

Concave lenses

Concave lenses, are a simple lens with one spherical face and one flat plano face. Because the spherical face is concave the lens has a negative focal length, allowing the part to increase the divergence of convergent light. Concave lenses can be used to balance out the spherical aberrations caused by other lenses. This makes concave lenses very useful for controlling laser beams.



Being a simple lens, concave lenses have a broad range of applications including, but not limited to, focussing and control of laser beams, moderate quality imaging and other optical instruments. In a multi-element optical system they reduce the power of the system. Used on their own they form a diverging cone or virtual image. A typical use for concave lenses would be in a beam expander.

Custom capabilities

Diameter	3mm to 200mm+
Focal length	3mm to 1000mm+
Centration	< 3 arcseconds
Surface figure	< 0.1 fringes
Scratch/dig	< 10/5
Coating options	May be AR coated for UV/VIS/NIR
Material options	Schott glass of equivalent

Notes

All products are tested in our state of the art metrology laboratory by our highly trained technicians to ensure compliance with the specification. Parts are then sent to our QA team to be cleaned and checked for surface imperfections before dispatch.

Please contact our technical sales team on (+44) 1622 849 444 to discuss your custom concave lens requirements and discover how Knight Optical can help improve your supply chain experience. Alternatively, email us your requirements by clicking on the links below.