Product Applications

Our light-weight mirror substrates are used in:
- optical telescopes
- LiDAR systems
- scanners
- active primary and secondary optics
- airborne optical systems

Description of Products and Services

Dynamic Optics designs and manufactures economical, lightweight glass (borosilicate) mirror substrates from 20mm to >2,400mm+ in diameter. Unusual shapes and dimensions are possible. Low mass and high stiffness complement, low inertia and rapid thermalization. Quantities range from single prototype to OEM. Areal densities as low as 8kg/m^2 have been fabricated.

Dynamic Structures designs and builds the world's largest telescopes and enclosures. That same innovation is used at Dynamic Optics, which fabricates lightweight glass mirror substrates.

We offer many solutions to provide the best combination of performance and economy, such as:
- open or closed back castings
- face-up rotational casting (pre-curve to near net concave faces)
- Pressure Molding (ground breaking process with the most design flexibility).

We can diamond generate other ultra-low expansion glasses such as glass-ceramics and ULE.
Spin Cast Large Blanks

1270 mm F:3.8 Spun cast mirror blank
218kg 65% light weighting

Pressure Molding Process

Complex detailed telescope mirrors with formed in place mount inserts

Adaptive Optics Tip-Tilt Secondary
250mm diameter - 150Hz operation

Scanning Mirrors Blanks or Finished
(shown) 134mm x 90mm x 15mm

1270 mm F:3.8 Spun cast mirror
Polished and installed for pre-coating testing