

Stainless steel optics capabilities

Stainless steel is made from an alloy of about 60% nickel and the rest steel. With the correct alloy the stainless steel is resistant to corrosion and staining and as optics can be used in areas that are, for example, sterilized.

The most frequently requested specifications for stainless steel metal optics are as follows:

Diameter range	25.4mm to 101.6mm
Diameter tolerance	better than ± 0.1 mm
Centre thickness	up to 50mm
Centre thickness tolerance	better than ± 0.05 mm
Clear aperture	90%
Centration tolerance	better than 1 arc minute
Form error	better than $\lambda/4$ (633nm) over aperture
Surface quality	< 40-20 scratch/ dig
Surface radius tolerance	less than 1 fringe over aperture
Linear dimension	up to 200mm
Linear tolerance	better than ± 0.1 mm
Angular tolerance	better than 5 arc minutes
Coating finish	ground
Chamfer	0.3x0.3@45°

Coatings

BBAR coating @0.2-9 μ m wavelengths

Our capabilities are always expanding so if your requirement is not mentioned above please enquire as we have many years of experience in this field.

Contact our multilingual technical sales team and discover how Knight Optical's high quality stainless steel optics capabilities and service can improve your instrumentation and supply chain experience.