

Aspheric Lenses

An aspheric lens has one surface that does not follow a typical spherical structure. Aspheric lenses improve optical performance by correcting distortions that spherical lenses cannot eliminate. They allow light to focus more precisely, enabling sharper images and better system performance.



Our facility combines advanced fabrication technology with the expertise of master opticians to deliver high-precision aspheric optics at production scale.

We specialise in **conventional grind-and-polish** asphere manufacturing, with fabrication, sub-aperture polishing, MRF finishing, metrology, coating, bonding and assembly all performed **in-house**.

Materials	N-BK7, silicon, chalcogenides, optical glass	Surface Quality	< 10/5
Dimensions	10 mm to 200 mm	Coatings	AR, BBAR, DLC
Surface Figure	< $\lambda/20$		

Benefits

System Performance

A single asphere can replace two to five or more spherical elements. When reductions in component count, assembly complexity, and system size are taken into account, the total system cost is often comparable to, or even lower than, that of an equivalent spherical design.

Laser Grade Capabilities

Using advanced fabrication, polishing, and metrology equipment, we achieve **surface irregularities below 0.03 μm PV** and **surface roughness below 0.3 nm RMS**, with aspheric surfaces certified to **better than $\lambda/20$** , depending on geometry.

Compliance

We are ITAR registered and can achieve MIL-spec compliance. Maintaining fabrication, testing, and finishing within our facilities provides a significant advantage.