

Optical Prisms

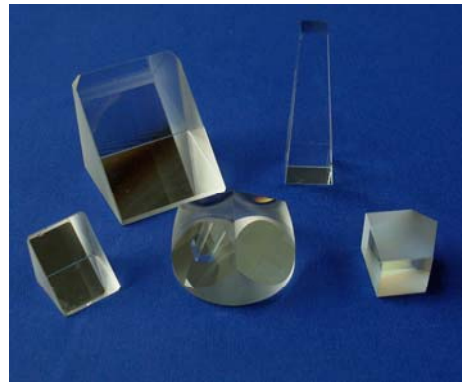
● Prisms

Prisms are blocks of optical material with flat polished sides arranged at precisely controlled angles to each other, which deflect, deviate or rotate beams of light as well as dispersing their wavelength.

We can manufacture many types of prism, each having a particular geometry to achieve the reflections necessary to perform a specific imaging task. Reflecting prisms may invert, rotate, deviate or displace a beam. Dispersing prisms produce spectral separation for spectroscopic applications or for tuning a laser output.

Most of prisms are widely used for laser and commercial applications; hereby we briefly describe six applications of prisms to illustrate the versatility of this optics:

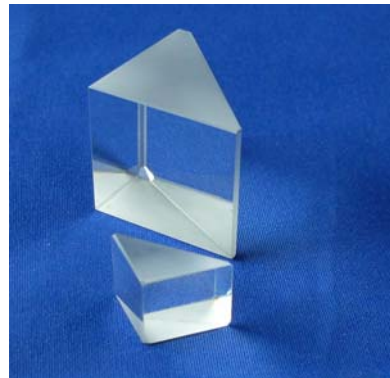
- Beam Turning
- Beam Steering
- Laser Tuning
- Prism Spectrometers
- Evanescent Wave Coupling
- Prisms as Beam Expanders



Right Angle Prism

Right Angle Prisms are precision polished to light tolerances for more demanding applications. They are available in either BK7 or UV Fused Silica. BK7 prisms are recommended for general laboratory use in the visible and near IR. For UV, infrared, or thermally sensitive applications Fused Silica prisms are advised. Our Fused Silica prisms are manufactured to exacting specifications and are useful from 0.16-2.10 μ m.

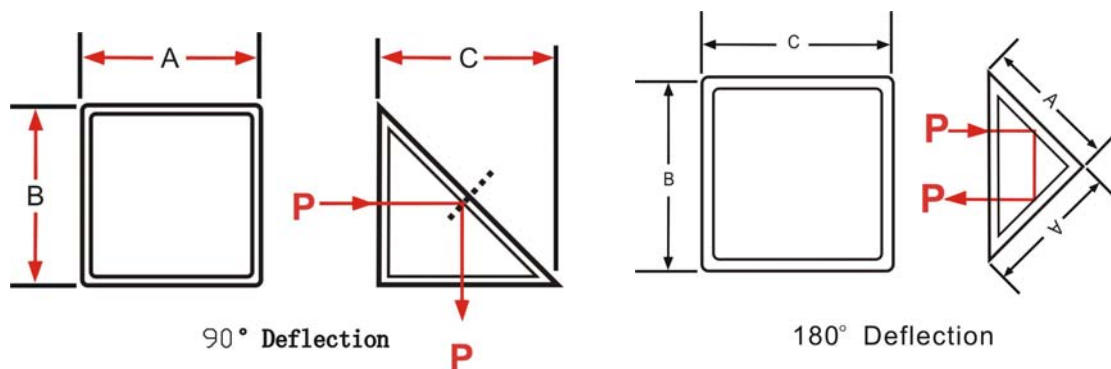
Right angle prism is deviating or deflecting a beam of light with 90° or 180°. It is often used in telescope, periscope and other optical system.



Optical Prisms

● Right Angle Prism

- 90deg Deflection: 90 deg deflection occurs at the face. The hypotenuse image is erected and reversed.
- 180 deg Deflection: 180° deflection uses with hypotenuse as the entrance and exit face. The main application is as a retro-reflector provided that the plane of incident beam includes the vertex.

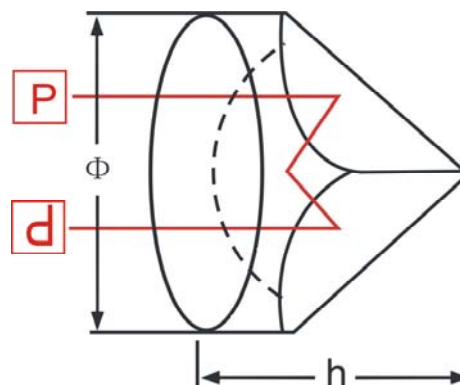


Specifications	Standard	High precision
Material	BK7 grade A, Fused Silica ,Sapphire,Si ,Ge, etc.	
Dimension Tolerance	+0.0, -0.20mm	+0.0, -0.10mm
Surface Quality	60-40 (scratch –dig)	40-20 (scratch –dig)
Surface Figure	$\lambda/4@632.8\text{nm}$	$\lambda/8 @ 632.8\text{nm}$
Deviation	± 3 arc minutes	± 10 arc seconds
Clear Aperture	>85%	>90%
Beve	<0.25mmx45deg.	<0.25mmx45deg.
Coating	Upon requirement	

Optical Prisms

● Corner Cube Prisms

Corner Cube Prism It has three mutually perpendicular surfaces and a hypotenuse face. Light entering through the hypotenuse is reflected by each of the three surfaces in turn and will emerge through the hypotenuse face parallel to the entering beam regardless of the orientation of the incident beam. For its special performance, it is often used to the distance measurement, optical signal process and laser.



Specifications	Standard	High precision
Material	BK7 grade A	
Dimension Tolerance	+0.0, -0.20mm	+0.0, -0.10mm
Surface Quality	60-40 (scratch –dig)	40-20 (scratch –dig)
Surface Figure	$\lambda/4 @ 632.8\text{nm}$	$\lambda/8 @ 632.8\text{nm}$
Deviation	± 5 arc seconds	± 2 arc seconds
Clear Aperture	>85%	>90%
Beve	<0.25mmx45deg.	<0.25mmx45deg.
Coating	Upon requirement	

Note: We will also production Penta Prisms, Dove Prisms, Wedge Prisms, Roof prisms.