

Linear-Motor Gantry Intended for Contouring Applications

- Optimized design for precise contouring in a compact footprint
- Velocity to 3 m/s and acceleration to 5 g
- High power brushless linear servomotors for smooth, backlash-free motion
- Travels up to 500 mm by 500 mm
- Optional electroless nickel for ESD protection
- Customizable Z and θ axes for flexible configurations



Aerotech's AGS1500 series Cartesian gantry systems are designed for ultra-precision, high-dynamic contouring, and provide outstanding performance in precision micromachining, stencil cutting, fuel cell manufacturing, solder-ball placement, printed electronics, high-speed pick-and-place, automated assembly, vision inspection, dispensing stations, and high-accuracy inspection.

The AGS1500 is based on our industry-leading AGS15000 gantry, and maintains many of the same leading-edge characteristics but in a more compact footprint. The planar design minimizes dynamic pitch errors at the work point. The design also keeps the linear motors and linear encoders to the outside of the work area, making the gantry less susceptible to debris-induced damage.

High Speed/High Acceleration

Linear-Motor Gantry Intended for Contouring Applications

Published on Electronic Component News (<http://www.ecnmag.com>)

Aerotech's high-performance brushless linear servomotors drive the AGS1500 to speeds of 3 m/s and accelerations of 5 g. Dual linear motors and encoders are included on the lower axis for the highest level of performance and precision. The bearings are preloaded linear motion guides with wiper seals and grease fittings, and are mounted to provide optimized dynamic stiffness and load distribution. The rugged noncontact optical linear encoders offer resolutions to 1 nm when coupled with Aerotech's controllers.

Long-Lasting Cable Management System

The cable management system (CMS) is optimized and field-proven as the industry's most reliable design. Large bend radii and high-flex cables ensure that the AGS1500 provides millions of cycles of maintenance-free operation. In the unlikely event of a component failure, the AGS1500's modular design ensures that part replacement is fast and easy.

All customer cabling and pneumatics can be routed through the system e-chain. Connectors are provided at the work piece and at the opposite end of the e-chain, greatly simplifying final machine integration.

Turnkey Operation

Aerotech's years of experience manufacturing precision positioning and control systems can be leveraged by acquiring a turnkey system. Typical options include Z-theta mechanisms, risers to accommodate automated parts handling equipment, brackets for flying optics components, isolation systems, and machine bases that are designed to accommodate the entire controls and electronics subsystems. In addition, Aerotech manufactures a wide range of amplifiers and advanced motion controllers that are optimized for high-performance automation applications and are a perfect complement to your Aerotech gantry.

Source URL (retrieved on 09/17/2014 - 2:32am):

<http://www.ecnmag.com/product-releases/2010/06/linear-motor-gantry-intended-contouring-applications>