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**Opus Associates** established by Laurence Robinson, is a consultancy specialising in the development of optical systems and products. We are a small well regarded team of optics experts with many years experience of product development. Whether you require a complex medical laser system designed and built to FDA standards or just a days help with your quality control system, we can offer highly experienced specialist consultants

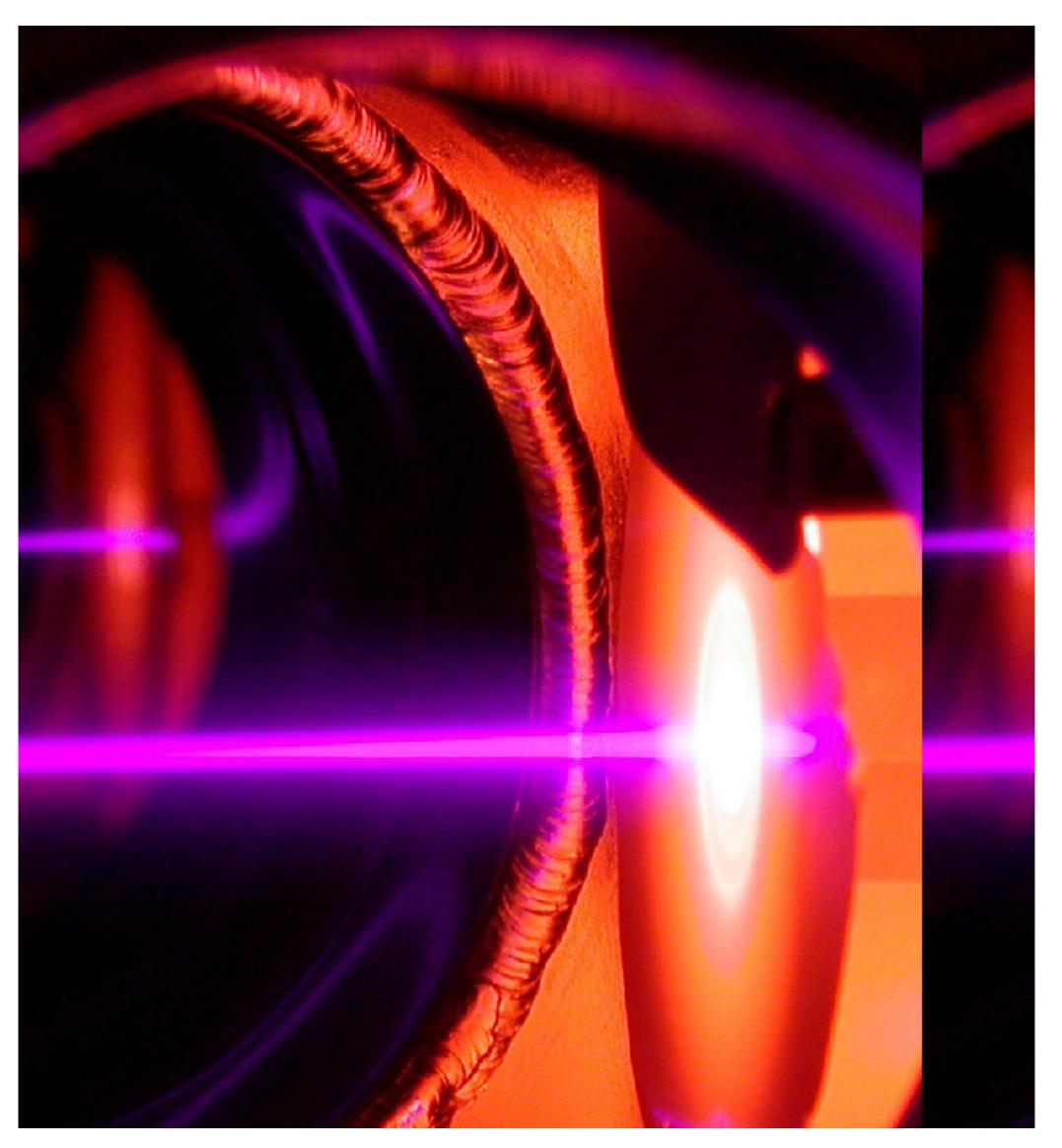
We will work with you from the initial specification stage through the design and certification processes. Working closely with your production team, your requirements will be implemented quickly and efficiently in a robust and elegant design for manufacture.

To view images of our mechanical design using CAD, click here.

The skills available to our clients include:

- Optical design consultancy
- Optical expertise
- Electronic design and manufacture of audio to radio frequency analogue systems
- *µ*Processor based controllers
- Power supplies
- Digital systems
- Optical system design
- Laser systems
- Scanning systems
- Inspection
- Metrology
- Software
- $\mu$ P embedded software
- Graphical user interfaces

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## **Product Development**

- <u>Aerospace</u><u>Printing</u>
- <u>Medical</u>
- <u>Other</u>

### Printing

# **High Resolution Laser Plate Makers for the Printing Industry.**

Opus has designed several plate makers for customers World-wide. Systems using HeNe, YAG, frequency doubled YAG and blue diode lasers have been developed. The requirements of micron stability, diffraction limited spots, control of ellipticity and plug and play laser replacement demand very careful design. Systems also have to be designed to be athermal over the operating temperature range of the plate maker.

Ellipticities of less than 1%, spot sizes down to  $12\mu$ m FWHM, 20nsec rise times and beam pointing stability of less than 10% of the spot diameter have been achieved and are in production.

With our partners, <u>Synectix Ltd</u> we can offer design and manufacture from component level to complete systems.

# **Optical Excellence**



### **Inspection & Metrology**

- Groove Profile
- Automotive Catalyst
- <u>Tube Straightness</u>
- Liquid Flow

### **Groove Profile**

# **Groove Profile Measurement**

Opus has developed a system for imaging and measuring deep grooves. It consists of a two laser beam illumination system. The first beam is a broad parallel beam which illuminates the surface. The second beam is focused close to the surface such that as it enters the groove it will illuminate the sides of the groove. The existing mechanical handling system is designed for the inspection of grooves in cylindrical parts. It uses a precision linear rail which transports the object to the mechanical stop.

Previously our client had to make an epoxy mould of the groove in order to check their manufacturing process. This new system offered a much quicker measurement method thereby reducing wastage and factory downtime.

## Get in touch...

#### Address

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Email sales@opusassociates.co.uk

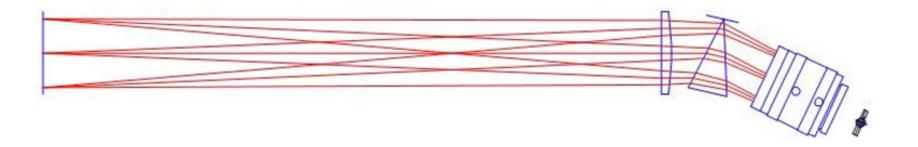
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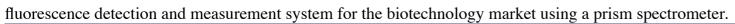
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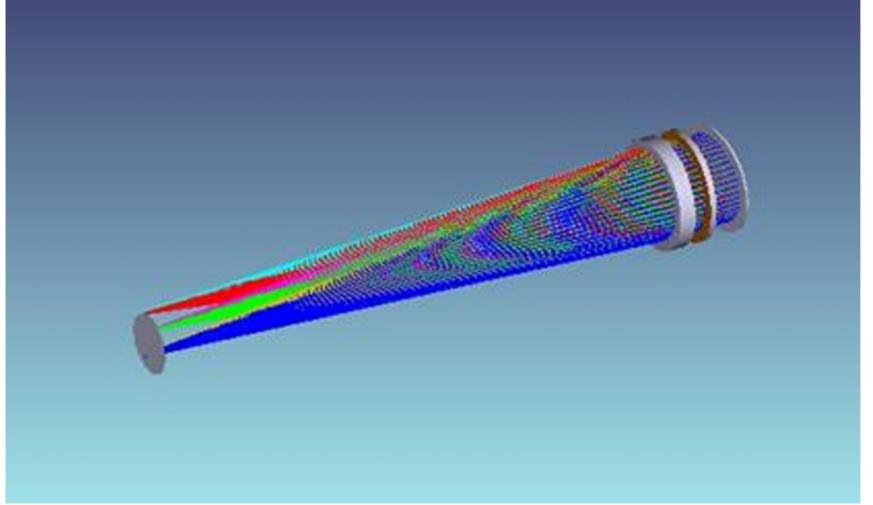


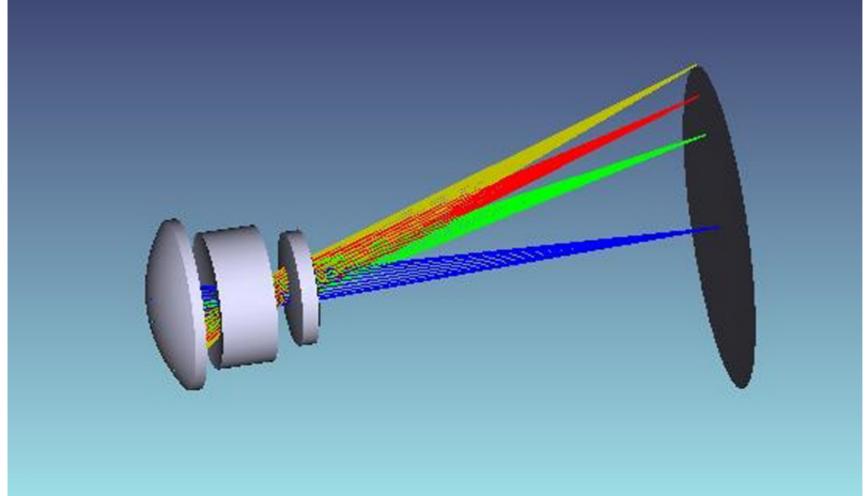
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A non-scanning

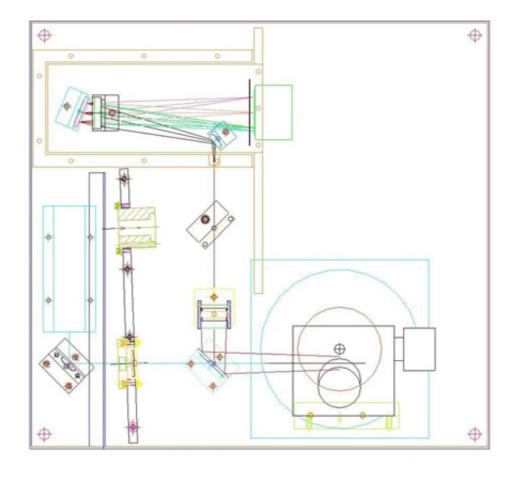






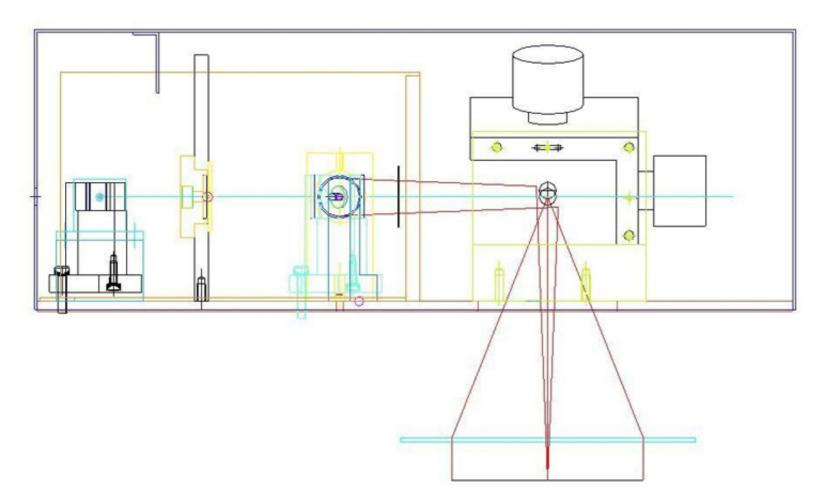
A Cooke Triplet for a

Specific Application.



laser over a 96 well microtitre plate & records the fluorescent signature from each well.

The test bed scans a



laser over a 96 well microtitre plate & records the fluorescent signature from each well

The test bed scans a

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