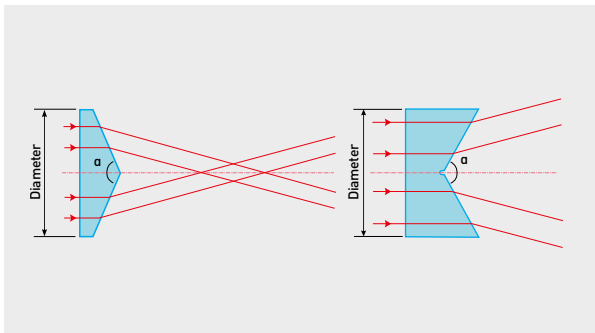
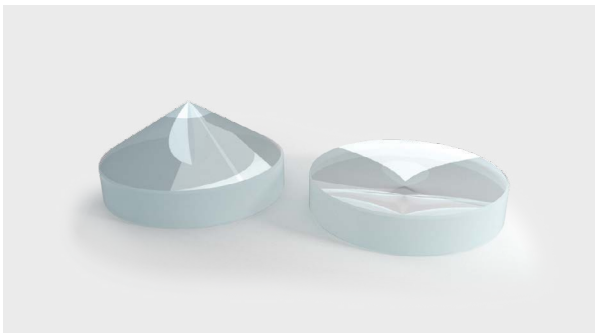


## Axicons (conical lenses)



Axicons (conical lenses) are famous due to their ability to transform a collimated Gaussian beam into an approximation of non-diffracting Bessel beam in the near-field and ring-shaped beam in the far-field. Most often they are used in tandem with other types

of lenses. 4Lasers provide plano-convex and plano-concave types of conical lenses. These lenses feature one convex surface or one concave conical surface, respectively, while second surface is plano in both cases.

### Main features

- Fabricated from high-quality UV grade fused silica, BK7 glasses
- Plano-convex and plano-concave designs
- Regular and advanced grade axicons
- Wide axicon apex angle selection
- Antireflective coatings, customization available upon request

### Application examples

- Corneal surgery
- Optical coherence tomography
- Atom trapping

### Standard specifications

AXICONS		
Type	Plano-convex	Plano-concave
Substrate material	BK7, UVFS	UVFS
Wavelength range	Uncoated BK7 axicons: 350 nm - 2 μm Uncoated UVFS axicons: 185 nm - 2,1 μm	
Clear aperture	>90%	>90%
Diameter tolerance	+0/-0,1 mm	+0/-0,1 mm
Apex rounding	Regular: <ø1 mm Advanced: <ø0,4 mm	N/A
Angle tolerance	Regular: ±0,5° Advanced: ±0,1°	Regular: ±0,5°
Central hole	N/A	Regular: -ø1 mm, depth -2 mm
Protective chamfers	<0,35 mm at 45°	<0,35 mm at 45°
Surface quality	Regular: 60-40 S-D Advanced: 40-20 S-D	Regular: 60-40 S-D
Surface irregularity	Regular: <1λ@632,8 nm Advanced: <λ/4@632,8 nm	Regular: <1λ@632,8 nm
Coatings	Uncoated	Uncoated

### Standard products

MATERIAL	SHAPE	GRADE	DIAMETER	APEX ANGLE	SKU	PRICE
BK7	Plano-convex	Regular	ø25,4 mm	140°	7640	160 €
				160°	7641	160 €
				170°	7642	160 €
				175°	7643	160 €
				178°	7644	160 €
UVFS	Plano-convex	Advanced	ø25,4 mm	130°	7632	360 €
				140°	7633	360 €
				160°	7634	360 €
				170°	7635	360 €
				175°	7636	360 €
				176°	7637	360 €
				178°	7638	360 €
				179°	7639	360 €
				Plano-concave	Regular	ø25,4 mm
160°	7646	480 €				
170°	7647	480 €				
175°	7648	480 €				
179°	7649	480 €				