



The premium selection of a|Axicons convince with superior surface roughness for high performance applications. Also available as mounted axicons.

### Key Benefits:

- Outstanding surface form deviation of  $RMS_i < 0.07 \mu m$
- Suitable for high-power laser applications
- Available with 4 standard coatings
- Laser induced damage threshold:  $12 J/cm^2$ , 100 Hz, 6 ns, 532 nm
- Off-the-shelf delivery
- RoHS compliance



### Lens Description

Surface Form Deviation (RMS) <sup>1</sup>	[%]	≤0.07
Surface Quality	[Scratch-Dig]	40-20
Diameter Tolerance	[mm]	+0/-0.1
Center Thickness Toleranc <sup>2</sup>	[mm]	+0.1/-0
Clear Aperture	[%]	>90

#### AR-Coatings<sup>3</sup>

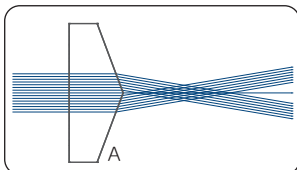
- A:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 400-600nm, AOI=0°
- B:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 600-1050nm, AOI=0°
- C:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 1000-1600nm, AOI=0°
- X:  $R_{MAX} < 1.0\%$ ,  $R_{AVG} \leq 0.4\%$ , 240-380nm, AOI=0°

Product Code	Ø [mm]	Angle [degree]	Edge Thickness [mm]	Material
XFL25-005	25.4	0.5	5.0	Fused Silica
XFL25-010	25.4	1.0	5.0	Fused Silica
XFL25-020	25.4	2.0	5.0	Fused Silica
XFL25-050	25.4	5.0	5.0	Fused Silica
XFL25-100	25.4	10.0	5.0	Fused Silica
XFL25-200	25.4	20.0	5.0	Fused Silica
XFL50-005	50.8	0.5	8.0	Fused Silica
XFL50-010	50.8	1.0	8.0	Fused Silica
XFL50-020	50.8	2.0	8.0	Fused Silica
XFL50-050	50.8	5.0	8.0	Fused Silica
XFL50-100	50.8	10.0	8.0	Fused Silica
XFL50-200	50.8	20.0	8.0	Fused Silica

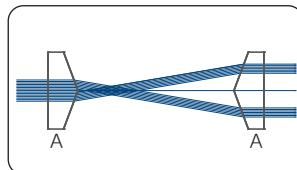
1. Due to manufacturing limits the center area may show a bigger form error. This affects around 1% of the axicon surface specifications. RMSi corresponds to ISO 10110-5 (surface form tolerances).
2. Custom coatings available upon request.

### Utilizing Axicons

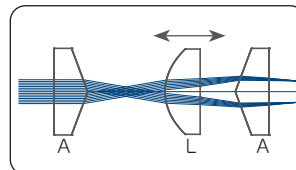
Axicons are conical lenses that are widely used in different scientific research- and laser applications.



1. Generation of a Bessel beam.



2. Generation of a ring beam.



3. Generation of variable ring foci.

A - Axicon, L - Lens

#### Fields of Application

- Laser material processing
- Measurement & Alignment
- Research & Science
- Medical engineering