



TECHNOLOGY NEWS

Precision Shims and Spacers from Valley Design

Shims, spacers, submounts, rings, washers and blocks sized to micron levels are available in a wide variety of materials from Valley Design. These components can be manufactured with accurate pitch tolerances and sequentially spaced to less than $\frac{1}{4}$ micron, flat to less than $1/10$ wave with lapped or polished mirror finishes. Shims of all sizes, thicknesses and surface finishes can be made from various materials including Aluminum Nitride, Alumina, Fused Silica, Quartz, Glass of all types, many of which are available from stock. Valley's size capabilities range from blocks as small as 125um square and as thin as 10um to as large as 450mm diameter. Custom edge profiles, cavities, holes, channels, slots and steps can also be machined into these parts.

[Shims and spacers from stock](#)

[Applications](#)

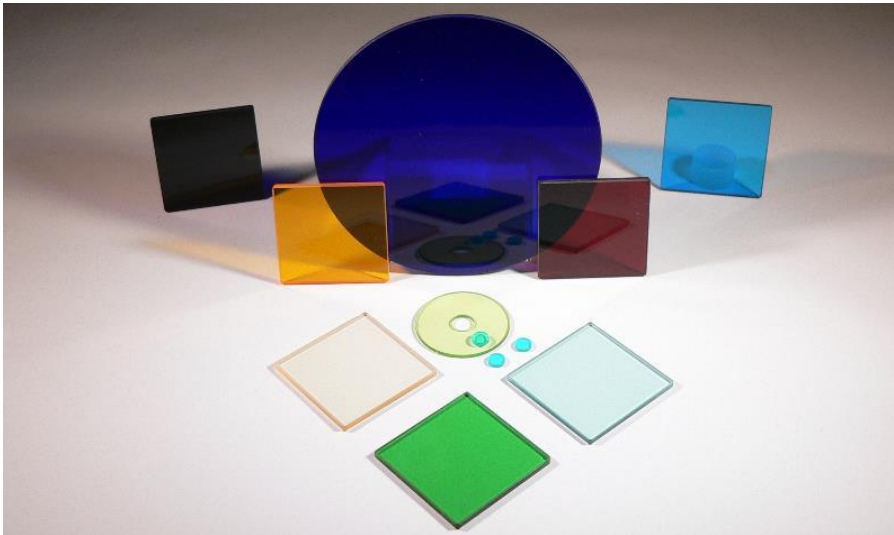


Color Filter Glasses equivalent to Schott and Hoya

Valley Design distributes Hebo color filter glasses in the USA, and has many of these filters in stock. Standard sizes are 50mm square x 1mm, 2mm or 3mm thick, polished to 60/40 scratch/dig < 10 Angstroms roughness. Larger sizes up to 300mm and up to 10mm thick are available in some filter types. If you have custom specifications, Valley also has the in-house capability to machine, dice, thin and optically polish these glasses to whatever you require. Filter types include: Blue, Green, Orange, Red, Violet, Yellow, Heat Absorbing, Rising Color, Infrared, Neutral Density, Ultra-Violet, and Wavelength Calibrated. Hebo filter glasses are equivalent, but not exact to Schott and Hoya. Please see [transmission curves](#) online to determine if a particular filter type will meet your requirements. Valley Design offers these filters as a cost-effective, readily available and customizable alternative.

[Color Filters](#)

[Color Glass Filters referenced to Schott and Hoya](#)



Precision CNC Micromachining Update

With the addition of 4 Axis CNC micromachining equipment, Valley has expanded on its capability to machine and shape various materials to micron level tolerances. We can machine intricately formed parts from materials including Aluminum Nitride, Alumina, Fused Silica, Quartz, Glass of all types, Macor, metals and more. Features include through-holes and pockets, edge and corner chamfers, radii and steps and complex geometries with tight tolerances. Sizes can range from as small as .005" (.127mm) to as large as 450mm diameter. Parts may then be lapped, polished and diced all within Valley's facilities. With our 4

Axis CNC equipment, 100's of lapping polishing machines ranging in size up to 64", and production dicing capabilities, Valley Design can serve as a one stop shop for all your precision requirements.



Visit us at the upcoming LASER World of Photonics Fair in Munich, Germany, May 13–16. We will be exhibiting in Hall B2 Booth #132, and displaying a wide variety of shims and spacers, wafers and substrates, chucks, CNC machined parts and more. For further details and to register click [here](#).

To learn more about our diverse technical capabilities, visit www.valleydesign.com

Valley Design Corp
2 Shaker Rd
Bldg E001
Shirley, MA 01464
978.425.3030
info@valleydesign.com