



Slant-Bed Turning Center

UT
Series



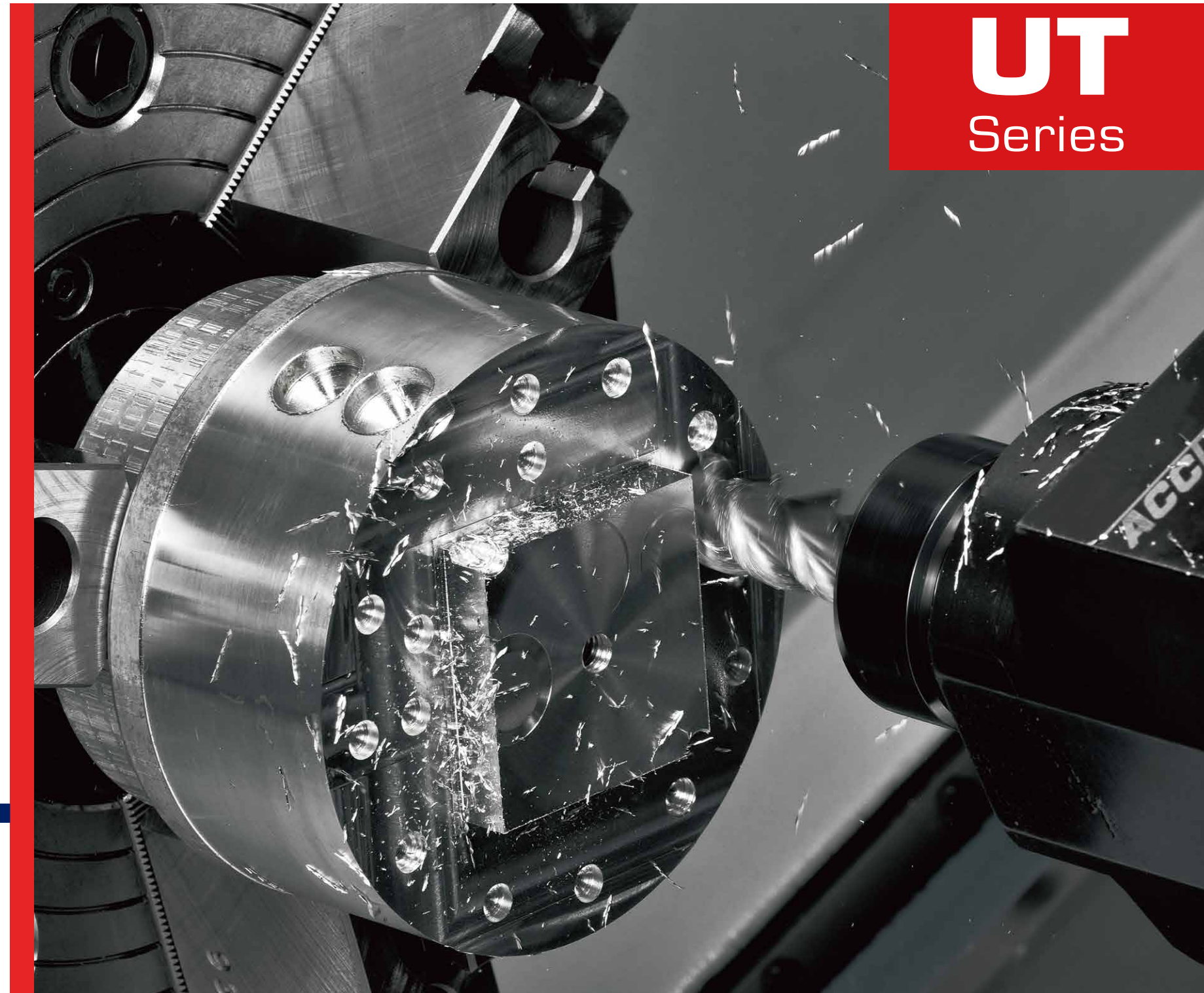
鈺基科技股份有限公司
ACCUWAY MACHINERY CO., LTD.

42942台灣台中市神岡區豐工中路31號

No.31, Fenggong Central Rd., Shengang Dist., Taichung City 42942, Taiwan

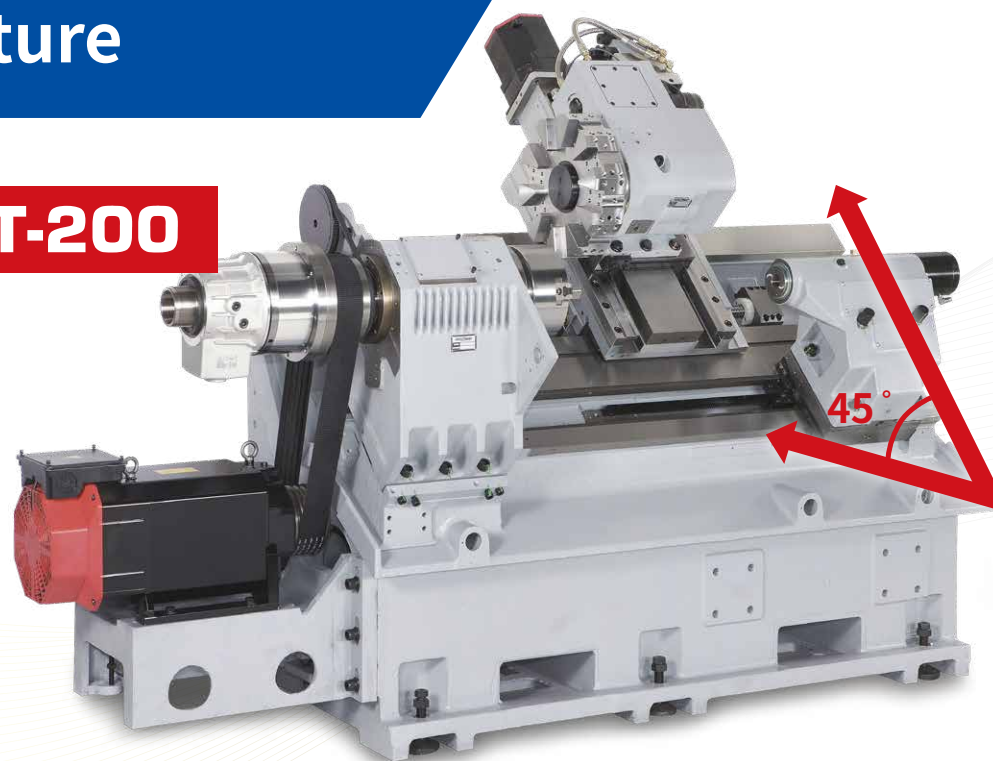
TEL:886-4-2520-9588 FAX:886-4-2520-9716

E-mail: market@accuway.com.tw



Structure

UT-200



High Quality Meehanite Casting

A heavily ribbed and reinforced one piece Meehanite casting highly reduce the chances of bending and deformation. The UT-200 series is equipped with a 45° slant bed while the UT-300 series has a 30° slant bed.

Designed for Stability

In order to achieve a high standard of machine stability and provide the best machining performance, the base in these machines is designed to have a low center of gravity.



Wide Hardened Boxways

Another high standard aspect is the unique process for induction-hardened and heat treated wide boxways. They are also precision ground to match stringent positioning and repetitive accuracy under various machining requirements.

Expert Hand Scraping

To get the most precise positioning and extend their service life to the maximum, all sliding surfaces are treated with extreme care and proficiency. First, they are coated with a layer of Turcite B and then hand-scraped to create the perfect lubricant retention.

During assembly, professional experts will constantly check and adjust the surfaces flatness, squareness, and straightness and make sure to deliver the best static geometrical accuracy.

Rigid Shock Absorbing Headstock

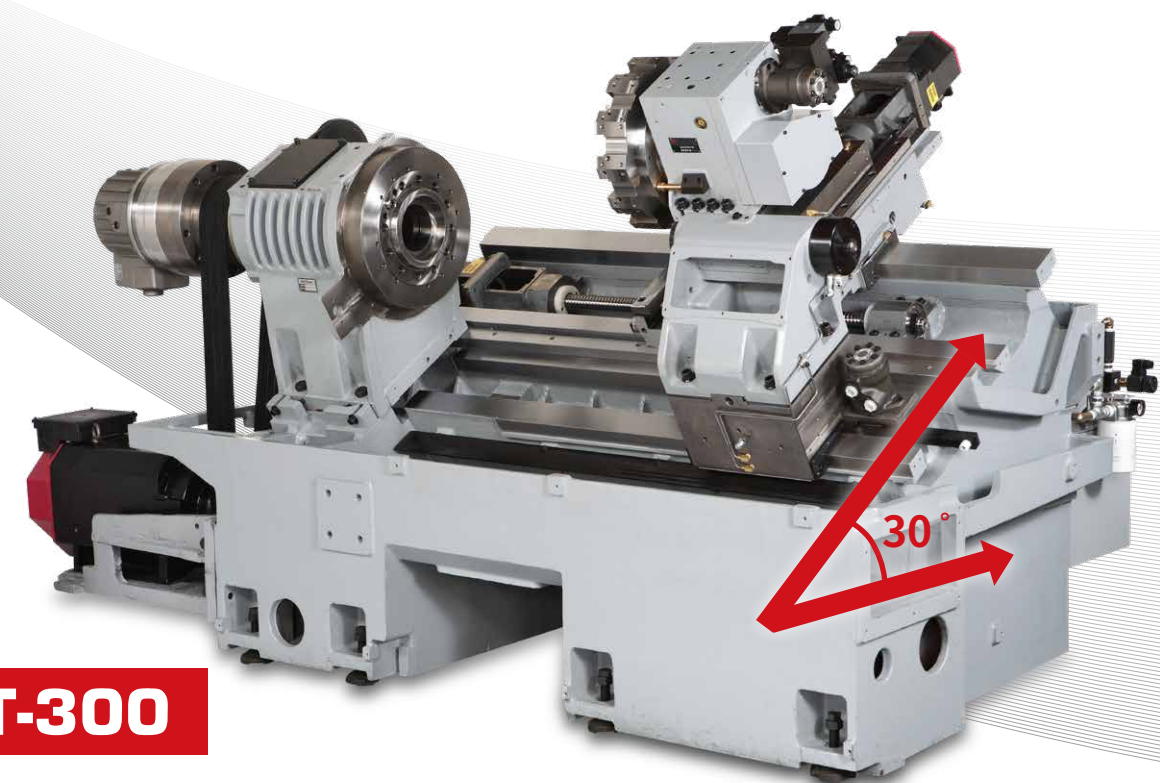
To eliminate remaining internal stress arising from casting process, headstocks are naturally seasoned as well as heat treated and annealed twice before precision finishing grinding. They are specially designed to resist cutting force and withstand the extreme demands of continues heavy-duty and step cutting.

Headstock Performance

One of the best headstock design features is the symmetrically placed heat dissipating ribs. They allow the cooling process to take place smoothly and evenly. This minimizes thermal deformation and helps maintaining the circularity and concentricity to achieve the high precision that customers expect.



UT-300



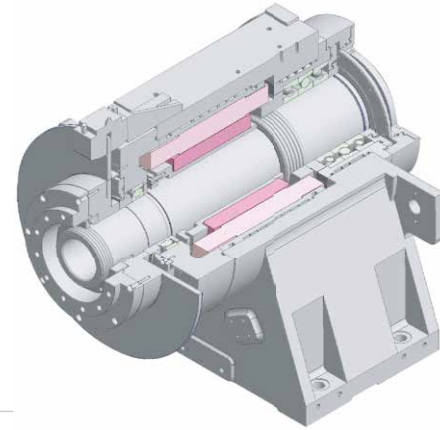
Precision Assurance

Prior to assembly, all key components will go through a series of functional and dimensional checks using CMM system ensuring they are up to standards.

Precision Spindle

Precision In-house Spindle Assembly

Precision belt drive spindles are custom designed and assembled in-house to provide unsurpassed power, long term durability, and peak machining capability. Each spindle undergoes a dynamic balancing operation to reduce the vibration increasing the machine performance and overall quality.

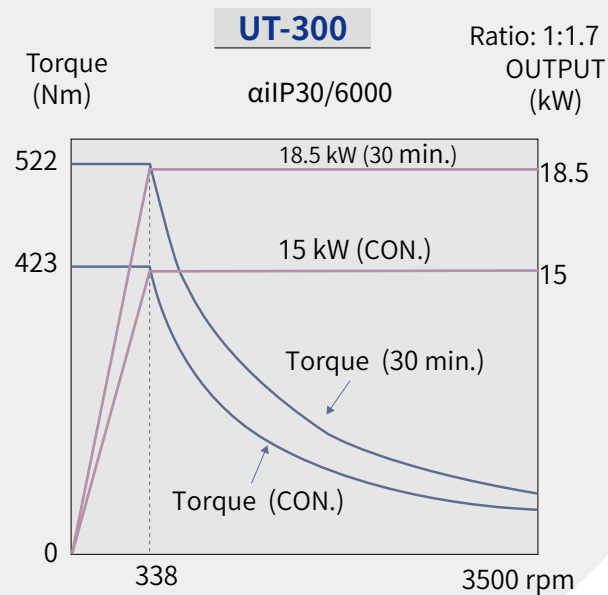
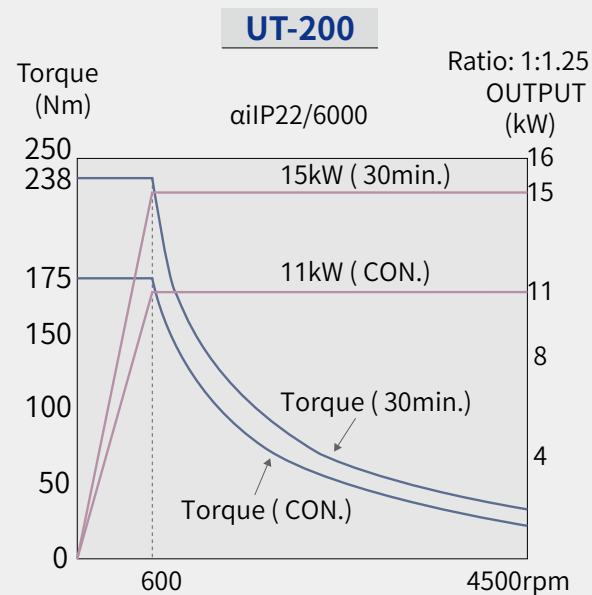


Ballscrew Drive Mechanism

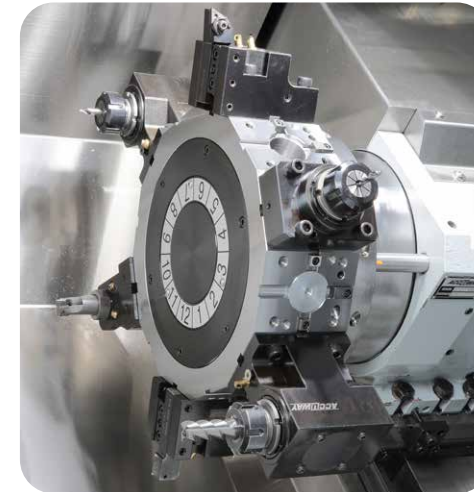
State-of-the-art larger AC servo motors are equipped to provide powerful thrust for high feed rates and accurate cutting. Therefore, large diameter pre-tensioned precision ballscrews are directly connected to the drive mechanism for a backlash free movement.



Spindle Power Chart



High Precision Turrets



BMT Power Turret



Hydraulic Turret



VDI Power Turret

Precision In-house Turret Assembly

All turrets are built in-house with care offering both cam-follower driven hydraulic and servo driven indexing mechanisms. BMT turret is provided as an option as well, covering a wider range of availabilities for clients.

Programmable Tailstock

The tailstocks in the UT series machines can be either manually or automatically controlled. They are located on the same one-piece cast guideway surface aligned with the headstock and main spindle. The UT-200 has a manually controlled tailstock by default and can be upgraded to a programmable one on demand. The UT-300 has a programmable tailstock as a standard option.

A rack and pinion mechanism drives the heavy duty tailstock in the UT-300 series using its high torque to deliver powerful positional locking.



BMT(VDI) Power Turret

Live tooling capability for drilling, milling, tapping, and turning plays a major factor in reducing machining time and maintaining the highest accuracy standards. It allows executing different types of job without the need to transfer the parts to another machining station.

Renishaw Tool Setting

With this optional function to check tool wear and compensate worn value automatically, it reduce machining time and increase efficiency dramatically. This setting allows tool life management without down time by maintaining tool geometry with a 5µm repeatability accuracy.

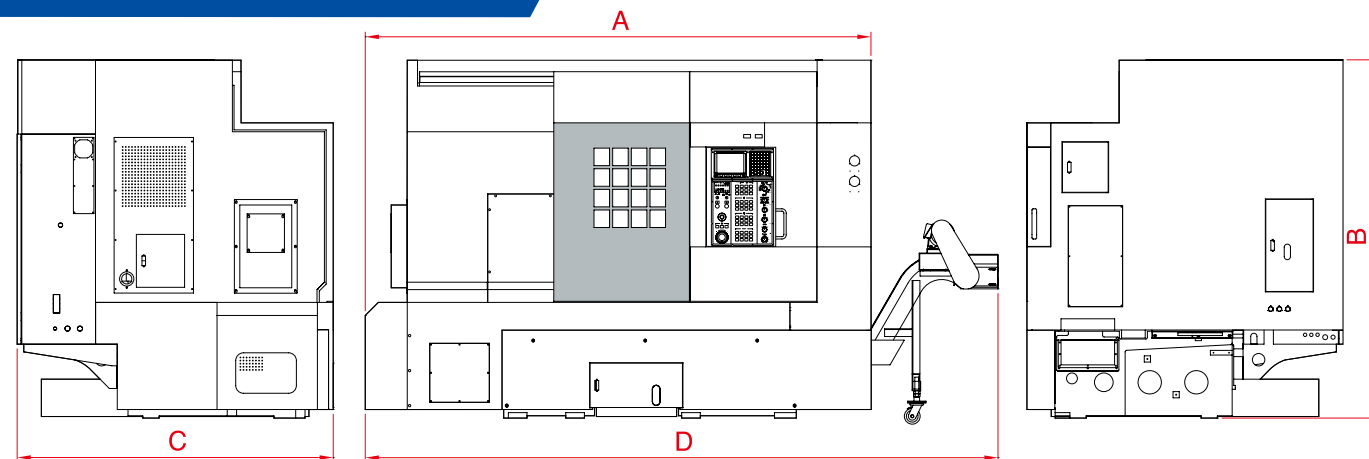
Parts Catcher

A hydraulic parts catcher is available to quickly and automatically transfer parts to an outside collection box or peripheral automation station. Parts catchers improve productivity by enabling the machine to run unattended, freeing up operators to handle other activities.

Steady Rest

The steady rest for long workpieces can be programmed for maintaining concentricity and accuracy during machining. Travel is either programmable or manual.

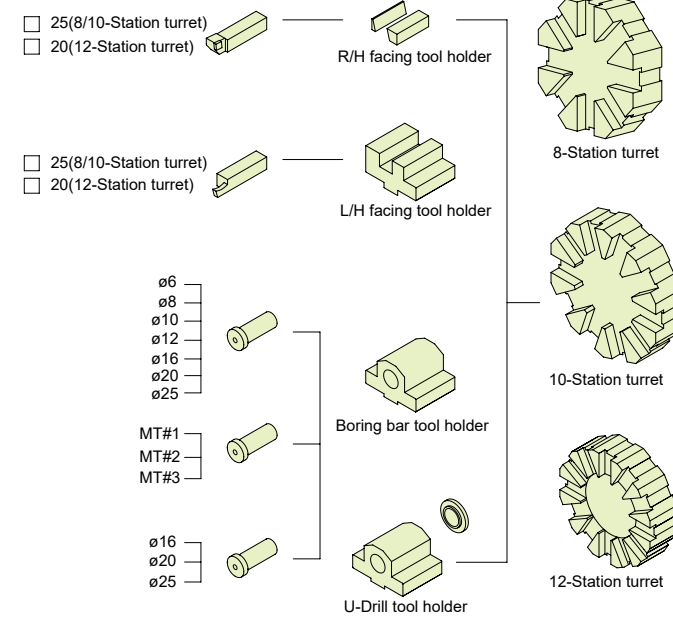
Machine Dimensions



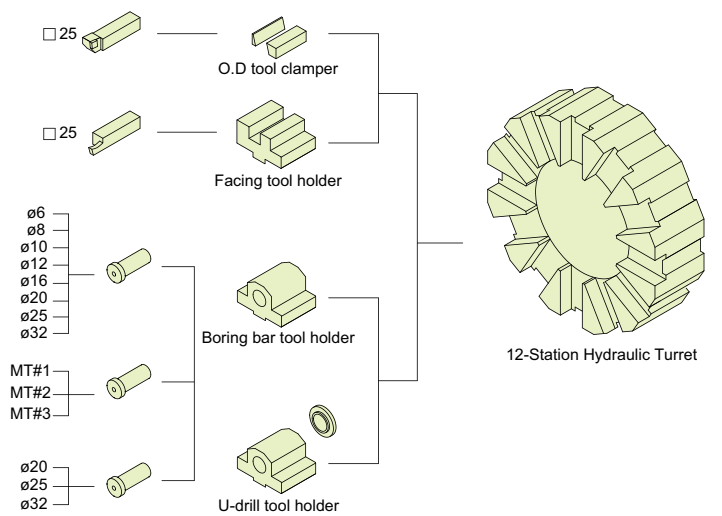
	UT-200	UT-200M	UT-200L	UT-200LM	UT-300	UT-300M	UT-300L	UT-300LM	UT-300LX	UT-300LX2	UT-300LX3
A	2867		3674		3100	3300		3900	5250	5550	7050
B	1800		1800		1850	1950	1850	1950	2200	2200	2200
C	1600		1600		1850	1850		1850	2300	2300	2300
D	3500		4300		3800	3850		4500	6050	6400	7900

Tooling System Diagrams

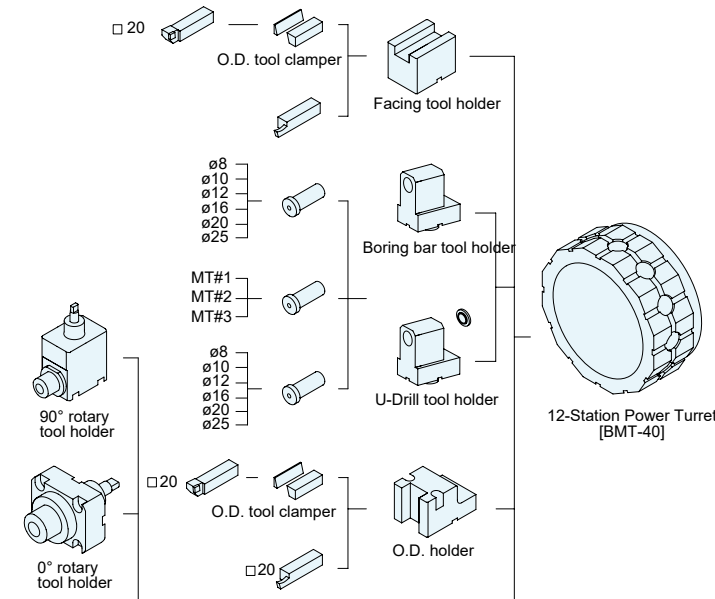
UT-200 Block Tooling System



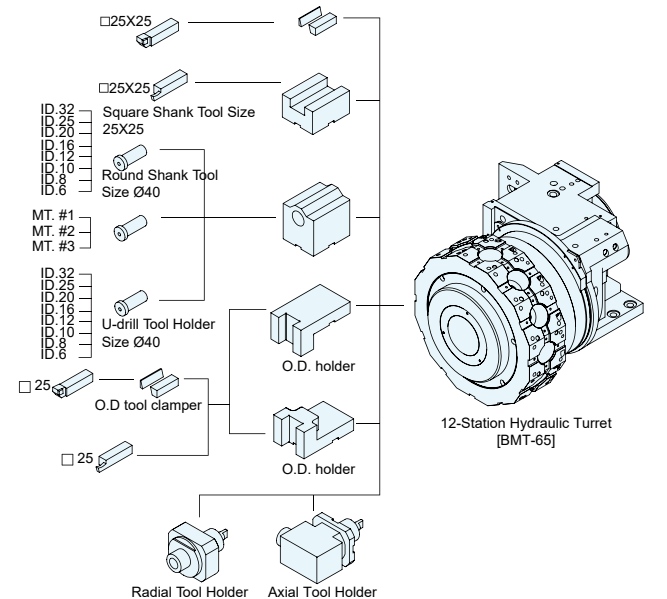
UT-300 Block Tooling System



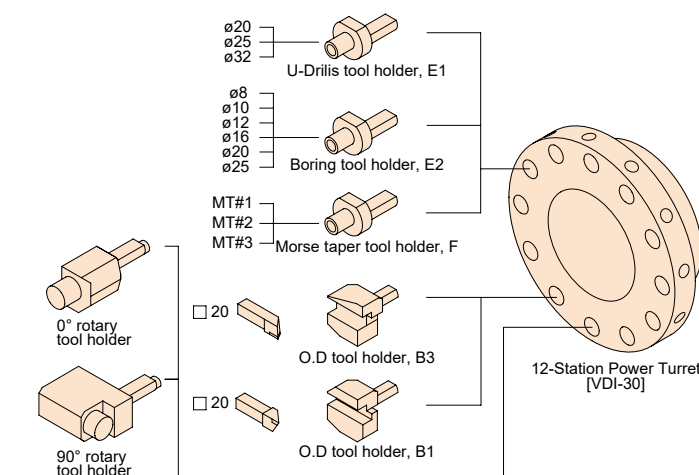
UT-200 BMT-40 Tooling System



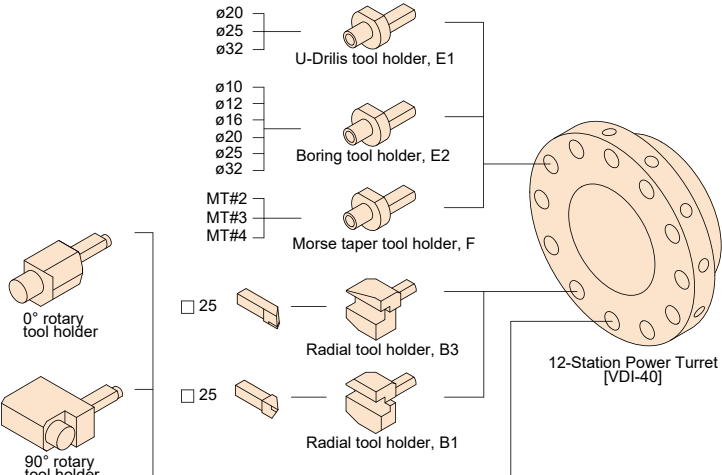
UT-300 BMT-65 Tooling System



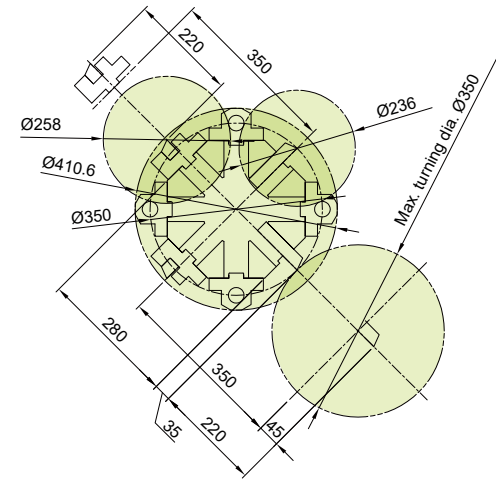
UT-200 VDI-30 Tooling System



UT-300 VDI-40 Tooling System

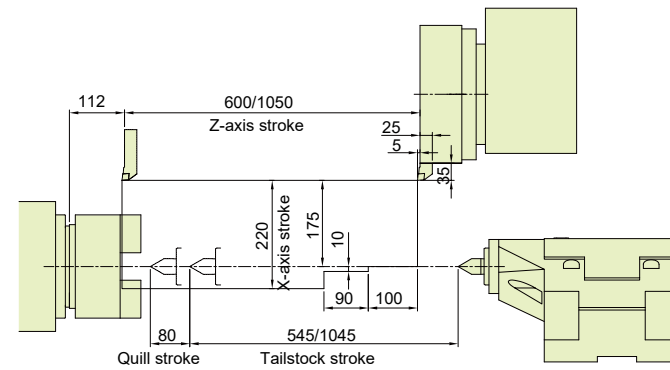


UT-200 8-station hydraulic turret

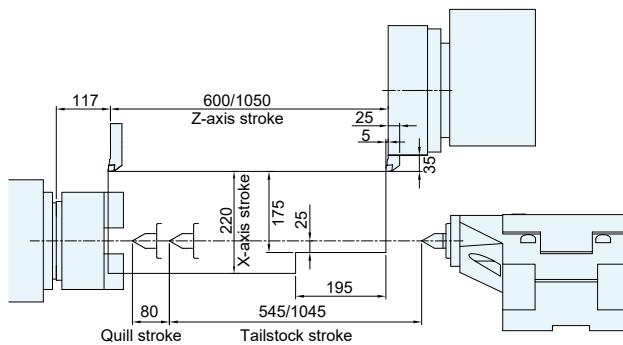
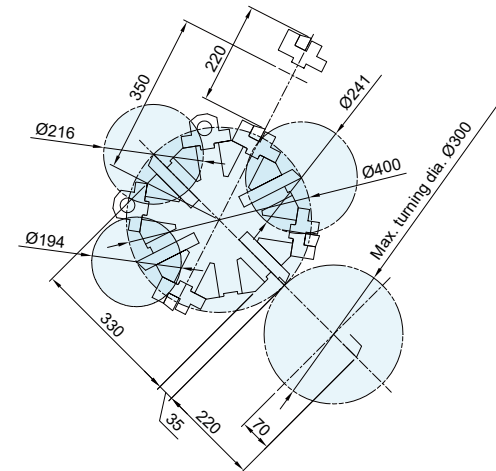


Tool Interference Diagrams

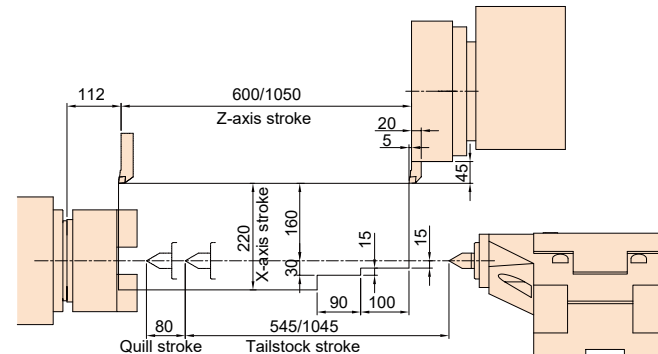
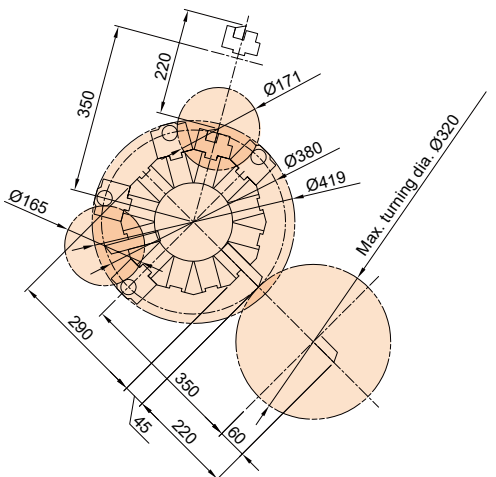
Unit: mm



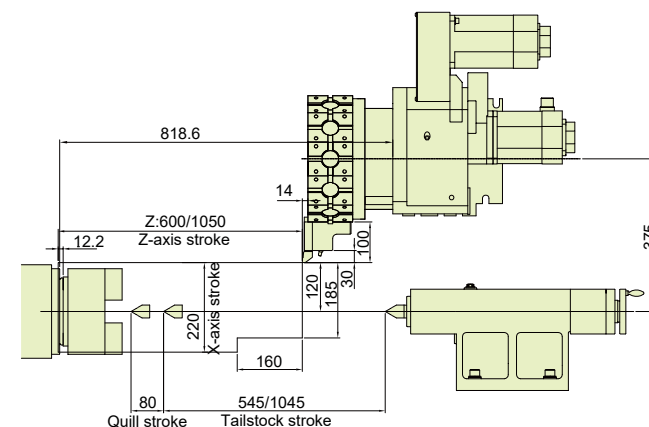
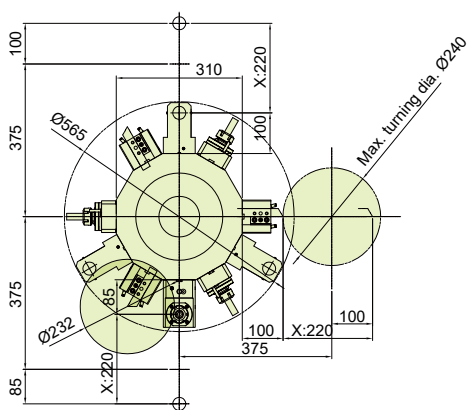
UT-200 10-station hydraulic turret



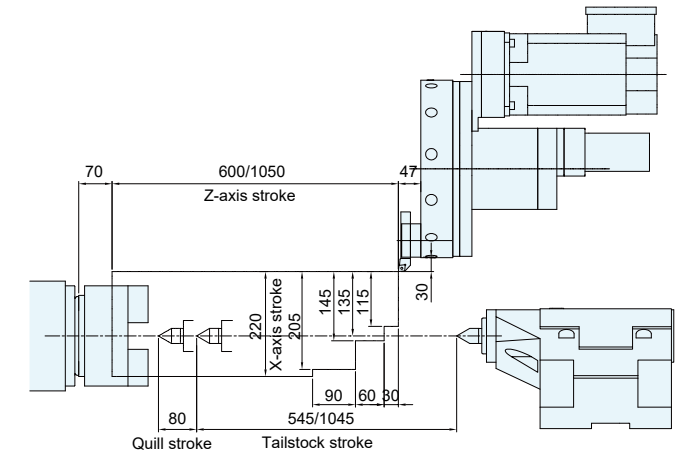
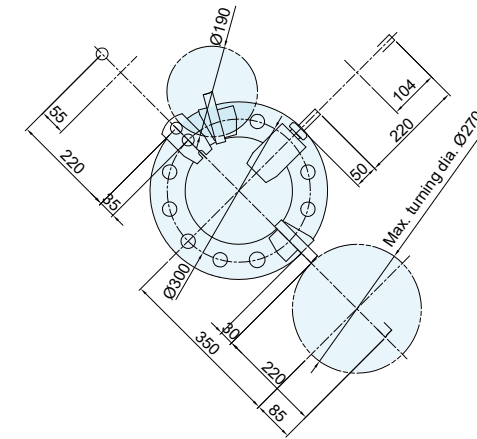
UT-200 12-station hydraulic turret



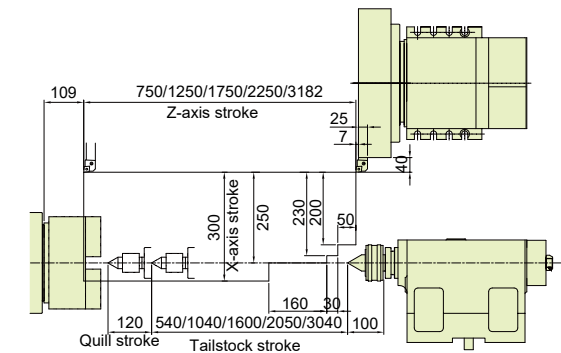
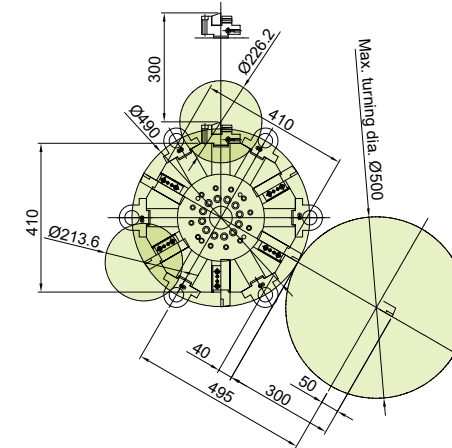
UT-200 BMT-40 12-station power turret



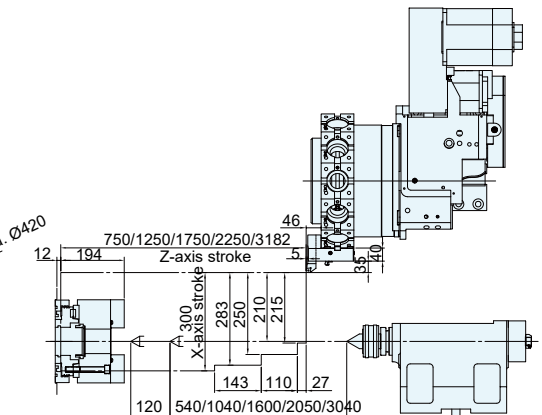
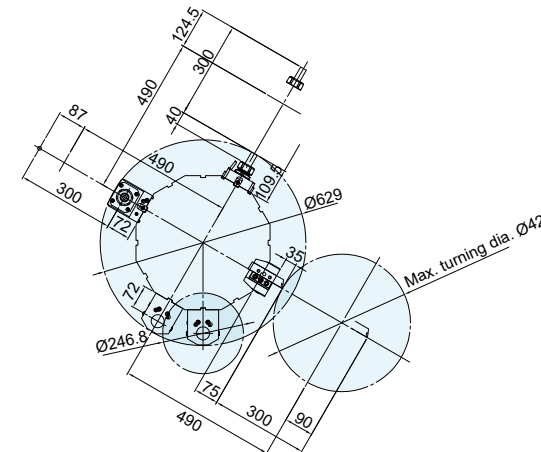
UT-200 VDI-30 12-station power turret



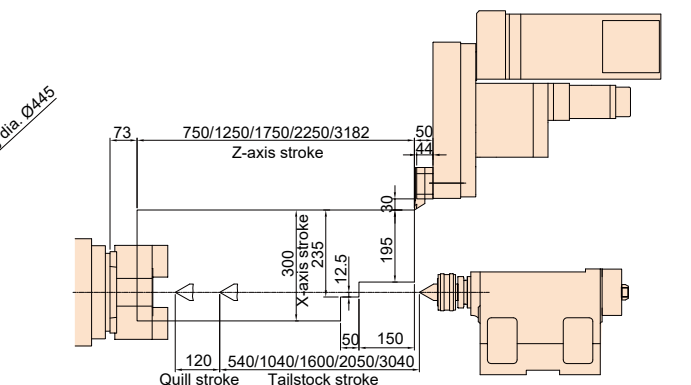
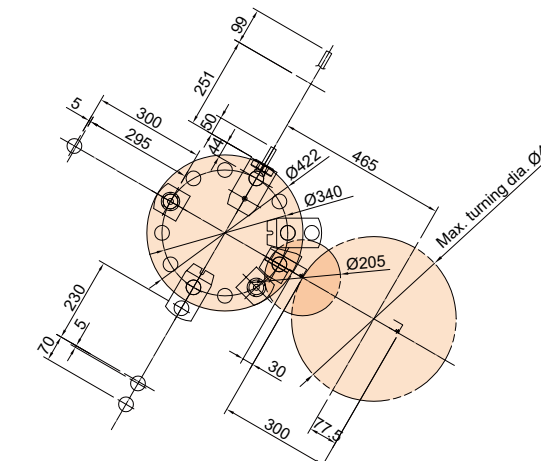
UT-300 12-station hydraulic turret



UT-300 BMT-65 12-station power turret



UT-300 VDI-40 12-station power turret



Specifications

Item / Model		UT-200	UT-200M	UT-200L	UT-200LM	UT-200G
Controller		FANUC Oi-T				
CAPACITY						
Swing Over Bed	mm	505				
Swing Over Saddle	mm	318				135
Max. Turning Diameter	mm	300	260	300	260	135
Max. Turning Length	mm	550 (470)	450 (370)	1000 (920)	900 (820)	200
Bed Slant Angle	degree	45				
Guideway Type		Box				
Working table	mm	-				350x190
SPINDLE						
Spindle Nose Taper	ASA	A2-6 (A2-5/A2-8)				
Chuck Diameter	inch	8 (6/10)				
Bar Capacity	mm	52 (65/44/75)				
Spindle Speed	rpm	4500 (4000/6000/3500)				
Spindle Motor Power (Cont./30min)	kW	11/15 (15/18.5)				
TRAVELS						
X-axis Travel	mm	220				320
Z-axis Travel	mm	600	1050			600
FEED RATES						
X-axis Rapid Traverse Rate	m/min	20				
Z-axis Rapid Traverse Rate	m/min	20				
TURRET						
Tooling system		BOT	-	BOT	-	Gang
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	25(20)
Round Tool Shank Size	mm	32				
Max. Rotary Tool Speed	rpm	-	6000	-	6000	-
Rotary Tool Driver Power	kW	-	4.5	-	4.5	-
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		3.5 x 1.6 x 1.8
Machine Weight	kg	3600		4700		3000

■ specifications are subject to change without prior notice.

UT-300	UT-300M	UT-300L	UT-300LM	UT-300LX	UT-300LX2	UT-300LX3
FANUC Oi-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)						
10 (12/15)						
75 (90/105/116.5)						
3500 (2700/2500/2000)						
15/18.5 (18.5/22)						
300						
750		1250		1750	2250	3182
20						
24					15	10
BOT	-	BOT	-	BOT		
Hydraulic/Servo	Servo mechanical	Hydraulic/Servo	Servo mechanical	Hydraulic/Servo		
12						
25						
40						
-	4000	-	4000	-		
-	4.5	-	4.5	-		
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