



# LBP Optics

Mirrors for Industrial and Scientific applications

## The Company

LBP Optics was founded in 1990 as Laser Beam Products and taken over in 2017 by laser optics and components manufacturer ULO Optics.

The two businesses are firmly established amongst the world's leading manufacturers of reflective and transmissive laser optics, with products exported worldwide from our two sites in the UK.

LBP Optics is particularly well-known for metal laser mirrors and we supply our products to laser manufacturers and OEMs in the industrial, medical and defence sectors. Working with Universities and Research Institutes worldwide keeps us at the forefront of infrared laser technology. Our range of products is extensive and includes both standard and custom-made mirrors, plus a lapping and polishing service for precision non-optical parts such as heatsinks and seals. We also offer existing customers a reworking service to repair and refurbish their damaged mirrors.

## Quality

LBP Optics was awarded ISO 9001:2015 certification in January 2018, underlining our commitment to the highest levels of quality and customer service, with prompt responses, delivery times, and technical excellence. Our mirrors are both durable and versatile, often exceeding customers' demanding specifications. Unique manufacturing methods allow us to produce both small and large volumes of standard or custom-made optics at very competitive prices with no set-up charges and short lead times.

## Applications

Our mirrors are well-proven in many varied applications including:

- Infrared applications in research and defence.
- Imaging, environmental monitoring and gas sensing.
- Medical and dental Er:YAG lasers.
- QCL sources, fibre laser, OPO and Terahertz applications.
- High power pulsed and CW CO<sub>2</sub> lasers.
- Laser cutting and welding systems.





## Mirror Types

We regularly manufacture a wide range of mirror types, both standard and custom-made, including: flat, curved, round, square, rectangular, prisms, knife edge, scanner mirrors, cassegrain, axicons, lipstick mirrors, dental mirrors, galvo mirrors and water-cooled mirrors.

## Materials

Our unique chemical polishing technology allows super-smooth surfaces to be produced on a wide range of metals and semiconductors, including most commonly:

- Copper
- Aluminium
- Stainless Steel
- Tungsten Carbide
- Silicon

## Coatings

Our Electroplated Gold coating gives broad flat reflectivity from the visible spectrum to Terahertz (2,000 microns+). It offers huge laser damage resistance for pulsed and CW and is regularly used with CO<sub>2</sub> lasers, Er:YAG, QCLs, fibre and broadband sources. We also offer a range of other coatings for excellent reflectivity in the infrared, UV and visible wavelengths. Contact us for more details.

## Specifications

- Sizes from 5mm to 150mm diameter, thickness 1mm to 50mm.
- Surface accuracy up to L/10, measured with phase shifting interferometer.
- Reflectivity up to 99.9% for specific wavelengths.
- Surface roughness Ra <1nm, up to 10-5 Scratch Dig.
- All parts are cost-effectively manufactured, in prototype quantities, or in volume.



## How to contact us:

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