

Specification

Item / Model		KLR-200	KLR-200L	KLR-300	KLR-300L	KLR-300LX		
Controller		FANUC 0i-T						
Capacity								
Swing over bed	mm	505			612			
Swing over saddle	mm	318			388			
Max. turning diameter	mm	350			500			
Max. turning length	mm	570	1000		700	1200	2200	
Spindle								
Spindle nose	ASA	A2-5	A2-6	A2-6	A2-8	A2-11		
Power chuck diameter	inch	6	8	8	10	10	12	15
Spindle speed	rpm	6000	4500	4000	3500	3500	2700	2500
Spindle motor power <Cont. / 30 min>	kW	11 / 15			15 / 18.5 (18.5 / 22)			
Bar capacity	mm	44	52	65	75	75	90	105
Travels								
Z-axis	mm	600	1100		750	1250	2250	
X-axis	mm	220			250+50			
Rapid Feed Rate								
Z-axis	m / min	20			24			
X-axis	m / min	20			20			
Turret								
Number of tools	station	8 (10 / 12)			12			
Square tool shank size	mm	25 (20)			25			
Round tool shank size	mm	32			40			
Tailstock								
Tailstock body travel	mm	545	1045		540	1040	2040	
Quill travel	mm	80			120			
Quill diameter	mm	75			85			
Quill taper	MT#	4			5			
Machine Dimension								
Floor space	m	2.9 x 1.6	3.7 x 1.6		3 x 1.8	3.6 x 1.8	5.1 x 1.8	
Height	m	1.7			1.8	1.8	1.8	
Net weight	kg	3700	5200		5500	6000	9000	

*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 : 640 m
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. Servo turret
2. Power turret
3. Collect chuck
4. Tool setter
5. External control box
6. Parts catcher
7. Bar feeder interface 7 or 24 pins
8. Bar feeder
9. Programmable tailstock
10. Oil skimmer
11. Oil mist collector
12. Air cooler for electric cabinet
13. Steady rest
14. Transformer

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KLR Series

Slant-Bed CNC Turning Center



KENT CNC

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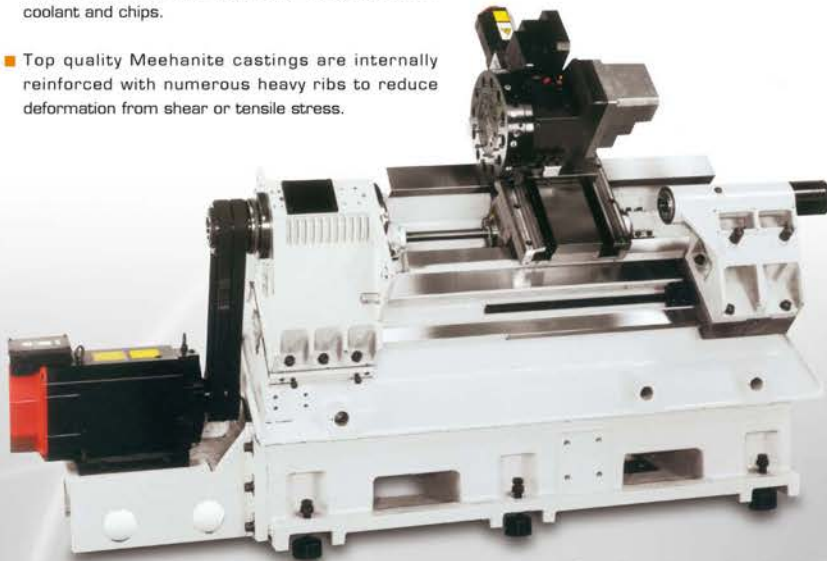
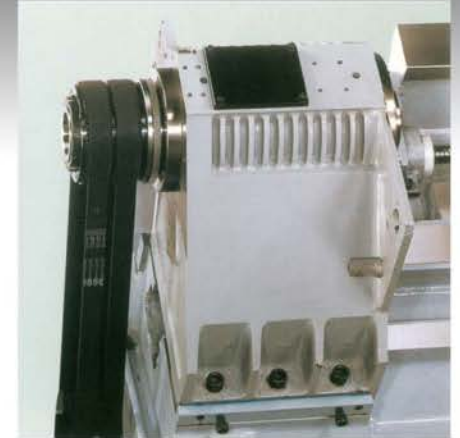
Delicate scraping works



- 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 solid hardened box-way on one-piece slant-bed structure has low center of gravity, large swing diameter and superior rigidity for easy disposal of coolant and chips.
- Top quality Meehanite castings are internally reinforced with numerous heavy ribs to reduce deformation from shear or tensile stress.

- Headstock having symmetrical heat-dissipating ribs is precisely bored and ground to reduce error from heat distortion, maintain circularity and concentricity, thereby ensuring long-term cutting accuracy.
- Spindle is assembled inside headstock with bearings under temperature and humidity controlled environment. Extensive run-in test is applied to eliminate uneven bearing contact points arising from thermal expansion.
- Anti-flex, shock-absorbing headstock casting is heat-treated and annealed twice and to eliminate internal stress as well as naturally seasoned to attain stability and hardness of HRC 53. It can meet the demands of continuous heavy-duty and step cutting.



45°one-piece slant-bed casting design



30°one-piece slant-bed bed casting design

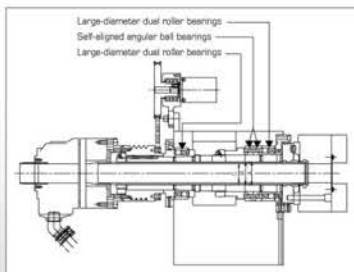
High-Speed, High-Precision, Axial Motion Mechanism



High-speed axial motion system

- X/Z-axis feed at 20/24 m/min is powered by state-of-the-art servomotor with sufficient torque to stabilize feeding. Absolute encoder enhances positional accuracy and shortens processing time.
- Ballscrews are pretensioned to alleviate backlash induced by thermal elongation. Direct coupling motor drive reduces power loss and upgrades feeding precision.

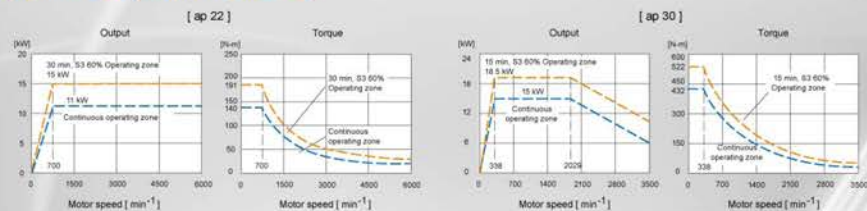
Spindle design



- Super precision spindle is supported by large-diameter, dual roller bearings and self-aligned angular ball bearings.
- Twin optimized supports resist all kinds of axial or radial loading generated by high-speed precision turning or low-speed heavy-duty turning.

Specification/Model	Inner diameter of spindle	Outer diameter of spindle bearings	Inner diameter of spindle bearings
KLR-200	mm 62	150	100
KLR-300	mm 86	200	130
KLR-300L			

Spindle torque-power chart



Precision Transmission and Position Control

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High-precision turret

- Turret has cam-follower mechanism driven by hydraulic system for tool position indexing accuracy. Large-diameter curved coupling provide rigid clamping torque in turning process.
- It can store 8-, 10- or 12-station turning tools, with less malfunction plus easy maintenance and greatly reduce tools misalignment.



Tailstock

- The high-precision tailstock quill is fully programmable. Tailstock body travel on box ways can be either manual or programmable depending on operation demand.



FANUC Oi -T controller

- FANUC Oi-T controller with liquid crystal display, its control panel is easily accessed by swivelable body for greatest comfort and convenience.



Optional Peripheral Equipment

Tooling system &

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Machine dimensions



Strong power turret

VDI or block type power turret combined with C-axis multi-positional index control for drilling and tapping performs both radial and axial profile milling to meet DONE-IN-ONE machining requirement.



Block power turret



Tool setter

Measure tool geometry data automatically or manually and compensate wear data in controller with repeatability accuracy of 5 μ m, reducing inspection downtime and upgrading cutting precision.



Parts catcher

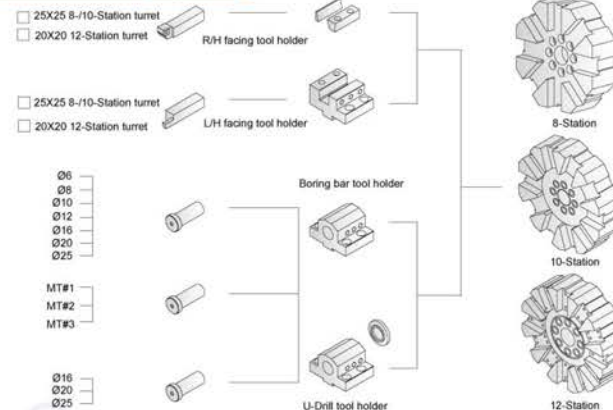
Automatically collects finished workpiece and conveys them to outside collection box without opening the door. Turning cycle time is drastically reduced if works with bar feeder.



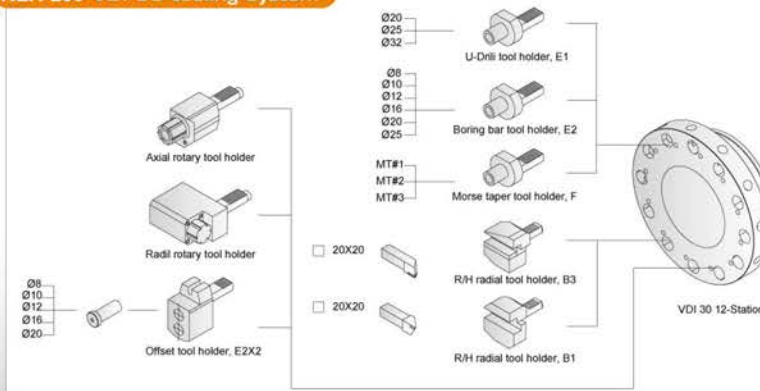
Steady rest

An essentials device supports and secures long shaft workpiece to keep concentricity accuracy during machining. Body travel can be either programmable or manual.

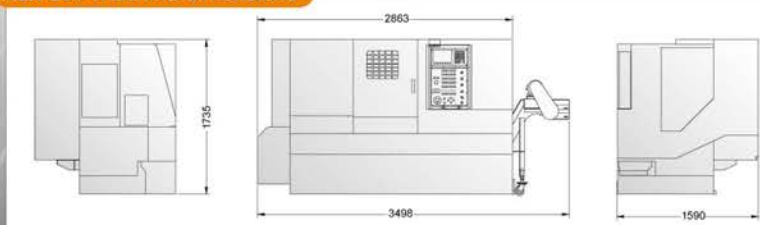
KLR-200 Block tooling system



KLR-200 VDI 30 tooling system



KLR-200 Machine dimensions

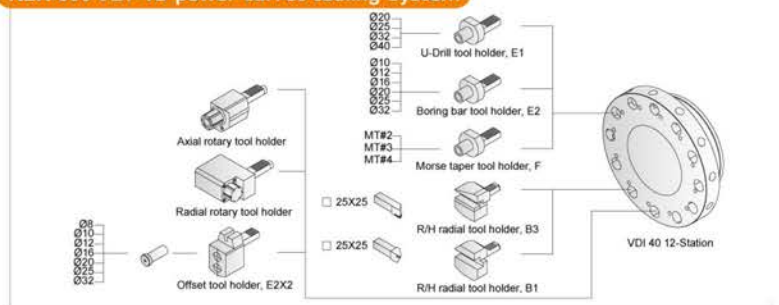


Tooling system & Machine dimensions

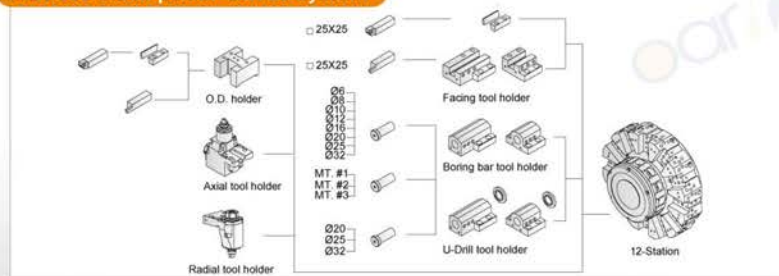
KLR-300 Block tooling system



KLR-300 VDI 40 power turret tooling system

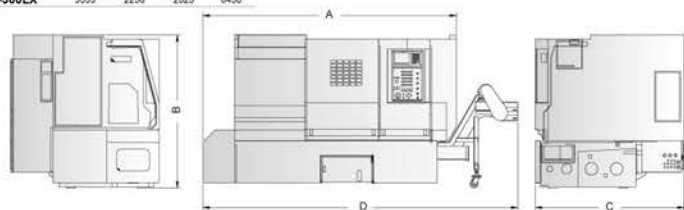


KLR-300 Block power turret system



KLR-300/KLR-300L/KLR-300LX Machine dimensions

MODEL	A	B	C	D
KLR-300	3030	1630	1780	3763
KLR-300L	3750	1830	1900	4483
KLR-300LX	5555	2250	2025	6450

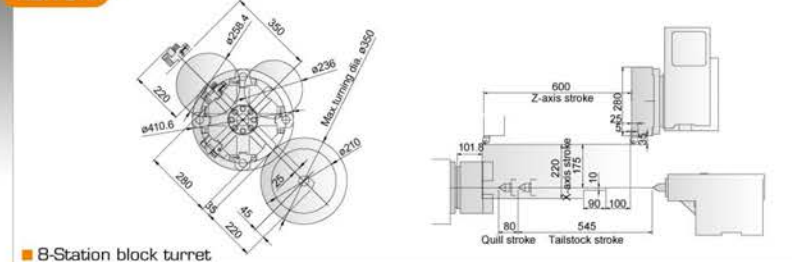


Tool interference &

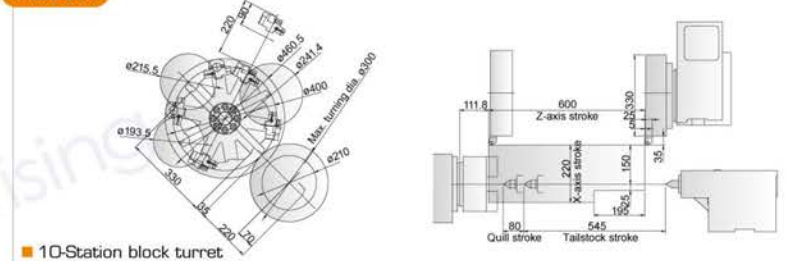
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Working range diagram

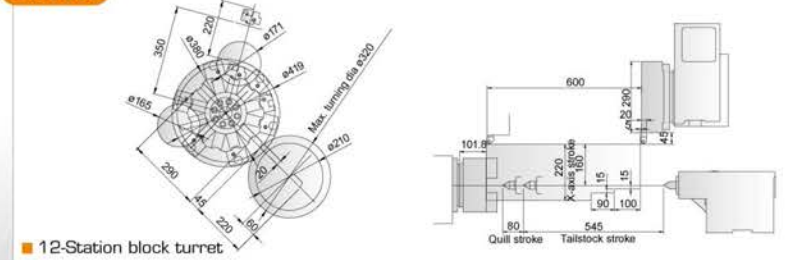
KLR-200



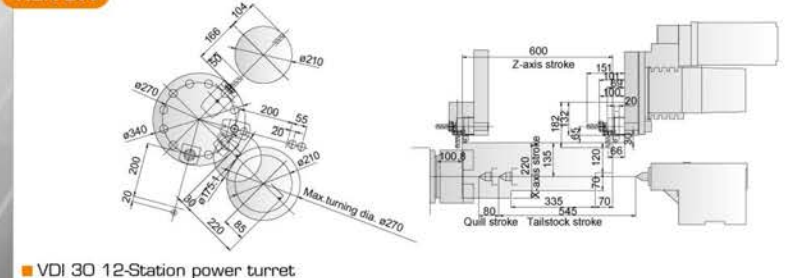
KLR-200



KLR-200

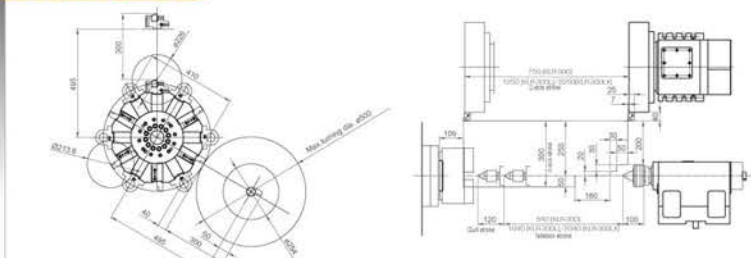


KLR-200



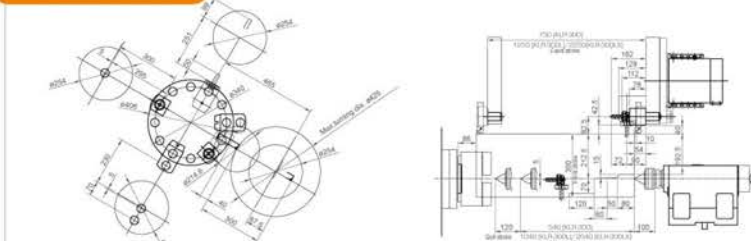
Tool interference & working range diagram

KLR-300/300L/300LX



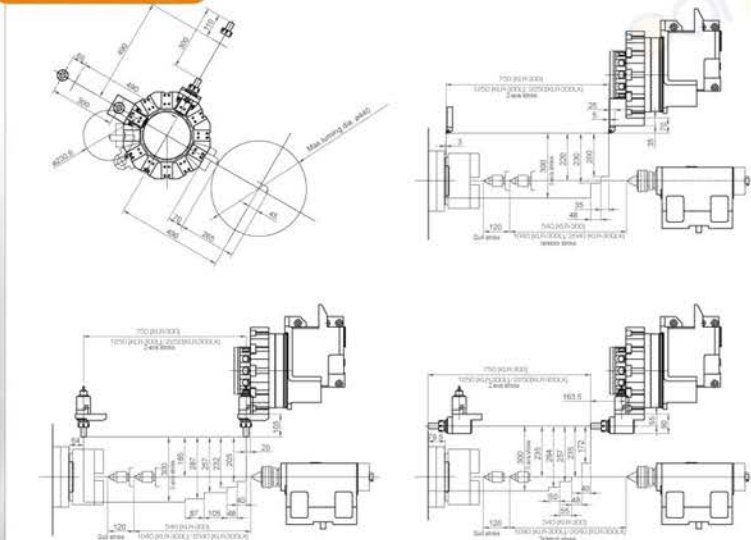
■ 12-Station block turret

KLR-300/300L/300LX



■ VDI 40 12-Station power turret

KLR-300/300L/300LX



■ Block power turret

Specification

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Item / Model		KLR-200M			KLR-300M		KLR-300LM		
Controller		FANUC 0i-T							
Capacity									
Swing over bed	mm	505			612		612		
Swing over saddle	mm	318			388		388		
Max. turning diameter	mm	270			425		425		
Max. turning length	mm	550			670		1170		
Spindle									
Spindle nose	ASA	A2-5	A2-6		A2-8		A2-8		A2-11
Power chuck diameter	inch	6	8		10	12	10	12	15
Spindle speed		6000	4500	4000	3500	2700	3500	2700	2500
Spindle motor power	rpm	11/ 15			15/ 18.5		15/ 18.5 [18.5/ 22]		
Bar capacity	kW	44	52	65	75	90	75	90	105
Travels									
Z-axis	mm	600			750		1250		
X-axis	mm	220			300		300		
Rapid Feed Rate									
Z-axis	m / min	20			24		24		
X-axis	m / min	20			20		20		
Turret									
Type		VDI			APT / VDI		APT / VDI		
Number of tools	station	12			12		12		
Square tool shank size	mm	20			25		25		
Round tool shank size	mm	30			40		40		
Cs spindle index angle	deg	0.01			0.01		0.01		
Max. rotary tool speed	rpm	6000			4000 / 5000		4000		
Rotary tool driver power	kW	2.2			3 / 3.7		3 / 3.7		
Tailstock									
Tailstock body travel	mm	545			540		1040		
Quill travel	mm	80			120		120		
Quill dismeter	mm	75			85		85		
Quill taper	MT#	4			5		5		
Machine Dimension									
Floor space	m	2.9 x 1.6			3 x 1.8		3.6 x 1.8		
Height	m	1.7			1.8		1.8		
Net weight	kg	3600			5500		6000		

* Specifications are subject to change without prior notice.