EXCEPTIONAL EXPERTISE IN MANUFACTURING SUBMILLIMETER OPTICAL COMPONENTS
From prototype to volume production, standard to custom, the microscopically small elements we produce are unsurpassed in quality and precision.

Don't let the fear of submillimeter size hold you back. Bern Optics has developed special expertise that enables us to produce ground and polished optical components as small as 0.20 mm. Our engineers have met the challenges related to centering (lenses), angle control (prisms), edge chipping and surface quality. These tiny parts are as pretty to look at as they are to look through. They're available with custom coatings and can also be cemented into multi-element configurations. Most importantly, they are made to fulfill the unique requirements of your application and meet its exacting specifications.

**Singlet lenses** are available in a variety of difficult configurations, including positive and negative meniscus. When producing achromats and doublets our quality control regimen verifies the centration of each element before and after cementing.

- optical or filter glasses
- spherical and cylindrical radii
- submillimeter curvatures and diameters
- custom designed anti-reflection coatings

**Apertures** are available in circular or custom shapes. These can be precisely located on your component.

- optical or filter glasses
- submillimeter apertures
- antireflective coatings
- cementing of apertures to plano convex lenses

Bern Optics precision ground mirrors are available in a wide variety of shapes, with curved or plano surfaces.

- optical or filter glasses
- submillimeter apertures
- antireflective coatings
- cementing of apertures to plano convex lenses

Exceptionally accurate instrument windows are available in a variety of configurations, including custom shapes and submillimeter sizes.

- optical or filter glasses
- no minimum order
- expedited delivery

Bern Optics produces optically polished spheres from a variety of optical and filter glasses.

- large or small quantities
- modified catalog items
- special components with combinations of plano, spherical and cylindrical surfaces

Can't find what you need in a standard optics catalog? Then contact the experts at Bern Optics via telephone, fax or one of the specialized forms under the “Contact Us” menu on our web site: www.bernoptics.com
tel: 413/568-6800
fax: 413/568-4800

**MICRON TOLERANCES**

**COMPONENT ASSEMBLY**

Bern Optics is a full-service optics manufacturer. In addition to the smallest, highest quality submillimeter optics, the following secondary assembly services are also available:

- doublets and triplets
- multielement prisms
- mounting optics in cells
- custom assemblies
- prototype and production

Don't take our capabilities with a grain of salt, even if you might mistake our products for one!
QUALITY ASSURANCE Because of the fragile nature of optical products as well as their often-critical tolerances, quality control is one of the most important considerations. Bern Optics customizes a specific testing and inspection program for each project to help ensure the highest quality product possible. If you are looking for extensive experience and attention to detail, look no further. You can rely on Bern Optics to supply you with consistently high quality optical components.