



Product Data Sheet CNC Axle Lathe Model ATL-200/400

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The **Simmons ATL-200/400 CNC Axle Lathe** finish turns the wheel seats, bearing journal fillets, and upset axle ends of an axle for new production as well as for reclaiming of axles (which involves finish turning of wheel seats only). For reclaiming operations, the lathe can be fitted with an automatic probing system designed to measure the diameter of each axle wheel seat and calculate the target diameter. Optional tool post mounted burnishing rollers are available for surface finish improvement. The lathe can be equipped with an optional elevator that is electrically actuated and designed to interface with material handling systems for automatic loading and unloading of axles. The axle drive system consists of end face drivers and a compressible center. The ATL-200 is an economical single carriage lathe. The ATL-400 has dual independent carriages for high production requirements.

The machine's headstock is fixed while the tailstock moves automatically to chuck the axle and accommodate a range of axle lengths. Various tooling options are available for fully automatic turning of new and used plain bearing and roller bearing axles. The machine is specifically designed for continuous duty service and can be configured for many applications including semi-finish turning, finishing turning, roller burnishing, and bearing journal chamfering. All of these metalworking processes are performed without the use of coolant.



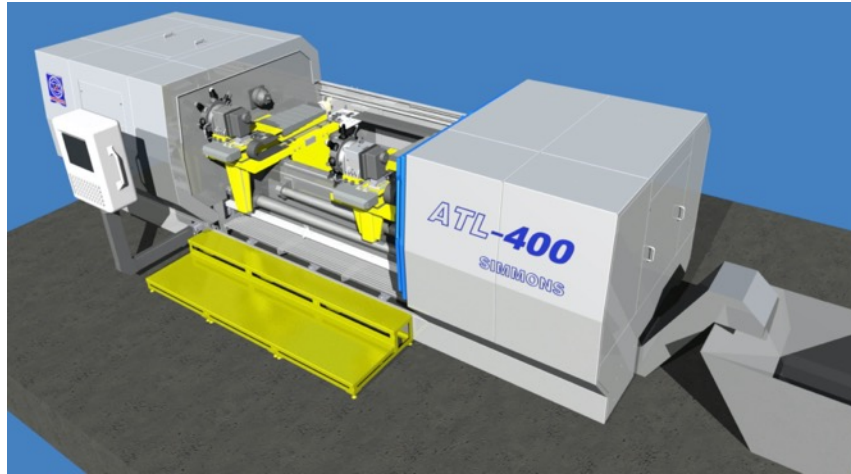


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Machine Dimensions

Length (excluding chip conveyor)	298 in.	7574 mm
Width	94 in.	2387.6 mm
Height	87 in.	2209.8 mm
Weight	42669 lbs.	19354 kg
Distance Between Centers	108 in.	2740 mm
Maximum Cutting Diameter (Swing Over Carriage)	14 in.	155 mm
Swing Over Bed (Diameter)	18.5 in.	469 mm

General Specifications

ATL-200 Cycle Time (single carriage) Probe and turn wheel seats only	5.8 minutes	
ATL-400 Cycle Time (dual carriage) Probe and turn wheel seats only	3.5 minutes	
Maximum Depth of Cut	0.118 in.	3.0 mm
Accuracy	+/- 0.0001 in.	+/- 0.00254 mm
Concentricity	+/- 0.0002 in.	+/- 0.0051 mm
Taper	+/- 0.0002 in.	+/- 0.0051 mm
Positioning Repeatability	+/- 0.0001 in.	+/- 0.00254 mm
Rapid Traverse Cross Slide	150 in/min	4 m/min
Rapid Traverse Carriage	150 in/min	4 m/min
Feed (Maximum)	0.03 in/rev	0.762 mm/rev
Spindle Speed (Maximum)	600 RPM	

Utility Requirements

ATL-200 Electrical Power	69 kW
ATL-400 Electrical Power	79 kW
Compressed Air	80 psi @ 10 scfm (<5% duty cycle)

Wheel Set Dimensions

Maximum Axle Length	102.3 in.	2600 mm
Minimum Axle Length	63 in.	1600 mm

Updated August 28, 2020