



Machine Tools

UNIVERSAL LATHES ST16K25 SERIES

 **STANKOMASHSTROY**





The Lathes are designed for performing various work (cylindrical and taper turning, boring, drilling etc.) as well as for cutting metric, English, module and diametral pitch threads. Workpieces made of steel, cast-iron, non-ferrous metals and plastics can be machined on the lathe with high accuracy.

These machines are manufactured to very close tolerances and with a combination of high power drive and rigidity, guarantee high stock removal rates with the added ability of producing high precision workpieces. All sideways are hardened and ground and fitted with Turcite lining to reduce friction. The machines are supplied with power feed and quick traverse to the longitudinal and cross slide movements. The machines are ergonomically designed ensuring ease of operation.

Machine Model	ST16k20	ST16k25	ST16k25B	ST16k25S
Maximum swing over bed, mm	Ø400	Ø500	Ø500	Ø500
Maximum swing over cross-slide, mm	Ø220	Ø300	Ø300	Ø300
Maximum swing over gap, mm (optional)	Ø630	Ø710	Ø710	Ø710
Maximum length over gap, mm (optional)	240	240	240	240
Maximum length of the workpiece, mm	750	1000/1500	1000/1500/2000	1000/1500/2000
Maximum turning length mm * for lathe with gap	620 500*	870/1370 750/1250*	870/1370/1870 750/1250/1750*	870/1370/1870 750/1250/1750*
Bore diameter, mm	Ø52	Ø52	Ø82	Ø105
Spindle taper	MT. N°6	MT. N°6	Ø90 1:20	Ø113 1:20
Spindle nose	ISO 702/III N°6 6 bayonet ring fixing type	ISO 702/III N°6 6 bayonet ring fixing type	B ISO 702/II N°8 cam-lock type	B ISO 702/II N°8 cam-lock type
Spindle speed, rpm	9 – 1600			36 – 1600
Number of speeds	24			12
Maximum spindle torque, N-m	1400			
Number and range of longitude feeds	0.028-6.43 mm/rev., 93 sorts (0.0010-0.2392 inch/rev)			0.063-2.52 mm/ rev, 65 sorts (0.0023- 0.0937 inch/rev)
Number and range of cross feeds	0.012-2.73 mm/rev., 93 sorts (0.0004-0.1032 inch/rev)			0.027-1.07 mm/ rev, 65 sorts (0.0011-0.0404 inch/rev)



Machine Model	ST16k20	ST16k25	ST16k25B	ST16k25S
Number and range of threading				
Metric thread, mm	0.5-224 mm, 48 sorts			1-14 mm, 22 sorts
Inch thread	72-1/8 tpi, 46 sorts			28-2 tpi, 25 sorts
Module thread	0.5-112, 42 sorts			0.5-7, 18 sorts
Worm thread	56 - 1/4 DP, 45 sorts			56 - 4 DP, 24 sorts
Longitude rapid traverse	4.5 rpm			
Cross rapid traverse	1.9 m/min			
Thread pitch of the lead screw, mm	12			
Recommended size of the tool cross section, mm	25 x 25			
Compound rest angle	+90°/-30°			
Maximum travel of the longitude slide, mm	145			
Maximum travel of the carriage, mm	320			
Maximum cutting force, N	12000			
Maximum feeding force, N	3500			
Tailstock quill diameter, mm	75			
Tailstock quill taper	MT N ^o 5			
Maximum travel of the tailstock quill, mm	150			
Cross travel of the tailstock, mm	±15			
Power of the main motor, kW	7,5			
Power of the rapid traverse motor, kW	0,250			
Liquid flow at the end of the coolant pump, l/min	50			
Voltage, V	415			
Frequency, Hz	50			
Machine net weight, kg	2800	2900/3200	3000/3300/3800	3100/3400/3900
Machine length, mm	2210	2560/3060	2560/3060/3560	2560/3060/3560
Machine width, mm	1020			
Machine height, mm	1350			1400

Standard accessories	Optional accessories
Coolant supply system	DRO Sino for 2 axes with the screen, a set
Foot brake of spindle	DRO Sino for 3 axes with the screen, a set
Halogen light	Steady rest of a bigger diameter D120...220
Chuck safety guard	Taper turning attachment ±10°
Splash guard	3-jaw chuck D315 with a set of inside and outside jaws and chuck wrench
Follow rest D20...80	4-jaw chuck D400 with a set of universal jaws and wrench
Steady rest D20...125	MultiFix quick change toolpost
3-jaw chuck	
Z axis adjustable stop	
Dead center MT5, for tailstock	
Dead center - head stock	
Live centre	
Operation manual	
Grease gun	
Vibration mount OB-31M, set	



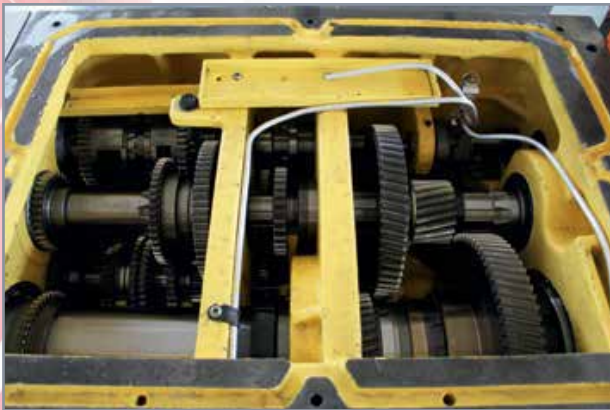
Frame

Solid cast base. Weight from 1000 to 1400 kg depending on length of the machine.



Gear Box

It has 24 speed steps in the range from 9 to 1600 rpm. All the gears are heat-hardened, that increases their wear resistance. The lubrication system insures good cooling and friction reduction, stabilizing errors caused by thermal deformation of the headstock during cutting.



Feed Gear Box

Ensures the travel of the slide and tool on the machine guide ways with the set speed. This part is used to set the constant feeding rate while cutting.





Headstock

Stankomashstroy is a leading machine tool manufacturer supplying turning machines worldwide. The company headquarters as well as production facilities for casting machining and assembly are located in Penza, Russia. This brand new state of the art plant manufactures ST16K25 series lathes that are an upgraded design based on the legendary 16K20 and 16K25 lathes that have been supplied to Australian and Australasian markets for more than 30 years.

The new plant also manufactures CNC lathes and CNC turning centres. All machines are CE certified and manufactured in accordance ISO9001. In addition, all lathes are subject to rigorous testing and comply with or exceed ISO 1708:1989 (Lathe Assembly and Accuracy Standard).

These machines are heavy duty, high accuracy, high rigidity and high powered guaranteeing high productivity. They are ideal for production or jobbing workshops and are designed to give 20 years life based on a single shift day before major inspection is required.



Standard tool post



Optional Multi-fix tool post



Optional DRO



CONVENTIONAL LATHE ST16K25 SERIES







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