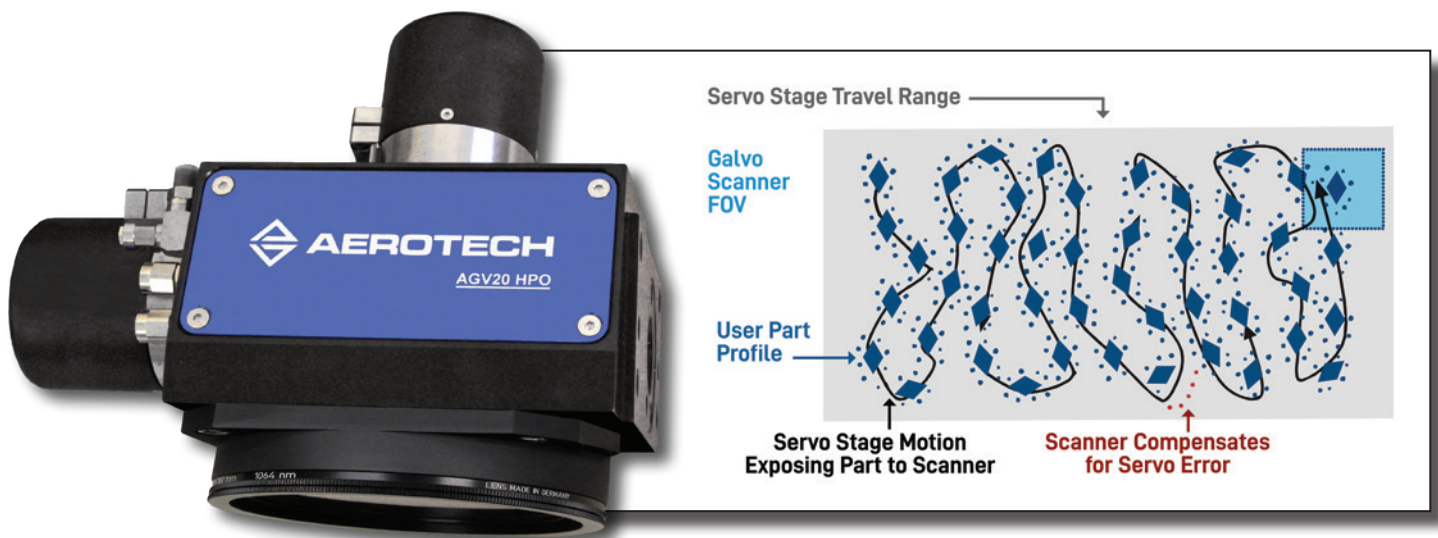




Advanced Motion Control Feature

Infinite Field of View (IFOV)



Excellent Dynamics and Superior Accuracy

Aerotech's Infinite Field of View (IFOV), the industry-leading solution for synchronizing linear or rotary servo axes with laser scan heads, improves processing quality and throughput on large parts. IFOV expands a laser system's working area beyond what is possible with optics alone, and it eliminates trade-offs between laser spot size and available working area by extending the FOV regardless of optic selection.

Key Applications

IFOV is ideal for high-throughput applications that require superior dynamic precision, minimal following error and rapid move-and-settle performance, including:

- Display processing
- High-speed drilling & cutting
- Electronics manufacturing
- Large-field & long focal length scanning
- Femtosecond laser processing
- Medical device cutting & welding

Key Features:

- ◆ Extends scanner **FIELD OF VIEW (FOV)** with linear or rotary stage motion
- ◆ **REAL-TIME SIMULTANEOUS TRAJECTORY GENERATION** for both scan head & servo motion from one controller
- ◆ Automated **DYNAMIC ERROR CORRECTION** of servo stage tracking by the scan head
- ◆ Supports use of **POSITION SYNCHRONIZED OUTPUT & ANALOG OUTPUT VECTOR TRACKING**
- ◆ Optimizes order of execution for **COMBINED MOTION PATHS** with Aerotech's CADFusion package
- ◆ Designed for use with **AEROTECH AGV** laser scan heads; compatible with XY2/3-100 driven third-party scanners

One Controller for All Motion

IFOV is powered by Aerotech's Automation1 motion control platform, which controls laser scan heads like any other axis. Using a single controller to process the entire 2D profile seamlessly splits motion between the scan head's FOV and the servo's entire travel range in real time. IFOV considers the scan head's available working area to ensure the commanded trajectory stays within field of view, accounting for all axes' acceleration and current limits to avoid fault conditions.



With our Automation1 motion control platform, you only need one controller for all motion.



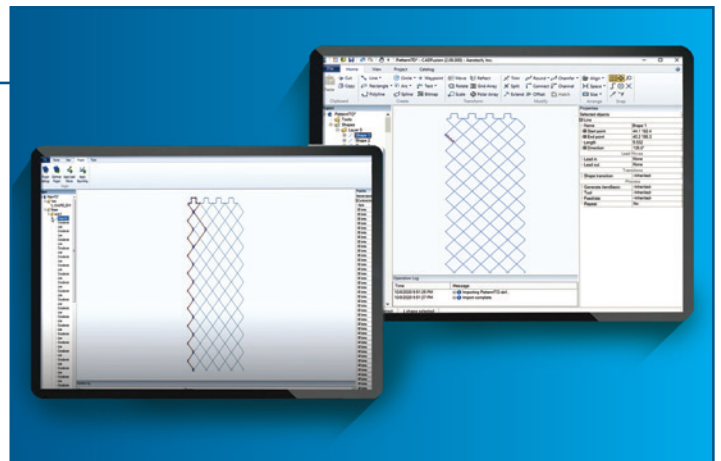
With IFOV, our laser scan heads can seamlessly process an area that is limited only by the stages' travel range.

Improve Your Throughput and Accuracy

Because the IFOV trajectory is executed by a single controller, the scan head tracks the servo axes' dynamic tracking error as part of its trajectory and corrects for it in real-time. This enables scanner-level dynamic tracking performance over the full part, so you can push the servo stages faster while maintaining the finished part's accuracy and quality.

Combined Path Optimization with CADFusion

When performing motion profiles with a servo stage/scan head motion system, optimizing the order of execution for part features is critical. Aerotech's CADFusion 2D CAD/CAM software package has built-in optimization parameters that allow you to plan a motion path for any system's most efficient feature execution order. With CADFusion, you can create, edit, hatch, optimize and convert any vector-based CAD data into G-code motion commands.



CADFusion makes it easy to optimize the order of execution.

Learn more about IFOV by using the QR codes or by visiting us at:



DE.AEROTECH.COM or UK.AEROTECH.COM