



**Flexsys™ 1000**  
**Semi-Automated**  
**Assembly System**



**A standard, flexible automation solution designed to grow with your automation requirements**

At ATS, we build high-precision process and assembly systems for advanced packaging, multi-chip modules and optoelectronics. ATS Flexsys™ scalable workcells accommodate multiple operations on a single platform to deliver higher production volumes and dramatically improved yields. With Flexsys™ you get the capability you need today, and the ability to scale up for tomorrow.

## Description

The ATS Flexsys™ 1000 Semi-Automated Assembly System automates critical assembly processes to improve consistency and yields. Designed to be adaptable for a wide range of assembly processes, this stand-alone system provides maximum flexibility for prototyping or low-volume production and is scalable for higher volume requirements.

## Typical Applications

- In-package or chip-on-carrier assembly
- Process development
- Active or passive alignment
- Planar waveguide align/attach/test
- Die bonding
- Epoxy dispense and cure
- Fiber pigtailling
- Inspection
- Test and measurement

## Specifications

Assembly Platform:	Air bearing and rail configurations with linear motors and encoders (Application dependant) Engineered vibration-isolated granite base
Operating Envelope:	X: 300 mm, Y: 300 mm, Z: 50 mm Theta: ± 360 degrees
Accuracy:	10 micron to sub-micron (Application dependant)
Repeatability:	Bi-directional X, Y, Z: to 18 nm Theta: 20 arc sec to 0.5 arc sec (Application dependant)
Controls:	PC-based machine controller with Windows HMI
Instrumentation:	GPIB and analog interfaces to industry-standard instrumentation
Safety Compliance:	OSHA, CSA and CE
Clean Room Compliance:	Clean room compatible to Class 100

## Options

- Material handling module
- Test module
- Automatic camera and gripper calibration
- Quick-change adapters for optics and lighting
- Laser welding
- Soldering
- Force sensing
- Surface probing
- Vision inspection

## Features

- Scalable to a fully automated Flexsys™ 2000
- Flexible configuration for quick process/part changes
- Cost-effective prototyping & production automation platform
- Standard quick change-out toolkits
- Industry-standard replacement parts for ease of maintenance

## Typical Products

- Laser and diode emitters
- Transmitters, receivers and transceivers
- MUX and DEMUX components
- Switches
- Couplers
- Tunable devices
- Planar waveguides and fiber arrays
- DWDM modules
- Multichip modules
- Chip scale packages



Contact ATS directly for custom or product specific applications outside the scope of this document.



**Automation  
Tooling  
Systems**

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250 Royal Oak Road  
Box 32100 Preston Centre  
Cambridge, ON  
N3H 5M2 Canada  
Tel: (519) 653-6500 ext. 7189 Fax: (519) 653-6533

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