

3.7 METER TELESCOPE SYSTEM

HIGH PERFORMANCE 3.7 METER TELESCOPE SYSTEM

PRECISION, VERSATILITY, RELIABILITY

Brashear's 3.7 m Telescope System combines the highest quality optical performance with flexible design configurations that are adaptable to a wide variety of applications.

- Azimuth over elevation mount
- Rugged, field-proven system
- Unguided auto tracking or command guided operation
- Accommodates wide variety of instrumentation at Cassegrain, Bent Cassegrain, Nasmyth and/or Coudé positions
- Compatible with adaptive optics and laser systems

FOR ASTRONOMICAL APPLICATION

The Brashear 3.7 m telescope system provides the optical performance, tracking capability and mirror control to meet the demands of a wide range of astronomical and scientific functions:

- Diffraction limited performance
- Tracking at sidereal rates to within 1 degree of zenith
- High rate tracking within 5 degrees of zenith
- Active primary mirror figure control
- Active secondary mirror alignment

HIGH TRACKING RATE APPLICATIONS

The Brashear Advanced Electro Optical System's (AEOS) direct drive DC motors and Inductosyn™ encoders ensure precision, high accuracy tracking and imaging of low earth orbit satellites and other objects under the most rigorous requirements.

Optional features for special applications include:

- Multiple instrumentation positions
- Low jitter and wobble
- Coudé path design
- Flexible control system



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SPECIFICATIONS

OPTICAL:

Primary f/#:	f/1.5
System f/#:	f/8 to f/100 typical
Wavefront Error:	0.2 λ rms @ 632.8 nm
Encircled Energy:	80% or more within 0.3 arc sec @ 632.8 nm
Operational Wavelengths:	Suitable from UV through far-IR
Coatings:	Aluminum on primary, broad-band on other mirrors

SYSTEM:

Azimuth Track Rate:	18 degrees per second
Elevation Track Rate:	4.75 degrees per second
Azimuth Acceleration:	5 deg/sec ²
Elevation Acceleration:	2.25 deg/sec ² Open Loop Tracking
Accuracy:	1 arc sec rms at sidereal rates
Pointing Accuracy:	2 arc sec rms for stars between 30 and 89 degrees elevation

INTERFACE:

User Interface Features:

- Star calibration software
- Tracking based on catalog, with user additions possible
- Pointing – position, rate and acceleration input as azimuth and elevation angles
- Supports remote operation via Ethernet

OPTIONS:

Optics for Cassegrain, Bent Cassegrain, Nasmyth and/or Coudé Instrumentation



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communications

Brashear

L-3. Leading. Headquartered in New York City, L-3 Communications employs over 63,000 people worldwide and is a prime system contractor in aircraft modernization and maintenance, C3ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, systems and subsystems. The company reported 2006 sales of \$12.5 billion.

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