



Tool Automation

AcuTran 7™ Model ATR 7 S

Atmospheric Transfer Robot for application in Process Equipment and cluster tool Atmospheric Front Ends

The AcuTran 7 model ATR 7 S is a high performance robot that utilizes a compact, direct drive assembly and detached, DSP based control electronics.

Features

- Direct Drive Technology
- DSP Based, Modular Control Assembly
- Special Materials and Bearing Construction
- Off-Center Pick and Place
- Intelligent Wafer Mapping
- CE and SEMI S2 Compliance
- Continuous Rotation Capability.

Patented Time Optimal Trajectory™, Time Optimal Path™, and continuous rotation capability enable the highest operating speeds with vacuum grip or passive substrate support. The Off-Center Pick feature enables access to multiple, orthogonally placed cassettes, FOUPs, and process modules, without a traverser mechanism.

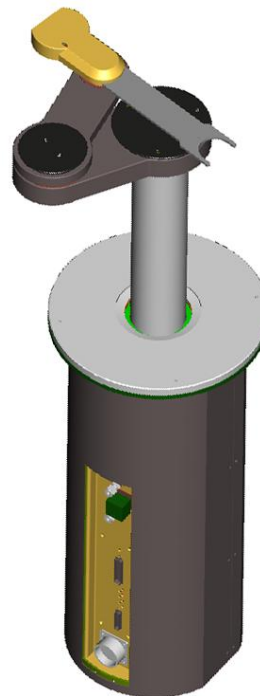
Designed to Brooks Automation's high standards for 10 million MCBF performance, the AcuTran 7 is ideal for production equipment requiring the lowest possible vibration and particle contamination, and the highest possible throughput and reliability.

A control display module, macro programming capability, and diagnostic functions simplify setup and integration, and improve serviceability.

The AcuTran 7 Robot provides low cost of ownership and high productivity for semiconductor material handling applications.

Benefits

- Anyone Highest Reliability
- State of the Art Motion Control
- Single or Dual FOUP access without traverser
- Wafer position determination and fault detection
- Meets International and Industry Safety Stds.
- Maximum Throughput



AcuTran 7 Model ATR 7 S

AcuTran 7 Technical Specifications

Wafer Sizes:

100mm, 125mm, 150mm, 200mm, and 300mm

Load Capacity:

500g (1.1 lb.)

Weight:

< 38 kg (84 lb.)

Overall Dimensions:

273mm Body Diameter

724mm Body Length

Mounting Configurations:

Top Mount

Base Mount

Arm Configuration:

2 Link "SCARA" type; Single End Effector

End Effector:

Vacuum Grip (standard)

Cleanliness:

< Class 1

Control Interface:

RS-232 Serial

Input Power:

24 VDC (+5V/ -0V) at 30 Amp

Vacuum Requirement:

≥ 600mm Hg (23.6 in.) at 50 cc/sec.

Range of Motion:

R Radial Axis Extension: 636mm

To Wafer Edge (for mapping): 462mm

θ Rotational Axis Span: Continuous

Z Vertical Axis Span: 438mm

Placement Repeatability:

0.05mm (3σ, typical)

Operating Speed:

3.8 sec. Transfer Time (typical pick and place period w/180° rotation)

Options:

Passive End Effector

Wafer Mapping w/class 1 laser (includes wafer sensing, position mapping, and cross-slot wafer detection)



Intelligence in Automation™

Corporate Headquarters

Brooks Automation, Inc.
15 Elizabeth Drive
Chelmsford, MA 01824 U.S.A.
Tel: (978) 262-2400
Fax: (978) 262-2500
Email: info@brooks.com
Web: www.brooks.com