

Specifications

Item / Machine type		UL-15	UL-20
Controller		FANUC Oi-TC	
Capacity			
Swing over bed	in/mm	17.9 / 455	17.9 / 455
Swing over saddle	in/mm	10.2 / 260	10.2 / 260
Max cutting diameter	in/mm	13 / 330	13 / 330
Max cutting length	in/mm	11.8 / 300	23.6 / 600
Spindle			
Spindle nose	ASA	A 2-5	A 2-6
Power chuck diameter	in/mm	6.7 / 169	8.3 / 210
Spindle hole diameter	in/mm	2.2 / 56	2.4 / 62
Spindle speed	rpm	6000	4500
Spindle drive power < Cont. / 30 min >	kW	11 / 15	11 / 15
Bar capacity	in/mm	1.7 / 45	2 / 52
Travels			
Z axis	in/mm	13 / 330	24.6 / 625
X axis	in/mm	6.9 / 175	6.9 / 175
Rapid Feed Rate			
Z axis	ipm (m/min)	787 (20)	787 (20)
X axis	ipm (m/min)	787 (20)	787 (20)
Turret			
Number of tools	station	8 (12)	8 (12)
Square tool shank size	in/mm	1 / 25 (0.8 / 20)	1 / 25 (0.8 / 20)
Round tool shank size	in/mm	1.3 / 32	1.3 / 32
Tailstock			
Tailstock body travel	in/mm	7.9 / 200	15.7 / 400
Quill travel	in/mm	3.1 / 80	5.9 / 150
Quill diameter	in/mm	2.8 / 70	2.8 / 70
Quill taper	MT #	4	4
Machine Dimensions			
Floor space	ft/m	6.4 × 4.2 / 1.9 × 1.3	7.8 × 4.2 / 2.4 × 1.3
Height	ft/m	5.3 / 1.6	5.3 / 1.6
Net weight	lb/kg	6600 / 3000	7700 / 3500

Specification are subject to change without prior notice.

Standard Accessories

1. Hollow 3-jaw hydraulic cylinder & chuck (Strong)
2. Hydraulic turret and tool holders
3. FANUC Oi-TC controller
4. 8.4" Color LCD monitor
5. Registered part program numbers: 400 sets
6. Part program memory size: 640 m
7. RS-232 interface
8. Heat exchange for electric cabinet
9. Hydraulic power supply unit
10. High pressure coolant system
11. Full-enclosed X/Z axis way cover
12. Automatic lubrication system
13. Three-color warning light
14. Soft and hard jaw
15. Tool kit
16. Operation manual

Optional Accessories

1. Hollow 3-jaw hydraulic cylinder & chuck [Howa, kitagawa]
2. Tool setter [Renishaw]
3. External control box
4. Auto door
5. Parts catcher
6. Bar feeder interface 7 or 24 pins
7. Bar feeder
8. Oil skimmer
9. Oil mist collector
10. Air cooler for electric cabinet
11. Transformer
12. Collet chuck
13. Chip conveyor
14. Chip cart

ACCUWAY

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ACCUWAY

UL *Series*

Flat-Bed CNC Turning Center



CE

01-30

Optimized Structural Design

- One-piece flatbed base coupled with 30° slant saddle, made of high tensile strength MEEHANITE casting, heat treated and ground. Hardness may reach HRC 53. All sliding surfaces are coated with Turcite B to maintain feeding and positioning accuracy plus long service life. Chip flushing function is excellent for this structure.
- Large span of high-rigidity box way design, along with high damping coefficient, allows heavy or discontinuous cutting of carbon steel, stainless steel, and aluminum casting without inducing chatter.
- Specialized scraping assembly work and Z-shaped lube-groove design, provides best lubrication for sliding surfaces.

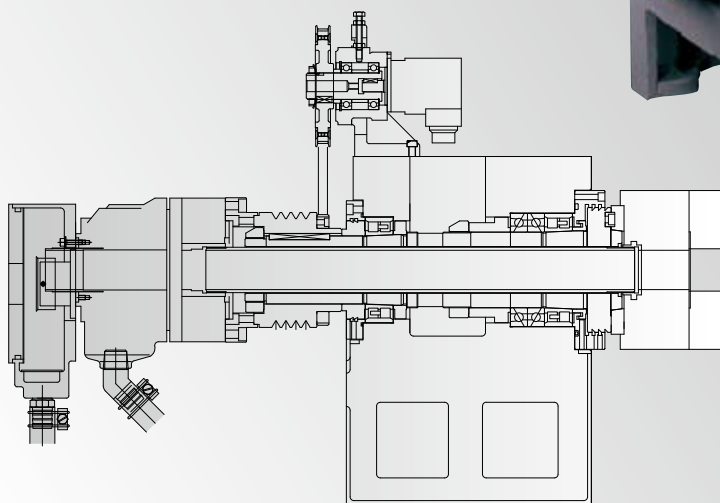
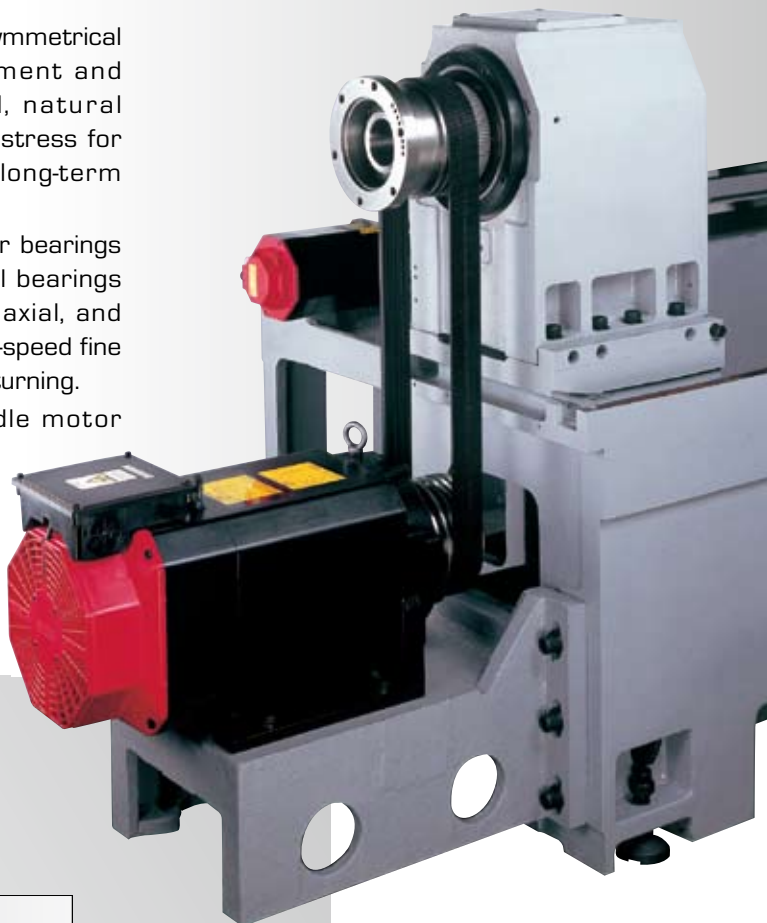


Skilled Scraping Work



Powerful High-rigidity, Top-accuracy Spindle System

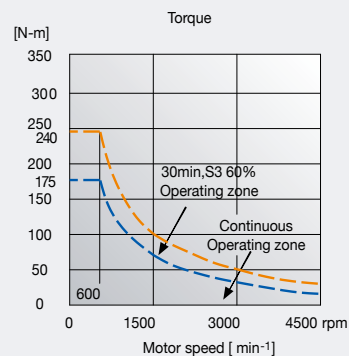
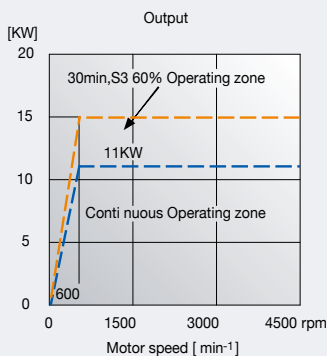
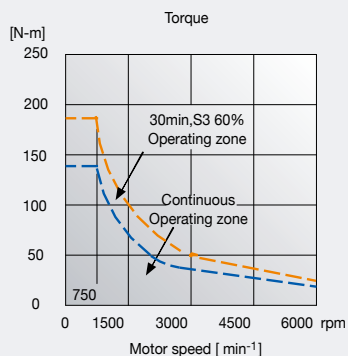
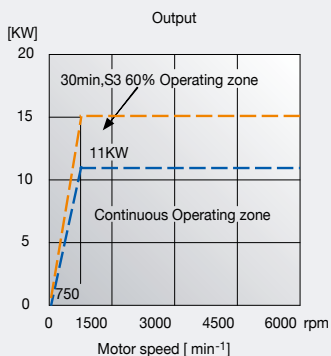
- Reinforced headstock structure with symmetrical design balances thermal displacement and reduces spindle errors. Annealed, natural seasoning diminishes internal residual stress for stable material quality and assures long-term machining accuracy.
- Large-diameter, high-precision dual-roller bearings and self-alignment angular contact ball bearings support spindle to withstand radial, axial, and combined loading. It is applicable to high-speed fine turning as well as low-speed, heavy-duty turning.
- High-performance, wide-range spindle motor powered by 20 hp offers full-scale power output at speed range of 750-6000 rpm. In addition, 190 N-m high-torque acceleration makes it the most powerful lathe at this level.



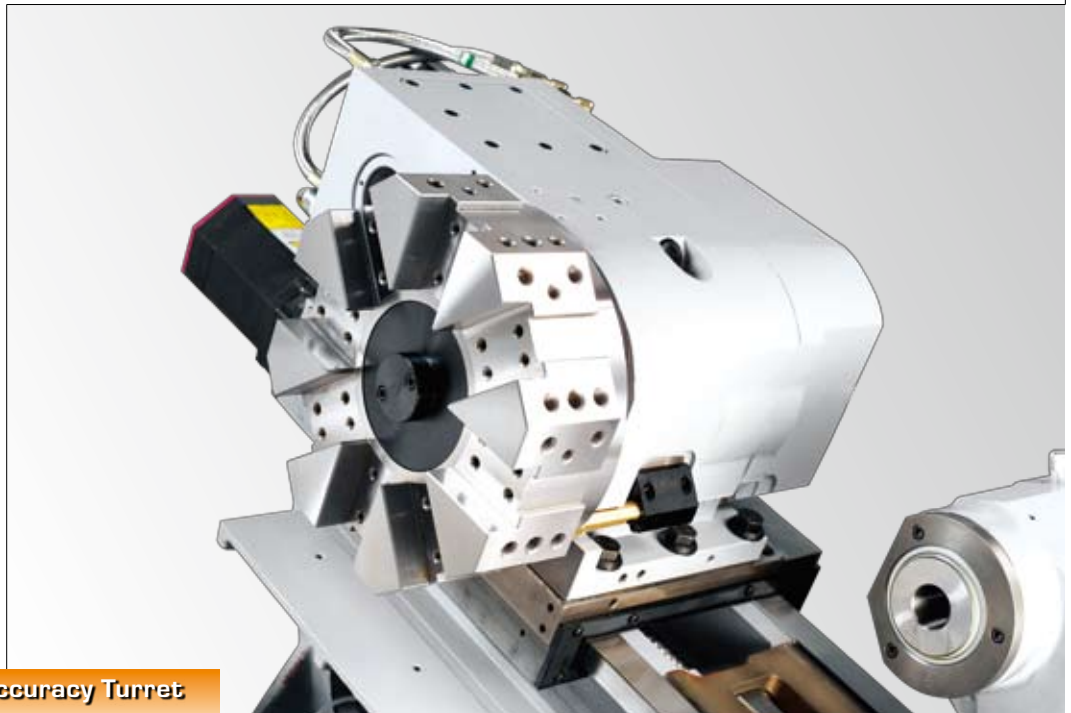
Spindle Motor Torque Chart

UL-15/20 (α 22/6000ip) A2-5

UL-15/20 (α 22/6000ip) A2-6



Precise Transmission and Position Control



High-accuracy Turret

- Large-size precision curve coupling combined with roller-cam mechanism and hydraulic actuator provide accurate positioning for indexing. Fast bi-directional index selects tools at 0.3 seconds for adjacent tool, and 1.5 seconds for opposite tool.



High performance X and Z axis box slideways

- Pre-loaded double-nut ballscrews featuring high rigidity, alleviate backlash more effectively.
- Square box slideways on X/Z axes have high stiffness, large contact areas and excellent damping effects. They are the best design to sustain heavyduty as well as segmented cuttings.

More Powerful Controller

- FANUC Oi-TC controller with color LCD monitor, integrated with one-piece control panel, allows operator to set running time for chip conveyor directly from the panel for most comfortable and convenient man-machine interface.

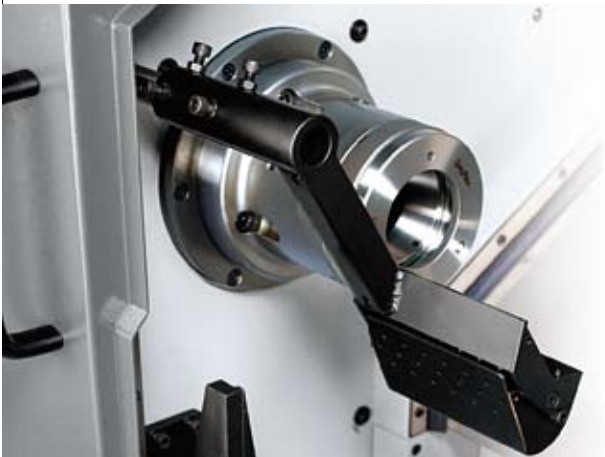


Optional Accessories



Automatic Door

- Door is open automatically while a machining cycle comes to an end. This function saves cycle time drastically and adds you more profits.



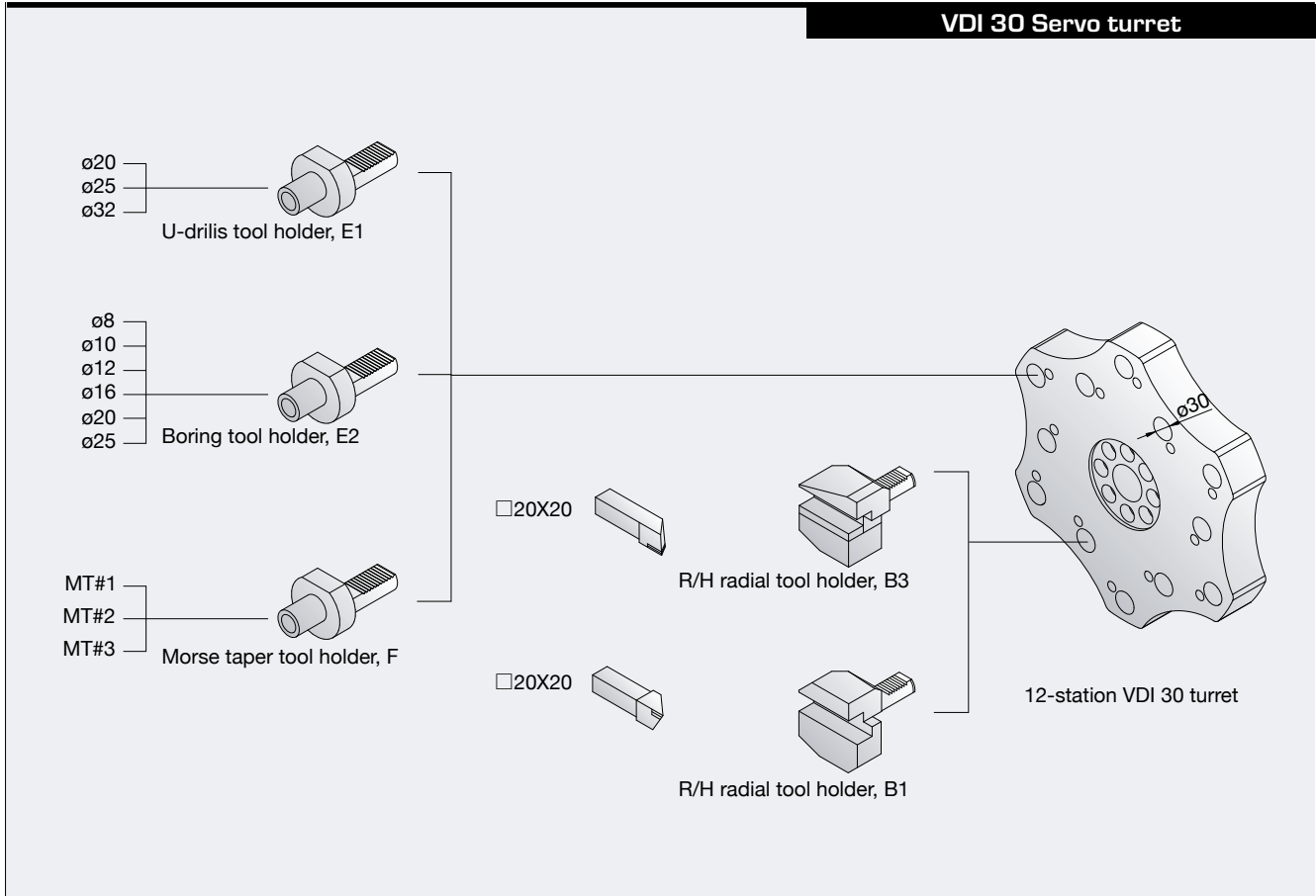
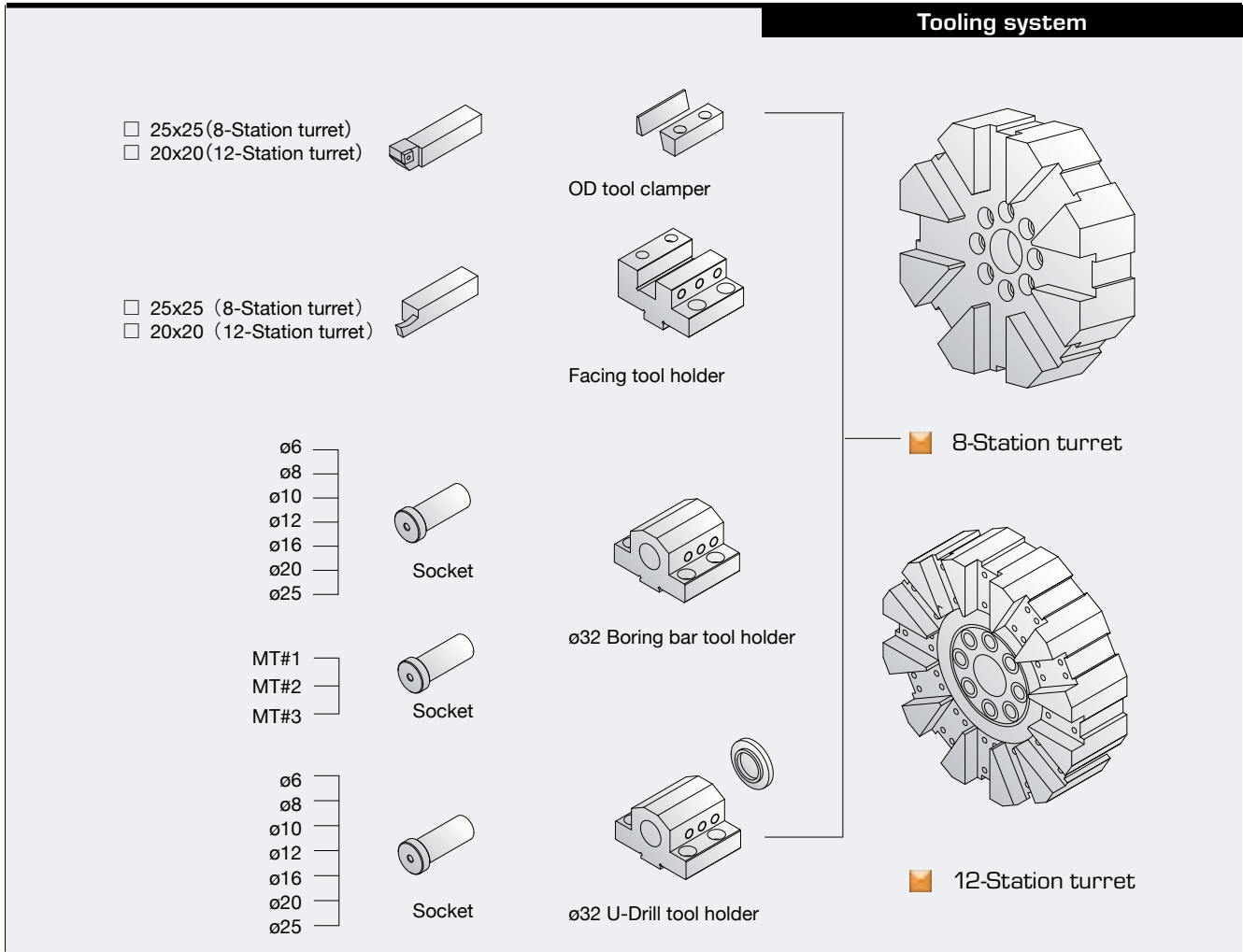
Parts Catcher

- Upon completion of turning cycle, catcher automatically receives workpiece, then conveys it out the gate to workpiece collection box, saves more time if fitted with automatic bar-feeder.

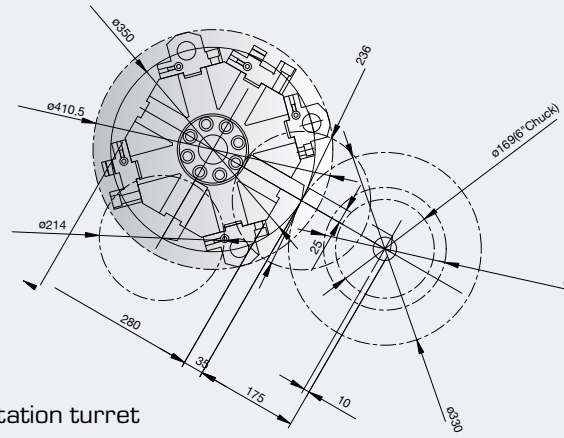


Tool Setter

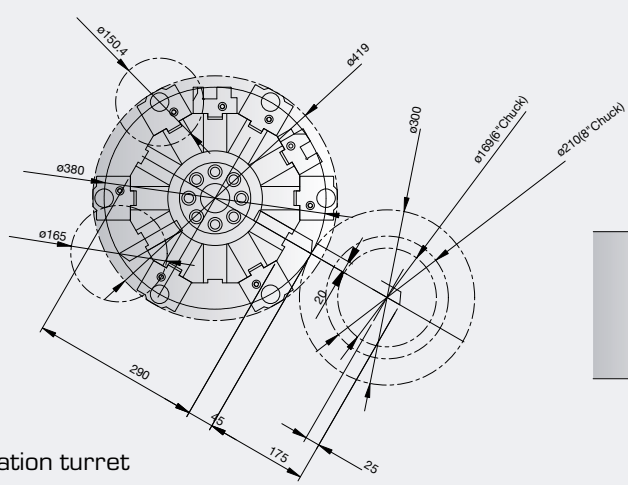
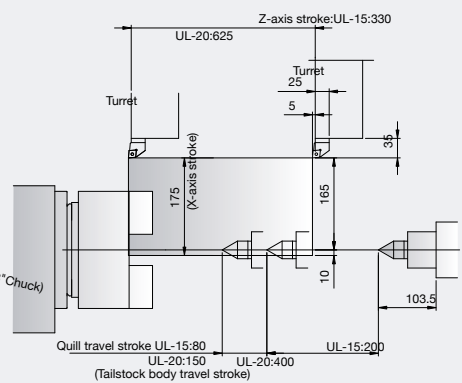
- Eliminating downtime for tool inspection and compensation, this manual tool setter measures and offsets tool wear to maintain $5 \mu\text{m}$ repeatability accuracy.



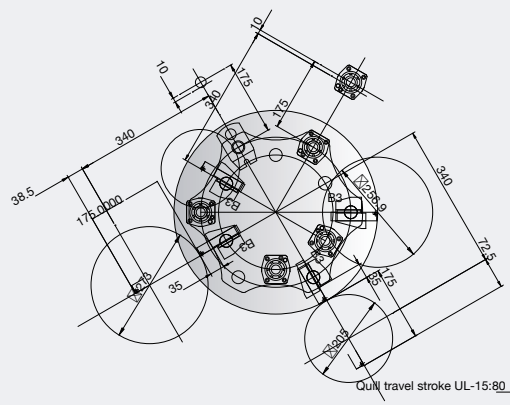
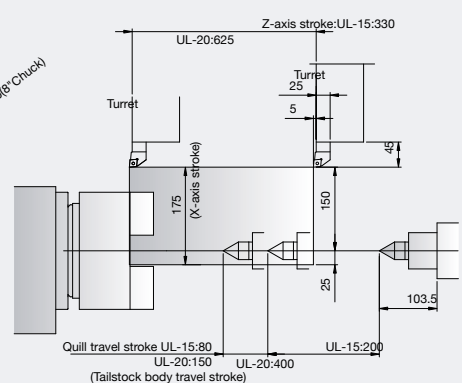
Working range diagram



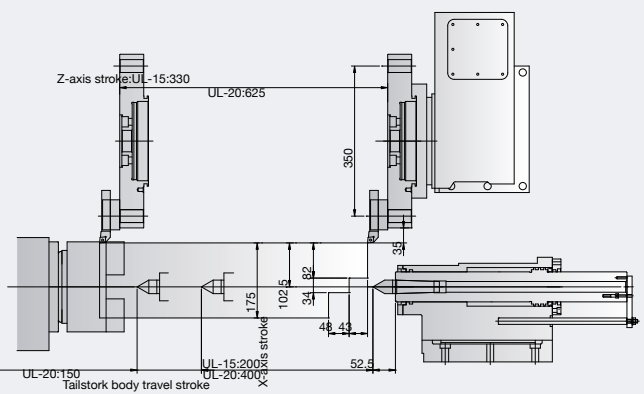
8-Station turret



12-Station turret



VDI 30 Servo turret



Machine outline drawing

MODEL	A	B	C	D	E
UL-15	2030	1640	1380	1860	3100
UL-20	2200	1640	1380	2030	3280

