

Specification

Item / Model		KLR-15	KLR-20
Controller		FANUC 0i-T	
Capacity			
Swing over bed	mm	455	455
Swing over saddle	mm	260	260
Max. turning diameter	mm	330	330
Max. turning length	mm	300	600
Spindle			
Spindle nose	ASA	A 2-5	A 2-6
Power chuck diameter	in	6	8
Spindle speed	rpm	6000	4500
Spindle motor power <Cont. / 30 min>	kW	11 / 15	
Bar capacity	mm	45	52
Travels			
Z-axis	mm	330	625
X-axis	mm	175	175
Rapid Feed Rate			
Z-axis	m / min	20	20
X-axis	m / min	20	20
Turret			
Turret type		BOT/VDI	
Tooling system		Hydraulic mechanical	
Number of tools	station	8 (12)	8 (12)
Square tool shank size	mm	25 (20)	25 (20)
Round tool shank size	mm	32	32
Tailstock			
Tailstock body travel	mm	200	400
Quill travel	mm	80	150
Quill diameter	mm	70	70
Quill taper	MT#	4	4
Machine Dimension			
Floor space	m	2.2 × 1.3	2.4 × 1.3
Height	m	1.6	1.6
Net weight	kg	3000	3500

*Specifications are subject to change without prior notice.

Standard Accessories

1. Hollow 3-jaw hydraulic cylinder & chuck
2. Hydraulic turret and tool holders
3. FANUC 0i-T controller
4. 8.4" color LCD monitor
5. Registered part program numbers: 400 sets
6. Part program memory size: 640mm
7. RS-232 interface
8. Heat exchanger for electric cabinet
9. Hydraulic power supply unit
10. Coolant system
11. Full-enclosed axis way cover
12. Automatic lubrication system
13. Three-color warning light
14. Soft and hard jaw
15. Tool kit
16. Operation manual
17. Chip conveyor
18. Chip cart

Optional Accessories

1. Collect chuck
2. Tool setter
3. External control box
4. Parts catcher
5. Bar feeder interface 7 or 24 pins
6. Bar feeder
7. Oil skimmer
8. Oil mist collector
9. Air cooler for electric cabinet
10. Transformer

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KLR Series

Flat-Bed CNC Turning Center



KENTCNC

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Optimized Mechanical Structure Design



Delicate scraping works

- Gibs and sliding surfaces coated with Turcite-B are hand scraped to create oil pockets and grooves for precise motion and extended life.
- Skilled workers perform continuous surface trimming to adjust flatness, squareness and straightness to satisfy accuracy requirements.

Robust Casting Design

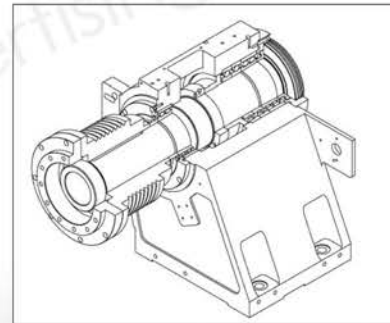
- One-piece flatbed base coupled with 30° slant saddle, made of high tensile strength MEEHANITE casting, heat treated and ground. Hardness may reach HRC 53. All sliding surfaces are coated with Turcite B to maintain feeding and positioning accuracy plus long service life. Chip flushing function is excellent 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.



Powerful High-rigidity, Top-accuracy Spindle System

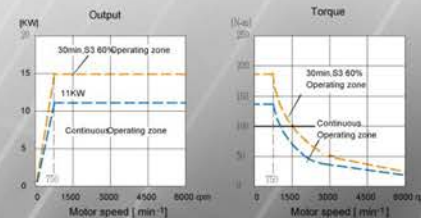
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- Reinforced headstock structure with symmetrical design balances thermal displacement and reduces spindle errors. Annealed, natural seasoning diminishes internal residual stress for stable material quality and assures long-term machining accuracy.
- 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.

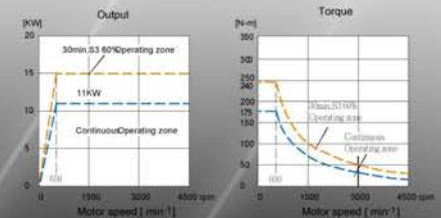


Spindle Motor Torque Chart

KLR-15 (α22/6000ip)A2-5



KLR-20 (α22/6000ip)A2-6



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.

FANUC Oi-T controller

- FANUC Oi-T 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.



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.



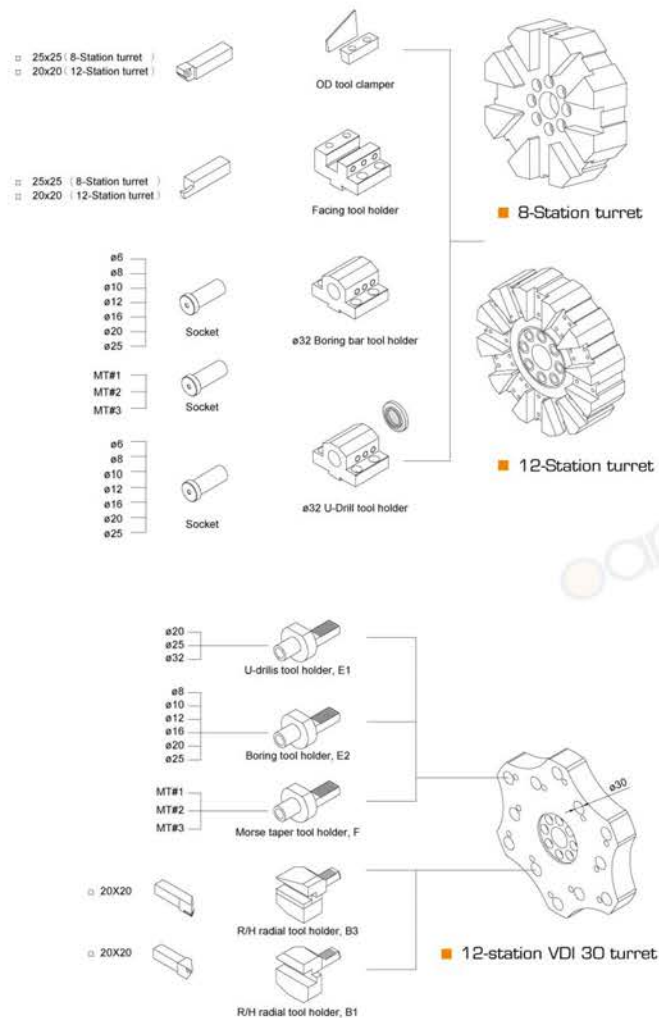
Tool Setter

- Eliminating downtime for tool inspection and compensation, this manual tool setter measures and offsets tool wear to maintain 5 μ m repeatability accuracy.



Tooling Diagram

Tooling system

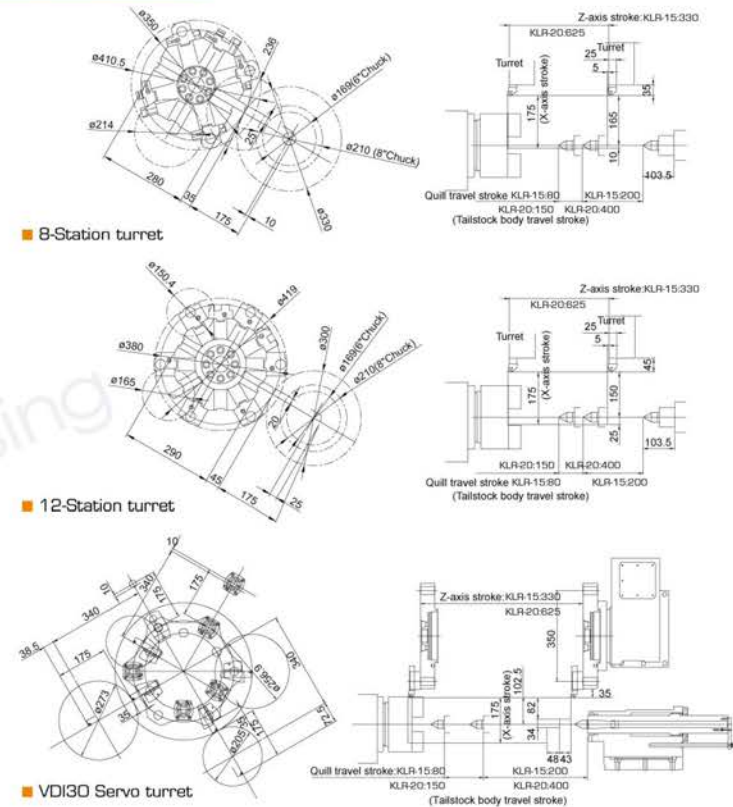


Tool Interference &

Working Range Diagram

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Working range diagram



Machine outline drawing

