PINHOLES PROVIDING FIXED OR ADJUSTABLE APERTURE USED IN A NUMBER OF LASER APPLICATIONS SUCH AS SPATIAL FILTERING.

Knight Optical supply a range of laser drilled and electroformed pinholes are available in various grades to meet the most demanding applications. Available in pinhole sizes ranging from 1µm to 1000µm, manufactured from different materials and coatings designed to reflect and absorb light that doesn’t pass through the opening.

They can be supplied from our stock range or to your custom specification as unmounted foils or mounted within ridged circular mounts for ease of integration into your optical system.

Our standard range of stock pinholes are available with 1µm to 1000µm apertures as unmounted foils and 16mm and 25mm dia mounted options. Laser-drilled into 302 stainless steel substrates with thinning at the aperture for increased sharpness and definition.

We supply a precision range of stock pinholes that are available with 2.5µm to 100µm apertures as 16mm and 25mm dia mounted options. They offer high precision, well defined and sharp edged beam shaping and limiting for laser applications and imaging.

High powered pinholes are available with 5µm to 100µm apertures and used for higher intensity applications, primarily in laser systems, where the high levels of irradiation incident on the aperture are dissipated more quickly by the substrate. Manufactured from copper substrates with gold plating on one side for reflecting radiation, with the other side flat ploy black coated for absorption. Typically these can withstand 100-200MW/cm² at 10ns pulses (700nm) and are thinned to 25µm around the aperture for increased definition of shape and sharper edges.

Pinholes are individually tested on our Starrett AV300 video imaging device in our state of the art metrology lab to ensure all pinholes meet our high quality standards.

Knight Optical stock a large range of pinholes however custom options are available to meet your specific requirements. We ensure all our components meet high quality standards.

For more information or to place an order contact our multilingual technical sales team and discover how Knight Optical’s high quality Pinholes and service can improve your instrumentation and supply chain experience.

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