

Aspheric Lenses



An aspheric lens has one surface that does not follow a typical spherical structure. This can remove imaging issues such as spherical and chromatic aberrations.

Utilising our partnership with Torrent Photonics, who have decades of experience manufacturing precision aspheric and spherical lenses, Knight Optical can offer our customers aspherical lenses that excel in their performance.

BENEFITS

- Reduce the size and weight of a system
- One aspheric lens can do the function of multiple spherical lens elements
- Improved imaging performance due to elimination of aberrations
- Grind-and-polish manufacturing for precision low surface quality and roughness, ideal for laser applications
- ITAR compliance
- In-house coating and assembly facilities

CAPABILITIES

Materials	Borosilicate, BK7, and B270
Dimensions	4mm to 100mm
Surface Figure	< $\lambda/20$
Surface Quality	< 40/20

FABRICATION & METROLOGY EQUIPMENT

We quality assure our solutions by using the following fabrication and metrology equipment:

- 3 x SatisLoh machines for grinding and sub-aperture polishing
- QED machines for MRF finishing
- LuphoScan 2D
- Taylor Hobson PGI Optics Talysurf
- Zygo Verfire (VFA) stitching interferometer

INDUSTRIES

- Machine vision
- Defence
- Scientific
- Semiconductor

APPLICATIONS

- Imaging Systems
- Spectrometers
- Lithography tooling
- Defence and military systems



Contact our technical sales team to learn more about how our aspheric lenses can meet your custom specifications.

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Bringing quality
into focus

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