

SPANOPTIC LTD: MRF<sup>®</sup> POLISHING & SSI<sup>®</sup> METROLOGY

# A Powerful Combination

SPANOPTIC Ltd: Founded 1976,  
40 employees today

MRF<sup>®</sup> & SSI<sup>®</sup> IMPACT: "We now have the confidence to deliver PV < L/40 with a deterministic solution. We could not envisage manufacturing optics without MRF<sup>®</sup> in the process."

MANTRA: "To supply quality optics by using advanced equipment"

MRF<sup>®</sup> & SSI<sup>®</sup> Technology: Q22-X and SSI<sup>®</sup> owner since 2004

GREATEST ACHIEVEMENT: The predictability of the process enables us to reduce lead time, minimize setup time, with a very low cost for each setup, producing high yields - often 100%. Having the QED technology has attracted projects that would not have been possible otherwise.

QED  
Technologies  
Q22-X

Spanoptic  
LTD

Made  
with  
MRF  
and  
SSI

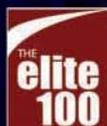
Richard Chalmers,  
MRF Specialist

John Bryden,  
Managing Director

## QED'S MRF<sup>®</sup> POLISHING TECHNOLOGY

Optics manufacturers and their customers count on MRF<sup>®</sup> and SSI<sup>®</sup> for superior product quality, manufacturing performance, and profitability. It's the difference between a good optics manufacturer and a great one.

Superior optics manufacturing starts with MRF<sup>®</sup>.



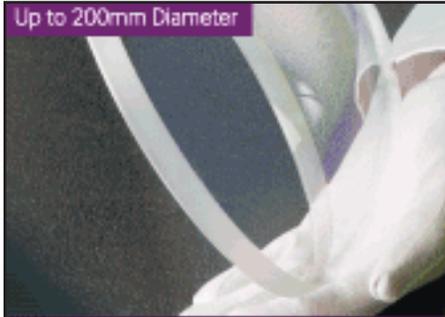
Learn more about Spanoptic Ltd.  
and other Elite100 Optics Manufacturers:  
[www.eliteoptics100.com](http://www.eliteoptics100.com)



Learn about QED Technologies'  
MRF<sup>®</sup> Polishing and SSI<sup>®</sup> Metrology:  
[www.qedmrf.com](http://www.qedmrf.com)

# SPANOPTIC Ltd., TOGETHER WITH MRF® AND SSI®: A Powerful Combination

Originally founded in 1976, Spanoptic was created to meet the requirements of the growing laser industry in Scotland. Spanoptic was launched with four people working in 1,000 sq ft facility, producing high precision flats and prisms. Spanoptic has seen significant growth and today is housed in 20,000 sq ft and has a skilled workforce of over 40 persons. Spanoptic is regarded as one of the largest independent lens making companies in the UK. This growth has been possible because



Spanoptic manufactures flats, prisms, aspheres, cylinders and spherical lenses from 1mm up to 500mm.

of their dedication to meeting customer needs by supplying quality products using advanced equipment.

John Bryden, Managing Director and co-founder of Spanoptic, has had the visionary insight to recognize that investments in technology could help his company produce high precision optics faster, better and more cost effectively, allowing him to compete in a global market place. Indeed, his philosophy to always invest in new technologies with a view to continually improving their products has put Spanoptic at the forefront of the optics industry. Today, the Spanoptic product line includes flats, prisms, aspheres, cylinders and spherical lenses in both IR and visible materials, in sizes that range from 1 mm up to 500 mm. Spanoptic now supplies optics to military, aerospace, photographic and imaging, medical and metrology markets globally and has revenues of over £6M GBP.

Investing wisely in both technology and their staff created a synergy of expertise, resulting their enviable reputation. Spanoptic relies on both Q22-X MRF polishing and SSI metrology to help keep up with customer demands. Spanoptic first invested in MRF technology to meet the increasingly difficult demands of the metrology industry. For Spanoptic, the SSI is a critical partner in the manufacturing process, feeding full aperture metrology data to their Q22-X and ensuring consistent quality assurance.

The MRF and SSI equipment were first installed in 2004. It took about 6 months for the technology to become fully integrated with existing processes, and for the manufacturing team to really understand the impact that MRF could have on their production. 4 years later, Mr. Bryden admits that they can no longer envision manufacturing optics without MRF in the process. They have changed their manufacturing process flow, using MRF at different stages to minimize set-up times, reduce cycle times and optimize results. Together, the QED processes help them to realize near perfect form error. Spanoptic can now offer its customers increased flexibility in their designs, knowing they achieve excellent results on parts that used to be unpredictable and difficult. For example, Spanoptic routinely polishes optics with very thin centre thicknesses, without worrying about degrading form error. Spanoptic now has the confidence to offer peak-to-valley surfaces better than  $\lambda/40$ , knowing they can achieve these tolerances on time, every time.

MRF and SSI technologies have made a significant impact on the factory floor. Due to the determinism and predictability of the process, lead time are significantly reduced; setup time is minimal with a very low cost on each setup and the yields are very high, with some jobs at 100%, an almost unheard of accomplishment for any other optical manufacturing process. Additionally, both the MRF and SSI bring advanced capabilities that has allowed Spanoptic to go after and win some very interesting projects which they would not have been able to manufacture on any other technology. But for the employees who run the machines, one of the most important benefits is their ease of use. Difficult, headache-inducing jobs can now be processed in just minutes.

For more information about Spanoptic, Ltd., please visit their website: [www.spanoptic.com](http://www.spanoptic.com).

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