

SPANOPTIC

We don't have words in our vocabulary that mean anything less than perfect.



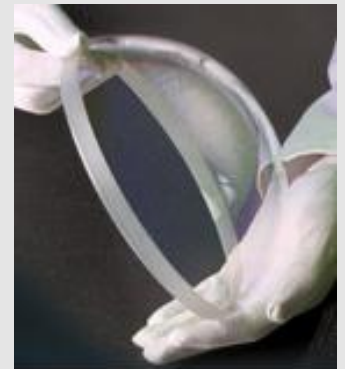
1. About the Company

1976:

- ✦ Started with 4 people in a 1,000 sq ft facility
- ✦ Production of high precision flats and prisms for the Scottish laser industry

Today:

- ✦ More than 40 employees in a 20,000 sq ft facility
- ✦ One of the largest independent optics manufacturers in the UK
- ✦ Offering a wide range of optical components



1. About the Company

Product Line:

- ✦ Flats, prisms, spherical lenses and cylinders, aspheres, MRF service, sub assembly
- ✦ Various glass materials (Schott, Ohara, Hoya, Sumita, CDGM) and quartz
- ✦ IR materials: Si, Ge, ZnS, ZnSe, CaF₂...
- ✦ Coatings available on request



Served Markets: Metrology, military, medical, aerospace, photographic...

2. Products & Services

Flats and Prisms:

- ✦ Various prisms (Porro, Dove, Penta, ...)
- ✦ Flats for laser applications, graticules, windows
- ✦ Flat mirrors
- ✦ Various filters
- ✦ Modern twin lapping for precise parallelism
- ✦ Cementing of parts on request



2. Products & Services

Spherical Lenses:

- ✦ Diameters from 2mm to 500mm
- ✦ Repeatability to precise tolerances
- ✦ CNC edging for complex geometrical forms
- ✦ Cementing of parts on request
- ✦ Inspection with Zygo type interferometers
- ✦ Cleaning with 7 stage ultrasonic



2. Products & Services

Aspheres from glass and quartz:

- ✦ Concave, convex, bi-aspherical
- ✦ Diameters from 5mm to 140mm

Aspheres from IR materials:

- ✦ Concave, convex, bi-aspherical
- ✦ Diameters from 2mm to 200mm

Inspection:

- ✦ QED SSIA interferometers or
- ✦ tactile systems PGI1250-A from Taylor Hobson



2. Products & Services

Mirrors:

- ✦ Flat: diameters from 4mm to 500mm
- ✦ Spherical: diameters from 2mm to 500mm
- ✦ Parabolic: diameters from 5mm to 140mm
- ✦ Surface quality: Commercial to Laser Grade
- ✦ CNC edging for complex geometrical forms



2. Products & Services

IR Optics:

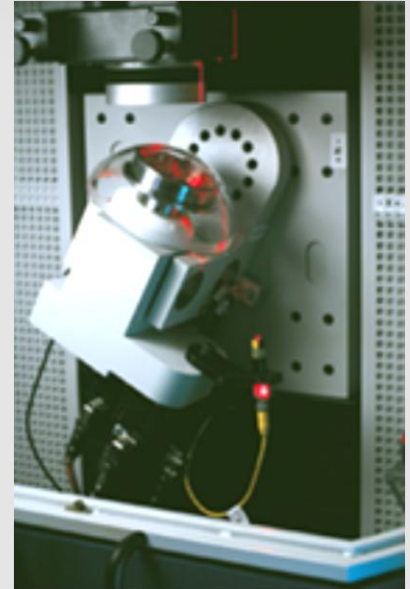
- ✦ CO2 optics
- ✦ Various prisms and lenses
- ✦ Precision filters and flats
- ✦ High precision Germanium polishing unit
- ✦ Cleaning with 7 stage ultrasonic
- ✦ Packed in easy to use boxes



2. Products & Services

Magnetorheological Finishing (MRF):

- ✦ Correction of lenses and plano surfaces
- ✦ Sizes up to 200mm diameter
- ✦ Quality of Lambda/60 p-v achievable
- ✦ Various materials: visible and IR optics
- ✦ Every optic tested for quality using Zygo and QED SSIA Interferometer



2. Products & Services

Sub Assembly Service:

- ✦ Assistance with all stages of the design and procurement cycle
- ✦ Source of customised components (metalwork, plastics, control circuitry)
- ✦ Source of components both locally and globally for short lead times and continuity of supply



3. Contact Spanoptic

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Thank you for your attention.