

1.5 METER TELESCOPE SYSTEM

HIGH PERFORMANCE 1.5 METER TELESCOPE SYSTEM

PRECISION, VERSATILITY, RELIABILITY

L-3 Brashear's 1.5 m telescope system combines the highest quality optical performance with flexible design configurations that are adaptable to a wide variety of applications.

FOR ASTRONOMICAL APPLICATION

The Brashear 1.5 m telescope system provides the optical performance and tracking capability to meet the demands of a wide range of astronomical and scientific functions:

- Near diffraction limited performance
- Tracking at sidereal rates to within 1 degree of zenith
- High rate tracking within 5 degrees of zenith



HIGH TRACKING RATE APPLICATIONS

Direct drive DC motors and Inductosyn™ encoders ensure precision tracking and imaging of low earth orbit satellites and other objects under the most demanding requirements.

Optional features for special tracking applications include:

- Low jitter and wobble
- Coudé path design
- Flexible control system

1.5 M TELESCOPE SYSTEM FEATURES

- Azimuth over elevation mount
- Rugged, field-proven construction
- Unguided auto tracking or command-guided operation
- All-reflective lens design for broad spectral coverage
- Accommodates wide variety of instrumentation at Cassegrain, Bent Cassegrain, Nasmyth and/or Coudé positions



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SPECIFICATIONS

OPTICAL:

Primary f/#	f/1.25 to f/2.0
System f/#	f/4 to infinity
Wavefront error	0.125 λ rms @ 632.8 nm
Encircled energy	80% or more within 0.40 arc second @ 632.8 nm
Operational wavelengths	Suitable for operation from UV through mid-IR
Coatings	Wide range available, including high durability

SYSTEM:

Azimuth slew rate	20° per second
Elevation slew rate	10° per second
Encoder resolution	26 bit
LOS jitter	0.02 arc second
Absolute pointing	2 arc sec rms for stars between 30° and 89° elevation
Tracking accuracy	1 arc sec rms open loop while tracking a single star for 30 minutes
Following error .	Less than 0.05 arc sec at sidereal tracking rates

INTERFACE:

PC Graphical User Interface Features:

- Star calibration software
- Star or satellite tracking based on catalog, with user additions possible
- Ephemeris tracking of planets and minor planets
- Supports remote operation via Ethernet
- Real-time data interface

OPTIONS:

- Optics for Cassegrain, Bent Cassegrain, Nasmyth and/or Coudé Instrumentation
- Instrumentation rotators
- Refractive field correctors for wide field operation
- Closed loop video track

DOMES:

Complete turnkey solutions are available tailored to meet the operational requirements and science objectives of the observatory



Brashear

615 Epsilon Drive
Pittsburgh, PA 15238
Tel : 412-967-7700
Fax: 412-967-7973
www.L-3Com.com/Brashear



communications

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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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