

## 1.3. Axicons



Axicon can be used to convert a parallel laser beam into a ring, to create a non diffractive Bessel beam or to focus a parallel beam into long focus depth.

An axicon will create a non diffractive Bessel beam. This feature offered enhanced optical guiding, which was previously limited to the Rayleigh range of the Gaussian beam. The non-diffracting center of the Bessel beam has a propagation distance more times longer than the Rayleigh range of a Gaussian beam. The Bessel beams are used for optical trapping and manipulation of microscopic particles and biological cells, for microscopy, in optical coherence tomographic and etc.

Illuminating an axicon with the appropriate Laguerre Gaussian light beam efficiently generates a high-order Bessel beam of arbitrary order. High-order Bessel beams offer distinct advantages over other hollow light beams for atom guiding.

### When Ordering please specify

Axicon cone angle (apex angle) in degrees

AR Coatings: Broadband, Laser Line, Specific coating for wavelength range or Uncoated

#### 1.3.1. BK7 Axicons

Code	Name	Material	Diameter (mm)	Apex angle	Coating	Price (2-4pcs)	Price (5-10pcs)	Price (11-20pcs)	Price (>20pcs)	Currency
AX1	Axicon	BK7	12.7	168-179deg	no	105,000	94,500	84,000	78,900	JPY
AX13	Axicon	BK7	25.4	168-179deg	no	117,000	105,300	93,600	87,900	JPY

#### 1.3.2. UVFS Axicons

Code	Name	Material	Diameter (mm)	Apex angle	Coating	Price (2-4pcs)	Price (5-10pcs)	Price (11-20pcs)	Price (>20pcs)	Currency
AX12	Axicon	UVFS	12.7	168-179deg	no	132,000	118,800	105,600	99,000	JPY
AX14	Axicon	UVFS	25.4	168-179deg	no	138,000	124,200	110,400	103,500	JPY