

THG 80 / THG 125*

ROLL LATHES

BASIC PARAMETERS

Max. torque on spindle:	50,000 Nm
Max. weight of workpiece between centres:	30 tonnes
Turning length:	3,000 to 10,000 mm

High rigidity of THG roll lathes makes it possible to turn the rolls of high hardness providing high productivity during rough machining and high accuracy during finishing operations. Special design of guideways for carriage and cross-slide travels ensures vibration-free operation at high torque and low cutting speed.

PURPOSE

The THG series lathes are designed for workpiece machining in the range of turning in accordance with their specifications, especially for machining and calibration of rolls used in steel industry.

CONTROL SYSTEM

The application of the state-of-the-art CNC system allows for automatic, precise and productive workpiece machining according to a program.

MAIN FEATURES

- 3-guideway bed with additional guideway supporting carriage
- Main guideways carburized and hardened up to 60 HRC
- Bed design makes it possible carriage to pass headstock, steady rests and tailstock
- Box-type double wall design of headstock guarantees high rigidity
- Spindle rested on bearings of increased accuracy class
- Headstock is central lubricated
- Tailstock body made as high grade grey iron casting
- Tailstock spindle adapted to install 4-jaw chuck
- Carriage guided on two bed guideways
- Longitudinal and crosswise travels on anti-friction material and assisted by central lubrication system
- Double lamell cross-slide guided on two hardened guideways

STANDARD EXECUTION

- Swing over bed \varnothing 800 mm (THG 80)
- Turning length 3,000 to 10,000 mm, every 1,000 mm
- 4-jaw chuck \varnothing 800 mm
- Double lamell cross-slide rested on three guideways
- Power of main drive motor 71 kW (continuous operation)
- Spindle rotation rates 0.5 to 315 rpm
- Power supply 3 \times 400 V / 50 Hz
- SIEMENS 840D sl Operate CNC system
- Carriage travels (Z axis) driven by backlashless rack & pinion transmission
- Cross-slide travels (X axis) driver by ball screw and nut system
- Automatic change of range of spindle rotation rates
- Central lubrication system controlled by CNC
- Chip conveyor
- 6 bar tool cooling system
- Tailstock with quill \varnothing 450 mm with tool spindle, clamping force indicator, workpiece extension compensation, automatic quill stroke and travel along bed and clamping against bed
- Dead centres 2 pcs
- Control panel
- Adjusting wedges for leveling and foundation bolts
- CE mark
- Operations and maintenance manuals
- CNC operation and programming documentation

OPTIONAL EXECUTION

- Swing over bed \varnothing 1,250 mm (THG 125)
- 4-jaw chuck \varnothing 1,250 mm
- FANUC 0i-TD with Manual Guide CNC system and 75 kW main drive motor
- Single lamell cross-slide
- Additional carriage
- Linear measuring scales for X and Z axis
- Other according to agreement

ADDITIONAL EQUIPMENT

- Closed-type roller steady rest \varnothing 180 – 600 mm
- Closed-type roller steady rest \varnothing 600 – 1,000 mm (THG 125)



BASIC TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS (THG SERIES)			
Model		THG 80	THG 125*
Kod obrabiarki			
Swing over carriage	Ø mm	800	1250*
Turning length (every 1.000 mm)	mm	3,000 – 10,000	
Max. weight of workpiece clamped in centres	kg	30,000	
Headstock			
Range of continuously variable rotation rates	rpm	0.5 – 315	
Number of ranges of rotation rates	quantity	3	
Power of main drive motor	kW	71 / 75*	
Max. torque on spindle	Nm	50,000	
Diameter of face plate	mm	800	1,250
Minimum diameter of clamping in jaws	mm	250	
Maximum diameter of clamping in jaws	mm	600	1,050
Carriage			
Longitudinal travel	mm	turning length	
Rapid travel in X axis	mm/min	2,500	
Rapid travel in Z axis	mm/min	4,000	
Size of X-axis ball screw	Ø pitch mm	63 x 10	
Tool system		lamell cross-slide	
Tailstock			
Quill diameter	Ø mm	450	
Quill stroke	mm	200	
Machine tool over dimensions and weight, approx.			
Length	mm	3,550 + turning length	
Width	mm	2,600	
Height	mm	2,300	
Weight (for 1,000 mm turning length)	kg	33,000	34,000
Increase in weight for 1,000 mm of turning length	kg	1,000	
Control system		SINUMERIK 840D / FANUC 0i-TD*	
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