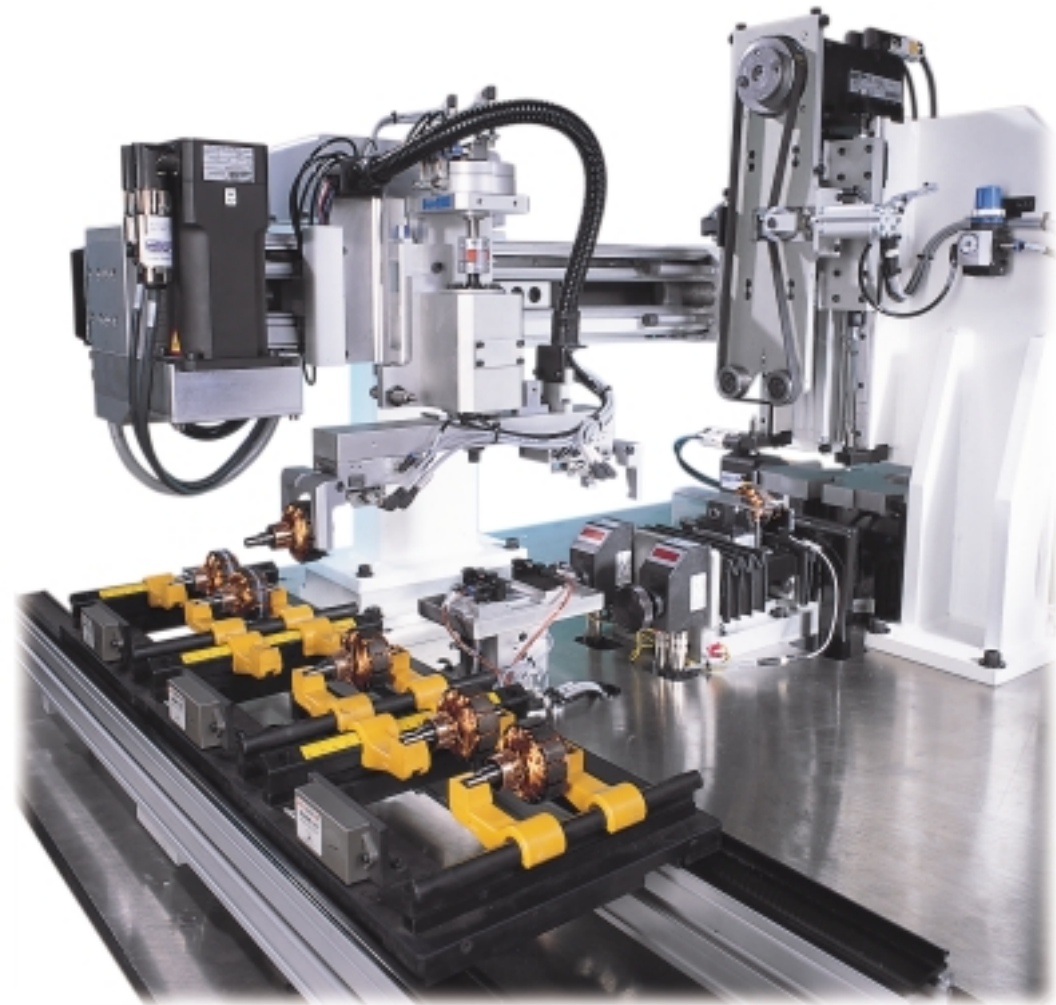


## Single Station Commutator Lathe



## Single Station Commutator Lathe

CTS 1000

### Description

The CTS 1000 Commutator Lathe is the latest in ATS's advanced line of automated winding support products. It offers stand alone capability, or can be integrated into a fully automated, high-speed production line. Like all ATS products, it delivers robust, shop-floor proven capability. And the open architecture features industry standard components, such as motion control systems and software to offer the ultimate in system performance and serviceability.

Armatures are rotated in carbide nests via an overhead belt which presses on the lamination stack. Constant pressure on the armature lamination stack is maintained by means of a pneumatic belt tensioner. Servo control allows for easy programmability of cutting speeds, feeds and depth of cut.

### Specifications

Product name:	Commutator Lathe
Type:	Automatic or manual
Style:	Single Station

### Accuracy / Tolerances

Accuracy runout (TIR):	5 $\mu$
Bar-to-bar deviation:	2 $\mu$ maximum
Surface finish:	0.2-1.0 $\mu$ Ra
Concentricity:	2-5 $\mu$

### General Data

Power Supply:	220/380/440 Volts 50 or 60 Hz
Air Supply:	80 psi (5.5 bar)
Cutting Tools:	Rough cut – PCD Commutator Turning Tool Finish cut – PCD Commutator Skiving Tool or customer specified
Inserts:	Oil lubricated carbide inserts
Controllers:	ATS MACS™, Allan Bradley® or Siemens®
Dimensions:	1m (w) x 1.5m (l) x 2m (h)
Weight:	1200 kg

### Dimensions (Part)

Commutator Diameter:	8-40 mm	.32-1.6"
Commutator Length:	3-30 mm	.12-1.2"
Stack Diameter:	12-80 mm	.47-3.1"
Stack Height:	10-100 mm	.39-3.9"
Shaft Diameter:	3-16 mm	.12-.63"

### ATS MACS™ – Modular Automation Control Software.

A true multitasking, PC based machine controller that integrates a wide variety of technologies, servos and I/O. The true Windows® Graphical User Interface (GUI) features softPLC control and a layered utility to simplify programming and setup. MACS™ features open connectivity, and combines a number of technologies into one integrated package.

### Features

- Operator interface is ATS MACS™, Siemens® OP25 or Allen Bradley® Panelview.
- Separate brushless servo drives on cutting axes for manufacturing flexibility.
- Industry standard motion control technology with optional ATS MACS™ software.
- Programmable independent cutting characteristics, including selectable cutting speeds, with ATS MACS™ software.
- Reverse rotation capability for rough and fine cuts.
- Industry standard replacement parts for easy maintenance and lower cost of ownership.
- Unique vibration reducing drive feature minimizes total runout for improved surface finish.
- Fully adjustable lathe head and tailstock for rapid changeover to multiple part styles.
- Quick change tooling to accommodate multiple armature styles.
- Up to 4 different cuts per program.
- Servo load system using ATS Superbot™ to increase speed of load and unload by up to 30%.
- Up to 150 cutting programs can be stored on disk.
- Safety Requirements include OSHA, CSA, or CE.
- Off-line tool setup fixture for rapid tool replacement.
- On-line brushing within the commutator lathe work cell to maintain small footprint.

### Options

- Multiple languages available.
- Automated load and unload from conveyor, pallet, conventional robot or ATS Superbot™ + tray handler.
- PQMS™ Production Quality and Management System software to optimize automation by providing real time comprehensive data acquisition and expert analysis tools.
- Armature testing systems.

Contact ATS directly for custom applications or for product specific applications not included in this document.



**Automation  
Tooling  
Systems**

ISO 9001 Registered QS 9000 - ISO 9002 Registered

250 Royal Oak Road  
Box 32100 Preston Centre  
Cambridge, ON  
N3H 5M2 Canada  
Tel: (519) 653-6500 Fax: (519) 653-6533

Send e-mail to: [winding@atsautomation.com](mailto:winding@atsautomation.com)  
or visit our web site at: [www.atsautomation.com](http://www.atsautomation.com)