

# Manx Precision Optics

## Our Capabilities

### Polishing /Assembly

Our team of polishers have decades of experience between them. Combine this with state of the art equipment and we can offer the following services

- Laser optics up to 500mm diameter
- Flat and spherical substrates
- Matched wedges for ultrafast beam control,
- Optically contacted high LIDT cube polarizers up to 3" cube size
- Solid, VIPA and Air Spaced Etalons

### Coating Capabilities

At MPO we coat the substrates we manufacture allowing us control of the entire manufacturing process, we can offer the following in regards to optical coatings.

- Electron-beam evaporated coatings
- Sputtered coatings
- Optical coatings from 190nm to 2500nm
- Dielectric and Metal coatings
- Coated substrate sizes up to 300mm diameter/200x300mm Rectangular
- Coatings for ultrafast applications supplied with GDD curve

### Technical Specifications

We typically manufacture optics to the following specifications, however we always look to work with our customers to get the specifications tailored to suit.

Flatness  $\lambda/20$  (For etalons up to  $\lambda/100$ ): Better than 10-5 Scratch-dig laser grade or ISO equivalent  
Diameter tolerances: catalogue  $+0/-0.25$ mm, tighter tolerances possible: Thickness tolerance catalogue standard  $\pm 0.25$ mm, tighter tolerances possible

### Materials

#### Polished

- Fused Silica (all grades)
- Schott N-BK7 & equivalent
- Schott Zedour & equivalents
- Calcium Flouride (CaF<sub>2</sub>)

#### Coated

- Fused Silica (all grades)
- Schott N-BK7 & equivalent
- Schott Zedour & equivalents
- Calcium Flouride (CaF<sub>2</sub>)
- Nd:YLF
- Nd:YAG
- Al<sub>2</sub>O<sub>3</sub> (Sapphire)

+ A wide range of other materials

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## About Us



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### Our Story

Manx Precision Optics Ltd. is a family owned manufacturer of high precision optics.

Founded in 2013, the company employs an experienced workforce with all senior employees having over 20 years experience in precision optics manufacture.

Since 2013 we've grown significantly expanding our workforce year upon year. Furthermore our commitment to long-term stable growth has seen us invest significantly in equipment, including our brand new 72" Lapmaster pitch polishing machine delivered in November 2019.

Our state of the art production facility is based in an Isle of Man Government owned high-tech industrial park and comprises over 5000ft<sup>2</sup> in manufacturing space in close proximity to the Isle of Man Airport.

### Craftsmanship, Quality, Service

To ensure full traceability and the highest quality standards Manx Precision Optics' manufacturing processes are all ISO 9001:2015 certified.

Within our facility we control all aspects of the manufacturing process from shaping, grinding and polishing to optical coating (e-beam, IAD and sputter) and assembly. This means we can guarantee the quality of the materials and craftsmanship at every stage of the manufacturing process allowing us full traceability of every optic we make.

We work with our customers to identify cost drivers at the very early stages of development and find the best, tailor-made solution for their applications. Our large stock enables us to manufacture prototypes within a short time-frame.

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