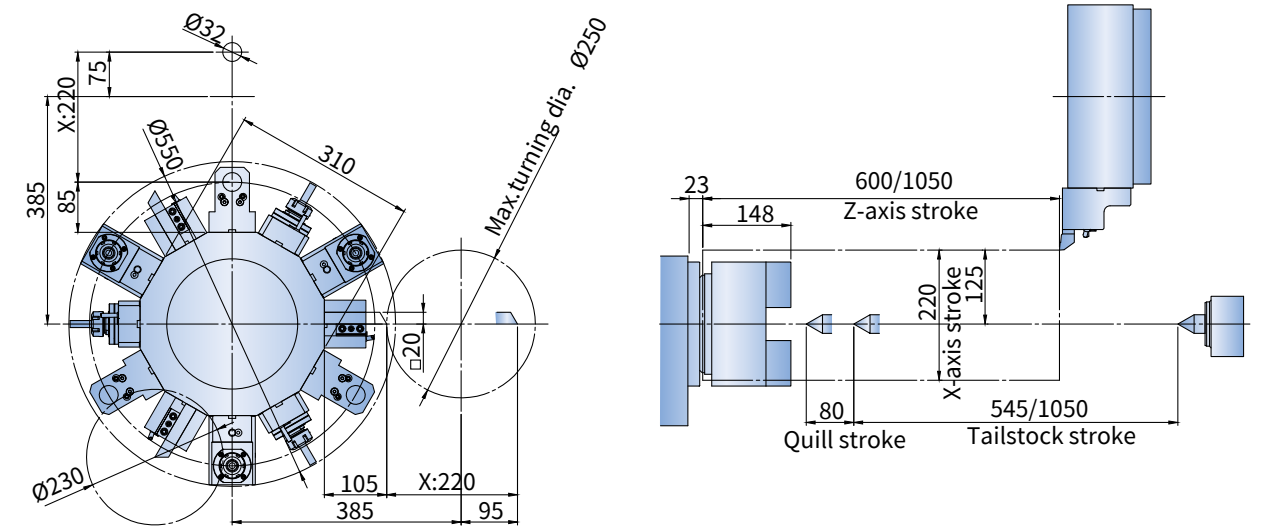
UT-200 VDI-30 12-station Hydraulic/Servo Turret



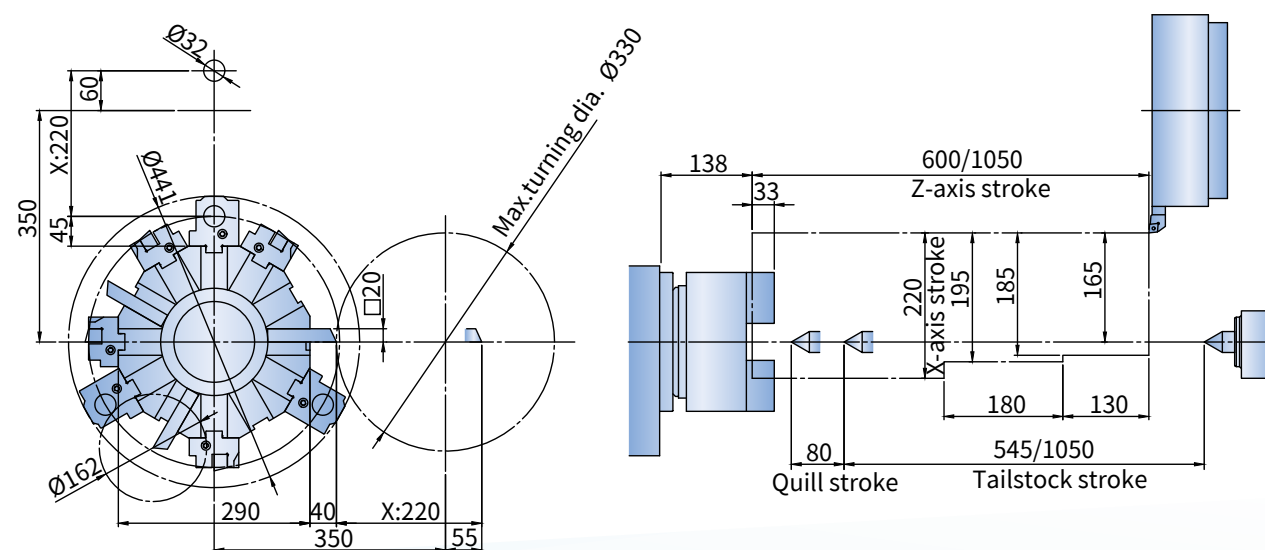
UT-200 BOT 10-station Hydraulic/Servo Turret



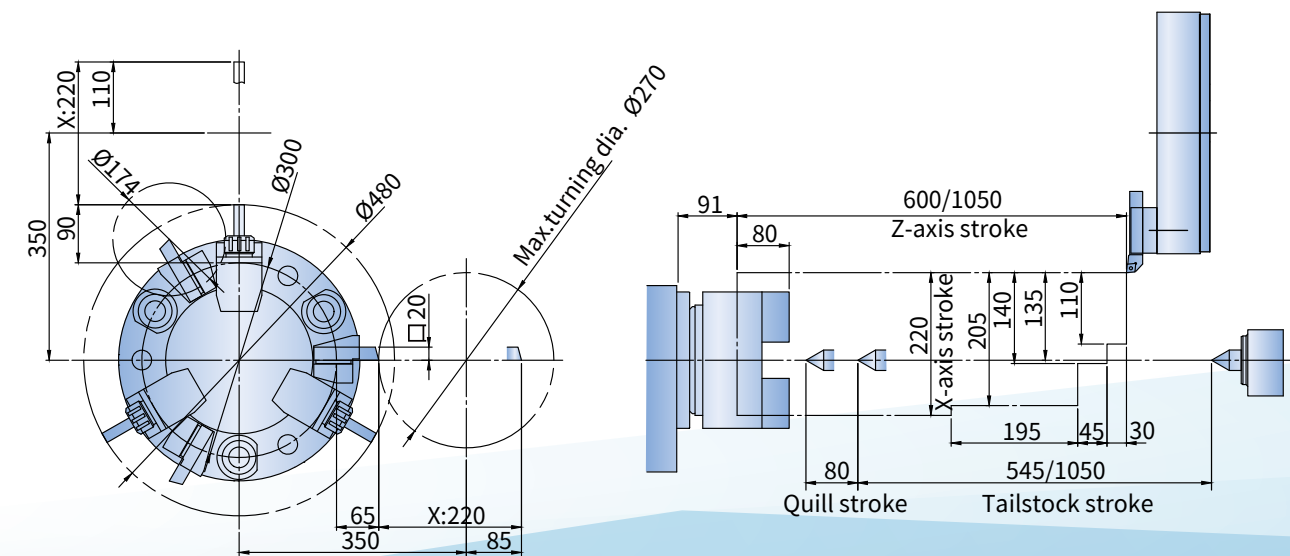
UT-200 BMT-40 12-station Power Turret



UT-200 BOT 12-station Hydraulic/Servo Turret



UT-200 VDI-30 12-station Power Turret

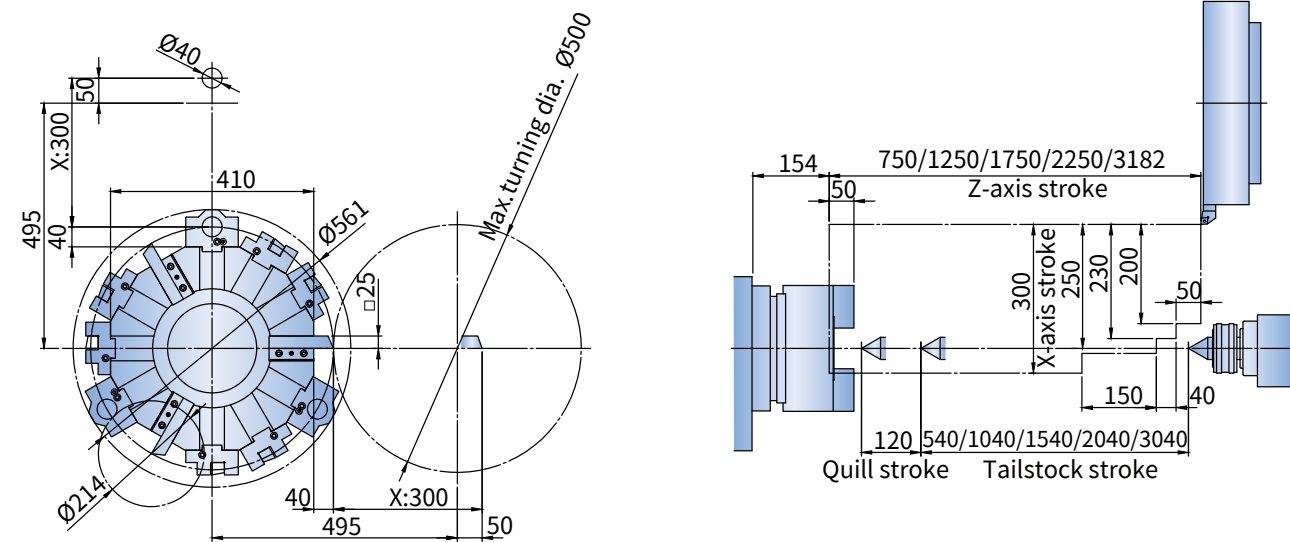


Tool Interference Diagrams

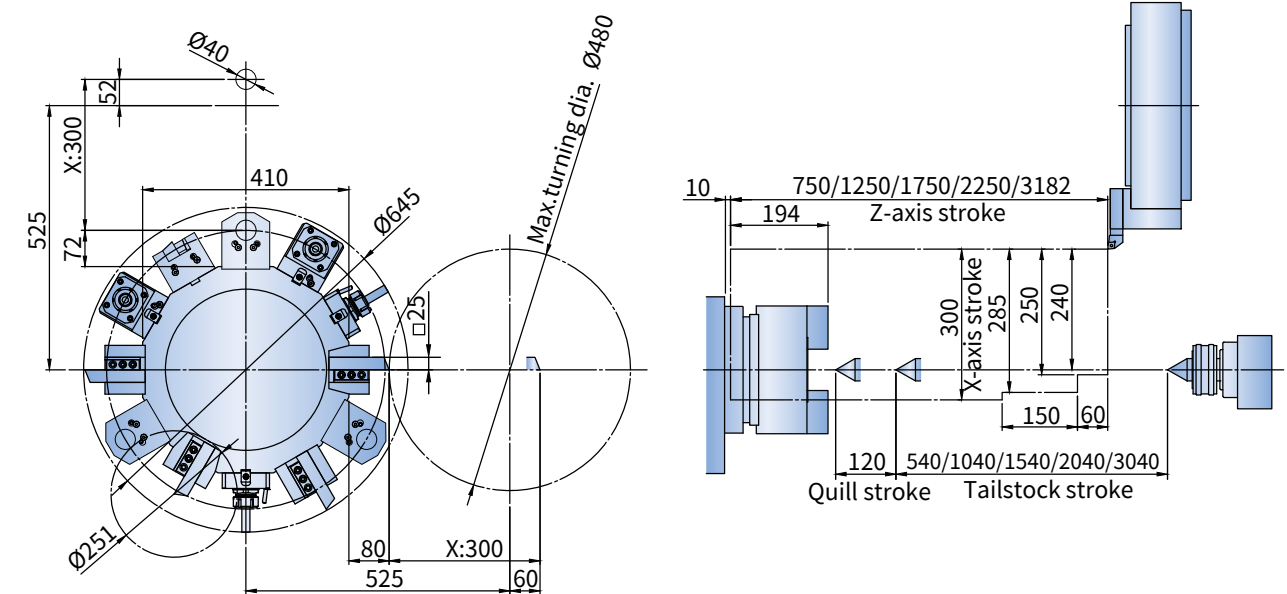
Unit: mm

UT-300 series

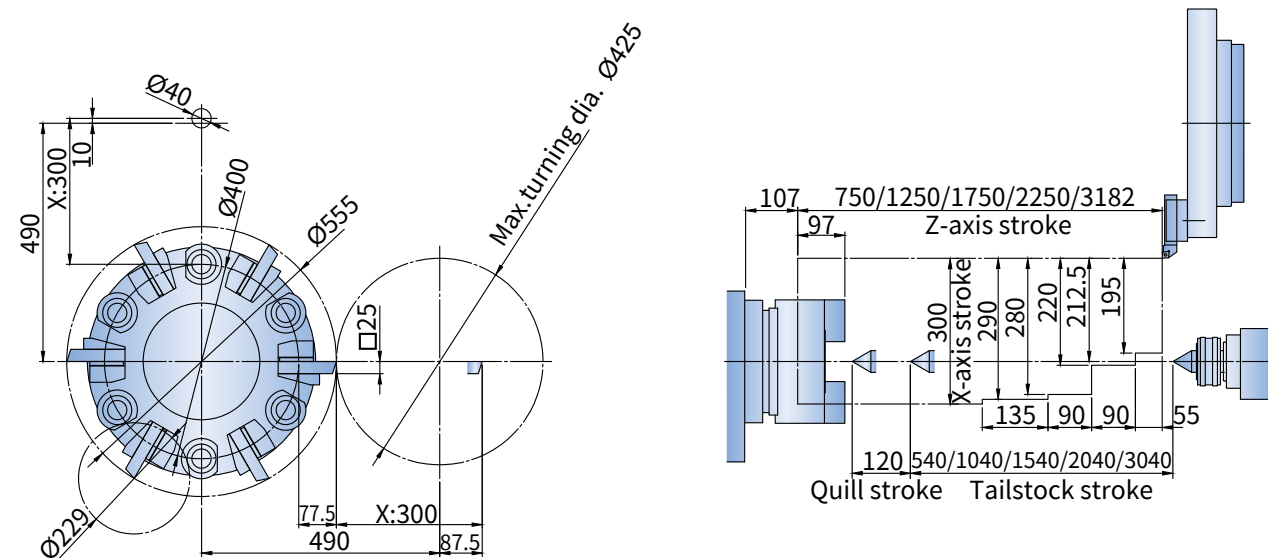
UT-300 BOT 12-station Hydraulic/Servo Turret



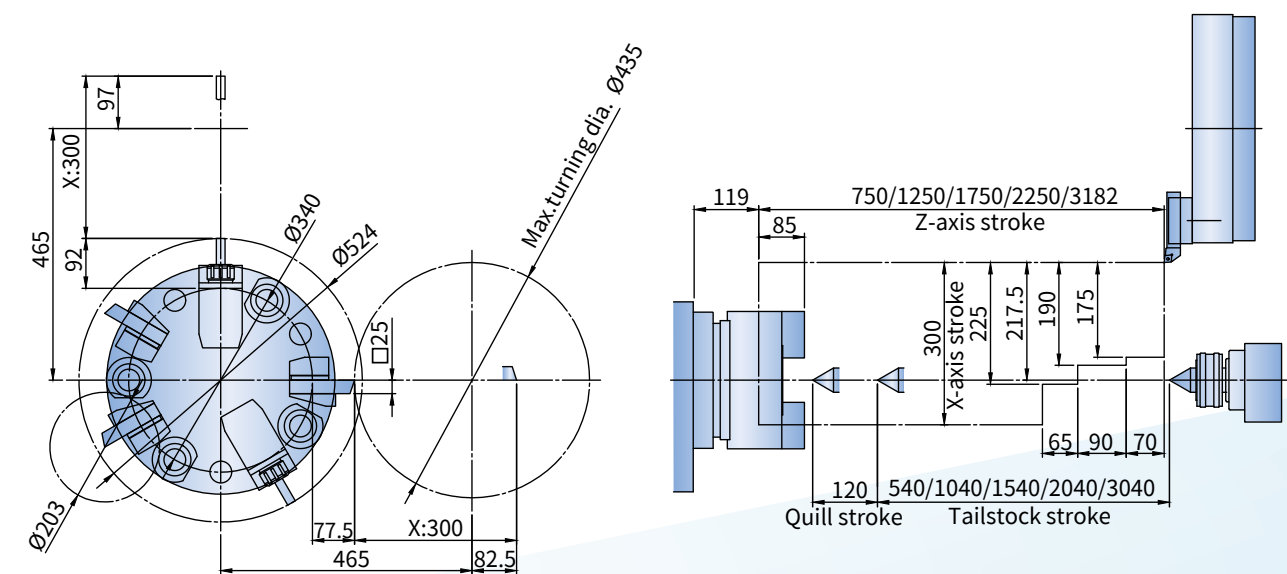
UT-300 BMT-65 12-station power turret



UT-300 VDI-40 12-station Hydraulic/Servo Turret



UT-300 VDI-40 12-station power turret



Specifications

Item / Model		UT-200	UT-200M	UT-200L	UT-200LM
Controller		FANUC 0i-T			
CAPACITY					
Swing Over Bed	mm	505			
Swing Over Saddle	mm	318			
Max. Turning Diameter	mm	300	260	300	260
Max. Turning Length	mm	550 (470)	450 (370)	1000 (920)	900 (820)
Bed Slant Angle	degree	45			
Guideway Type		Box			
SPINDLE					
Spindle Nose Taper	ASA	A2-6 (A2-5/A2-8)			
Spindle Drive Type		Belt			
Chuck Diameter	inch	8 (6/10)			
Spindle Speed	rpm	4500 (4000/6000/3500)			
Bar Capacity	mm	52 (65/44/75)			
Motor					
Spindle Motor Power(Cont./30min)	kW	11/15 (15/18.5)			
Rotary Tool Driver Power	kW	-	3.7/5.5	-	3.7/5.5
TURRET					
Tooling system		BOT	BMT (VDI)	BOT	BMT (VDI)
Turret Drive Type		Hydraulic/Servo	Servo mechanical	Hydraulic/Servo	Servo mechanical
Number Of Tools	station	8/10 (12)	12	8/10 (12)	12
Square Tool Shank Size	mm	25 (20)	20	25 (20)	20
Round Tool Shank Size	mm	32			
Max. Rotary Tool Speed	rpm	-	6000	-	6000
TRAVELS					
X-axis Travel	mm	220			
Z-axis Travel	mm	600		1050	
FEED RATES					
X-axis Rapid Traverse Rate	m/min	20			
Z-axis Rapid Traverse Rate	m/min	20			
TAILSTOCK					
Tailstock Body Travel	mm	545		1045	
Quill Travel	mm	80			
Quill Diameter	mm	75			
Quill Taper	MT#	4			
DIMENSIONS					
Machine dimension L x W x H	m	3.5 x 1.6 x 1.8		4.3 x 1.6 x 1.8	
Machine Weight	kg	3600		4700	

■ specifications are subject to change without prior notice.

UT-300	UT-300M	UT-300L	UT-300LM	UT-300LX	UT-300LX2	UT-300LX3
FANUC 0i-T						
612						
400						
500	420	500	420	500		
680(600)	540 (460)	1180 (1100)	1040 (960)	1680 (1600)	2180 (2100)	3100 (3020)
30						
Box						
A2-8 (A2-11)						
Belt						
10 (12/15)						
3500 (2700/2500/2000)						
75 (90/105/116.5)						
15/18.5 (18.5/22)						
-	3.7/5.5	-	3.7/5.5	-		
BOT	BMT (VDI)	BOT	BMT (VDI)	BOT		
Hydraulic/Servo	Servo mechanical	Hydraulic/Servo	Servo mechanical	Hydraulic/Servo		
12						
25						
40						
-	4000	-	4000	-		
300						
750		1250		1750	2250	3182
20						
24					15	10
540		1040		1540	2040	3040
120						
110						
5						
3.8 x 1.9 x 1.9	3.9 x 1.9 x 2.0	4.5 x 1.9 x 1.9	4.5 x 1.9 x 2.0	6.1 x 2.3 x 2.2	6.4 x 2.3 x 2.2	7.9 x 2.3 x 2.2
5500		6000		7500	9000	11000