

AGR Series Worm-Drive Rotary Stages Improve Speed, Load, and Long-Term Positioning Performance

- **Innovative precision worm-gear assembly provides outstanding accuracy and repeatability over a long lifetime**
- **Enhanced speed and load capacity**
- **Large aperture addresses a wide range of applications**
- **Continuous 360° rotary positioning**
- **Direct encoder options**
- **Operation over a wide temperature range**

AGR series motorized rotary stages offer significant improvements in speed, load capacity, and long-term positioning performance versus previous generations of worm-gear-drive stages. The AGR stages address a wide range of applications for general purpose positioning in laboratory and industrial uses.

Innovative Gear Design

A unique preloading scheme avoids changing wear characteristics, allowing orders of magnitude increase in stage life without any degradation in stage performance, and allows stage operation over a wide temperature range.

The addition of a larger clear aperture is a key enhancement over previous generations of worm-gear-driven stages. The large aperture permits applications requiring a through-hole or accommodations to mount an optic, including articulation of beam polarizing lenses, for cabling and/or air lines, or for vision/camera/inspection applications.

Other Features

The AGR stage base is fabricated from a special aluminum alloy which offers significant weight savings in multi-axis arrangements and other weight critical applications, while providing high structural stiffness and long-term stability. Each stage incorporates dual large-diameter pre-loaded angular contact bearings optimally separated to provide excellent error motion specifications, as well as the best possible load handling capability. All stage tabletops feature aluminum hardcoat plating and stainless steel Heli-Coil® inserts to prevent thread wear.

Flexible Options

Options include flexible motor selections as well as a direct encoder mounted concentric to the axis of rotation for outstanding repeatability and to virtually eliminate hysteresis and backlash. Vacuum-compatible (for use in pressures as low as 10^{-6} torr) and other customized versions are also available.

Motor and Drives

Standard AGR stage configurations feature Aerotech's brushless servomotors. However, all AGR stages can be outfitted with stepper or DC brush motors. A full range of matching Aerotech drives and award-winning controls are available for a complete, single-source solution.

For further information, please contact Steve McLane at 412-967-6854 (direct), or via e-mail at smclane@aerotech.com. In addition, the AGR series data sheet is available at <http://www.aerotech.com/products/stages/AGR.html>.