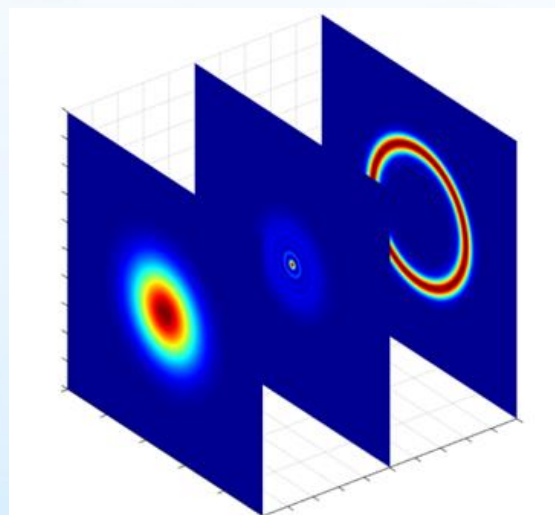


Diffractive Axicons

Our Diffractive Axicons convert an input beam into a Bessel beam that can be focused to a ring and has an extended depth of focus.

Our Diffractive Axicon DOE have no apex "dead Zone" and have absolute angular accuracy (no tolerances in production), enabling consistent performance of the system even when cone angles are very small, making them especially suitable for high power laser applications such as material processing where tight focus is used.



Features:	Applications:
<ul style="list-style-type: none"> • High power threshold • High efficiency • Low back reflection • Wavelengths from UV to IR • Optional AR/AR coating 	<ul style="list-style-type: none"> • Laser Glass Cutting • Laser Drilling/ Disc Cutting • Laser Welding

Advantages of Diffractive Axicons

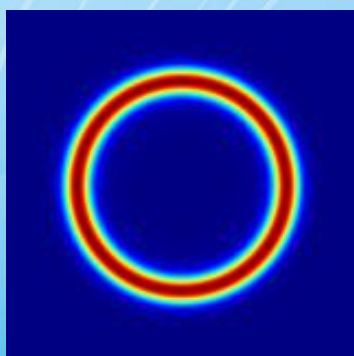


Fig 1: Spot after Diffractive Axicon (at Focus)

Allows very small angles	Aberration free
Exceptionally precise shape and angle	Compact solution for larger angles – (fab. on thin window)
Can accept very small incident beams	Positive and negative configurations (convex/concave)
Fab. on Fused Silica or ZnSe (for infrared app.)	

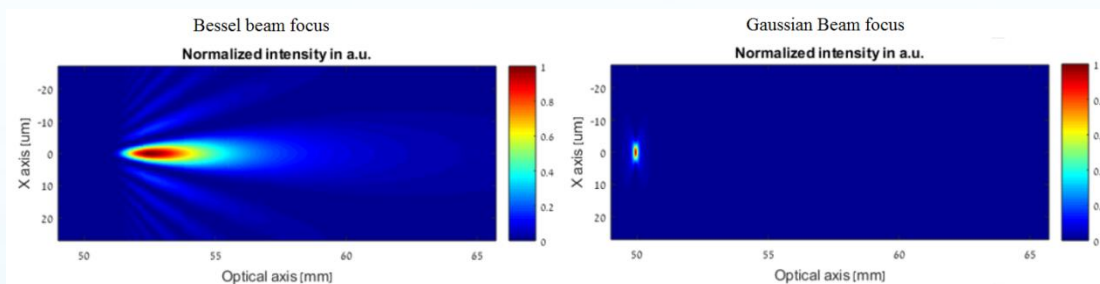


Fig 2: Using a Diffractive Axicon to generate a Bessel beam gives extended depth of Focus compared to just focusing a gaussian beam.

Diffractive Axicon Advantages over Refractive Axicon:

Diffractive Axicon	Refractive Axicon
No apex "dead" area	Has a "dead" area in the center
Accurately defined angle with no variation	Angle changes with production tolerances

Diffractive Axicon is Wavelength dependent and is defined by divergence angle.

Materials:	Fused Silica, ZnSe, Plastics
Wavelength range:	193nm to 10.6um
DOE design:	Binary, 8-level, 16-level
Element size:	5mm to 150mm
Diffraction efficiency:	75%-98%
Coating (optional):	AR/AR

Visit Our Diffractive Axicons product page to get a quote today:

<https://www.holor.co.il/product/diffractive-axicon/>

