

Flexsys™ 2000
Fully Automated
Assembly System



**A fully automated flexible solution for
microelectronics assembly operations**



**Automation
Tooling
Systems**

At ATS, we build high-precision process and assembly systems for advanced packaging, multi-chip modules and optoelectronics. ATS Flexsys™ scalable workcells accommodate multiple high-speed 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™ 2000 Fully Automatic Assembly System automates assembly processes to achieve higher production volumes while improving yields. Designed to work with a wide range of tooling, these fully automated systems provide maximum flexibility on a standard machine platform.

Typical Applications

- In-package or chip-on-carrier assembly
- 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) 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

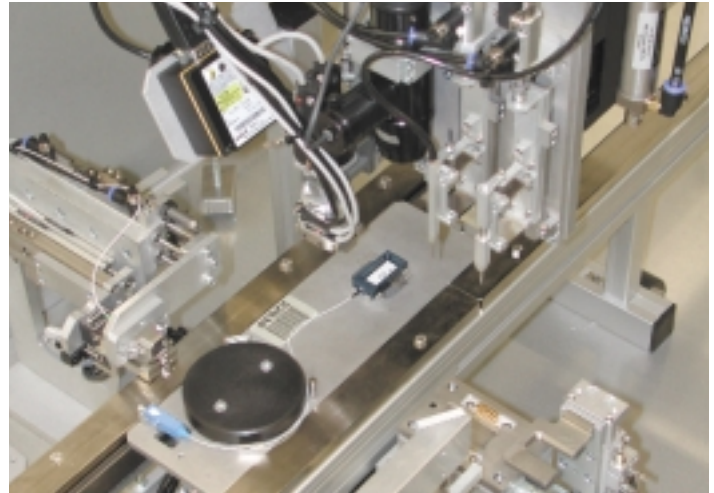
- Automatic camera and gripper calibration
- Quick-change adapters for optics and lighting
- Epoxy dispensing
- UV and thermal cure
- Laser welding
- Soldering
- Force sensing
- Surface probing
- Vision inspection
- Production software modules

Features

- Automated material handling: magazine/boat loaders, waffle packs, Gel-Paks®, die ejectors, JEDEC trays
- Standard conveyor modules (SMEMA)
- Standard process tooling modules
- Standard quick change-out toolkits
- Industry-standard replacement parts for ease of maintenance
- Bar code tracking

Typical Products

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



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



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ISO 9001 Registered QS 9000 - ISO 9002 Registered

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