



KNIGHT OPTICAL

KO | BRINGING QUALITY INTO FOCUS



"For over 25 years I have been proud to have been leading Knight Optical into becoming the respected company it is today.

Our goal is clear; to be the number one choice for quality precision optical components, sub-assemblies and mechanics.

With facilities in the U.K and U.S.A, we provide high quality optical solutions and outstanding customer service to our global partners through our professional and knowledgeable technical team.

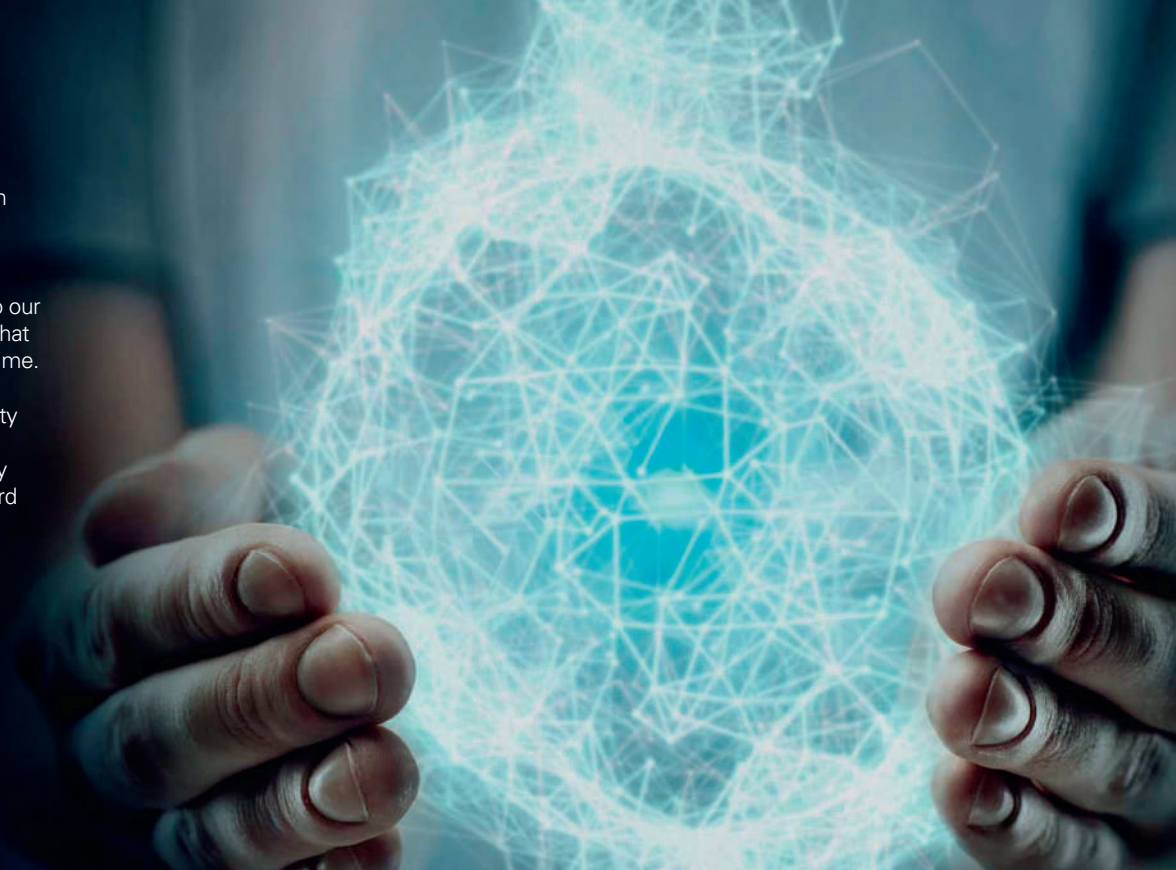
Over the years, we have listened to our partners and have responded with a fully equipped state-of-the-art metrology lab where all of your products are 100% tested to ensure your exact specifications are met.

With years of experience across a full range of applications and industries, our capabilities extend from one-off research orders to large production runs.

You, our partner, are at the centre of our business and we are totally committed to our belief that quality matters, guaranteeing that you receive outstanding products every time.

Discover how Knight Optical's high quality precision optics and sub-assemblies can improve your instrumentation and supply chain experience. Our team looks forward to working with you."

Best Regards
Colin Overton



Precision Optical Solutions



Custom and stock precision optics

Quality custom optical components for Ultra-Violet/Visible/Infrared applications.

Knight Optical's catalogue has a range of over 3000 standard components available on our website for immediate worldwide dispatch.

Optical sub-assemblies, and opto-mechanics custom made to suit your application.

Stock mechanics available to order directly from our website.



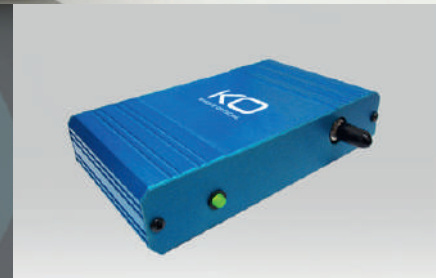
Extensive optical expertise



Additional products and services

Illumination | Imaging & Machine Vision | Microscopy & Accessories | Optoelectronics |
Testing & Calibration | Optical Tools & Accessories | Optical Coatings

A range of custom and stock options to meet your requirements.



We serve a full range of

markets & industries



We supply custom solutions to the following industries

Scientific Instrumentation | Medical | Oil and Gas | Defence and Aerospace | Entertainment
& Design Speciality Lighting | Electronics and Optoelectronics | Engineering and Industrial
Manufacturing | University and Research Centres | Bio and Nanotechnology ...and more



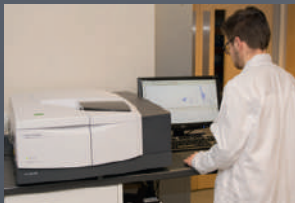
Our quality guarantees



Knight Optical has invested substantial resources into state-of-the-art metrology testing facilities to meet your exact specifications.

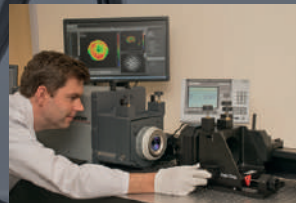
Varian Cary 5000 UV-VIS-NIR spectrophotometer with DRA and UMA attachments

Measures transmission, reflection, and optical density of coatings and materials in S and P polarisation across a scan range of 175 - 3200nm



Agilent Cary 660 FTIR spectrophotometer

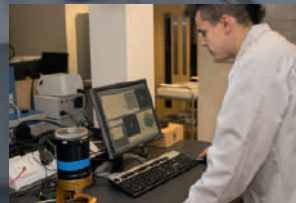
Measures transmission of IR materials and coatings across a scan range of 1.67 - 44.44 μm



Zygo Verifire XPZ interferometer with an Interferometric Radius Slide (IRS)

Measures form error of flat and spherical surfaces to an accuracy of $\Lambda/20$

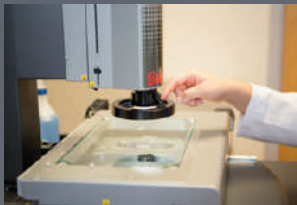
Combines linear measurements provided by the encoded rail and cavity measurements made by the interferometer to give highly accurate radius of curvature readings.



Fisba Interferometer

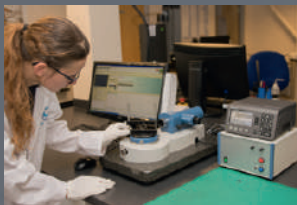
Non-contact measurement of flat surfaces to an accuracy of $\Lambda/20$

Single-pass & double-pass measurements of transmitted wavefront error



Starrett AV300 video imaging device

Non contact dimensional metrology for complex components such as reticules and metal assemblies to an accuracy of $\pm 0.1\mu\text{m}$



Trioptics Prism Master

Electric autocollimator for measuring angles on wedged windows, prisms, beamsplitter cubes and polygons to an accuracy of ± 3 arc seconds (0.00083°)



Trioptics Optispheric system 2000AF

Measures Effective Focal Length (EFL), Back Focal Length (BFL), Radius of curvature, Modulation Transfer Function MTF, and Flange Focal Length (FFL)

Fitted with a motorised V-block accessory for testing centration errors $< 1\mu\text{m}$ in transmission and reflection

'In 2018/2019 Knight Optical will be investing in a Talysurf PGI Optics to advance our aspheric testing capabilities, including the reverse engineering aspheric and diffractive optics. Knight Optical will also be investing in a Zygo ZeGage Plus giving us the facilities to measure surface roughness and form on precision optical surfaces.'



Talysurf PGI Optic

Measures aspheric form error with high accuracy and repeatability

Aspheric Analysis Utility software specifically designed to analyse aspheric form error, radius, and slope error

Capabilities to reverse engineer aspheric and diffractive components by deriving their co-efficient functions



ZeGage Plus

Provides 3D optical surface profiling on precision surfaces

Measures surface texture, form, and step-height

Sub-nanometre precision

Raising the bar in quality standard

We quality check each and every custom and stock order. We comply with:

1. ISO 9001:2015 Standard
2. ISO 14001:2004 Environmental Assurance
3. ISO10110 – Optical drawing standards
4. MIL-G-174B Optical Glass
5. BS4301 - 1991 Preparation of drawings for optical elements and systems
6. MIL-C-14806A Coating, reflection reducing for instrument cover glasses and lighting wedges



Our website is a wealth of information...

Take a look at our website for:

- Knight Optical stock optics and mechanics
- Technical library for the latest information sheets
- Materials data for UV-Visible-IR materials, including sheet materials
- Coating curves for antireflective, beamsplitter, mirror and dichroic coatings
- Sector application sheets
- White papers and case studies
- Ask for a copy of our paperback catalogue



www.knightoptical.com

Why buy from us?

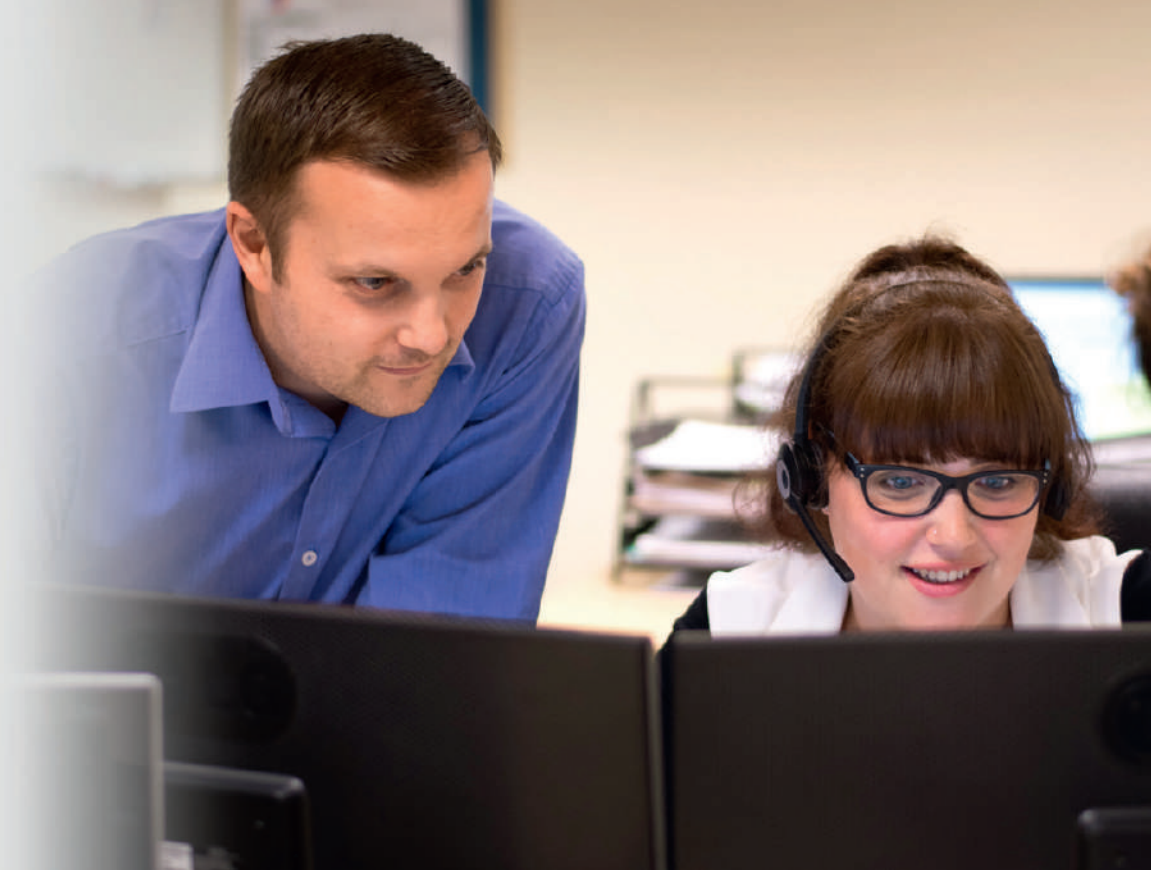
Unsurpassed Standards

It is our passion to be the best in the industry. Our partners continue to build relationships with us because:

- Our Technical Sales Team comprises of multilingual science graduates who ensure your product is the perfect solution for your project.
- We provide all parts to specification along with full test reports.
- We quote to honest and valid lead-times.
- We have a passionate Metrology and Quality Assurance team trained to ISO and Mil standards.
- We are ISO registered and audited by UKAS body.
- We are only interested in building relationships with like-minded companies for the “long term”.
- We are all about quality and at the same time are competitive.

We are proud of the partnerships we build with our customers and are always on hand to help select materials, advise on tolerances and surface specifications.

By merging the latest technology with traditional values, our customers receive excellent service and a professional business relationship they can trust.



What our customers say...

I'd like to thank-you for keeping a buffer level of bespoke stock for me. I was working on several projects and unfortunately I forgot to order critical components for our system. I was very relieved to discover you had my components in stock thanks to the systems you have in place to provide excellent customer service. They arrived next day in time for our own client visit.

Leading Medical Company

We had used our previous supplier for many years through habit. I decided to try Knight Optical as everyone was very knowledgeable and quick to provide quotes - I now wish we had changed years ago. The full test data you send means I can see that we are receiving components exactly to the specification we asked for. The service you offer is second to none, making my job in purchasing seamless.

Aerospace Defence Company

We are now convinced that price isn't everything. We had been buying components from Asia with rejects causing us many problems. Knight Optical are not as cheap but are very competitive with 100% quality. We will not go back to buying cheaply - the professionalism and quality we get from Knight Optical far outweighs the negligible savings we were making.

International Scientific Instrumentation Company

Many thanks for the sample; the quality of the component is as you promised. You can look forward to receiving my annual order this Monday.

Multinational Industrial Engineering Company



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