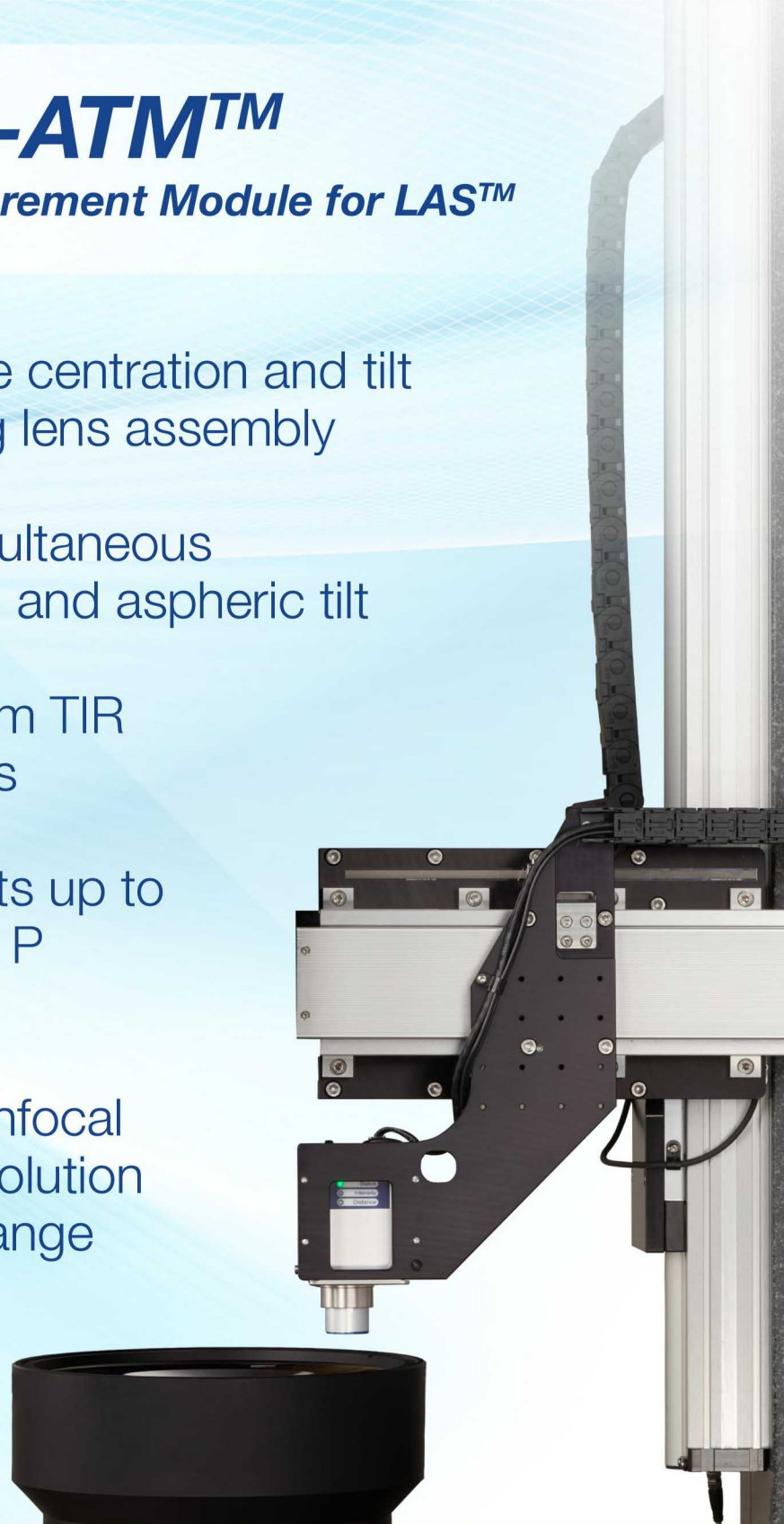




## ***LAS-ATM™***

### ***Aspheric Tilt Measurement Module for LAS™***

- Designed for optimizing the centration and tilt of aspheric surfaces during lens assembly
- Unique design permits simultaneous measurement of centration and aspheric tilt
- Fully automated with 0.1  $\mu\text{m}$  TIR resolution in all motion axes
- Measures lens stack heights up to 300mm for BT, 500mm for P and 1000mm for UP
- Non-contact chromatic confocal sensor with 40nm axial resolution and 1 mm measurement range





## New Aspheric Tilt Measurement Module:

Based upon the industry-renowned Lens Alignment Station (LAS), the new Aspheric Tilt Measurement Module (ATM) for LAS offers fast, precise, robust and user-programmable automatic tilt measurement for the precision alignment of aspheric surfaces during multi-lens assembly.

Using a cored granite column, ultra-high-precision linear encoders and a nanometer resolution distance measurement sensor, the ATM and can be mounted on a LAS for simultaneous centration and tilt measurements of aspheric optics.

The accuracy of centration and tilt measurement are better than  $0.2 \mu\text{m}$  and  $5 \text{ arcsec}$ , respectively for most aspheric surfaces.

### Key Features:

- Fast and accurate measurement of the tilt of aspheric surfaces
- User-Programmable fully automatic measurement features (with ultra-high-precision optical linear encoders for the translation stage)
- Flexible options: either add-on to an existing Lens Alignment Station (LAS system) for simultaneous decentration and tilt testing or used as a stand-alone aspheric lens tilt station.

### Technical Specifications:

	Aspheric Tilt Measurement (ATM)
Centration Measurement Accuracy	$< 0.2 \mu\text{m}$
Tilt Measurement Accuracy	$< 5 \text{ arcsec}$
Measurement Time	$< 2 \text{ min}$
Measurement Height	LAS-UP: 1000mm stack height LAS-P: 500mm stack height LAS-BT: 250mm stack height
Rotation Mechanism	Ultra-high-precision Air Bearing
Optics Loading Capacity	LAS-UP: Up to 454kg LAS-UP: Up to 226kg LAS-BT: Up to 57kg
Optical Detection Head	LAS for centration; Chromatic Confocal Sensor for tilt

