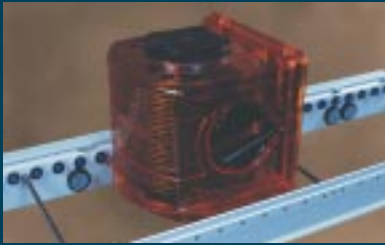


# Clean Room Conveyor Systems



Automation  
Tooling  
Systems



Fully electric integrated systems move cassettes carrying 300 mm (12") wafers (FOUP or Front Opening Unified Pod).



Hard drives and other components with flat edges can be carried directly on conveyor rollers.



AFS conveyor transports open disk drive media. Accessories include RF tag and bar code readers, ceiling and floor mounts, and airlocks for transfer between cleanrooms.



Custom pallets weighing up to 40 lbs (18 kg) support unique products. Pallet lengths vary between 3.4" (86 mm) and 48" (1219 mm).

## AFS 9000 SERIES CLEAN ROOM CONVEYOR

The AFS 9000 series conveyor is designed for situations where high reliability, cleanliness, ESD control and non-contact queuing are process requirements. The modular design offers flexibility for the first installation as well as for future floor plan changes. Customized sections address unique needs that may occur within a line or within the limits of a particular manufacturing facility.

### Standard features:

- Class 10 cleanliness
- Open-center design maximizes air flow and tool access
- Continuous conductive path from pallet to ground
- Sensor positions are fully adjustable along the length of the conveyor
- Reflective sensors detect pallets reliably
- Compact design
- Reliable components
- Drive components fully enclosed
- Width adjustable by a simple change of inexpensive pallet spacers
- Covers allow easy access for servicing
- Mounting slots in drive and idle side extrusions
- Mounts on legs or ceiling hangers
- CE compliant conveyor and interfacing components
- Minimum pallet dimensions: 3.4" long (86 mm), 1" wide (25.4 mm)

### Motion:

- Quiet, smooth bidirectional motion
- Selectable acceleration and deceleration ramps
- Sensor-mediated soft stops repeatable to within 0.020" (0.5 mm)
- Ball bearings used for cleanliness, reliability and durability
- Speeds range from 4" to 12" per second (0.1 m to 0.3 m per second)

### Control:

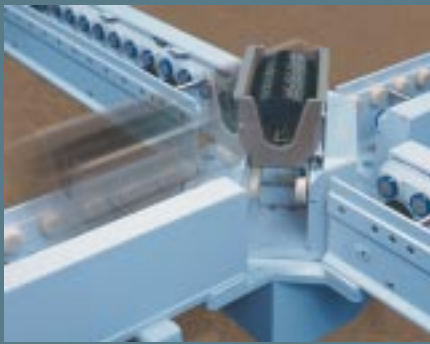
- Low power requirements (24VDC, maximum 2.5 amps per section)
- On-board local control standard with each section
- Networking to allow remote programming
- Control via PLC, PC or as slave to adjacent machine

### Standard lengths:

#### Standard queuing sections:

- 12" (305 mm)
- 15" (381 mm)
- 18" (457 mm)
- 24" (610 mm)
- 36" (914 mm)
- 48" (1219 mm)
- 60" (1524 mm)
- 72" (1829 mm)

Non-queuing sections available in 48", 60" and 72" lengths

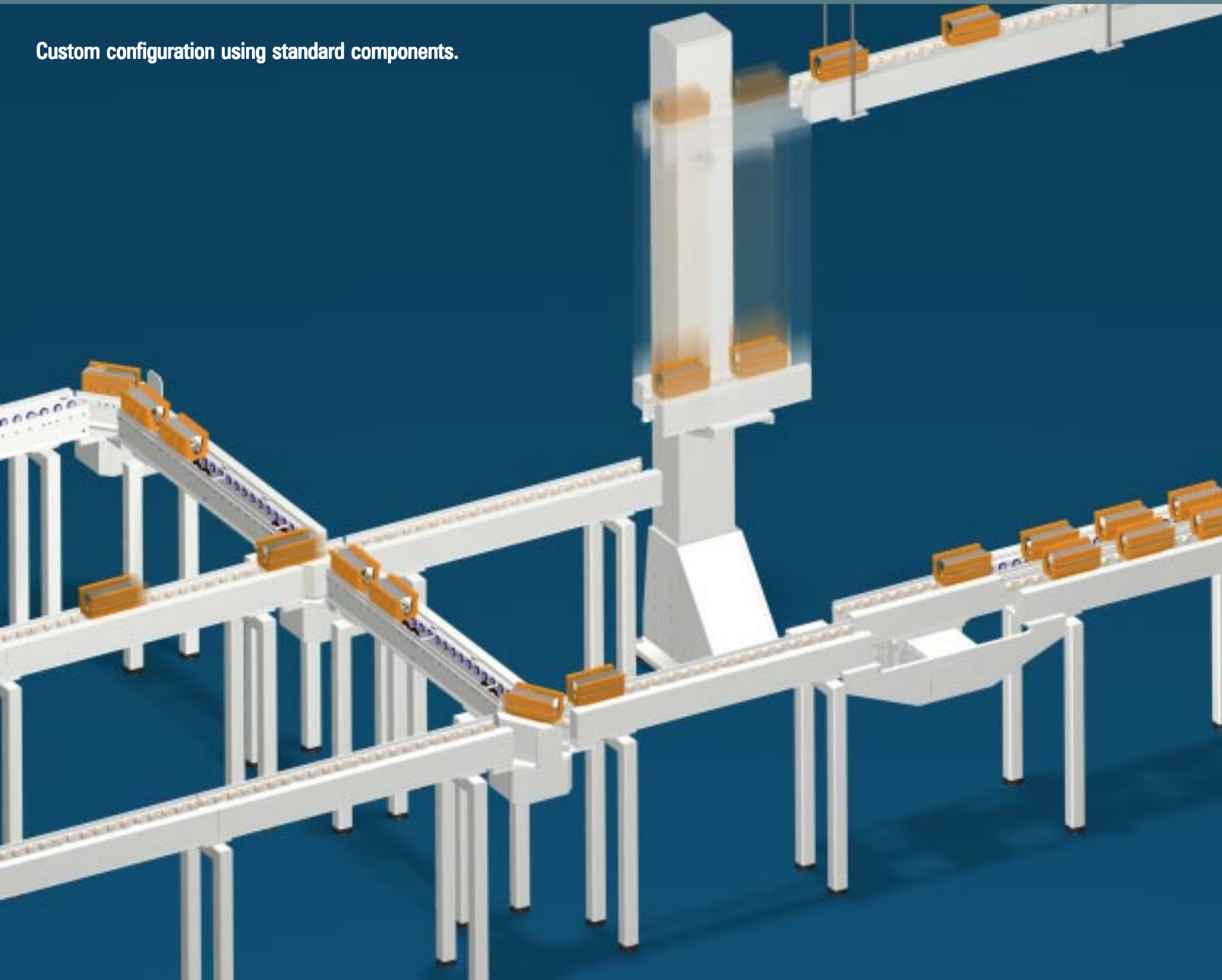


Electric and pneumatic turntables interface with other components including elevators and other turntables.



Standard AFS conveyor mounted on a shuttle can stop at multiple positions.

Custom configuration using standard components.



*Clean room materials handling for the new millennium*



Curved conveyor can replace either turntables or shuttles. Continuous motion offers higher throughput than discrete motion.



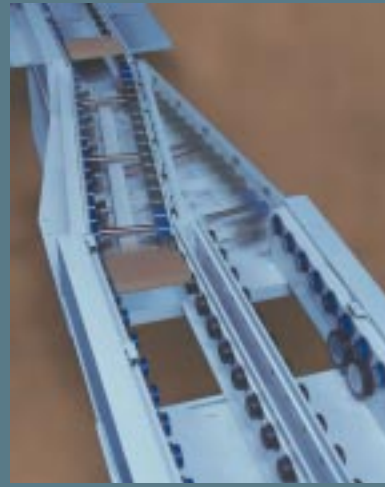
A lift-and-locate accurately positions pallets for processing.



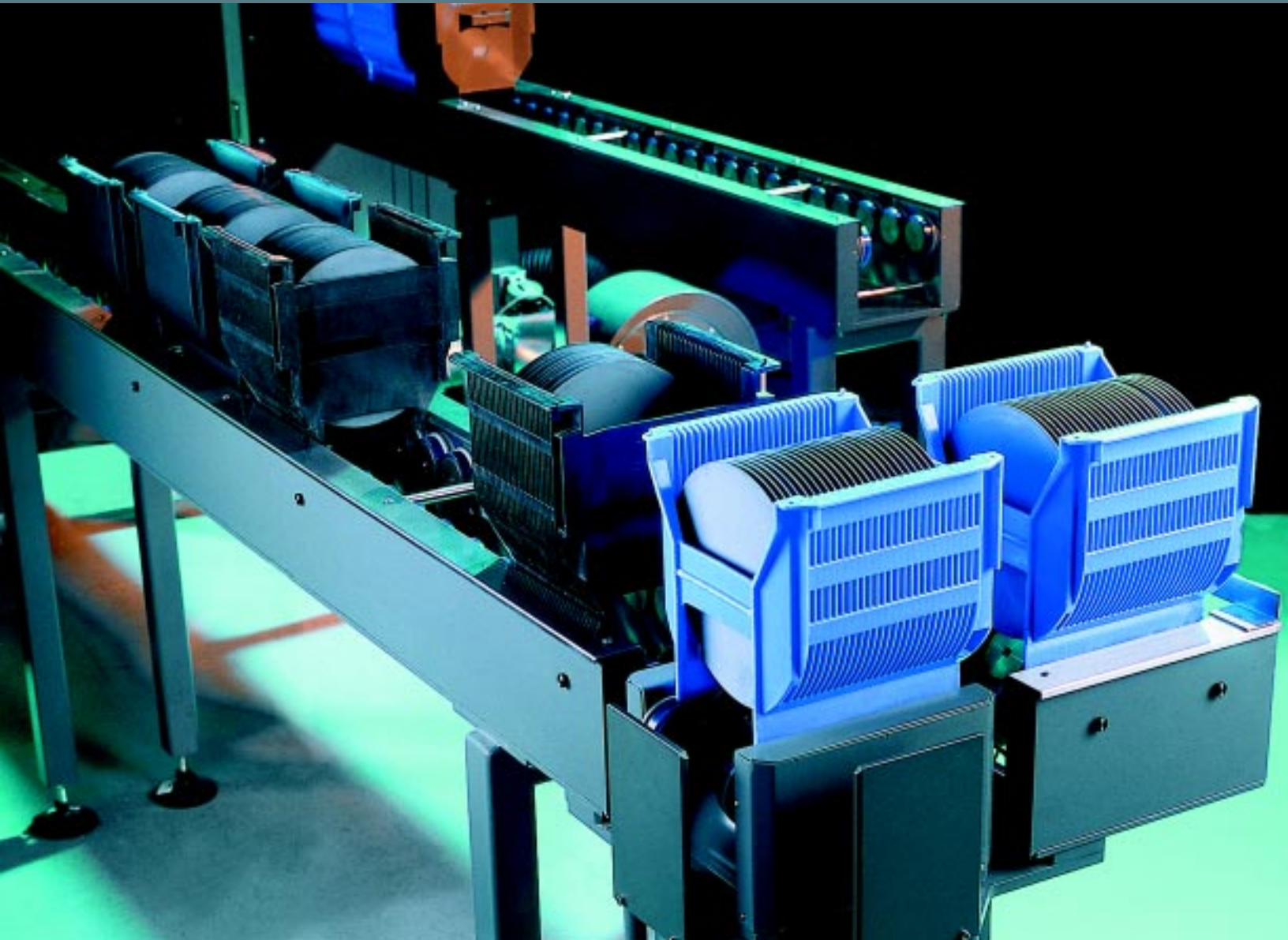
Conveyor components are produced in a 115,000 sq. ft. (10,700 sq. m) manufacturing facility which includes 18,000 sq. ft. (1,700 sq. m) of class 100-10,000 clean rooms.



Electric and pneumatic elevators transport single or multiple pallets between upper and floor level conveyor.



A diverter merges pallets from two lanes of conveyor into one or sorts pallets from one lane into two.



AFS 9000 series conveyor is in use in the following industries:

- Semiconductor
- Disk drive assembly
- Disk media
- Optics
- Flat panel displays
- Ink Jet pen assembly

Applications include complete lines for new manufacturing facilities:

- Replacing existing conveyor to meet higher cleanliness standards and
- Special form, fit or function requirements of tools or manufacturing layouts

## ATS - SETTING NEW STANDARDS IN AUTOMATION

**A**TS is a world leader in automation systems. We have designed and built more than 8000 systems for many of the world's foremost manufacturers in areas as diverse as telecommunications, electrical, semiconductors, automotive, medical, electronics and consumer products.

More than 75% of ATS customers are repeat buyers.

This strong loyalty is not just a result of the innovative systems we build, but of our commitment to unmatched service and product support worldwide.



At ATS, we've built an organization unique in the automation industry - with manufacturing and customer support facilities across North America, Europe and Asia - providing our customers with technical resources second to none.



**Automation  
Tooling  
Systems**

ISO 9001 Registered QS 9000 - ISO 9002 Registered

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

### Automation Systems

#### Corporate Head Office

*Cambridge Systems Division  
Machine Tooling Division  
Winding Division*

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

#### ATS Informatic Systems

Tel: (519) 653-7212  
Fax: (519) 653-7140

#### ATS Test Systems Inc.

600 Chrislea Road  
Woodbridge, ON  
L4L 8K9 Canada  
Tel: (905) 850-8600  
Fax: (905) 850-9336

#### ATS Niagara

3175 Dundas Street W.  
Oakville, ON  
L6J 4Z3 Canada  
Tel: (905) 469-6890  
Fax: (905) 469-6893

#### Accu-Fab Systems Inc.

2121 NE Jack London St.  
Corvallis, OR  
97333 USA  
Tel: (541) 758-3329  
Fax: (541) 758-3072

#### Accu-Fab Systems California Inc.

4763 Bennett Drive  
Livermore, CA  
94550 USA  
Tel: (925) 606-1302  
Fax: (925) 606-1305

#### ATS Eco-Snow Systems Inc.

4763 Bennett Drive  
Livermore, CA  
94550 USA  
Tel: (925) 606-2000  
Fax: (925) 371-0798

#### ATS Ohio

425 Enterprise Drive  
Westerville, OH  
43081 USA  
Tel: (614) 888-2344  
Fax: (614) 888-3875

#### ATS Carolina

P.O. Box 2109  
3758 Charlotte Highway  
Lancaster, SC  
29721 USA  
Tel: (803) 286-0812  
Fax: (803) 286-1926

#### ATS Southwest, Inc.

10970 North Stallard Place  
Tucson, AZ  
85737 USA  
Tel: (520) 575-9446  
Fax: (520) 575-9622

#### ATS Michigan

3796 Plaza Drive, Suite 5  
Ann Arbor, MI  
48108 USA  
Tel: (734) 994-8707  
Fax: (734) 994-3848

#### ATS Berlin

Wernerwerkdamm 5  
Gebäude W216 D-13629  
Berlin, Germany  
Tel: 011-49-30-386-27567  
Fax: 011-49-30-386-23845

#### ATS Wickel-und Montagetchnik AG

Gronszelgstrasse 21  
CH-5436 Würenlos  
Switzerland  
Tel: 011-41-56-4240184  
Fax: 011-41-56-4242764

#### Ana Mechatronics (Singapore) Pte. Ltd.

38A Jalan Pemimpin #04-01  
Wisdom Industrial Building  
Singapore 577179  
Tel: 011-65-299-5988  
Fax: 011-65-299-0688

#### Ana Mechatronics (Malaysia) Sdn. Bhd.

16 Jalan Sungai Tiram 2  
11900 Bayan Lepas  
Penang, Malaysia  
Tel: 011-604-641-1148  
Fax: 011-604-641-1675

#### ACE Automation (Tianjin) Co. Ltd.

157 Huang Hai Road  
TEDA Tianjin  
People's Republic of China  
300457  
Tel: 011-22-532-2007  
Fax: 011-22-532-1471

### Precision Components

#### ATS Precision Metal Components

80 Alpine Road  
Kitchener, ON  
N2E 1A1 Canada  
Tel: (519) 744-6661  
Fax: (519) 744-8285

#### ATS Precision Plastic Components & Advanced Manufacturing

730 Fountain Street  
Cambridge, ON  
N3H 4R7 Canada  
Tel: (519) 650-6600  
Fax: (519) 650-5925

#### ATS Contract Manufacturing

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