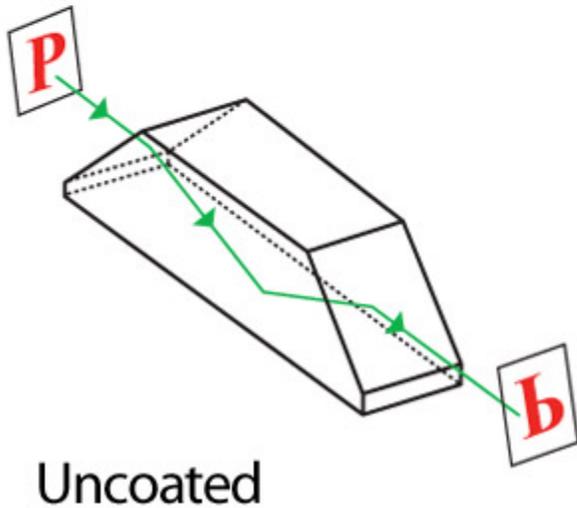
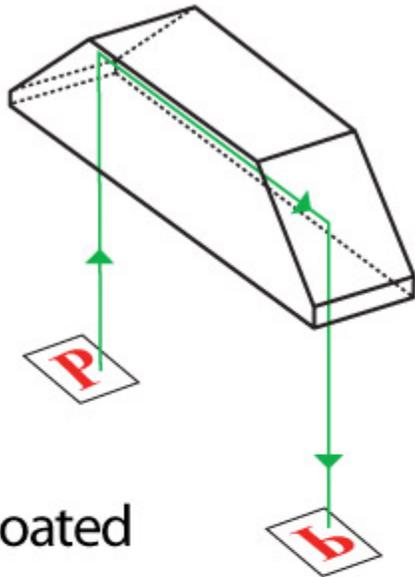


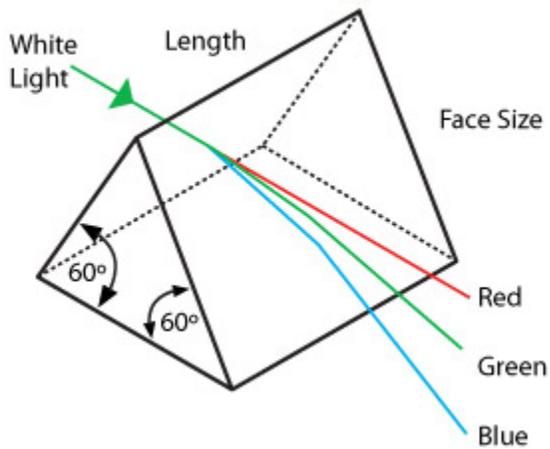
CUSTOM PRISMS by PRECISION GLASS & OPTICS

Dove Prisms



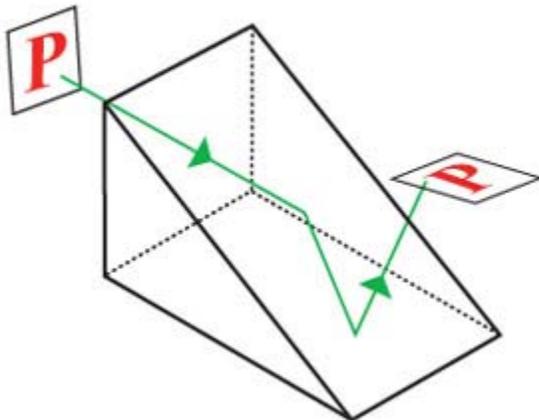
If you look through a dove prism as it rotates around a longitudinal axis, the image rotates through twice the angle that the prism does. This performance can be optimized by using collimated light. In imaging systems, dove prisms can be used to view areas behind the camera or around corners. They can also produce a split image, although the scenes are displaced from each other. Angular tolerance ± 1 arc minute, surface quality 40/20, surface flatness $\lambda/2$, dimensional tolerances $\pm .002$

Equilateral Prisms



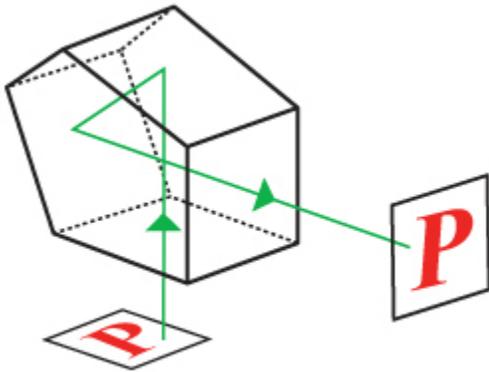
Also called dispersing prisms, equilateral prisms have three equal 60° angles. Angular tolerance ± 5 arc minutes, surface quality 60/40, surface accuracy $\lambda/10$, dimensional tolerances $\pm .002$ ".

Littrow Prisms



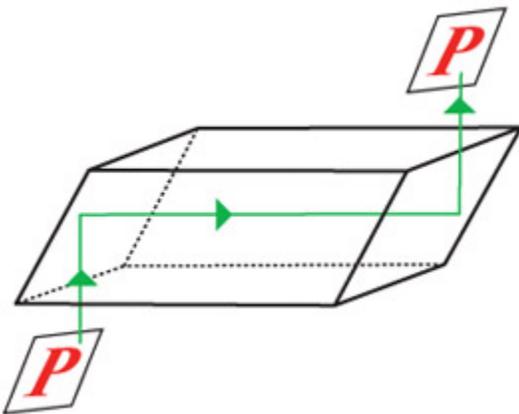
These prisms are commonly used in laser cavities to limit lasing to a specific wavelength. For a given wavelength, the refracted ray entering the prism travels normally to the reflectively coated exit face, then back along its original path. Uncoated Littrow prisms are used for image dispersion. Angular tolerance ± 3 arc seconds, surface quality 40/20, surface accuracy $\lambda/10$, dimensional tolerances $\pm .002$ ".

Penta Prisms



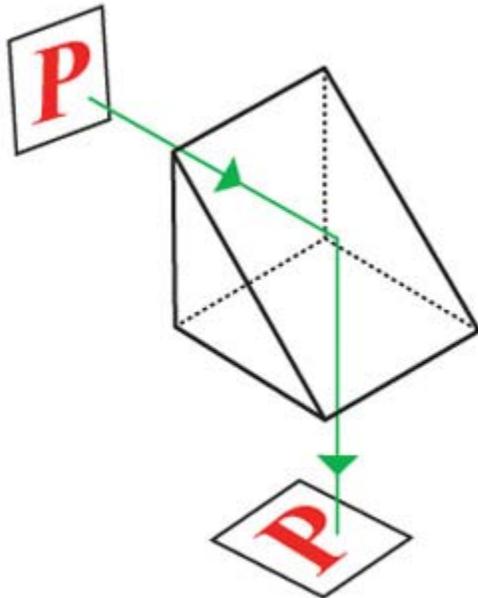
These five-sided prisms deviate beams by 90 degrees, independent of the prism's orientation - without inverting or reversing the image. Due to geometry, the reflecting surfaces must be aluminized. Penta prisms are often used to shorten the length of an instrument's optical path. All dimensions are in mm. Angular tolerance ± 2 arc seconds, surface quality 20/10, surface accuracy $\lambda/8$, dimensional tolerances $\pm .002$ ".

Rhomboid Prisms



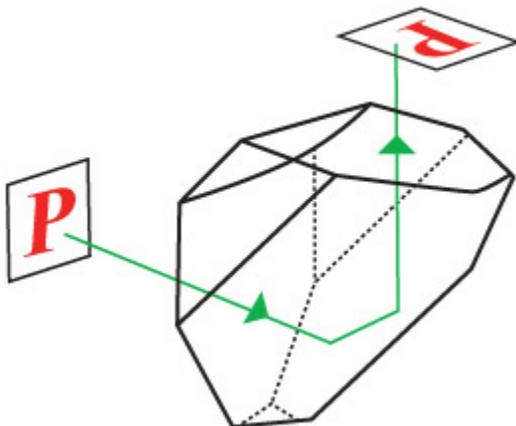
Used in imaging applications to displace a laser beam without changing its direction or inverting the image. The lateral displacement in a rhomboid prism is equal to the length of the prism ("A" dimension). Due to the high tolerance angles of our rhomboid prisms, output and input beams remain parallel to within two arc seconds - making them ideal for demanding displacement requirements. Angular tolerance ± 2 arc seconds, surface quality 20/10, flatness $\lambda/10$, dimensional tolerances $\pm .002$ ".

Right Angle Prisms



Commonly used to create a 90° bend in the light path, these prisms present images two ways depending on their orientation. In the first, images will be inverted but positioned correctly left to right. Rotate the prism 90°, and images will be right side up, but transposed horizontally. Several right angle prisms can be combined to achieve image/beam displacement. Angular tolerance ± 2 arc seconds, surface quality 20/10, surface accuracy $\lambda/10$, dimensional tolerances $\pm .002$ ".

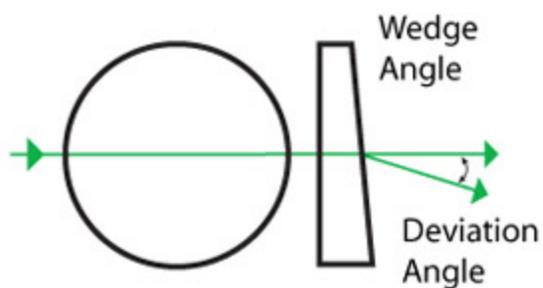
Roof Prisms



Roof Prisms, cont'd.

Also called an Amici or right angle roof prisms, these optical components invert the image and bend the line of sight through a 90° angle. Roof prisms make superb prism diagonals for optical systems, spotting scopes, and any optical instrument where it is useful to take an inverted image, right it, and bend it through a 90° angle to maintain the correct visual orientation. 3 arc second resolution, angular tolerance ± 5 arc minutes, surface quality 40/20, surface accuracy $\lambda/4$, dimensional tolerances $\pm .002$ ".

Wedge Prisms



Individually, a wedge prism can be used to bend a laser beam to a set angle. In tandem, these prisms can serve as an anamorphic pair for correcting the elliptical shape of diode outputs or steering a beam anywhere within a circle described by the full angle 4θ , where θ is the deviation from a single prism. Beam steering, done by rotating the two prisms independently, is generally used in imaging applications to scan a beam to different locations. Angular tolerance ± 1 arc minute, surface quality 60/40, surface accuracy $\lambda/4$, dimensional tolerances $\pm .002$ ".